DELIBERAZIONE DELLA GIUNTA REGIONALE 8 maggio 2023, n. 632

Programma Horizon Europe 2021-2027. Approvazione Progetto "RESIST" (Regions for climate change resilience through Innovation, Science and Technology). Presa d'Atto. Variazione di bilancio di previsione 2023 e pluriennale 2023-2025, ai sensi dell'art. 51 del D.Lgs. n. 118/2011 e ss.mm.ii.

L'Assessore al Turismo, Sviluppo e impresa turistica Gianfranco Lopane sulla base dell'istruttoria espletata dai funzionari istruttori Marielena Campanale e Giuseppe Tucci per la parte contabile e Michele Cera, incardinati presso il Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio e confermata dal dirigente della Struttura di Progetto "Cooperazione Territoriale Europea e Poli Biblio-Museali", Luigi De Luca unitamente al Direttore, Aldo Patruno, riferisce quanto segue.

PREMESSO CHE:

- Horizon Europe è il Programma quadro dell'Unione europea per la ricerca e l'innovazione per il periodo 2021-2027. Il programma ha una durata di sette anni e una dotazione finanziaria complessiva di 95,5 miliardi di euro;
- nell'ambito del suddetto programma HORIZON, il Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio è partner del progetto RESIST (Regions for climate change resilience through Innovation, Science and Technology), ammesso a finanziamento nella call Research and Innovation actions in support of the implementation of the Adaptation to Climate Change Mission (HORIZON-MISS-2021-CLIMA-02);
- il progetto RESIST propone soluzioni innovative per la resilienza ai cambiamenti climatici con particolare riferimento alle aree costiere. Regione Puglia individuerà alcune aree costiere più vulnerabili dal punto di vista climatico e con un significativo impatto turistico in cui sarà testato il dimostratore di progetto;
- nello specifico, la Puglia (rappresentata dai partner Regione Puglia e Tecnopolis), è gemellata con la regione portoghese di Baixo Alentejo per l'applicazione del "dimostratore" realizzata dalla Generalitat de Catalunya e Politecnico di Barcellona che si focalizza su soluzioni per attivare processi decisionali che riducono i rischi associati agli eventi estremi e alle emergenze climatiche;

CONSIDERATO CHE:

- il progetto "RESIST" è dotato di risorse finanziarie pari ad € 24.949.993,00 mentre la quota spettante al partner Regione Puglia è pari ad € 281.250,00. Dette risorse finanziarie sono coperte per il 100% dai fondi Comunitari;
- in base alle regole del Programma è previsto un prefinanziamento pari al 35% del budget di progetto erogata ai partner dal Lead Beneficiary di progetto SINTEF AS;
- le successive quote di budget vengono trasferite dal Lead Beneficiary "SINTEF AS" del progetto "RESIST" a ciascun partner di progetto, in misura corrispondente alle spese ammissibili, previa certificazione delle stesse;
- il progetto prevede il trasferimento della quota complessiva di € 210.000,00. Tale somma è destinata per € 20.000,00 alla copertura delle spese per missioni e per e 190.000,00 alla copertura delle spese del personale già in servizio presso la regione Puglia attribuito al progetto stesso relativamente alle ore/uomo impegnate per le attività. Le spese trasferite dal soggetto finanziatore a titolo di rimborso di spese di personale regionale, saranno oggetto di evidenza contabile attraverso opportuna operazione di regolazione tra i capitoli di spesa del bilancio vincolato all'uopo istituiti e il capitolo in entrata del bilancio autonomo 3064060 "Rimborsi per spese di personale sostenute per progetti finanziati da risorse UE". A tal proposito è stata inviata a mezzo PEC alla Sezione Personale, per le valutazioni di competenza in ordine al calcolo delle spese di personale

- e dei relativi tetti, apposita nota informativa da parte del Dipartimento turismo, Economia della Cultura, Valorizzazione del Territorio r_puglia/AOO_004/PROT/06/04/2023/0001903 con il dettaglio degli importi che si prevede di recuperare a seguito di idonea rendicontazione;
- il dipartimento Bilancio, affari generali e infrastrutture Sezione bilancio e ragioneria Servizio Verifiche di regolarità contabile sulla gestione del bilancio vincolato con nota r_puglia/AOO_116/prot/28/03/2023/0001994 ha comunicato l'avvenuto pre-finanziamento di € 98.437,50;

TUTTO CIÒ PREMESSO

- Visto il D.Lgs. 23 giugno 2011, n. 118, come integrato dal D.Lgs. 10 agosto 2014, n. 126 "Disposizioni integrative e correttive del D.Lgs. 118/2011 recante disposizioni in materia di armonizzazione dei sistemi contabili e degli schemi di bilancio delle Regioni, degli Enti locali e dei loro organismi, a norma degli articoli 1 e 2 della Legge n. 42/2009";
- Rilevato che l'art. 51, comma 2, del D.Lgs. n. 118/2011 e ss.mm.ii., prevede che la Giunta con provvedimento amministrativo, autorizza le variazioni del documento tecnico di accompagnamento e le variazioni del bilancio di previsione per l'iscrizione di entrate derivanti da assegnazioni vincolate e delle relative spese;
- Visto il D. Lgs. 25 maggio 2016, n.97 recante "Revisione e semplificazione delle disposizioni in materia di prevenzione della corruzione, pubblicità e trasparenza, correttivo della legge 6 novembre 2012, n. 190 e del decreto legislativo 14 marzo 2013, n.33, ai sensi dell'art. 7 cella legge 7agosto 2015, n. 124, in materia di organizzazione delle amministrazioni pubbliche;
- Vista la D.G.R. 08 febbraio 2023, n. 85 avente per oggetto "Piano Triennale per la Prevenzione della Corruzione e la Trasparenza della Regione Puglia 2023-2025";
- Vista la D.G.R. 15 settembre 2021, n. 1466 recante l'approvazione della Strategia regionale per la parità di genere, denominata "Agenda di Genere";
- Vista la DGR del 07/03/2022, n. 302 recante Valutazione di Impatto di Genere. Sistema di gestione e di monitoraggio;
- Vista la D.G.R. 27 marzo 2023, n. 383 recante D.G.R. n. 302/2022 concernente "Valutazione di impatto di genere. Sistema di gestione e di monitoraggio". Presa d'atto del REPORT Valutazione di impatto di genere (VIG). Implementazione degli atti sottoposti a monitoraggio ed avvio nuova fase sperimentale.
- Vista la Legge Regionale n. 32 del 29/12/2022 "Disposizioni per la formazione del bilancio di previsione 2023 e bilancio pluriennale 2023-2025 della Regione Puglia Legge di stabilità regionale 2023";
- Vista la Legge Regionale n. 33 del 29/12/2022 "Bilancio di previsione della Regione Puglia per l'esercizio finanziario 2023 e bilancio pluriennale 2023-2025 della Regione Puglia";
- Vista la D.G.R. n. 27 del 24/01/2023 "Bilancio di previsione per l'esercizio finanziario 2023 e pluriennale 2023-2025. Articolo 39, comma 10, del decreto legislativo 23 giugno 2011, n. 118. Documento tecnico di accompagnamento e Bilancio Finanziario Gestionale. Approvazione.".
- Vista la nota prot. AOO_116/8213 del 25/05/2018, con la quale vengono fornite specifiche sulla corretta contabilizzazione dei rimborsi effettuati dai soggetti finanziatori e riguardanti le spese di personale dipendente già in servizio presso l'Ente;
- Trattasi di progetto di cooperazione territoriale europea cofinanziato dal Programma HORIZON per il 100%, pertanto soggetto a rimborso a seguito di rendicontazione della spesa sostenuta;
- La variazione proposta con il presente provvedimento, assicura il rispetto dei vincoli di finanza pubblica e gli equilibri di bilancio come previsto dal D.Lgs. n. 118/2011 e ss.mm.ii.;

Alla luce delle risultanze istruttorie, sussistono i presupposti di fatto e di diritto per prendere atto:

1. dell'avvenuta approvazione e ammissione a finanziamento con le risorse a valere sulla call *Research and Innovation actions in support of the implementation of the Adaptation to Climate Change Mission* del

Horizon Europe 2021-2027 del progetto "**RESIST**", del quale la Regione Puglia - Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio – è Partner di progetto;

- 2. che le attività da porre in essere da parte della Regione Puglia Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio, relative al progetto "RESIST" prevedono un budget di € 281.250,00 e che lo stesso è finanziato al 100% da fondi comunitari e che, pertanto, per quanto riguarda la Regione Puglia Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio, il progetto "RESIST" è finanziato al 100% senza alcun onere a carico dell'Ente;
- di autorizzare il Direttore del Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio, responsabile dei competenti capitoli di spesa istituiti con il presente atto, ad adottare i conseguenti provvedimenti di accertamento, di impegno e liquidazioni delle spese a valere sull'esercizio finanziario 2023 inerenti al progetto "RESIST", approvato e ammesso a finanziamento sulle risorse di cui al programma HORIZON EUROPE 2021-27;
- 4. di procedere alla variazione di Bilancio, ai sensi del D.Lgs. n. 118/2011 e ss.mm.ii., nella parte entrata e nella parte spesa in termini di competenza e cassa per l'esercizio finanziario 2023, come riportato nella parte relativa alla copertura finanziaria, mediante l'istituzione di n. 1 (uno) C.N.I. di Entrata e di n. 06 (sei) C.N.I. di Spesa;
- 5. di apportare, ai sensi del combinato disposto dell'art. 51, comma 2, punto a) del D. Lgs. n. 118/2011 e dell'art. 42 della L.R. n. 28 del 16 novembre 2001, le seguenti variazioni al Bilancio di Previsione 2023-2025, al Documento Tecnico di Accompagnamento, al Bilancio Finanziario Gestionale 2023-2025, approvato con la D.G.R. n. 27 del 24/01/2023, relative all'esercizio finanziario 2023 in termini di competenza e cassa, con l'iscrizione della somma di € 281.250,00 nei seguenti Capitoli di Nuova Istituzione.

GARANZIE DI RISERVATEZZA

La pubblicazione sul BURP, nonché la pubblicazione all'Albo o sul sito istituzionale, salve le garanzie previste dalla legge 241/1990 in tema di accesso ai documenti amministrativi, avviene nel rispetto della tutela della riservatezza dei cittadini secondo quanto disposto dal Regolamento UE n. 679/2016 in materia di protezione dei dati personali, nonché dal D.lgs. 196/2003 ss.mm.ii, ed ai sensi del vigente Regolamento regionale 5/2006 per il trattamento dei dati sensibili e giudiziari, in quanto applicabile.

Ai fini della pubblicità legale, il presente provvedimento è stato redatto in modo da evitare la diffusione di dati personali identificativi non necessari ovvero il riferimento alle particolari categorie di dati previste dagli articoli 9 e 10 del succitato Regolamento UE.

Valutazione di impatto di genere

La presente deliberazione è stata sottoposta a Valutazione di impatto di genere ai sensi della DGR n. 302 del 07/03/2022.

L'impatto di genere stimato è

diretto

indiretto

X neutro

Il presente provvedimento sarà pubblicato in versione integrale nel BURP e sul sito istituzionale www.regione.puglia.it..

COPERTURA FINANZIARIA ai sensi del d.lgs. n. 118/2011 e ss.mm.ii.

Il presente provvedimento comporta l'istituzione di nuovi capitoli di entrata e di spesa e la variazione al bilancio di previsione bilancio 2023 e pluriennale 2023-2025, al Documento tecnico di accompagnamento e

al Bilancio finanziario gestionale 2023-2025, approvato con DGR n. n. 27 del 24/01/2023, ai sensi dell'art. 51, comma 2, del D.Lgs. n. 118/2011 e ss.mm.ii.

BILANCIO VINCOLATO

Si dispone la variazione la bilancio regionale per le maggiori entrate derivanti dal Grant Agreement – (All' "A" composto da 286 facciate)

C D A	13 - DIPARTIMENTO TURISMO, ECONOMIA DELLA CULTURA E VALORIZZAZIONE DEL TERRITORIO
C.R.A.	01 - DIREZIONE DIPARTIMENTO TURISMO, ECONOMIA DELLA CULTURA E VALORIZZAZIONE DEL TERRITORIO

VARIAZIONE IN AUMENTO

PARTE ENTRATA

Entrate ricorrenti

Codice UE: 1 – Entrate destinate ai finanziamenti dei progetti comunitari

			Variazione bilancio di previsione					
Capitolo di Entrata	Declaratoria	Titolo Tipologia	P.D.C.F.	e.f. 2023 Competenza e Cassa	e.f. 2024 Competenza	e.f. 2025 Competenza	e.f. 2026 (*) Competenza	e.f. 2027 (*) Competenza
C.N.I. (1) E	Programma Interreg Horizon Europe 2021- 2027- quota programme funding 100% -Progetto RESIST	2.105	E.2.01.05.02.000 Altri trasferimenti correnti dal resto del mondo	+ € 98.437,50	+ € 154.312,50	+ € 9.500,00	+ € 9.500,00	+ €9.500,00

Si attesta che l'importo di € 281.250,00 relativo alla copertura del presente provvedimento, corrisponde ad obbligazione giuridicamente perfezionata, con debitori certi: SINTEF AS-STRINDVEGEN 4, TRONDHEIM, NORVEGIA

Titolo giuridico: Grant agreement – (All. "A" composto da 286 facciate) sottoscritto in data 19 dicembre 2022 dal Direttore del Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio

L'importo pari ad euro 98.437,50 stanziato per l'esercizio finanziario 2023, è stato trasferito da SINTEF AS in data 23/02/2023, giusto provvisorio di entrata 2099/2023.

PARTE SPESA

Spesa ricorrente

Codice UE: 3 - Spese finanziate da trasferimenti della UE

					Variazione bilancio di previsione					
Capitolo di Uscita	Declaratoria	Missione Programma	P.D.C.F.	e.f. 2023 Competenza e Cassa	e.f. 2024 Competenza	e.f. 2025 Compe- tenza	e.f. 2026 (*) Compe- tenza	e.f. 2027 (*) Compe- tenza		
C.N.I. (2) U	Programma Inter- reg Horizon Europe 2021-2027- Orga- nizzazione eventi, pubblicità e servizi per trasferta -quo- ta UE 100% per il progetto RESIST	19.02	U.1.03.02.02.000	+ € 20.000						
C.N.I. (3) U	Programma Inter- reg Horizon Euro- pe 2021-2027-Altri beni di consu- mo-quota UE 100% per il proget- to RESIST	19.02	U.1.03.01.02.000	+ € 5.000,00						
C.N.I. (4) U	Programma Interreg Horizon Europe 2021-2027 — Staff - Spese dipersonale dipendente cat. d - salario accessorio - retribuzioni - quota UE 100% per ilprogetto RESIST	19.02	U.1.01.01.01.000	+ € 9.441,59	+ €112.543,71	+ € 7.175,60	+ € 7.175,60	+ € 7.175,60		
C.N.I. (5) U	Programma Inter- reg Horizon Europe 2021-2027- Staff - Spese di personale dipendente cat. d - salario accessorio - Contributi sociali effettivi a carico dell'ente -quota UE 100% per il proget- to RESIST	19.02	U.1.01.02.01.000	+ € 2.255,88	+ € 26.890,07	+ €1.714,47	+ €1.714,47	+ € 1.714,47		
C.N.I. (6) U	Programma Inter- reg Horizon Europe 2021-2027- Staff - Spese di personale dipendente cat. d - salario accessorio – IRAP -quota UE 100% per il proget- to RESIST	19.02	U.1.02.01.01.000	+ € 802,53	+ €9.566,22	+ € 609,93	+ € 609,93	+ € 609,93		
C.N.I. (7) U	Programma Inter- reg Horizon Eu- rope 2021-2027 Altri servizi diversi n.a.cquota UE 100% per il proget- to RESIST	19.02	U.1.03.02.99.000	+ € 60.937,50	+ € 5.312,50					

(*) Agli stanziamenti per gli esercizi finanziari successivi al 2025 si provvederà con appositi stanziamenti nei bilanci di previsione futuri

La variazione, proposta con il presente provvedimento, assicura il rispetto dei vincoli di finanza pubblica vigenti e gli equilibri di bilancio come previsto dal D.Lgs. n.118/2011 e ss.mm.ii..

Agli accertamenti ed agli impegni di spesa, di cui al presente provvedimento, si provvederà con successivi atti

adottati dal direttore del Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio, nel rispetto dei correnti vincoli di finanza pubblica, ai sensi del principio contabile di cui all'allegato 4/2, par. 3.6, lett. e) "contributi a rendicontazione" del D. Lgs. 118/2011.

BILANCIO AUTONOMO

La contabilizzazione delle entrate rivenienti dal rimborso delle spese di personale impiegato nel presente progetto finanziato da risorse UE, da sostenersi a carico del Bilancio Autonomo della Regione per gli esercizi 2023,2024,2025,2026,2027 avverrà sul capitolo di entrata 3064060 "Rimborsi per spese di personale sostenute per progetti finanziati da risorse UE" distinto per ciascun e.f., piano dei conti finanziario 3.05.02.01 "Rimborsi ricevuti per spese di personale".

Ai successivi atti di regolarizzazione contabile tra i capitoli di spesa che vengono istituiti con il presente provvedimento e il citato cap. 3064060, si provvederà con successivi provvedimenti dirigenziali del Dipartimento Turismo, Economia della Cultura, Valorizzazione del Territorio.

Si dà atto di aver inviato opportuna informativa a mezzo PEC da parte del Dipartimento Turismo, Economia della Cultura, Valorizzazione del Territorio prot. r_puglia/AOO_004/PROT/06/04/2023/0001903 alla Sezione Personale e Organizzazione, per le valutazioni di competenza, con il dettaglio degli importi che si prevede di recuperare a titolo di spese di personale regionale impiegato nel presente progetto a seguito di idonea e dettagliata rendicontazione da sottoporre all'approvazione della SINTEF AS-STRINDVEGEN 4, TRONDHEIM, NORVEGIA , quale Lead Beneficiary. Dell'avvenuta effettiva riscossione dei citati importi, il Dipartimento Turismo, Economia della Cultura, Valorizzazione del Territorio darà comunicazione alla Sezione Personale e Organizzazione.

Tutto ciò premesso, l'Assessore relatore, sulla base delle risultanze istruttorie come innanzi illustrate, ai sensi dell'art. 4 comma 4°, lettera d, della L.R. n.7/97, propone alla Giunta:

- 1. Di prendere atto di quanto espresso in narrativa e che qui si intende integralmente riportato.
- 2. **Di prendere atto** dell'avvenuta approvazione e ammissione a finanziamento con le risorse a valere sulla call *Research and Innovation actions in support of the implementation of the Adaptation to Climate Change Mission* del Programma Horizon Europe 2021-2027 del progetto "RESIST", del quale la Regione Puglia Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio è Partner di progetto, giusto Grant Agreement (Allegato composto da 286 facciate) quali parte integrante e sostanziale alla presente Deliberazione.
- 3. Di prendere atto, altresì, che le attività da porre in essere da parte della Regione Puglia Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio, relative al progetto "RESIST" prevedono un budget di € 281.250,00 e che lo stesso è finanziato al 100% da fondi comunitari e che, pertanto, per quanto riguarda la Regione Puglia Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio, il progetto "RESIST" è finanziato al 100% senza alcun onere a carico dell'Ente.
- 4. Di dare atto che la partecipazione della Regione Puglia al progetto "RESIST" non comporta oneri a carico dell'Amministrazione regionale e che con il progetto si farà fronte alle spese relative ai costi del personale retribuito a carico del bilancio regionale autonomo e impiegato nelle attività del progetto stesso, da contabilizzare a titolo di recuperi al capitolo di entrata del bilancio autonomo 3064060, come indicato nella Sezione copertura finanziaria.
- 5. **Di incaricare** il Dipartimento Turismo, Economia della cultura, Valorizzazione del Territorio di trasmettere la presente Deliberazione alla Sezione Personale per le valutazioni di competenza, unitamente alle consequenziali informative riferite ai rimborsi delle spese di personale effettivamente riscossi negli esercizi finanziari.
- 6. **Di apportare**, ai sensi e per gli effetti di cui all'art. 42, della L.R. 28/2001 e ss.mm.ii., e dell'art. 51 del D.Lgs. n. 118/2011 e ss.mm.ii., previa istituzione di nuovi capitoli di entrata e di spesa, la variazione al

bilancio di previsione 2023 e pluriennale 2023-2025, al Documento tecnico di accompagnamento e al Bilancio finanziario gestionale 2023-2025, così come espressamente riportato in Copertura Finanziaria.

- 7. **Di dare atto** che la variazione proposta con il presente provvedimento assicura il rispetto dei vincoli di finanza pubblica vigenti e gli equilibri di bilancio, come previsto dal D.Lgs. n. 118/2011 e ss.mm.ii.
- 8. **Di autorizzare** il Direttore del Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio, responsabile dei competenti capitoli istituiti con il presente atto, inerenti il progetto "RESIST" ad adottare i conseguenti provvedimenti di accertamento delle entrate e di impegno e liquidazioni delle spese ai sensi di quanto previsto al punto 3.6, lett. C) del "Principio contabile applicato concernente la contabilità finanziaria" di cui all'Allegato 4/2 al D.Lgs. n. 118/2011 e ss.mm.ii. concernente i "contributi a rendicontazione".
- 9. **Di autorizzare,** per gli effetti di cui ai punti precedenti, il Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio, responsabile dei competenti capitoli di spesa istituiti con il presente atto, ad approvare le eventuali variazioni del bilancio gestionale compensative fra i capitoli di spesa del medesimo MACROAGGREGATO.
- 10. **Di approvare** l'Allegato E/1, parte integrante del presente provvedimento, nella parte relativa alla variazione al bilancio.
- 11. **Di incaricare** il Servizio Bilancio della Sezione Bilancio e Ragioneria, di trasmettere al Tesoriere regionale il prospetto E/1 di cui all'art. 10, comma 4 del D. Lgs. n. 118/2011 conseguentemente all'approvazione della presente deliberazione.
- 12. **Di notificare** il presente provvedimento al Direttore del Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio e alla Sezione Personale e Organizzazione.
- 13. **Di pubblicare** il presente provvedimento nel Bollettino Ufficiale della Regione Puglia in versione integrale.

I sottoscritti attestano che il procedimento istruttorio loro affidato è stato espletato nel rispetto della vigente normativa regionale, nazionale e comunitaria e che il presente schema di provvedimento, dagli stessi predisposto ai fini dell'adozione dell'atto finale da parte della Giunta regionale, è conforme alle risultanze istruttorie.

IL RESPONSABILE P.O. "Monitoraggio e controllo": *Giuseppe Tucci*

IL RESPONSABILE P.O. "Coordinamento amministrativo e contabile dei progetti CTE 2014/2020": *Marielena Campanale*

IL FUNZIONARIO P.O. "Supporto alla gestione tecnica e all'avanzamento fisico e procedurale dei Progetti CTE 2014/2020":

Michele Cera

IL DIRIGENTE DELLA STRUTTURA DI PROGETTO "Cooperazione Territoriale Europea e Poli Biblio-Museali": Luigi De Luca

IL DIRETTORE di Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio: *Aldo Patruno*

L'ASSESSORE all'Industria turistica e Culturale: *Gianfranco Lopane*

LA GIUNTA

Udita la relazione e la conseguente proposta dell'Assessore al Turismo, Sviluppo e impresa turistica, Gianfranco Lopane;

Viste le sottoscrizioni apposte in calce alla proposta di deliberazione;

A voti unanimi espressi nei modi di legge

DELIBERA

- 1. **Di prendere atto** di quanto espresso in narrativa e che qui si intende integralmente riportato.
- 2. **Di prendere atto** dell'avvenuta approvazione e ammissione a finanziamento con le risorse a valere sulla call *Research and Innovation actions in support of the implementation of the Adaptation to Climate Change Mission* del Programma Horizon Europe 2021-2027 del progetto "RESIST", del quale la Regione Puglia Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio è Partner di progetto, giusto Grant Agreement (Allegato composto da 286 facciate) quali parte integrante e sostanziale alla presente Deliberazione.
- 3. Di prendere atto, altresì, che le attività da porre in essere da parte della Regione Puglia Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio, relative al progetto "RESIST" prevedono un budget di € 281.250,00 e che lo stesso è finanziato al 100% da fondi comunitari e che, pertanto, per quanto riguarda la Regione Puglia Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio, il progetto "RESIST" è finanziato al 100% senza alcun onere a carico dell'Ente.
- 4. Di dare atto che la partecipazione della Regione Puglia al progetto "RESIST" non comporta oneri a carico dell'Amministrazione regionale e che con il progetto si farà fronte alle spese relative ai costi del personale retribuito a carico del bilancio regionale autonomo e impiegato nelle attività del progetto stesso, da contabilizzare a titolo di recuperi al capitolo di entrata del bilancio autonomo 3064060, come indicato nella Sezione copertura finanziaria.
- 5. **Di incaricare** il Dipartimento Turismo, Economia della cultura, Valorizzazione del Territorio di trasmettere la presente Deliberazione alla Sezione Personale per le valutazioni di competenza, unitamente alle consequenziali informative riferite ai rimborsi delle spese di personale effettivamente riscossi negli esercizi finanziari.
- 6. **Di apportare**, ai sensi e per gli effetti di cui all'art. 42, della L.R. 28/2001 e ss.mm.ii., e dell'art. 51 del D.Lgs. n. 118/2011 e ss.mm.ii., previa istituzione di nuovi capitoli di entrata e di spesa, la variazione al bilancio di previsione 2023 e pluriennale 2023-2025, al Documento tecnico di accompagnamento e al Bilancio finanziario gestionale 2023-2025, così come espressamente riportato in Copertura Finanziaria.
- 7. **Di dare atto** che la variazione proposta con il presente provvedimento assicura il rispetto dei vincoli di finanza pubblica vigenti e gli equilibri di bilancio, come previsto dal D.Lgs. n. 118/2011 e ss.mm.ii.
- 8. **Di autorizzare** il Direttore del Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio, responsabile dei competenti capitoli istituiti con il presente atto, inerenti il progetto "**RESIST**" ad adottare i conseguenti provvedimenti di accertamento delle entrate e di impegno e liquidazioni delle spese ai sensi di quanto previsto al punto 3.6, lett. C) del "Principio contabile applicato concernente la contabilità finanziaria" di cui all'Allegato 4/2 al D.Lgs. n. 118/2011 e ss.mm.ii. concernente i "contributi a rendicontazione".
- 9. **Di autorizzare,** per gli effetti di cui ai punti precedenti, il Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio, responsabile dei competenti capitoli di spesa istituiti con il presente atto, ad approvare le eventuali variazioni del bilancio gestionale compensative fra i capitoli di spesa del medesimo MACROAGGREGATO.

- 10. **Di approvare** l'Allegato E/1, parte integrante del presente provvedimento, nella parte relativa alla variazione al bilancio.
- 11. **Di incaricare** il Servizio Bilancio della Sezione Bilancio e Ragioneria, di trasmettere al Tesoriere regionale il prospetto E/1 di cui all'art. 10, comma 4 del D. Lgs. n. 118/2011 conseguentemente all'approvazione della presente deliberazione.
- 12. **Di notificare** il presente provvedimento al Direttore del Dipartimento Turismo, Economia della Cultura e Valorizzazione del Territorio e alla Sezione Personale e Organizzazione.
- 13. **Di pubblicare** il presente provvedimento nel Bollettino Ufficiale della Regione Puglia in versione integrale.

Il Segretario Generale della Giunta
ANNA LOBOSCO

Il Presidente della Giunta
MICHELE EMILIANO

Associated with document Ref. Ares 2022)8439002: -106/12/2022



EUROPEAN CLIMATE, INFRASTRUCTURE AND ENVIRONMENT EXECUTIVE AGENCY (CINEA)

CINEA.C – Green research and innovation C.1 – Horizon Europe Climate





GRANT AGREEMENT

Project 101093968 — RESIST

PREAMBLE

This **Agreement** ('the Agreement') is **between** the following parties:

on the one part,

the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and

on the other part,

1. 'the coordinator':

SINTEF AS (SINTEF), PIC 910945140, established in STRINDVEGEN 4, TRONDHEIM 7034, Norway,

and the following other beneficiaries, if they sign their 'accession form' (see Annex 3 and Article 40):

- 2. **INOVA+ INNOVATION SERVICES, SA (INOVA+)**, PIC 999928478, established in RUA DR AFONSO CORDEIRO 567, MATOSINHOS 4450-309, Portugal,
- 3. **FONDATION EUROPEENNE DE LA SCIENCE (ESF)**, PIC 999987939, established in QUAI LEZAY MARNESIA 1, STRASBOURG CEDEX 67080, France,
- 4. **ADELPHI RESEARCH GEMEINNUTZIGE GMBH (ADELPHI)**, PIC 999693350, established in ALT-MOABIT 91, BERLIN 10559, Germany,
- 5. **AUGMENTCITY AS (AUGMENTCITY)**, PIC 889667511, established in BORGUNDVEGEN 340, ALESUND 6009, Norway,
- 6. **KATHOLIEKE UNIVERSITEIT LEUVEN (KU Leuven)**, PIC 999991334, established in OUDE MARKT 13, LEUVEN 3000, Belgium,
- 7. **ZENTRUM FUR SOZIALE INNOVATION GMBH (ZSI)**, PIC 940719872, established in LINKE WIENZEILE 246, WIEN 1150, Austria,
- 8. **EUROPEAN REGIONS RESEARCH AND INNOVATION NETWORK (ERRIN)**, PIC 997382713, established in RUE DE LUXEMBOURG 3, BRUXELLES 1000, Belgium,

1

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- 9. **REVOLVE** (**REVOLVE**), PIC 907047195, established in CALLE SANT ANTONI MARIA CLARET 167, BARCELONA 08025, Spain,
- 10. **STARTUP EUROPE REGIONS NETWORK (SERN)**, PIC 913040049, established in AVENUE DES ARTS 24, BRUXELLES 1000, Belgium,
- 11. **VARSINAIS-SUOMEN LIITTO (RCSF)**, PIC 950866460, established in LINNANKATU 52 B, TURKU 20100, Finland,
- 12. **CITY OF TURKU (CITY OF TURKU)**, PIC 993966082, established in YLIOPISTONKATU 27 A, TURKU 20100, Finland,
- 13. TURUN AMMATTIKORKEAKOULU OY (TUAS), PIC 948193431, established in JOUKAHAISENKATU 3A, TURKU 20520, Finland,
- 14. **TURUN YLIOPISTO (UTU)**, PIC 999903064, established in YLIOPISTONMAKI, Turku 20014, Finland,
- 15. **LUONNONVARAKESKUS (LUKE)**, PIC 934887262, established in LATOKARTANONKAARI 9, HELSINKI 00790, Finland,
- 16. PERIFEREIA ANATOLIKIS MAKEDONIAS KAI THRAKIS (REGION EMT), PIC 930725089, established in G. KAKOULIDOU 1, KOMOTINI 691 32, Greece,
- 17. **DIMOKRITIO PANEPISTIMIO THRAKIS (DUTH)**, PIC 999659109, established in PANEPISTIMIOUPOLI RECTORATE BUILDING, KOMOTINI 691 00, Greece,
- 18. ENORA INNOVATION ETAIREIA PSIFIAKON TEXNOLOGION KAI ERGON KAINOTOMIAS IDIOTIKI KEFALAIOUXIKI ETAIREIA (ENORA), PIC 894788238, established in TROIAS 86, VRILISSIA 15235, Greece,
- 19. **REGION NORMANDIE (NORMANDIE)**, PIC 891458131, established in ABBAYE AUX DAMES PLACE REINE MATHILDE, CAEN 14035, France,
- 20. CENTRE D ETUDES ET D EXPERTISE SUR LES RISQUES L ENVIRONNEMENT LA MOBILITE ET L AMENAGEMENT (CEREMA), PIC 948933735, established in 25 AV FRANCOIS MITTERRAND, BRON 69500, France,
- 21. **OFFICE FRANCAIS DE LA BIODIVERSITE (OFB)**, PIC 894000307, established in 12 COURS LOUIS LUMIERE, VINCENNES 94300, France,
- 22. **REGION MIDTJYLLAND (RM)**, PIC 997381452, established in Skottenborg 26, VIBORG 8800, Denmark,
- 23. **AARHUS UNIVERSITET (AU)**, PIC 999997736, established in NORDRE RINGGADE 1, AARHUS C 8000, Denmark,
- 24. **NATURSTYRELSEN (NATURSTYRELSEN)**, PIC 890772438, established in Gjøddinggård, Førstballevej 2, Randbøl 7183, Denmark,
- 25. **VIA UNIVERSITY COLLEGE (VIA UC)**, PIC 987834033, established in HEDEAGER 2, AARHUS N 8200, Denmark,

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- 26. NIRAS AS (NIRAS), PIC 998006229, established in SORTEMOSEVEJ 19, ALLEROED 3450, Denmark.
- 27. **BLEKINGE LANS LANDSTING (BLEKINGE)**, PIC 995943233, established in Friskvägen Byggn 2, KARLSKRONA 37185, Sweden,
- 28. **BLEKINGE TEKNISKA HOGSKOLA (BTH)**, PIC 999589172, established in CAMPUS GRASVIK, KARLSKRONA 371 79, Sweden,
- 29. **ZEMGALES PLANOSANAS REGIONS (ZPR)**, PIC 950629877, established in KATOLU IELA 2B, JELGAVA 3001, Latvia,
- 30. **Departament d'Interior Generalitat de Catalunya (INT)**, PIC 999703438, established in Carrer Diputació 355, Barcelona 08009, Spain,
- 31. UNIVERSITAT POLITECNICA DE CATALUNYA (UPC), PIC 999976202, established in CALLE JORDI GIRONA 31, BARCELONA 08034, Spain,
- 32. FUNDACIO PER A LA UNIVERSITAT OBERTA DE CATALUNYA (UOC), PIC 995992024, established in AVENIDA TIBIDABO 39, BARCELONA 08035, Spain,
- 33. **Hydrometeorological Innovative Solutions (HYDS)**, PIC 998268905, established in CALLE JORDI GIRONA 1-3, Edif ParcUC K2M S204B, Barcelona 08034, Spain,
- 34. **AJUNTAMENT DE TERRASSA (TERRASSA CC)**, PIC 997474572, established in RAVAL DE MONTSERRAT 12, TERRASSA 08221, Spain,
- 35. **AJUNTAMENT DE BLANES (BLANES)**, PIC 886632090, established in PASSEIG DE DINTRE 29, BLANES 17300, Spain,
- 36. **REGIONE PUGLIA (REGIONE PUGLIA)**, PIC 999523503, established in VIA GENTILE 52, BARI 70126, Italy,
- 37. TECNOPOLIS PARCO SCIENTIFICO E TECNOLOGICO SCARL (TECNOPOLIS PST), PIC 950162434, established in STRADA PROV LE PER CASAMASSIMA KM 3 PARCO TECNOPOLIS, VALENZANO 70010, Italy,
- 38. Comunidade Intermunicipal do Baixo Alentejo (CIMBAL), PIC 891931006, established in Praceta Rainha D. Leonor, n.º 1, Beja 7801-953, Portugal,
- 39. ITECONS INSTITUTO DE INVESTIGACAO E DESENVOLVIMENTO TECNOLOGICO PARA A CONSTRUCAO ENERGIA AMBIENTE E SUSTENTABILIDADE (ITECONS), PIC 953461695, established in RUA PEDRO HISPANO, COIMBRA 3030 289, Portugal,
- 40. COMISSAO DE COORDENACAO E DESENVOLVIMENTO REGIONAL DO CENTRO (CCDRC), PIC 955664468, established in RUA BERNADIM RIBEIRO 80, COIMBRA 3000-069, Portugal,
- 41. **COMUNIDADE INTERMUNICIPAL DA REGIAO DE COIMBRA (CIM-RC)**, PIC 929602993, established in RUA DO BRASIL 131, COIMBRA 3030 175, Portugal,

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- 42. **COMUNIDADE INTERMUNICIPAL DO MEDIO TEJO (CIMT)**, PIC 886540231, established in CONVENTO DE SAO FRANCISCO RUA GENERAL BERNARDO FARIA, TOMAR 2300-535, Portugal,
- 43. **ASSOCIACAO BLC3-CAMPUS DE TECNOLOGIA E INOVACAO (BLC3)**, PIC 951433134, established in RUA NOSSA SENHORA DA CONCEICAO 2 LAGARES DA BEIRA, OLIVEIRA DO HOSPITAL 3405 155, Portugal,
- 44. FORESTWISE ASSOCIACAO PARA O LABORATORIO COLABORATIVO PARA A GESTAO INTEGRADA DA FLORESTA E DO FOGO (FORESTWISE), PIC 896590692, established in UNIVERSIDADE DE TRAS OS MONTES E AL PRADOS FOLHADELA, VILA REAL 5000-103, Portugal,
- 45. **INSTITUTO POLITÉCNICO DE PORTALEGRE (IPP)**, PIC 949379741, established in Praça do Municipio, PORTALEGRE 7300-901, Portugal,
- 46. FUNDACION FUNDECYT PARQUE CIENTIFICO Y TECNOLOGICO DE EXTREMADURA (FUNDECYT PCTEX), PIC 951026025, established in AVENIDA DE ELVAS CAMPUS UNIVERSITARIO EDIFICIO PARQUE CIENTIFICO TECNOLOGICO, BADAJOZ 06071, Spain,
- 47. UNIVERSIDAD DE EXTREMADURA (UEX), PIC 999858832, established in AVENIDA DE ELVAS SN, BADAJOZ 06006, Spain,
- 48. **VESTERALEN REGIONRAD (VESTERALEN)**, PIC 885391557, established in RADHUSGATA 11, SORTLAND 8401, Norway,
- 49. **ANDFJORD SALMON AS (ANDFJORD)**, PIC 886553617, established in KVALNESVEIEN 69, DVERBERG 8485, Norway,
- 50. MEDIOTEJO 21 AGENCIA REGIONAL DEENERGIA E AMBIENTE DA REGIAO DO MEDIO TEJO E PINHAL INTERIOR SUL (MEDIOTEJO21), PIC 983970426, established in R D ANTONIO PRIOR DO CRATO N 115, ABRANTES 2200-086, Portugal,
- 51. ASSOCIACAO PARA UM CENTRO DE ESTUDOS EM DESENVOLVIMENTO SUSTENTAVEL (CEDES), PIC 953501562, established in RUA DR AFONSO CORDEIRO 877 SALA 201, MATOSINHOS 4450 007, Portugal,
- 52. ACCENT SUD ASSOCIATION POUR LA COOPERATION CULTURELLE ET L'ECONOMIE NUMERIQUE TRANSREGIONALE AVEC L'EUROPE DU SUD (ACCENT SUD), PIC 889350709, established in COURS DU MARECHAL GALLIENI 166, TALENCE 33400, France,
- 53. **ODESKIY NACIONALNIY UNIVERSITET IMENI I.I. MECHNIKOVA (ONU)**, PIC 998376284, established in DVORYANSKAYA STR 2, ODESSA 65026, Ukraine,
- 54. CONSEJERÍA DE AGRICULTURA, DESARROLLO RURAL, POBLACIÓN Y TERRITORIO JUNTA DE EXTREMADURA (DGPF EXTREMADUR), PIC 920867270, established in AVENIDA DE PORTUGAL S/N, MERIDA 06800, Spain,
- 55. **FASTTRACK ACTION, LDA (FASTTRACK)**, PIC 898469679, established in RUA DO CAIS DAS NAUS 1B E 1C PARQUE DAS NACOES, LISBOA 1990-305, Portugal,

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56. **STIFTELSEN MUSEUM NORD (MUSEUM NORD)**, PIC 936214707, established in SKOLEGATA 1, MELBU 8445, Norway,

Unless otherwise specified, references to 'beneficiary' or 'beneficiaries' include the coordinator and affiliated entities (if any).

If only one beneficiary signs the grant agreement ('mono-beneficiary grant'), all provisions referring to the 'coordinator' or the 'beneficiaries' will be considered — mutatis mutandis — as referring to the beneficiary.

The parties referred to above have agreed to enter into the Agreement.

By signing the Agreement and the accession forms, the beneficiaries accept the grant and agree to implement the action under their own responsibility and in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

The Agreement is composed of:

Preamble

Terms and Conditions (including Data Sheet)

Annex 1	Description	of the action1
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Annex 2 Estimated budget for the action

Annex 2a Additional information on unit costs and contributions (if applicable)

Annex 3 Accession forms (if applicable)²

Annex 3a Declaration on joint and several liability of affiliated entities (if applicable)³

Annex 4 Model for the financial statements

Annex 5 Specific rules (if applicable)

¹ Template published on <u>Portal Reference Documents</u>.

² Template published on <u>Portal Reference Documents</u>.

³ Template published on <u>Portal Reference Documents</u>.

Associated with document Neft Ares (2022) 84390002: - 106 A 2/2022

TERMS AND CONDITIONS

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DATA SHEET

1. General data

Project summary:

Project summary

RESIST will strengthen the resilience and accelerate the transformation and increase adaptive capacity of 12 climate-vulnerable EU regions, implementing 4 large-scale demonstrators of resilient innovations for Climate Change Adaptation (CCA) with quintuple-helix partnerships (including 1 in a less developed region) and promote transfer of know-how and innovative solutions to 8 twin regions (of which 4 less developed regions) through both physical mutual-learning activities and innovative immersive digital twins. The consortium will engage EU associations, CCA research groups, scientific experts, social engagement and communication institutions, innovation agencies and 1 Venture Capital Fund to co-create and validate innovative solutions, raise awareness, leverage citizens participation and promote sustainable exploitation of results towards the markets. RESIST will contribute to the EU agenda on CCA, through intervention in 3 main areas: Promote and demonstrate an innovative, more participative approach to resilience and CC adaptation in 4 demonstrator and 8 twinning regions (including 5 less developed regions in total) demonstrating >12 new solution lines, accelerating regional resilience and helping reach the adaptation-mission objectives of 'building resilience and upscaling solutions through 100 demonstrators and accelerating the transition in 200 pilot regions and communities by 2030' reaching already 4% and 6% of these aims by 2027, with 4 demonstrators and involvement of 12 regions Co-design and contribute to the development of new regional measures, policy instruments and social and technological solutions in 12 regions involving 22m citizens, increasing awareness/resilience by 10% and levels of green investments by 20%, reducing economic losses due to natural hazards such as floods by 14% and climate protection gap by 50%; Reduce time-to-market/risk for >100 new CCA Solutions from providers across Europe, offering them scale-up for their products.

Keywords:

Climate change adaptation

Fight against threats to the Environment

Project number: 101093968

Project name: Regions for climate change resilience through Innovation, Science and Technology

Project acronym: RESIST

Call: HORIZON-MISS-2021-CLIMA-02

Topic: HORIZON-MISS-2021-CLIMA-02-04

Type of action: HORIZON Innovation Actions

Granting authority: European Climate, Infrastructure and Environment Executive Agency

Grant managed through EU Funding & Tenders Portal: Yes (eGrants)

Project starting date: fixed date: 1 January 2023

Project end date: 31 December 2027

Project duration: 60 months

Consortium agreement: Yes

2. Participants

List of participants:

N°	Role	Short name	Legal name		PIC	Total eligible costs (BEN and AE)	Max grant amount
1	COO	SINTEF	SINTEF AS	NO	910945140	1 411 250.00	1 411 250.00
2	BEN	INOVA+	INOVA+ - INNOVATION SERVICES, SA		999928478	1 971 875.00	1 380 312.50
3	BEN	ESF	FONDATION EUROPEENNE DE LA SCIENCE		999987939	500 250.00	500 250.00
4	BEN	ADELPHI	ADELPHI RESEARCH GEMEINNUTZIGE GMBH	DE	999693350	640 875.00	640 875.00

Associated with document Nef-Ares (2022) 84 99002 - 106 A 2/2022

N°	Role	Short name	Legal name		PIC	Total eligible costs (BEN and AE)	Max grant amount
5	BEN	AUGMENT	CADYGMENTCITY AS	NO	889667511	2 141 125.00	1 498 787.50
6	BEN	KU Leuven	KATHOLIEKE UNIVERSITEIT LEUVEN	BE	999991334	446 875.00	446 875.00
7	BEN	ZSI	ZENTRUM FUR SOZIALE INNOVATION GMBH	AT	940719872	506 500.00	506 500.00
8	BEN	ERRIN	EUROPEAN REGIONS RESEARCH AND INNOVATION NETWORK	BE	997382713	595 000.00	595 000.00
9	BEN	REVOLVE	REVOLVE	ES	907047195	522 750.00	522 750.00
10	BEN	SERN	STARTUP EUROPE REGIONS NETWORK	BE	913040049	495 625.00	495 625.00
11	BEN	RCSF	VARSINAIS-SUOMEN LIITTO	FI	950866460	447 875.00	447 875.00
12	BEN	CITY OF TURKU	CITY OF TURKU	FI	993966082	699 156.25	699 156.25
13	BEN	TUAS	TURUN AMMATTIKORKEAKOULU OY	FI	948193431	564 750.00	564 750.00
14	BEN	UTU	TURUN YLIOPISTO	FI	999903064	382 716.25	382 716.25
15	BEN	LUKE	LUONNONVARAKESKUS	FI	934887262	390 375.00	390 375.00
16	BEN	REGION EMT	PERIFEREIA ANATOLIKIS MAKEDONIAS KAI THRAKIS	EL	930725089	120 000.00	120 000.00
17	BEN	DUTH	DIMOKRITIO PANEPISTIMIO THRAKIS	EL	999659109	518 750.00	518 750.00
18	BEN	ENORA	ENORA INNOVATION ETAIREIA PSIFIAKON TEXNOLOGION KAI ERGON KAINOTOMIAS IDIOTIKI KEFALAIOUXIKI ETAIREIA	EL	894788238	279 250.00	195 475.00
19	BEN	NORMANI	REGION NORMANDIE	FR	891458131	505 000.00	505 000.00
20	BEN	CEREMA CENTRE D ETUDES ET D EXPERTISE SUR LES RISQUES L ENVIRONNEMENT LA MOBILITE ET L AMENAGEMENT		FR	948933735	286 250.00	286 250.00
21	BEN	OFB	OFFICE FRANCAIS DE LA BIODIVERSITE	FR	894000307	208 750.00	208 750.00
22	BEN	RM	REGION MIDTJYLLAND	DK	997381452	1 063 750.00	1 063 750.00
23	BEN	AU	AARHUS UNIVERSITET	DK	999997736	322 000.00	322 000.00
24	BEN	NATURST	REALISTENS TYRELSEN	DK	890772438	137 500.00	137 500.00
25	BEN	VIA UC	VIA UNIVERSITY COLLEGE	DK	987834033	1 179 500.00	1 179 500.00
26	BEN	NIRAS	NIRAS AS	DK	998006229	259 000.00	181 300.00
27	BEN	BLEKINGE	BLEKINGE LANS LANDSTING	SE	995943233	351 969.50	351 969.50
28	BEN	втн	BLEKINGE TEKNISKA HOGSKOLA	SE	999589172	350 719.50	350 719.50
29	BEN	ZPR	ZEMGALES PLANOSANAS REGIONS	LV	950629877	400 000.00	400 000.00
30	BEN	INT	Departament d'Interior - Generalitat de Catalunya	ES	999703438	290 625.00	290 625.00
31	BEN	UPC	UNIVERSITAT POLITECNICA DE CATALUNYA	ES	999976202	894 375.00	894 375.00
32	BEN	UOC	FUNDACIO PER A LA UNIVERSITAT OBERTA DE CATALUNYA	ES	995992024	316 721.25	316 721.25
33	BEN	HYDS	Hydrometeorological Innovative Solutions	ES	998268905	642 125.00	449 487.50
34	BEN	TERRASSA CC	AJUNTAMENT DE TERRASSA	ES	997474572	284 375.00	284 375.00
35	BEN	BLANES	AJUNTAMENT DE BLANES		886632090	264 375.00	264 375.00
36	BEN	REGIONE PUGLIA	REGIONE PUGLIA		999523503	281 250.00	281 250.00
37	BEN	TECNOPO! PST	ISECNOPOLIS PARCO SCIENTIFICO E TECNOLOGICO SCARL	IT	950162434	468 750.00	468 750.00
38	BEN	CIMBAL	Comunidade Intermunicipal do Baixo Alentejo	PT	891931006	744 375.00	744 375.00
39	BEN	ITECONS	ITECONS INSTITUTO DE INVESTIGACAO E DESENVOLVIMENTO TECNOLOGICO PARA A CONSTRUCAO ENERGIA AMBIENTE E SUSTENTABILIDADE	PT	953461695	115 000.00	115 000.00

 $\label{eq:project:101093968} \textbf{--} \ \textbf{RESIST} \ \textbf{--} \ \textbf{HORIZON-MISS-2021-CLIMA-02}$

Associated with document Ref. Ares (2022) 8439002: -106/12/2022

N°	Role	Short name	Legal name		PIC	Total eligible costs (BEN and AE)	Max grant amount
40	BEN	CCDRC	COMISSAO DE COORDENACAO E DESENVOLVIMENTO REGIONAL DO CENTRO	PT	955664468	65 000.00	65 000.00
41	BEN	CIM-RC	COMUNIDADE INTERMUNICIPAL DA REGIAO DE COIMBRA	PT	929602993	712 500.00	712 500.00
42	BEN	CIMT	COMUNIDADE INTERMUNICIPAL DO MEDIO TEJO	PT	886540231	712 500.00	712 500.00
43	BEN	BLC3	ASSOCIACAO BLC3-CAMPUS DE TECNOLOGIA E INOVACAO	PT	951433134	215 625.00	215 625.00
44	BEN	FORESTW	STORESTWISE ASSOCIACAO PARA O LABORATORIO COLABORATIVO PARA A GESTAO INTEGRADA DA FLORESTA E DO FOGO	PT	896590692	201 063.75	201 063.75
45	BEN	IPP	INSTITUTO POLITÉCNICO DE PORTALEGRE	PT	949379741	206 250.00	206 250.00
46	BEN	FUNDECY PCTEX	TFUNDACION FUNDECYT - PARQUE CIENTIFICO Y TECNOLOGICO DE EXTREMADURA	ES	951026025	105 687.50	105 687.50
47	BEN	UEX	UNIVERSIDAD DE EXTREMADURA	ES	999858832	678 825.00	678 825.00
48	BEN	VESTERAI	BNESTERALEN REGIONRAD	NO	885391557	96 875.00	96 875.00
49	BEN	ANDFJORI	ANDFJORD SALMON AS	NO	886553617	112 500.00	78 750.00
50	BEN	MEDIOTEJ	OMEDIOTEJO 21 - AGENCIA REGIONAL DEENERGIA E AMBIENTE DA REGIAO DO MEDIO TEJO E PINHAL INTERIOR SUL	PT	983970426	200 000.00	200 000.00
51	BEN	CEDES	ASSOCIACAO PARA UM CENTRO DE ESTUDOS EM DESENVOLVIMENTO SUSTENTAVEL	PT	953501562	101 250.00	101 250.00
52	BEN	ACCENT SUD	ACCENT SUD - ASSOCIATION POUR LA COOPERATION CULTURELLE ET L'ECONOMIE NUMERIQUE TRANSREGIONALE AVEC L'EUROPE DU SUD	FR	889350709	102 656.25	102 656.25
53	BEN	ONU	ODESKIY NACIONALNIY UNIVERSITET IMENI I.I. MECHNIKOVA		998376284	86 875.00	86 875.00
54	BEN	DGPF EXTREMA	CONSEJERÍA DE AGRICULTURA, DESARROLLO MADRURAL, POBLACIÓN Y TERRITORIO - JUNTA DE EXTREMADURA		920867270	188 125.00	188 125.00
55	BEN	FASTTRAC	ÆASTTRACK ACTION, LDA	PT	898469679	370 250.00	259 175.00
56	BEN	MUSEUM NORD	STIFTELSEN MUSEUM NORD	NO	936214707	525 437.50	525 437.50
	•		Total		•	26 682 827.75	24 949 990.25

Coordinator:

- SINTEF AS (SINTEF)

3. Grant

$Maximum\ grant\ amount,\ total\ estimated\ eligible\ costs\ and\ contributions\ and\ funding\ rate:$

Total eligible costs	Funding rate (%)	Maximum grant amount	Maximum grant amount	
(BEN and AE)		(Annex 2)	(award decision)	
26 682 827.75	70, 100	24 949 990.25	24 949 990.25	

Grant form: Budget-based

Grant mode: Action grant

Budget categories/activity types:

- A. Personnel costs
 - A.1 Employees, A.2 Natural persons under direct contract, A.3 Seconded persons
 - A.4 SME owners and natural person beneficiaries

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- B. Subcontracting costs
- C. Purchase costs
 - C.1 Travel and subsistence
 - C.2 Equipment
 - C.3 Other goods, works and services
- D. Other cost categories
 - D.2 Internally invoiced goods and services
- E. Indirect costs

Cost eligibility options:

- In-kind contributions eligible costs
- Parental leave
- Project-based supplementary payments
- Average personnel costs (unit cost according to usual cost accounting practices)
- Limitation for subcontracting
- Travel and subsistence:
 - Travel: Actual costs
 - Accommodation: Actual costs
 - Subsistence: Actual costs
- Equipment: depreciation only
- Indirect cost flat-rate: 25% of the eligible direct costs (categories A-D, except volunteers costs, subcontracting costs, financial support to third parties and exempted specific cost categories, if any)
- VAT: Yes
- Other ineligible costs

Budget flexibility: Yes (no flexibility cap)

- 4. Reporting, payments and recoveries
- 4.1 Continuous reporting (art 21)

Deliverables: see Funding & Tenders Portal Continuous Reporting tool

4.2 Periodic reporting and payments

Reporting and payment schedule (art 21, 22):

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	Reporting					nents
	Reporting periods		Туре	Deadline	Туре	Deadline (time to pay)
RP No	Month from	Month to				
					Initial prefinancing	30 days from entry into force/10 days before starting date – whichever is the latest
1	1	12	Periodic report	60 days after end of reporting period	Interim payment	90 days from receiving periodic report
2	13	30	Periodic report	60 days after end of reporting period	Interim payment	90 days from receiving periodic report
3	31	48	Periodic report	60 days after end of reporting period	Interim payment	90 days from receiving periodic report
4	49	60	Periodic report	60 days after end of reporting period	Final payment	90 days from receiving periodic report

Prefinancing payments and guarantees:

Prefinancing payment				
Type	Amount			
Prefinancing 1 (initial)	9 979 996.10			

Reporting and payment modalities (art 21, 22):

Mutual Insurance Mechanism (MIM): Yes

MIM contribution: 5% of the maximum grant amount (1 247 499.51), retained from the initial prefinancing

Restrictions on distribution of initial prefinancing: The prefinancing may be distributed only if the minimum number of beneficiaries set out in the call condititions (if any) have acceded to the Agreement and only to beneficiaries that have acceded.

Interim payment ceiling (if any): 90% of the maximum grant amount

Exception for revenues: Yes

No-profit rule: Yes

Late payment interest: ECB + 3.5%

Bank account for payments:

NO6842010931228

Conversion into euros: Double conversion

Reporting language: Language of the Agreement

4.3 Certificates (art 24):

Certificates on the financial statements (CFS):

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Conditions:

Schedule: only at final payment, if threshold is reached

Standard threshold (beneficiary-level):

- financial statement: requested EU contribution to costs ≥ EUR 430 000.00

Special threshold for beneficiaries with a systems and process audit(see Article 24): financial statement: requested EU contribution to costs \geq EUR 725 000.00

4.4 Recoveries (art 22)

First-line liability for recoveries:

Beneficiary termination: Beneficiary concerned

Final payment: Each beneficiary for their own debt

After final payment: Beneficiary concerned

Joint and several liability for enforced recoveries (in case of non-payment):

Individual financial responsibility: Each beneficiary is liable only for its own debts (and those of its affiliated entities, if any)

5. Consequences of non-compliance, applicable law & dispute settlement forum

Suspension and termination:

Additional suspension grounds (art 31)

Additional termination grounds (art 32)

Applicable law (art 43):

Standard applicable law regime: EU law + law of Belgium

Dispute settlement forum (art 43):

Standard dispute settlement forum:

EU beneficiaries: EU General Court + EU Court of Justice (on appeal)

Non-EU beneficiaries: Courts of Brussels, Belgium (unless an international agreement provides for the enforceability of EU court judgements)

6. Other

Specific rules (Annex 5): Yes

Standard time-limits after project end:

Confidentiality (for X years after final payment): 5

Record-keeping (for X years after final payment): 5 (or 3 for grants of not more than EUR 60 000)

Reviews (up to X years after final payment): 2

Audits (up to X years after final payment): 2

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Extension of findings from other grants to this grant (no later than X years after final payment): 2

Impact evaluation (up to X years after final payment): 5 (or 3 for grants of not more than EUR 60 000)

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CHAPTER 1 GENERAL

ARTICLE 1 — SUBJECT OF THE AGREEMENT

This Agreement sets out the rights and obligations and terms and conditions applicable to the grant awarded for the implementation of the action set out in Chapter 2.

ARTICLE 2 — DEFINITIONS

For the purpose of this Agreement, the following definitions apply:

- Actions The project which is being funded in the context of this Agreement.
- Grant The grant awarded in the context of this Agreement.
- EU grants Grants awarded by EU institutions, bodies, offices or agencies (including EU executive agencies, EU regulatory agencies, EDA, joint undertakings, etc.).
- Participants Entities participating in the action as beneficiaries, affiliated entities, associated partners, third parties giving in-kind contributions, subcontractors or recipients of financial support to third parties.
- Beneficiaries (BEN) The signatories of this Agreement (either directly or through an accession form).
- Affiliated entities (AE) Entities affiliated to a beneficiary within the meaning of Article 187 of EU Financial Regulation 2018/1046⁴ which participate in the action with similar rights and obligations as the beneficiaries (obligation to implement action tasks and right to charge costs and claim contributions).
- Associated partners (AP) Entities which participate in the action, but without the right to charge costs or claim contributions.
- Purchases Contracts for goods, works or services needed to carry out the action (e.g. equipment, consumables and supplies) but which are not part of the action tasks (see Annex 1).

Subcontracting — Contracts for goods, works or services that are part of the action tasks (see Annex 1).

In-kind contributions — In-kind contributions within the meaning of Article 2(36) of EU Financial

⁴ For the definition, see Article 187 Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012 ('EU Financial Regulation') (OJ L 193, 30.7.2018, p. 1): "affiliated entities [are]:

⁽a) entities that form a sole beneficiary [(i.e. where an entity is formed of several entities that satisfy the criteria for being awarded a grant, including where the entity is specifically established for the purpose of implementing an action to be financed by a grant)];

⁽b) entities that satisfy the eligibility criteria and that do not fall within one of the situations referred to in Article 136(1) and 141(1) and that have a link with the beneficiary, in particular a legal or capital link, which is neither limited to the action nor established for the sole purpose of its implementation".

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Regulation 2018/1046, i.e. non-financial resources made available free of charge by third parties.

- Fraud Fraud within the meaning of Article 3 of EU Directive 2017/1371⁵ and Article 1 of the Convention on the protection of the European Communities' financial interests, drawn up by the Council Act of 26 July 1995⁶, as well as any other wrongful or criminal deception intended to result in financial or personal gain.
- Irregularities Any type of breach (regulatory or contractual) which could impact the EU financial interests, including irregularities within the meaning of Article 1(2) of EU Regulation 2988/95⁷.
- Grave professional misconduct Any type of unacceptable or improper behaviour in exercising one's profession, especially by employees, including grave professional misconduct within the meaning of Article 136(1)(c) of EU Financial Regulation 2018/1046.
- Applicable EU, international and national law Any legal acts or other (binding or non-binding) rules and guidance in the area concerned.
- Portal EU Funding & Tenders Portal; electronic portal and exchange system managed by the European Commission and used by itself and other EU institutions, bodies, offices or agencies for the management of their funding programmes (grants, procurements, prizes, etc.).

CHAPTER 2 ACTION

ARTICLE 3 — ACTION

The grant is awarded for the action 101093968 — RESIST ('action'), as described in Annex 1.

ARTICLE 4 — DURATION AND STARTING DATE

The duration and the starting date of the action are set out in the Data Sheet (see Point 1).

CHAPTER 3 GRANT

ARTICLE 5 — GRANT

5.1 Form of grant

The grant is an action grant⁸ which takes the form of a budget-based mixed actual cost grant (i.e. a

⁵ Directive (EU) 2017/1371 of the European Parliament and of the Council of 5 July 2017 on the fight against fraud to the Union's financial interests by means of criminal law (OJ L 198, 28.7.2017, p. 29).

⁶ OJ C 316, 27.11.1995, p. 48.

⁷ Council Regulation (EC, Euratom) No 2988/95 of 18 December 1995 on the protection of the European Communities financial interests (OJ L 312, 23.12.1995, p. 1).

⁸ For the definition, see Article 180(2)(a) EU Financial Regulation 2018/1046: 'action grant' means an EU grant to finance "an action intended to help achieve a Union policy objective".

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grant based on actual costs incurred, but which may also include other forms of funding, such as unit costs or contributions, flat-rate costs or contributions, lump sum costs or contributions or financing not linked to costs).

5.2 Maximum grant amount

The maximum grant amount is set out in the Data Sheet (see Point 3) and in the estimated budget (Annex 2).

5.3 Funding rate

The funding rate for costs is 100% of the eligible costs for beneficiaries that are non-profit legal entities⁹ and 70% of the eligible costs for beneficiaries that are profit legal entities.

Contributions are not subject to any funding rate.

5.4 Estimated budget, budget categories and forms of funding

The estimated budget for the action is set out in Annex 2.

It contains the estimated eligible costs and contributions for the action, broken down by participant and budget category.

Annex 2 also shows the types of costs and contributions (forms of funding)¹⁰ to be used for each budget category.

If unit costs or contributions are used, the details on the calculation will be explained in Annex 2a.

5.5 Budget flexibility

The budget breakdown may be adjusted — without an amendment (see Article 39) — by transfers (between participants and budget categories), as long as this does not imply any substantive or important change to the description of the action in Annex 1.

However:

- changes to the budget category for volunteers (if used) always require an amendment
- changes to budget categories with lump sums costs or contributions (if used; including financing not linked to costs) always require an amendment
- changes to budget categories with higher funding rates or budget ceilings (if used) always require an amendment
- addition of amounts for subcontracts not provided for in Annex 1 either require an amendment or simplified approval in accordance with Article 6.2

⁹ For the definition, see Article XX of the Horizon Europe Framework Programme and Rules for Participation Regulation (EU) XXX: 'non-profit legal entity' means a legal entity which by its legal form is non-profit-making or which has a legal or statutory obligation not to distribute profits to its shareholders or individual members.

¹⁰ See Article 125 EU Financial Regulation 2018/1046.

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- other changes require an amendment or simplified approval, if specifically provided for in Article 6.2
- flexibility caps: not applicable.

ARTICLE 6 — ELIGIBLE AND INELIGIBLE COSTS AND CONTRIBUTIONS

In order to be eligible, costs and contributions must meet the **eligibility** conditions set out in this Article.

6.1 General eligibility conditions

The general eligibility conditions are the following:

- (a) for actual costs:
 - (i) they must be actually incurred by the beneficiary
 - (ii) they must be incurred in the period set out in Article 4 (with the exception of costs relating to the submission of the final periodic report, which may be incurred afterwards; see Article 21)
 - (iii) they must be declared under one of the budget categories set out in Article 6.2 and Annex 2
 - (iv) they must be incurred in connection with the action as described in Annex 1 and necessary for its implementation
 - (v) they must be identifiable and verifiable, in particular recorded in the beneficiary's accounts in accordance with the accounting standards applicable in the country where the beneficiary is established and with the beneficiary's usual cost accounting practices
 - (vi) they must comply with the applicable national law on taxes, labour and social security and
 - (vii) they must be reasonable, justified and must comply with the principle of sound financial management, in particular regarding economy and efficiency
- (b) for unit costs or contributions (if any):
 - (i) they must be declared under one of the budget categories set out in Article 6.2 and Annex 2
 - (ii) the units must:
 - be actually used or produced by the beneficiary in the period set out in Article 4 (with the exception of units relating to the submission of the final periodic report, which may be used or produced afterwards; see Article 21)
 - be necessary for the implementation of the action and
 - (iii) the number of units must be identifiable and verifiable, in particular supported by records and documentation (see Article 20)

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- (c) for flat-rate costs or contributions (if any):
 - (i) they must be declared under one of the budget categories set out in Article 6.2 and Annex 2
 - (ii) the costs or contributions to which the flat-rate is applied must:
 - be eligible
 - relate to the period set out in Article 4 (with the exception of costs or contributions relating to the submission of the final periodic report, which may be incurred afterwards; see Article 21)
- (d) for lump sum costs or contributions (if any):
 - (i) they must be declared under one of the budget categories set out in Article 6.2 and Annex 2
 - (ii) the work must be properly implemented by the beneficiary in accordance with Annex 1
 - (iii) the deliverables/outputs must be achieved in the period set out in Article 4 (with the exception of deliverables/outputs relating to the submission of the final periodic report, which may be achieved afterwards; see Article 21)
- (e) for unit, flat-rate or lump sum costs or contributions according to usual cost accounting practices (if any):
 - (i) they must fulfil the general eligibility conditions for the type of cost concerned
 - (ii) the cost accounting practices must be applied in a consistent manner, based on objective criteria, regardless of the source of funding
- (f) for financing not linked to costs (if any): the results must be achieved or the conditions must be fulfilled as described in Annex 1.

In addition, for direct cost categories (e.g. personnel, travel & subsistence, subcontracting and other direct costs) only costs that are directly linked to the action implementation and can therefore be attributed to it directly are eligible. They must not include any indirect costs (i.e. costs that are only indirectly linked to the action, e.g. via cost drivers).

In-kind contributions provided by third parties free of charge may be declared as eligible direct costs by the beneficiaries which use them (under the same conditions as if they were their own, provided that they concern only direct costs and that the third parties and their in-kind contributions are set out in Annex 1 (or approved ex post in the periodic report, if their use does not entail changes to the Agreement which would call into question the decision awarding the grant or breach the principle of equal treatment of applicants; 'simplified approval procedure').

6.2 Specific eligibility conditions for each budget category

For each budget category, the **specific eligibility conditions** are as follows:

Direct costs

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A. Personnel costs

A.1 Costs for employees (or equivalent) are eligible as personnel costs if they fulfil the general eligibility conditions and are related to personnel working for the beneficiary under an employment contract (or equivalent appointing act) and assigned to the action.

They must be limited to salaries (including net payments during parental leave), social security contributions, taxes and other costs linked to the remuneration, if they arise from national law or the employment contract (or equivalent appointing act) and be calculated on the basis of the costs actually incurred, in accordance with the following method:

```
{daily rate for the person multiplied by number of day-equivalents worked on the action (rounded up or down to the nearest half-day)}.
```

The daily rate must be calculated as:

```
{annual personnel costs for the person divided by 215}.
```

The number of day-equivalents declared for a person must be identifiable and verifiable (see Article 20).

The actual time spent on parental leave by a person assigned to the action may be deducted from the 215 days indicated in the above formula.

The total number of day-equivalents declared in EU grants, for a person for a year, cannot be higher than 215, minus time spent on parental leave (if any).

For personnel which receives supplementary payments for work in projects (project-based remuneration), the personnel costs must be calculated at a rate which:

- corresponds to the actual remuneration costs paid by the beneficiary for the time worked by the person in the action over the reporting period
- does not exceed the remuneration costs paid by the beneficiary for work in similar projects funded by national schemes ('national projects reference')
- is defined based on objective criteria allowing to determine the amount to which the person is entitled

and

- reflects the usual practice of the beneficiary to pay consistently bonuses or supplementary payments for work in projects funded by national schemes.

The national projects reference is the remuneration defined in national law, collective labour agreement or written internal rules of the beneficiary applicable to work in projects funded by national schemes.

If there is no such national law, collective labour agreement or written internal rules or if the project-

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based remuneration is not based on objective criteria, the national project reference will be the average remuneration of the person in the last full calendar year covered by the reporting period, excluding remuneration paid for work in EU actions.

If the beneficiary uses average personnel costs (unit cost according to usual cost accounting practices), the personnel costs must fulfil the general eligibility conditions for such unit costs and the daily rate must be calculated:

using the actual personnel costs recorded in the beneficiary's accounts and excluding any
costs which are ineligible or already included in other budget categories; the actual personnel
costs may be adjusted on the basis of budgeted or estimated elements, if they are relevant
for calculating the personnel costs, reasonable and correspond to objective and verifiable
information

and

- according to usual cost accounting practices which are applied in a consistent manner, based on objective criteria, regardless of the source of funding.

A.2 and **A.3** Costs for natural persons working under a direct contract other than an employment contract and costs for seconded persons by a third party against payment are also eligible as personnel costs, if they are assigned to the action, fulfil the general eligibility conditions and:

- (a) work under conditions similar to those of an employee (in particular regarding the way the work is organised, the tasks that are performed and the premises where they are performed) and
- (b) the result of the work belongs to the beneficiary (unless agreed otherwise).

They must be calculated on the basis of a rate which corresponds to the costs actually incurred for the direct contract or secondment and must not be significantly different from those for personnel performing similar tasks under an employment contract with the beneficiary.

A.4 The work of **SME owners** for the action (i.e. owners of beneficiaries that are small and medium-sized enterprises¹¹ not receiving a salary) or **natural person beneficiaries** (i.e. beneficiaries that are natural persons not receiving a salary) may be declared as personnel costs, if they fulfil the general eligibility conditions and are calculated as unit costs in accordance with the method set out in Annex 2a.

B. Subcontracting costs

Subcontracting costs for the action (including related duties, taxes and charges, such as non-deductible or non-refundable value added tax (VAT)) are eligible, if they are calculated on the basis

¹¹ For the definition, see Commission Recommendation 2003/361/EC: micro, small or medium-sized enterprise (SME) are enterprises

engaged in an economic activity, irrespective of their legal form (including, in particular, self- employed persons
and family businesses engaged in craft or other activities, and partnerships or associations regularly engaged
in an economic activity) and

employing fewer than 250 persons (expressed in 'annual working units' as defined in Article 5 of the Recommendation) and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million.

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of the costs actually incurred, fulfil the general eligibility conditions and are awarded using the beneficiary's usual purchasing practices — provided these ensure subcontracts with best value for money (or if appropriate the lowest price) and that there is no conflict of interests (see Article 12).

Beneficiaries that are 'contracting authorities/entities' within the meaning of the EU Directives on public procurement must also comply with the applicable national law on public procurement.

Subcontracting may cover only a limited part of the action.

The tasks to be subcontracted and the estimated cost for each subcontract must be set out in Annex 1 and the total estimated costs of subcontracting per beneficiary must be set out in Annex 2 (or may be approved ex post in the periodic report, if the use of subcontracting does not entail changes to the Agreement which would call into question the decision awarding the grant or breach the principle of equal treatment of applicants; 'simplified approval procedure').

C. Purchase costs

Purchase costs for the action (including related duties, taxes and charges, such as non-deductible or non-refundable value added tax (VAT)) are eligible if they fulfil the general eligibility conditions and are bought using the beneficiary's usual purchasing practices — provided these ensure purchases with best value for money (or if appropriate the lowest price) and that there is no conflict of interests (see Article 12).

Beneficiaries that are 'contracting authorities/entities' within the meaning of the EU Directives on public procurement must also comply with the applicable national law on public procurement.

C.1 Travel and subsistence

Purchases for **travel**, **accommodation** and **subsistence** must be calculated as follows:

- travel: on the basis of the costs actually incurred and in line with the beneficiary's usual practices on travel
- accommodation: on the basis of the costs actually incurred and in line with the beneficiary's usual practices on travel
- subsistence: on the basis of the costs actually incurred and in line with the beneficiary's usual practices on travel .

C.2 Equipment

Purchases of **equipment, infrastructure or other assets** used for the action must be declared as depreciation costs, calculated on the basis of the costs actually incurred and written off in accordance with international accounting standards and the beneficiary's usual accounting practices.

Only the portion of the costs that corresponds to the rate of actual use for the action during the action duration can be taken into account.

Costs for **renting or leasing** equipment, infrastructure or other assets are also eligible, if they do not exceed the depreciation costs of similar equipment, infrastructure or assets and do not include any financing fees.

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C.3 Other goods, works and services

Purchases of **other goods, works and services** must be calculated on the basis of the costs actually incurred.

Such goods, works and services include, for instance, consumables and supplies, promotion, dissemination, protection of results, translations, publications, certificates and financial guarantees, if required under the Agreement.

D. Other cost categories

D.2 Internally invoiced goods and services

Costs for internally invoiced goods and services directly used for the action may be declared as unit cost according to usual cost accounting practices, if and as declared eligible in the call conditions, if they fulfil the general eligibility conditions for such unit costs and the amount per unit is calculated:

using the actual costs for the good or service recorded in the beneficiary's accounts, attributed either by direct measurement or on the basis of cost drivers, and excluding any cost which are ineligible or already included in other budget categories; the actual costs may be adjusted on the basis of budgeted or estimated elements, if they are relevant for calculating the costs, reasonable and correspond to objective and verifiable information

and

- according to usual cost accounting practices which are applied in a consistent manner, based on objective criteria, regardless of the source of funding.

'Internally invoiced goods and services' means goods or services which are provided within the beneficiary's organisation directly for the action and which the beneficiary values on the basis of its usual cost accounting practices.

This cost will not be taken into account for the indirect cost flat-rate.

Indirect costs

E. Indirect costs

Indirect costs will be reimbursed at the flat-rate of 25% of the eligible direct costs (categories A-D, except volunteers costs, subcontracting costs, financial support to third parties and exempted specific cost categories, if any).

Contributions

Not applicable

6.3 Ineligible costs and contributions

The following costs or contributions are **ineligible**:

(a) costs or contributions that do not comply with the conditions set out above (Article 6.1 and 6.2), in particular:

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- (i) costs related to return on capital and dividends paid by a beneficiary
- (ii) debt and debt service charges
- (iii) provisions for future losses or debts
- (iv) interest owed
- (v) currency exchange losses
- (vi) bank costs charged by the beneficiary's bank for transfers from the granting authority
- (vii) excessive or reckless expenditure
- (viii) deductible or refundable VAT (including VAT paid by public bodies acting as public authority)
- (ix) costs incurred or contributions for activities implemented during grant agreement suspension (see Article 31)
- (x) in-kind contributions by third parties: not applicable
- (b) costs or contributions declared under other EU grants (or grants awarded by an EU Member State, non-EU country or other body implementing the EU budget), except for the following cases:
 - (i) Synergy actions: not applicable
 - (ii) if the action grant is combined with an operating grant¹² running during the same period and the beneficiary can demonstrate that the operating grant does not cover any (direct or indirect) costs of the action grant
- (c) costs or contributions for staff of a national (or regional/local) administration, for activities that are part of the administration's normal activities (i.e. not undertaken only because of the grant)
- (d) costs or contributions (especially travel and subsistence) for staff or representatives of EU institutions, bodies or agencies
- (e) other:
 - (i) country restrictions for eligible costs: not applicable
 - (ii) costs or contributions declared specifically ineligible in the call conditions.

6.4 Consequences of non-compliance

If a beneficiary declares costs or contributions that are ineligible, they will be rejected (see Article 27).

This may also lead to other measures described in Chapter 5.

¹² For the definition, see Article 180(2)(b) of EU Financial Regulation 2018/1046: 'operating grant' means an EU grant to finance "the functioning of a body which has an objective forming part of and supporting an EU policy".

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CHAPTER 4 GRANT IMPLEMENTATION

SECTION 1 CONSORTIUM: BENEFICIARIES, AFFILIATED ENTITIES AND OTHER PARTICIPANTS

ARTICLE 7 — BENEFICIARIES

The beneficiaries, as signatories of the Agreement, are fully responsible towards the granting authority for implementing it and for complying with all its obligations.

They must implement the Agreement to their best abilities, in good faith and in accordance with all the obligations and terms and conditions it sets out.

They must have the appropriate resources to implement the action and implement the action under their own responsibility and in accordance with Article 11. If they rely on affiliated entities or other participants (see Articles 8 and 9), they retain sole responsibility towards the granting authority and the other beneficiaries.

They are jointly responsible for the *technical* implementation of the action. If one of the beneficiaries fails to implement their part of the action, the other beneficiaries must ensure that this part is implemented by someone else (without being entitled to an increase of the maximum grant amount and subject to an amendment; see Article 39). The *financial* responsibility of each beneficiary in case of recoveries is governed by Article 22.

The beneficiaries (and their action) must remain eligible under the EU programme funding the grant for the entire duration of the action. Costs and contributions will be eligible only as long as the beneficiary and the action are eligible.

The internal roles and responsibilities of the beneficiaries are divided as follows:

- (a) Each beneficiary must:
 - (i) keep information stored in the Portal Participant Register up to date (see Article 19)
 - (ii) inform the granting authority (and the other beneficiaries) immediately of any events or circumstances likely to affect significantly or delay the implementation of the action (see Article 19)
 - (iii) submit to the coordinator in good time:
 - the prefinancing guarantees (if required; see Article 23)
 - the financial statements and certificates on the financial statements (CFS) (if required; see Articles 21 and 24.2 and Data Sheet, Point 4.3)
 - the contribution to the deliverables and technical reports (see Article 21)
 - any other documents or information required by the granting authority under the Agreement
 - (iv) submit via the Portal data and information related to the participation of their affiliated entities.

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(b) The coordinator must:

- (i) monitor that the action is implemented properly (see Article 11)
- (ii) act as the intermediary for all communications between the consortium and the granting authority, unless the Agreement or granting authority specifies otherwise, and in particular:
 - submit the prefinancing guarantees to the granting authority (if any)
 - request and review any documents or information required and verify their quality and completeness before passing them on to the granting authority
 - submit the deliverables and reports to the granting authority
 - inform the granting authority about the payments made to the other beneficiaries (report on the distribution of payments; if required, see Articles 22 and 32)
- (iii) distribute the payments received from the granting authority to the other beneficiaries without unjustified delay (see Article 22).

The coordinator may not delegate or subcontract the above-mentioned tasks to any other beneficiary or third party (including affiliated entities).

However, coordinators which are public bodies may delegate the tasks set out in Point (b)(ii) last indent and (iii) above to entities with 'authorisation to administer' which they have created or which are controlled by or affiliated to them. In this case, the coordinator retains sole responsibility for the payments and for compliance with the obligations under the Agreement.

Moreover, coordinators which are 'sole beneficiaries' (or similar, such as European research infrastructure consortia (ERICs)) may delegate the tasks set out in Point (b)(i) to (iii) above to one of their members. The coordinator retains sole responsibility for compliance with the obligations under the Agreement.

The beneficiaries must have **internal arrangements** regarding their operation and co-ordination, to ensure that the action is implemented properly.

If required by the granting authority (see Data Sheet, Point 1), these arrangements must be set out in a written **consortium agreement** between the beneficiaries, covering for instance:

- the internal organisation of the consortium
- the management of access to the Portal
- different distribution keys for the payments and financial responsibilities in case of recoveries (if any)
- additional rules on rights and obligations related to background and results (see Article 16)

¹³ For the definition, see Article 187(2) EU Financial Regulation 2018/1046: "Where several entities satisfy the criteria for being awarded a grant and together form one entity, that entity may be treated as the **sole beneficiary**, including where it is specifically established for the purpose of implementing the action financed by the grant."

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- settlement of internal disputes
- liability, indemnification and confidentiality arrangements between the beneficiaries.

The internal arrangements must not contain any provision contrary to this Agreement.

ARTICLE 8 — AFFILIATED ENTITIES

Not applicable

ARTICLE 9 — OTHER PARTICIPANTS INVOLVED IN THE ACTION

9.1 Associated partners

Not applicable

9.2 Third parties giving in-kind contributions to the action

Other third parties may give in-kind contributions to the action (i.e. personnel, equipment, other goods, works and services, etc. which are free-of-charge) if necessary for the implementation.

Third parties giving in-kind contributions do not implement any action tasks. They may not charge costs or contributions to the action, but the costs for the in-kind contributions are eligible and may be charged by the beneficiaries which use them, under the conditions set out in Article 6. The costs will be included in Annex 2 as part of the beneficiaries' costs.

The third parties and their in-kind contributions should be set out in Annex 1.

The beneficiaries must ensure that the bodies mentioned in Article 25 (e.g. granting authority, OLAF, Court of Auditors (ECA), etc.) can exercise their rights also towards the third parties giving in-kind contributions.

9.3 Subcontractors

Subcontractors may participate in the action, if necessary for the implementation.

Subcontractors must implement their action tasks in accordance with Article 11. The costs for the subcontracted tasks (invoiced price from the subcontractor) are eligible and may be charged by the beneficiaries, under the conditions set out in Article 6. The costs will be included in Annex 2 as part of the beneficiaries' costs.

The beneficiaries must ensure that their contractual obligations under Articles 11 (proper implementation), 12 (conflict of interest), 13 (confidentiality and security), 14 (ethics), 17.2 (visibility), 18 (specific rules for carrying out action), 19 (information) and 20 (record-keeping) also apply to the subcontractors.

The beneficiaries must ensure that the bodies mentioned in Article 25 (e.g. granting authority, OLAF, Court of Auditors (ECA), etc.) can exercise their rights also towards the subcontractors.

9.4 Recipients of financial support to third parties

If the action includes providing financial support to third parties (e.g. grants, prizes or similar forms of

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support), the beneficiaries must ensure that their contractual obligations under Articles 12 (conflict of interest), 13 (confidentiality and security), 14 (ethics), 17.2 (visibility), 18 (specific rules for carrying out action), 19 (information) and 20 (record-keeping)also apply to the third parties receiving the support (recipients).

The beneficiaries must also ensure that the bodies mentioned in Article 25 (e.g. granting authority, OLAF, Court of Auditors (ECA), etc.) can exercise their rights also towards the recipients.

ARTICLE 10 — PARTICIPANTS WITH SPECIAL STATUS

10.1 Non-EU participants

Participants which are established in a non-EU country (if any) undertake to comply with their obligations under the Agreement and:

- to respect general principles (including fundamental rights, values and ethical principles, environmental and labour standards, rules on classified information, intellectual property rights, visibility of funding and protection of personal data)
- for the submission of certificates under Article 24: to use qualified external auditors which are independent and comply with comparable standards as those set out in EU Directive 2006/43/EC¹⁴
- for the controls under Article 25: to allow for checks, reviews, audits and investigations (including on-the-spot checks, visits and inspections) by the bodies mentioned in that Article (e.g. granting authority, OLAF, Court of Auditors (ECA), etc.).

Special rules on dispute settlement apply (see Data Sheet, Point 5).

10.2 Participants which are international organisations

Participants which are international organisations (IOs; if any) undertake to comply with their obligations under the Agreement and:

- to respect general principles (including fundamental rights, values and ethical principles, environmental and labour standards, rules on classified information, intellectual property rights, visibility of funding and protection of personal data)
- for the submission of certificates under Article 24: to use either independent public officers or external auditors which comply with comparable standards as those set out in EU Directive 2006/43/EC
- for the controls under Article 25: to allow for the checks, reviews, audits and investigations by the bodies mentioned in that Article, taking into account the specific agreements concluded by them and the EU (if any).

For such participants, nothing in the Agreement will be interpreted as a waiver of their privileges or immunities, as accorded by their constituent documents or international law.

¹⁴ Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts or similar national regulations (OJ L 157, 9.6.2006, p. 87).

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Special rules on applicable law and dispute settlement apply (see Article 43 and Data Sheet, Point 5).

10.3 Pillar-assessed participants

Pillar-assessed participants (if any) may rely on their own systems, rules and procedures, in so far as they have been positively assessed and do not call into question the decision awarding the grant or breach the principle of equal treatment of applicants or beneficiaries.

'Pillar-assessment' means a review by the European Commission on the systems, rules and procedures which participants use for managing EU grants (in particular internal control system, accounting system, external audits, financing of third parties, rules on recovery and exclusion, information on recipients and protection of personal data; see Article 154 EU Financial Regulation 2018/1046).

Participants with a positive pillar assessment may rely on their own systems, rules and procedures, in particular for:

- record-keeping (Article 20): may be done in accordance with internal standards, rules and procedures
- currency conversion for financial statements (Article 21): may be done in accordance with usual accounting practices
- guarantees (Article 23): for public law bodies, prefinancing guarantees are not needed
- certificates (Article 24):
 - certificates on the financial statements (CFS): may be provided by their regular internal or external auditors and in accordance with their internal financial regulations and procedures
 - certificates on usual accounting practices (CoMUC): are not needed if those practices are covered by an ex-ante assessment

and use the following specific rules, for:

- recoveries (Article 22): in case of financial support to third parties, there will be no recovery if
 the participant has done everything possible to retrieve the undue amounts from the third party
 receiving the support (including legal proceedings) and non-recovery is not due to an error or
 negligence on its part
- checks, reviews, audits and investigations by the EU (Article 25): will be conducted taking into account the rules and procedures specifically agreed between them and the framework agreement (if any)
- impact evaluation (Article 26): will be conducted in accordance with the participant's internal rules and procedures and the framework agreement (if any)
- grant agreement suspension (Article 31): certain costs incurred during grant suspension are eligible (notably, minimum costs necessary for a possible resumption of the action and costs relating to contracts which were entered into before the pre-information letter was received and which could not reasonably be suspended, reallocated or terminated on legal grounds)

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- grant agreement termination (Article 32): the final grant amount and final payment will be calculated taking into account also costs relating to contracts due for execution only after termination takes effect, if the contract was entered into before the pre-information letter was received and could not reasonably be terminated on legal grounds
- liability for damages (Article 33.2): the granting authority must be compensated for damage it sustains as a result of the implementation of the action or because the action was not implemented in full compliance with the Agreement only if the damage is due to an infringement of the participant's internal rules and procedures or due to a violation of third parties' rights by the participant or one of its employees or individual for whom the employees are responsible.

Participants whose pillar assessment covers procurement and granting procedures may also do purchases, subcontracting and financial support to third parties (Article 6.2) in accordance with their internal rules and procedures for purchases, subcontracting and financial support.

Participants whose pillar assessment covers data protection rules may rely on their internal standards, rules and procedures for data protection (Article 15).

The participants may however not rely on provisions which would breach the principle of equal treatment of applicants or beneficiaries or call into question the decision awarding the grant, such as in particular:

- eligibility (Article 6)
- consortium roles and set-up (Articles 7-9)
- security and ethics (Articles 13, 14)
- IPR (including background and results, access rights and rights of use), communication, dissemination and visibility (Articles 16 and 17)
- information obligation (Article 19)
- payment, reporting and amendments (Articles 21, 22 and 39)
- rejections, reductions, suspensions and terminations (Articles 27, 28, 29-32)

If the pillar assessment was subject to remedial measures, reliance on the internal systems, rules and procedures is subject to compliance with those remedial measures.

Participants whose assessment has not yet been updated to cover (the new rules on) data protection may rely on their internal systems, rules and procedures, provided that they ensure that personal data is:

- processed lawfully, fairly and in a transparent manner in relation to the data subject
- collected for specified, explicit and legitimate purposes and not further processed in a manner that is incompatible with those purposes
- adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed
- accurate and, where necessary, kept up to date

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- kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the data is processed and
- processed in a manner that ensures appropriate security of the personal data.

Participants must inform the coordinator without delay of any changes to the systems, rules and procedures that were part of the pillar assessment. The coordinator must immediately inform the granting authority.

Pillar-assessed participants that have also concluded a framework agreement with the EU, may moreover — under the same conditions as those above (i.e. not call into question the decision awarding the grant or breach the principle of equal treatment of applicants or beneficiaries) — rely on the provisions set out in that framework agreement.

SECTION 2 RULES FOR CARRYING OUT THE ACTION

ARTICLE 11 — PROPER IMPLEMENTATION OF THE ACTION

11.1 Obligation to properly implement the action

The beneficiaries must implement the action as described in Annex 1 and in compliance with the provisions of the Agreement, the call conditions and all legal obligations under applicable EU, international and national law.

11.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 12 — CONFLICT OF INTERESTS

12.1 Conflict of interests

The beneficiaries must take all measures to prevent any situation where the impartial and objective implementation of the Agreement could be compromised for reasons involving family, emotional life, political or national affinity, economic interest or any other direct or indirect interest ('conflict of interests').

They must formally notify the granting authority without delay of any situation constituting or likely to lead to a conflict of interests and immediately take all the necessary steps to rectify this situation.

The granting authority may verify that the measures taken are appropriate and may require additional measures to be taken by a specified deadline.

12.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28) and the grant or the beneficiary may be terminated (see Article 32).

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Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 13 — CONFIDENTIALITY AND SECURITY

13.1 Sensitive information

The parties must keep confidential any data, documents or other material (in any form) that is identified as sensitive in writing ('sensitive information') — during the implementation of the action and for at least until the time-limit set out in the Data Sheet (see Point 6).

If a beneficiary requests, the granting authority may agree to keep such information confidential for a longer period.

Unless otherwise agreed between the parties, they may use sensitive information only to implement the Agreement.

The beneficiaries may disclose sensitive information to their personnel or other participants involved in the action only if they:

- (a) need to know it in order to implement the Agreement and
- (b) are bound by an obligation of confidentiality.

The granting authority may disclose sensitive information to its staff and to other EU institutions and bodies.

It may moreover disclose sensitive information to third parties, if:

- (a) this is necessary to implement the Agreement or safeguard the EU financial interests and
- (b) the recipients of the information are bound by an obligation of confidentiality.

The confidentiality obligations no longer apply if:

- (a) the disclosing party agrees to release the other party
- (b) the information becomes publicly available, without breaching any confidentiality obligation
- (c) the disclosure of the sensitive information is required by EU, international or national law.

Specific confidentiality rules (if any) are set out in Annex 5.

13.2 Classified information

The parties must handle classified information in accordance with the applicable EU, international or national law on classified information (in particular, Decision 2015/444¹⁵ and its implementing rules).

Deliverables which contain classified information must be submitted according to special procedures agreed with the granting authority.

¹⁵ Commission Decision 2015/444/EC, Euratom of 13 March 2015 on the security rules for protecting EU classified information (OJ L 72, 17.3.2015, p. 53).

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Action tasks involving classified information may be subcontracted only after explicit approval (in writing) from the granting authority.

Classified information may not be disclosed to any third party (including participants involved in the action implementation) without prior explicit written approval from the granting authority.

Specific security rules (if any) are set out in Annex 5.

13.3 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 14 — ETHICS AND VALUES

14.1 Ethics

The action must be carried out in line with the highest ethical standards and the applicable EU, international and national law on ethical principles.

Specific ethics rules (if any) are set out in Annex 5.

14.2 Values

The beneficiaries must commit to and ensure the respect of basic EU values (such as respect for human dignity, freedom, democracy, equality, the rule of law and human rights, including the rights of minorities).

Specific rules on values (if any) are set out in Annex 5.

14.3 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 15 — DATA PROTECTION

15.1 Data processing by the granting authority

Any personal data under the Agreement will be processed under the responsibility of the data controller of the granting authority in accordance with and for the purposes set out in the Portal Privacy Statement.

For grants where the granting authority is the European Commission, an EU regulatory or executive agency, joint undertaking or other EU body, the processing will be subject to Regulation 2018/1725¹⁶.

¹⁶ Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies

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15.2 Data processing by the beneficiaries

The beneficiaries must process personal data under the Agreement in compliance with the applicable EU, international and national law on data protection (in particular, Regulation 2016/679¹⁷).

They must ensure that personal data is:

- processed lawfully, fairly and in a transparent manner in relation to the data subjects
- collected for specified, explicit and legitimate purposes and not further processed in a manner that is incompatible with those purposes
- adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed
- accurate and, where necessary, kept up to date
- kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the data is processed and
- processed in a manner that ensures appropriate security of the data.

The beneficiaries may grant their personnel access to personal data only if it is strictly necessary for implementing, managing and monitoring the Agreement. The beneficiaries must ensure that the personnel is under a confidentiality obligation.

The beneficiaries must inform the persons whose data are transferred to the granting authority and provide them with the Portal Privacy Statement.

15.3 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 16 — INTELLECTUAL PROPERTY RIGHTS (IPR) — BACKGROUND AND RESULTS —ACCESS RIGHTS AND RIGHTS OF USE

16.1 Background and access rights to background

The beneficiaries must give each other and the other participants access to the background identified as needed for implementing the action, subject to any specific rules in Annex 5.

'Background' means any data, know-how or information — whatever its form or nature (tangible or intangible), including any rights such as intellectual property rights — that is:

and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39).

¹⁷ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC ('GDPR') (OJ L 119, 4.5.2016, p. 1).

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- (a) held by the beneficiaries before they acceded to the Agreement and
- (b) needed to implement the action or exploit the results.

If background is subject to rights of a third party, the beneficiary concerned must ensure that it is able to comply with its obligations under the Agreement.

16.2 Ownership of results

The granting authority does not obtain ownership of the results produced under the action.

'Results' means any tangible or intangible effect of the action, such as data, know-how or information, whatever its form or nature, whether or not it can be protected, as well as any rights attached to it, including intellectual property rights.

16.3 Rights of use of the granting authority on materials, documents and information received for policy, information, communication, dissemination and publicity purposes

The granting authority has the right to use non-sensitive information relating to the action and materials and documents received from the beneficiaries (notably summaries for publication, deliverables, as well as any other material, such as pictures or audio-visual material, in paper or electronic form) for policy, information, communication, dissemination and publicity purposes — during the action or afterwards.

The right to use the beneficiaries' materials, documents and information is granted in the form of a royalty-free, non-exclusive and irrevocable licence, which includes the following rights:

- (a) **use for its own purposes** (in particular, making them available to persons working for the granting authority or any other EU service (including institutions, bodies, offices, agencies, etc.) or EU Member State institution or body; copying or reproducing them in whole or in part, in unlimited numbers; and communication through press information services)
- (b) **distribution to the public** (in particular, publication as hard copies and in electronic or digital format, publication on the internet, as a downloadable or non-downloadable file, broadcasting by any channel, public display or presentation, communicating through press information services, or inclusion in widely accessible databases or indexes)
- (c) editing or redrafting (including shortening, summarising, inserting other elements (e.g. meta-data, legends, other graphic, visual, audio or text elements), extracting parts (e.g. audio or video files), dividing into parts, use in a compilation)
- (d) translation
- (e) storage in paper, electronic or other form
- (f) archiving, in line with applicable document-management rules
- (g) the right to authorise **third parties** to act on its behalf or sub-license to third parties the modes of use set out in Points (b), (c), (d) and (f), if needed for the information, communication and publicity activity of the granting authority

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(h) **processing**, analysing, aggregating the materials, documents and information received and **producing derivative works**.

The rights of use are granted for the whole duration of the industrial or intellectual property rights concerned.

If materials or documents are subject to moral rights or third party rights (including intellectual property rights or rights of natural persons on their image and voice), the beneficiaries must ensure that they comply with their obligations under this Agreement (in particular, by obtaining the necessary licences and authorisations from the rights holders concerned).

Where applicable, the granting authority will insert the following information:

"© - [year] - [name of the copyright owner]. All rights reserved. Licensed to the [name of granting authority] under conditions."

16.4 Specific rules on IPR, results and background

Specific rules regarding intellectual property rights, results and background (if any) are set out in Annex 5.

16.5 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such a breach may also lead to other measures described in Chapter 5.

ARTICLE 17 — COMMUNICATION, DISSEMINATION AND VISIBILITY

17.1 Communication — Dissemination — Promoting the action

Unless otherwise agreed with the granting authority, the beneficiaries must promote the action and its results by providing targeted information to multiple audiences (including the media and the public), in accordance with Annex 1 and in a strategic, coherent and effective manner.

Before engaging in a communication or dissemination activity expected to have a major media impact, the beneficiaries must inform the granting authority.

17.2 Visibility — European flag and funding statement

Unless otherwise agreed with the granting authority, communication activities of the beneficiaries related to the action (including media relations, conferences, seminars, information material, such as brochures, leaflets, posters, presentations, etc., in electronic form, via traditional or social media, etc.), dissemination activities and any infrastructure, equipment, vehicles, supplies or major result funded by the grant must acknowledge EU support and display the European flag (emblem) and funding statement (translated into local languages, where appropriate):

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Funded by the European Union

Co-funded by the European Union

Co-funded by the European Union

Co-funded by the European Union

The emblem must remain distinct and separate and cannot be modified by adding other visual marks, brands or text.

Apart from the emblem, no other visual identity or logo may be used to highlight the EU support.

When displayed in association with other logos (e.g. of beneficiaries or sponsors), the emblem must be displayed at least as prominently and visibly as the other logos.

For the purposes of their obligations under this Article, the beneficiaries may use the emblem without first obtaining approval from the granting authority. This does not, however, give them the right to exclusive use. Moreover, they may not appropriate the emblem or any similar trademark or logo, either by registration or by any other means.

17.3 Quality of information — Disclaimer

Any communication or dissemination activity related to the action must use factually accurate information.

Moreover, it must indicate the following disclaimer (translated into local languages where appropriate):

"Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or [name of the granting authority]. Neither the European Union nor the granting authority can be held responsible for them."

17.4 Specific communication, dissemination and visibility rules

Specific communication, dissemination and visibility rules (if any) are set out in Annex 5.

17.5 Consequences of non-compliance

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If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 18 — SPECIFIC RULES FOR CARRYING OUT THE ACTION

18.1 Specific rules for carrying out the action

Specific rules for implementing the action (if any) are set out in Annex 5.

18.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such a breach may also lead to other measures described in Chapter 5.

SECTION 3 GRANT ADMINISTRATION

ARTICLE 19 — GENERAL INFORMATION OBLIGATIONS

19.1 Information requests

The beneficiaries must provide — during the action or afterwards and in accordance with Article 7 — any information requested in order to verify eligibility of the costs or contributions declared, proper implementation of the action and compliance with the other obligations under the Agreement.

The information provided must be accurate, precise and complete and in the format requested, including electronic format.

19.2 Participant Register data updates

The beneficiaries must keep — at all times, during the action or afterwards — their information stored in the Portal Participant Register up to date, in particular, their name, address, legal representatives, legal form and organisation type.

19.3 Information about events and circumstances which impact the action

The beneficiaries must immediately inform the granting authority (and the other beneficiaries) of any of the following:

- (a) **events** which are likely to affect or delay the implementation of the action or affect the EU's financial interests, in particular:
 - (i) changes in their legal, financial, technical, organisational or ownership situation (including changes linked to one of the exclusion grounds listed in the declaration of honour signed before grant signature)
 - (ii) linked action information: not applicable

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(b) circumstances affecting:

- (i) the decision to award the grant or
- (ii) compliance with requirements under the Agreement.

19.4 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 20 — RECORD-KEEPING

20.1 Keeping records and supporting documents

The beneficiaries must — at least until the time-limit set out in the Data Sheet (see Point 6) — keep records and other supporting documents to prove the proper implementation of the action in line with the accepted standards in the respective field (if any).

In addition, the beneficiaries must — for the same period — keep the following to justify the amounts declared:

- (a) for actual costs: adequate records and supporting documents to prove the costs declared (such as contracts, subcontracts, invoices and accounting records); in addition, the beneficiaries' usual accounting and internal control procedures must enable direct reconciliation between the amounts declared, the amounts recorded in their accounts and the amounts stated in the supporting documents
- (b) for flat-rate costs and contributions (if any): adequate records and supporting documents to prove the eligibility of the costs or contributions to which the flat-rate is applied
- (c) for the following simplified costs and contributions: the beneficiaries do not need to keep specific records on the actual costs incurred, but must keep:
 - (i) for unit costs and contributions (if any): adequate records and supporting documents to prove the number of units declared
 - (ii) for lump sum costs and contributions (if any): adequate records and supporting documents to prove proper implementation of the work as described in Annex 1
 - (iii) for financing not linked to costs (if any): adequate records and supporting documents to prove the achievement of the results or the fulfilment of the conditions as described in Annex 1
- (d) for unit, flat-rate and lump sum costs and contributions according to usual cost accounting practices (if any): the beneficiaries must keep any adequate records and supporting documents to prove that their cost accounting practices have been applied in a consistent manner, based on objective criteria, regardless of the source of funding, and that they comply with the eligibility conditions set out in Articles 6.1 and 6.2.

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Moreover, the following is needed for specific budget categories:

- (e) for personnel costs: time worked for the beneficiary under the action must be supported by declarations signed monthly by the person and their supervisor, unless another reliable time-record system is in place; the granting authority may accept alternative evidence supporting the time worked for the action declared, if it considers that it offers an adequate level of assurance
- (f) additional record-keeping rules: not applicable

The records and supporting documents must be made available upon request (see Article 19) or in the context of checks, reviews, audits or investigations (see Article 25).

If there are on-going checks, reviews, audits, investigations, litigation or other pursuits of claims under the Agreement (including the extension of findings; see Article 25), the beneficiaries must keep these records and other supporting documentation until the end of these procedures.

The beneficiaries must keep the original documents. Digital and digitalised documents are considered originals if they are authorised by the applicable national law. The granting authority may accept non-original documents if they offer a comparable level of assurance.

20.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, costs or contributions insufficiently substantiated will be ineligible (see Article 6) and will be rejected (see Article 27), and the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 21 — REPORTING

21.1 Continuous reporting

The beneficiaries must continuously report on the progress of the action (e.g. **deliverables**, **milestones**, **outputs/outcomes**, **critical risks**, **indicators**, etc; if any), in the Portal Continuous Reporting tool and in accordance with the timing and conditions it sets out (as agreed with the granting authority).

Standardised deliverables (e.g. progress reports not linked to payments, reports on cumulative expenditure, special reports, etc; if any) must be submitted using the templates published on the Portal.

21.2 Periodic reporting: Technical reports and financial statements

In addition, the beneficiaries must provide reports to request payments, in accordance with the schedule and modalities set out in the Data Sheet (see Point 4.2):

- for additional prefinancings (if any): an additional prefinancing report
- for interim payments (if any) and the final payment: a **periodic report**.

The prefinancing and periodic reports include a technical and financial part.

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The technical part includes an overview of the action implementation. It must be prepared using the template available in the Portal Periodic Reporting tool.

The financial part of the additional prefinancing report includes a statement on the use of the previous prefinancing payment.

The financial part of the periodic report includes:

- the financial statements (individual and consolidated; for all beneficiaries/affiliated entities)
- the explanation on the use of resources (or detailed cost reporting table, if required)
- the certificates on the financial statements (CFS) (if required; see Article 24.2 and Data Sheet, Point 4.3).

The **financial statements** must detail the eligible costs and contributions for each budget category and, for the final payment, also the revenues for the action (see Articles 6 and 22).

All eligible costs and contributions incurred should be declared, even if they exceed the amounts indicated in the estimated budget (see Annex 2). Amounts that are not declared in the individual financial statements will not be taken into account by the granting authority.

By signing the financial statements (directly in the Portal Periodic Reporting tool), the beneficiaries confirm that:

- the information provided is complete, reliable and true
- the costs and contributions declared are eligible (see Article 6)
- the costs and contributions can be substantiated by adequate records and supporting documents (see Article 20) that will be produced upon request (see Article 19) or in the context of checks, reviews, audits and investigations (see Article 25)
- for the final periodic report: all the revenues have been declared (if required; see Article 22).

Beneficiaries will have to submit also the financial statements of their affiliated entities (if any). In case of recoveries (see Article 22), beneficiaries will be held responsible also for the financial statements of their affiliated entities.

21.3 Currency for financial statements and conversion into euros

The financial statements must be drafted in euro.

Beneficiaries with general accounts established in a currency other than the euro must convert the costs recorded in their accounts into euro, at the average of the daily exchange rates published in the C series of the *Official Journal of the European Union* (ECB website), calculated over the corresponding reporting period.

If no daily euro exchange rate is published in the *Official Journal* for the currency in question, they must be converted at the average of the monthly accounting exchange rates published on the European Commission website (InforEuro), calculated over the corresponding reporting period.

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Beneficiaries with general accounts in euro must convert costs incurred in another currency into euro according to their usual accounting practices.

21.4 Reporting language

The reporting must be in the language of the Agreement, unless otherwise agreed with the granting authority (see Data Sheet, Point 4.2).

21.5 Consequences of non-compliance

If a report submitted does not comply with this Article, the granting authority may suspend the payment deadline (see Article 29) and apply other measures described in Chapter 5.

If the coordinator breaches its reporting obligations, the granting authority may terminate the grant or the coordinator's participation (see Article 32) or apply other measures described in Chapter 5.

ARTICLE 22 — PAYMENTS AND RECOVERIES — CALCULATION OF AMOUNTS DUE

22.1 Payments and payment arrangements

Payments will be made in accordance with the schedule and modalities set out in the Data Sheet (see Point 4.2).

They will be made in euro to the bank account indicated by the coordinator (see Data Sheet, Point 4.2) and must be distributed without unjustified delay (restrictions may apply to distribution of the initial prefinancing payment; see Data Sheet, Point 4.2).

Payments to this bank account will discharge the granting authority from its payment obligation.

The cost of payment transfers will be borne as follows:

- the granting authority bears the cost of transfers charged by its bank
- the beneficiary bears the cost of transfers charged by its bank
- the party causing a repetition of a transfer bears all costs of the repeated transfer.

Payments by the granting authority will be considered to have been carried out on the date when they are debited to its account.

22.2 Recoveries

Recoveries will be made, if — at beneficiary termination, final payment or afterwards — it turns out that the granting authority has paid too much and needs to recover the amounts undue.

Each beneficiary's financial responsibility in case of recovery is in principle limited to their own debt and undue amounts of their affiliated entities.

In case of enforced recoveries (see Article 22.4), affiliated entities will be held liable for repaying debts of their beneficiaries, if required by the granting authority (see Data Sheet, Point 4.4).

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22.3 Amounts due

22.3.1 Prefinancing payments

The aim of the prefinancing is to provide the beneficiaries with a float.

It remains the property of the EU until the final payment.

For **initial prefinancings** (if any), the amount due, schedule and modalities are set out in the Data Sheet (see Point 4.2).

For **additional prefinancings** (if any), the amount due, schedule and modalities are also set out in the Data Sheet (see Point 4.2). However, if the statement on the use of the previous prefinancing payment shows that less than 70% was used, the amount set out in the Data Sheet will be reduced by the difference between the 70% threshold and the amount used.

The contribution to the Mutual Insurance Mechanism will be retained from the prefinancing payments (at the rate and in accordance with the modalities set out in the Data Sheet, see Point 4.2) and transferred to the Mechanism.

Prefinancing payments (or parts of them) may be offset (without the beneficiaries' consent) against amounts owed by a beneficiary to the granting authority — up to the amount due to that beneficiary.

For grants where the granting authority is the European Commission or an EU executive agency, offsetting may also be done against amounts owed to other Commission services or executive agencies.

Payments will not be made if the payment deadline or payments are suspended (see Articles 29 and 30).

22.3.2 Amount due at beneficiary termination — Recovery

In case of beneficiary termination, the granting authority will determine the provisional amount due for the beneficiary concerned. Payments (if any) will be made with the next interim or final payment.

The **amount due** will be calculated in the following step:

Step 1 — Calculation of the total accepted EU contribution

Step 1 — Calculation of the total accepted EU contribution

The granting authority will first calculate the 'accepted EU contribution' for the beneficiary for all reporting periods, by calculating the 'maximum EU contribution to costs' (applying the funding rate to the accepted costs of the beneficiary), taking into account requests for a lower contribution to costs and CFS threshold cappings (if any; see Article 24.5) and adding the contributions (accepted unit, flat-rate or lump sum contributions and financing not linked to costs, if any).

After that, the granting authority will take into account grant reductions (if any). The resulting amount is the 'total accepted EU contribution' for the beneficiary.

The **balance** is then calculated by deducting the payments received (if any; see report on the distribution of payments in Article 32), from the total accepted EU contribution:

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{total accepted EU contribution for the beneficiary

minus

{prefinancing and interim payments received (if any)}}.

If the balance is **positive**, the amount will be included in the next interim or final payment to the consortium.

If the balance is **negative**, it will be **recovered** in accordance with the following procedure:

The granting authority will send a **pre-information letter** to the beneficiary concerned:

- formally notifying the intention to recover, the amount due, the amount to be recovered and the reasons why and
- requesting observations within 30 days of receiving notification.

If no observations are submitted (or the granting authority decides to pursue recovery despite the observations it has received), it will confirm the amount to be recovered and ask this amount to be paid to the coordinator (**confirmation letter**).

If payment is not made to the coordinator by the date specified in the confirmation letter, the granting authority may call on the Mutual Insurance Mechanism to intervene, if continuation of the action is guaranteed and the conditions set out in the rules governing the Mechanism are met.

In this case, it will send a **beneficiary recovery letter**, together with a **debit note** with the terms and date for payment.

The debit note for the beneficiary will include the amount calculated for the affiliated entities which also had to end their participation (if any).

If payment is not made by the date specified in the debit note, the granting authority will **enforce recovery** in accordance with Article 22.4.

The amounts will later on also be taken into account for the next interim or final payment.

22.3.3 Interim payments

Interim payments reimburse the eligible costs and contributions claimed for the implementation of the action during the reporting periods (if any).

Interim payments (if any) will be made in accordance with the schedule and modalities set out the Data Sheet (see Point 4.2).

Payment is subject to the approval of the periodic report. Its approval does not imply recognition of compliance, authenticity, completeness or correctness of its content.

The **interim payment** will be calculated by the granting authority in the following steps:

Step 1 — Calculation of the total accepted EU contribution

Step 2 — Limit to the interim payment ceiling

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Step 1 — Calculation of the total accepted EU contribution

The granting authority will calculate the 'accepted EU contribution' for the action for the reporting period, by first calculating the 'maximum EU contribution to costs' (applying the funding rate to the accepted costs of each beneficiary), taking into account requests for a lower contribution to costs, and CFS threshold cappings (if any; see Article 24.5) and adding the contributions (accepted unit, flat-rate or lump sum contributions and financing not linked to costs, if any).

After that, the granting authority will take into account grant reductions from beneficiary termination (if any). The resulting amount is the 'total accepted EU contribution'.

Step 2 — Limit to the interim payment ceiling

The resulting amount is then capped to ensure that the total amount of prefinancing and interim payments (if any) does not exceed the interim payment ceiling set out in the Data Sheet (see Point 4.2).

Interim payments (or parts of them) may be offset (without the beneficiaries' consent) against amounts owed by a beneficiary to the granting authority — up to the amount due to that beneficiary.

For grants where the granting authority is the European Commission or an EU executive agency, offsetting may also be done against amounts owed to other Commission services or executive agencies.

Payments will not be made if the payment deadline or payments are suspended (see Articles 29 and 30).

22.3.4 Final payment — Final grant amount — Revenues and Profit — Recovery

The final payment (payment of the balance) reimburses the remaining part of the eligible costs and contributions claimed for the implementation of the action (if any).

The final payment will be made in accordance with the schedule and modalities set out in the Data Sheet (see Point 4.2).

Payment is subject to the approval of the final periodic report. Its approval does not imply recognition of compliance, authenticity, completeness or correctness of its content.

The **final grant amount for the action** will be calculated in the following steps:

Step 1 — Calculation of the total accepted EU contribution

Step 2 — Limit to the maximum grant amount

Step 3 — Reduction due to the no-profit rule

Step 1 — Calculation of the total accepted EU contribution

The granting authority will first calculate the 'accepted EU contribution' for the action for all reporting periods, by calculating the 'maximum EU contribution to costs' (applying the funding rate to the total accepted costs of each beneficiary), taking into account requests for a lower contribution to costs, CFS threshold cappings (if any; see Article 24.5) and adding the contributions (accepted unit, flat-rate or lump sum contributions and financing not linked to costs, if any).

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After that, the granting authority will take into account grant reductions (if any). The resulting amount is the 'total accepted EU contribution'.

Step 2 — Limit to the maximum grant amount

If the resulting amount is higher than the maximum grant amount set out in Article 5.2, it will be limited to the latter.

Step 3 — Reduction due to the no-profit rule

If the no-profit rule is provided for in the Data Sheet (see Point 4.2), the grant must not produce a profit (i.e. surplus of the amount obtained following Step 2 plus the action's revenues, over the eligible costs and contributions approved by the granting authority).

'Revenue' is all income generated by the action, during its duration (see Article 4), for beneficiaries that are profit legal entities (— with the exception of income generated by the exploitation of results, which are not considered as revenues).

If there is a profit, it will be deducted in proportion to the final rate of reimbursement of the eligible costs approved by the granting authority (as compared to the amount calculated following Steps 1 and 2 minus the contributions).

The **balance** (final payment) is then calculated by deducting the total amount of prefinancing and interim payments already made (if any), from the final grant amount:

```
{final grant amount
minus
{prefinancing and interim payments made (if any)}}.
```

If the balance is **positive**, it will be **paid** to the coordinator.

The amount retained for the Mutual Insurance Mechanism (see above) will be released and **paid** to the coordinator (in accordance with the rules governing the Mechanism).

The final payment (or part of it) may be offset (without the beneficiaries' consent) against amounts owed by a beneficiary to the granting authority — up to the amount due to that beneficiary.

For grants where the granting authority is the European Commission or an EU executive agency, offsetting may also be done against amounts owed to other Commission services or executive agencies.

Payments will not be made if the payment deadline or payments are suspended (see Articles 29 and 30).

If — despite the release of the Mutual Insurance Mechanism contribution — the balance is **negative**, it will be **recovered** in accordance with the following procedure:

The granting authority will send a **pre-information letter** to the coordinator:

- formally notifying the intention to recover, the final grant amount, the amount to be recovered and the reasons why

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- requesting a report on the distribution of payments to the beneficiaries within 30 days of receiving notification and
- requesting observations within 30 days of receiving notification.

If no observations are submitted (or the granting authority decides to pursue recovery despite the observations it has received) and the coordinator has submitted the report on the distribution of payments, it will calculate the **share of the debt per beneficiary**, by:

(a) identifying the beneficiaries for which the amount calculated as follows is negative:

and confirm the amount to be recovered from each beneficiary concerned (confirmation letter), together with debit notes with the terms and date for payment.

The debit notes for beneficiaries will include the amounts calculated for their affiliated entities (if any).

If the coordinator has not submitted the report on the distribution of payments, the granting authority will **recover** the full amount from the coordinator (**confirmation letter** and **debit note** with the terms and date for payment).

If payment is not made by the date specified in the debit note, the granting authority will **enforce recovery** in accordance with Article 22.4.

22.3.5 Audit implementation after final payment — Revised final grant amount — Recovery

If — after the final payment (in particular, after checks, reviews, audits or investigations; see Article 25) — the granting authority rejects costs or contributions (see Article 27) or reduces the grant (see Article 28), it will calculate the **revised final grant amount** for the beneficiary concerned.

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The beneficiary revised final grant amount will be calculated in the following step:

Step 1 — Calculation of the revised total accepted EU contribution

Step 1 — Calculation of the revised total accepted EU contribution

The granting authority will first calculate the 'revised accepted EU contribution' for the beneficiary, by calculating the 'revised accepted costs' and 'revised accepted contributions'.

After that, it will take into account grant reductions (if any). The resulting 'revised total accepted EU contribution' is the beneficiary revised final grant amount.

If the revised final grant amount is lower than the beneficiary's final grant amount (i.e. its share in the final grant amount for the action), it will be **recovered** in accordance with the following procedure:

The **beneficiary final grant amount** (i.e. share in the final grant amount for the action) is calculated as follows:

```
{{total accepted EU contribution for the beneficiary divided by total accepted EU contribution for the action} multiplied by final grant amount for the action}.
```

The granting authority will send a **pre-information letter** to the beneficiary concerned:

- formally notifying the intention to recover, the amount to be recovered and the reasons why and
- requesting observations within 30 days of receiving notification.

If no observations are submitted (or the granting authority decides to pursue recovery despite the observations it has received), it will confirm the amount to be recovered (**confirmation letter**), together with a **debit note** with the terms and the date for payment.

Recoveries against affiliated entities (if any) will be handled through their beneficiaries.

If payment is not made by the date specified in the debit note, the granting authority will **enforce recovery** in accordance with Article 22.4.

22.4 Enforced recovery

If payment is not made by the date specified in the debit note, the amount due will be recovered:

(a) by offsetting the amount — without the coordinator or beneficiary's consent — against any amounts owed to the coordinator or beneficiary by the granting authority.

In exceptional circumstances, to safeguard the EU financial interests, the amount may be offset before the payment date specified in the debit note.

For grants where the granting authority is the European Commission or an EU executive

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agency, debts may also be offset against amounts owed by other Commission services or executive agencies.

- (b) financial guarantee(s): not applicable
- (c) joint and several liability of beneficiaries: not applicable
- (d) by holding affiliated entities jointly and severally liable (if any, see Data Sheet, Point 4.4)
- (e) by taking legal action (see Article 43) or, provided that the granting authority is the European Commission or an EU executive agency, by adopting an enforceable decision under Article 299 of the Treaty on the Functioning of the EU (TFEU) and Article 100(2) of EU Financial Regulation 2018/1046.

If the Mutual Insurance Mechanism was called on by the granting authority to intervene, recovery will be continued in the name of the Mutual Insurance Mechanism. If two debit notes were sent, the second one (in the name of the Mutual Insurance Mechanism) will be considered to replace the first one (in the name of the granting authority). Where the MIM intervened, offsetting, enforceable decisions or any other of the above-mentioned forms of enforced recovery may be used mutatis mutandis.

The amount to be recovered will be increased by **late-payment interest** at the rate set out in Article 22.5, from the day following the payment date in the debit note, up to and including the date the full payment is received.

Partial payments will be first credited against expenses, charges and late-payment interest and then against the principal.

Bank charges incurred in the recovery process will be borne by the beneficiary, unless Directive 2015/2366¹⁸ applies.

For grants where the granting authority is an EU executive agency, enforced recovery by offsetting or enforceable decision will be done by the services of the European Commission (see also Article 43).

22.5 Consequences of non-compliance

22.5.1 If the granting authority does not pay within the payment deadlines (see above), the beneficiaries are entitled to **late-payment interest** at the rate applied by the European Central Bank (ECB) for its main refinancing operations in euros ('reference rate'), plus the rate specified in the Data Sheet (Point 4.2). The reference rate is the rate in force on the first day of the month in which the payment deadline expires, as published in the C series of the *Official Journal of the European Union*.

If the late-payment interest is lower than or equal to EUR 200, it will be paid to the coordinator only on request submitted within two months of receiving the late payment.

Late-payment interest is not due if all beneficiaries are EU Member States (including regional and local government authorities or other public bodies acting on behalf of a Member State for the purpose of this Agreement).

¹⁸ Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC (OJ L 337, 23.12.2015, p. 35).

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If payments or the payment deadline are suspended (see Articles 29 and 30), payment will not be considered as late.

Late-payment interest covers the period running from the day following the due date for payment (see above), up to and including the date of payment.

Late-payment interest is not considered for the purposes of calculating the final grant amount.

22.5.2 If the coordinator breaches any of its obligations under this Article, the grant may be reduced (see Article 29) and the grant or the coordinator may be terminated (see Article 32).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 23 — GUARANTEES

Not applicable

ARTICLE 24 — CERTIFICATES

24.1 Operational verification report (OVR)

Not applicable

24.2 Certificate on the financial statements (CFS)

If required by the granting authority (see Data Sheet, Point 4.3), the beneficiaries must provide certificates on their financial statements (CFS), in accordance with the schedule, threshold and conditions set out in the Data Sheet.

The coordinator must submit them as part of the periodic report (see Article 21).

The certificates must be drawn up using the template published on the Portal, cover the costs declared on the basis of actual costs and costs according to usual cost accounting practices (if any), and fulfil the following conditions:

- (a) be provided by a qualified approved external auditor which is independent and complies with Directive 2006/43/EC¹⁹ (or for public bodies: by a competent independent public officer)
- (b) the verification must be carried out according to the highest professional standards to ensure that the financial statements comply with the provisions under the Agreement and that the costs declared are eligible.

The certificates will not affect the granting authority's right to carry out its own checks, reviews or audits, nor preclude the European Court of Auditors (ECA), the European Public Prosecutor's Office (EPPO) or the European Anti-Fraud Office (OLAF) from using their prerogatives for audits and investigations under the Agreement (see Article 25).

If the costs (or a part of them) were already audited by the granting authority, these costs do not need to be covered by the certificate and will not be counted for calculating the threshold (if any).

¹⁹ Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts or similar national regulations (OJ L 157, 9.6.2006, p. 87).

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24.3 Certificate on the compliance of usual cost accounting practices (CoMUC)

Not applicable

24.4 Systems and process audit (SPA)

Beneficiaries which:

- use unit, flat rate or lump sum costs or contributions according to documented (i.e. formally approved and in writing) usual costs accounting practices (if any) or
- have formalised documentation on the systems and processes for calculating their costs and contributions (i.e. formally approved and in writing), have participated in at least 150 actions under Horizon 2020 or the Euratom Research and Training Programme (2014-2018 or 2019-2020) and participate in at least 3 ongoing actions under Horizon Europe or the Euratom Research and Training Programme (2021-2025 or 2026-2027)

may apply to the granting authority for a systems and process audit (SPA).

This audit will be carried out as follows:

- Step 1 Application by the beneficiary.
- Step 2 If the application is accepted, the granting authority will carry out the systems and process audit, complemented by an audit of transactions (on a sample of the beneficiary's Horizon Europe or the Euratom Research and Training Programme financial statements).
- Step 3 The audit result will take the form of a risk assessment classification for the beneficiary: low, medium or high.

Low-risk beneficiaries will benefit from less (or less in-depth) ex-post audits (see Article 25) and a higher threshold for submitting certificates on the financial statements (CFS; see Articles 21 and 24.2 and Data Sheet, Point 4.3).

24.5 Consequences of non-compliance

If a beneficiary does not submit a certificate on the financial statements (CFS) or the certificate is rejected, the accepted EU contribution to costs will be capped to reflect the CFS threshold.

If a beneficiary breaches any of its other obligations under this Article, the granting authority may apply the measures described in Chapter 5.

ARTICLE 25 — CHECKS, REVIEWS, AUDITS AND INVESTIGATIONS — EXTENSION OF FINDINGS

25.1 Granting authority checks, reviews and audits

25.1.1 Internal checks

The granting authority may — during the action or afterwards — check the proper implementation of the action and compliance with the obligations under the Agreement, including assessing costs and contributions, deliverables and reports.

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25.1.2 Project reviews

The granting authority may carry out reviews on the proper implementation of the action and compliance with the obligations under the Agreement (general project reviews or specific issues reviews).

Such project reviews may be started during the implementation of the action and until the time-limit set out in the Data Sheet (see Point 6). They will be formally notified to the coordinator or beneficiary concerned and will be considered to start on the date of the notification.

If needed, the granting authority may be assisted by independent, outside experts. If it uses outside experts, the coordinator or beneficiary concerned will be informed and have the right to object on grounds of commercial confidentiality or conflict of interest.

The coordinator or beneficiary concerned must cooperate diligently and provide — within the deadline requested — any information and data in addition to deliverables and reports already submitted (including information on the use of resources). The granting authority may request beneficiaries to provide such information to it directly. Sensitive information and documents will be treated in accordance with Article 13.

The coordinator or beneficiary concerned may be requested to participate in meetings, including with the outside experts.

For **on-the-spot visits**, the beneficiary concerned must allow access to sites and premises (including to the outside experts) and must ensure that information requested is readily available.

Information provided must be accurate, precise and complete and in the format requested, including electronic format.

On the basis of the review findings, a **project review report** will be drawn up.

The granting authority will formally notify the project review report to the coordinator or beneficiary concerned, which has 30 days from receiving notification to make observations.

Project reviews (including project review reports) will be in the language of the Agreement.

25.1.3 Audits

The granting authority may carry out audits on the proper implementation of the action and compliance with the obligations under the Agreement.

Such audits may be started during the implementation of the action and until the time-limit set out in the Data Sheet (see Point 6). They will be formally notified to the beneficiary concerned and will be considered to start on the date of the notification.

The granting authority may use its own audit service, delegate audits to a centralised service or use external audit firms. If it uses an external firm, the beneficiary concerned will be informed and have the right to object on grounds of commercial confidentiality or conflict of interest.

The beneficiary concerned must cooperate diligently and provide — within the deadline requested — any information (including complete accounts, individual salary statements or other personal data)

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to verify compliance with the Agreement. Sensitive information and documents will be treated in accordance with Article 13.

For **on-the-spot** visits, the beneficiary concerned must allow access to sites and premises (including for the external audit firm) and must ensure that information requested is readily available.

Information provided must be accurate, precise and complete and in the format requested, including electronic format.

On the basis of the audit findings, a **draft audit report** will be drawn up.

The auditors will formally notify the draft audit report to the beneficiary concerned, which has 30 days from receiving notification to make observations (contradictory audit procedure).

The **final audit report** will take into account observations by the beneficiary concerned and will be formally notified to them.

Audits (including audit reports) will be in the language of the Agreement.

25.2 European Commission checks, reviews and audits in grants of other granting authorities

Where the granting authority is not the European Commission, the latter has the same rights of checks, reviews and audits as the granting authority.

25.3 Access to records for assessing simplified forms of funding

The beneficiaries must give the European Commission access to their statutory records for the periodic assessment of simplified forms of funding which are used in EU programmes.

25.4 OLAF, EPPO and ECA audits and investigations

The following bodies may also carry out checks, reviews, audits and investigations — during the action or afterwards:

- the European Anti-Fraud Office (OLAF) under Regulations No 883/2013²⁰ and No 2185/96²¹
- the European Public Prosecutor's Office (EPPO) under Regulation 2017/1939
- the European Court of Auditors (ECA) under Article 287 of the Treaty on the Functioning of the EU (TFEU) and Article 257 of EU Financial Regulation 2018/1046.

If requested by these bodies, the beneficiary concerned must provide full, accurate and complete information in the format requested (including complete accounts, individual salary statements or

²⁰ Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council of 11 September 2013 concerning investigations conducted by the European Anti-Fraud Office (OLAF) and repealing Regulation (EC) No 1073/1999 of the European Parliament and of the Council and Council Regulation (Euratom) No 1074/1999 (OJ L 248, 18/09/2013, p. 1).

²¹ Council Regulation (Euratom, EC) No 2185/1996 of 11 November 1996 concerning on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities (OJ L 292, 15/11/1996, p. 2).

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other personal data, including in electronic format) and allow access to sites and premises for on-the-spot visits or inspections — as provided for under these Regulations.

To this end, the beneficiary concerned must keep all relevant information relating to the action, at least until the time-limit set out in the Data Sheet (Point 6) and, in any case, until any ongoing checks, reviews, audits, investigations, litigation or other pursuits of claims have been concluded.

25.5 Consequences of checks, reviews, audits and investigations — Extension of results of reviews, audits or investigations

25.5.1 Consequences of checks, reviews, audits and investigations in this grant

Findings in checks, reviews, audits or investigations carried out in the context of this grant may lead to rejections (see Article 27), grant reduction (see Article 28) or other measures described in Chapter 5.

Rejections or grant reductions after the final payment will lead to a revised final grant amount (see Article 22).

Findings in checks, reviews, audits or investigations during the action implementation may lead to a request for amendment (see Article 39), to change the description of the action set out in Annex 1.

Checks, reviews, audits or investigations that find systemic or recurrent errors, irregularities, fraud or breach of obligations in any EU grant may also lead to consequences in other EU grants awarded under similar conditions ('extension to other grants').

Moreover, findings arising from an OLAF or EPPO investigation may lead to criminal prosecution under national law.

25.5.2 Extension from other grants

Results of checks, reviews, audits or investigations in other grants may be extended to this grant, if:

- (a) the beneficiary concerned is found, in other EU grants awarded under similar conditions, to have committed systemic or recurrent errors, irregularities, fraud or breach of obligations that have a material impact on this grant and
- (b) those findings are formally notified to the beneficiary concerned together with the list of grants affected by the findings within the time-limit for audits set out in the Data Sheet (see Point 6).

The granting authority will formally notify the beneficiary concerned of the intention to extend the findings and the list of grants affected.

If the extension concerns **rejections of costs or contributions**: the notification will include:

- (a) an invitation to submit observations on the list of grants affected by the findings
- (b) the request to submit revised financial statements for all grants affected
- (c) the correction rate for extrapolation, established on the basis of the systemic or recurrent errors, to calculate the amounts to be rejected, if the beneficiary concerned:

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- (i) considers that the submission of revised financial statements is not possible or practicable or
- (ii) does not submit revised financial statements.

If the extension concerns grant reductions: the notification will include:

- (a) an invitation to submit observations on the list of grants affected by the findings and
- (b) the **correction rate for extrapolation**, established on the basis of the systemic or recurrent errors and the principle of proportionality.

The beneficiary concerned has **60 days** from receiving notification to submit observations, revised financial statements or to propose a duly substantiated **alternative correction method/rate**.

On the basis of this, the granting authority will analyse the impact and decide on the implementation (i.e. start rejection or grant reduction procedures, either on the basis of the revised financial statements or the announced/alternative method/rate or a mix of those; see Articles 27 and 28).

25.6 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, costs or contributions insufficiently substantiated will be ineligible (see Article 6) and will be rejected (see Article 27), and the grant may be reduced (see Article 28).

Such breaches may also lead to other measures described in Chapter 5.

ARTICLE 26 — IMPACT EVALUATIONS

26.1 Impact evaluation

The granting authority may carry out impact evaluations of the action, measured against the objectives and indicators of the EU programme funding the grant.

Such evaluations may be started during implementation of the action and until the time-limit set out in the Data Sheet (see Point 6). They will be formally notified to the coordinator or beneficiaries and will be considered to start on the date of the notification.

If needed, the granting authority may be assisted by independent outside experts.

The coordinator or beneficiaries must provide any information relevant to evaluate the impact of the action, including information in electronic format.

26.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the granting authority may apply the measures described in Chapter 5.

CHAPTER 5 CONSEQUENCES OF NON-COMPLIANCE

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SECTION 1 REJECTIONS AND GRANT REDUCTION

ARTICLE 27 — REJECTION OF COSTS AND CONTRIBUTIONS

27.1 Conditions

The granting authority will — at beneficiary termination, interim payment, final payment or afterwards — reject any costs or contributions which are ineligible (see Article 6), in particular following checks, reviews, audits or investigations (see Article 25).

The rejection may also be based on the extension of findings from other grants to this grant (see Article 25).

Ineligible costs or contributions will be rejected.

27.2 Procedure

If the rejection does not lead to a recovery, the granting authority will formally notify the coordinator or beneficiary concerned of the rejection, the amounts and the reasons why. The coordinator or beneficiary concerned may — within 30 days of receiving notification — submit observations if it disagrees with the rejection (payment review procedure).

If the rejection leads to a recovery, the granting authority will follow the contradictory procedure with pre-information letter set out in Article 22.

27.3 Effects

If the granting authority rejects costs or contributions, it will deduct them from the costs or contributions declared and then calculate the amount due (and, if needed, make a recovery; see Article 22).

ARTICLE 28 — GRANT REDUCTION

28.1 Conditions

The granting authority may — at beneficiary termination, final payment or afterwards — reduce the grant for a beneficiary, if:

- (a) the beneficiary (or a person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed:
 - (i) substantial errors, irregularities or fraud or
 - (ii) serious breach of obligations under this Agreement or during its award (including improper implementation of the action, non-compliance with the call conditions, submission of false information, failure to provide required information, breach of ethics or security rules (if applicable), etc.), or
- (b) the beneficiary (or a person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed in other EU grants

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awarded to it under similar conditions — systemic or recurrent errors, irregularities, fraud or serious breach of obligations that have a material impact on this grant (see Article 25).

The amount of the reduction will be calculated for each beneficiary concerned and proportionate to the seriousness and the duration of the errors, irregularities or fraud or breach of obligations, by applying an individual reduction rate to their accepted EU contribution.

28.2 Procedure

If the grant reduction does not lead to a recovery, the granting authority will formally notify the coordinator or beneficiary concerned of the reduction, the amount to be reduced and the reasons why. The coordinator or beneficiary concerned may — within 30 days of receiving notification — submit observations if it disagrees with the reduction (payment review procedure).

If the grant reduction leads to a recovery, the granting authority will follow the contradictory procedure with pre-information letter set out in Article 22.

28.3 Effects

If the granting authority reduces the grant, it will deduct the reduction and then calculate the amount due (and, if needed, make a recovery; see Article 22).

SECTION 2 SUSPENSION AND TERMINATION

ARTICLE 29 — PAYMENT DEADLINE SUSPENSION

29.1 Conditions

The granting authority may — at any moment — suspend the payment deadline if a payment cannot be processed because:

- (a) the required report (see Article 21) has not been submitted or is not complete or additional information is needed
- (b) there are doubts about the amount to be paid (e.g. ongoing audit extension procedure, queries about eligibility, need for a grant reduction, etc.) and additional checks, reviews, audits or investigations are necessary, or
- (c) there are other issues affecting the EU financial interests.

29.2 Procedure

The granting authority will formally notify the coordinator of the suspension and the reasons why.

The suspension will take effect the day the notification is sent.

If the conditions for suspending the payment deadline are no longer met, the suspension will be **lifted**— and the remaining time to pay (see Data Sheet, Point 4.2) will resume.

If the suspension exceeds two months, the coordinator may request the granting authority to confirm if the suspension will continue.

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If the payment deadline has been suspended due to the non-compliance of the report and the revised report is not submitted (or was submitted but is also rejected), the granting authority may also terminate the grant or the participation of the coordinator (see Article 32).

ARTICLE 30 — PAYMENT SUSPENSION

30.1 Conditions

The granting authority may — at any moment — suspend payments, in whole or in part for one or more beneficiaries, if:

- (a) a beneficiary (or a person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed or is suspected of having committed:
 - (i) substantial errors, irregularities or fraud or
 - (ii) serious breach of obligations under this Agreement or during its award (including improper implementation of the action, non-compliance with the call conditions, submission of false information, failure to provide required information, breach of ethics or security rules (if applicable), etc.), or
- (b) a beneficiary (or a person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed in other EU grants awarded to it under similar conditions systemic or recurrent errors, irregularities, fraud or serious breach of obligations that have a material impact on this grant.

If payments are suspended for one or more beneficiaries, the granting authority will make partial payment(s) for the part(s) not suspended. If suspension concerns the final payment, the payment (or recovery) of the remaining amount after suspension is lifted will be considered to be the payment that closes the action.

30.2 Procedure

Before suspending payments, the granting authority will send a **pre-information letter** to the beneficiary concerned:

- formally notifying the intention to suspend payments and the reasons why and
- requesting observations within 30 days of receiving notification.

If the granting authority does not receive observations or decides to pursue the procedure despite the observations it has received, it will confirm the suspension (**confirmation letter**). Otherwise, it will formally notify that the procedure is discontinued.

At the end of the suspension procedure, the granting authority will also inform the coordinator.

The suspension will **take effect** the day after the confirmation notification is sent.

If the conditions for resuming payments are met, the suspension will be **lifted**. The granting authority will formally notify the beneficiary concerned (and the coordinator) and set the suspension end date.

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During the suspension, no prefinancing will be paid to the beneficiaries concerned. For interim payments, the periodic reports for all reporting periods except the last one (see Article 21) must not contain any financial statements from the beneficiary concerned (or its affiliated entities). The coordinator must include them in the next periodic report after the suspension is lifted or — if suspension is not lifted before the end of the action — in the last periodic report.

ARTICLE 31 — GRANT AGREEMENT SUSPENSION

31.1 Consortium-requested GA suspension

31.1.1 Conditions and procedure

The beneficiaries may request the suspension of the grant or any part of it, if exceptional circumstances — in particular *force majeure* (see Article 35) — make implementation impossible or excessively difficult.

The coordinator must submit a request for **amendment** (see Article 39), with:

- the reasons why
- the date the suspension takes effect; this date may be before the date of the submission of the amendment request and
- the expected date of resumption.

The suspension will **take effect** on the day specified in the amendment.

Once circumstances allow for implementation to resume, the coordinator must immediately request another **amendment** of the Agreement to set the suspension end date, the resumption date (one day after suspension end date), extend the duration and make other changes necessary to adapt the action to the new situation (see Article 39) — unless the grant has been terminated (see Article 32). The suspension will be **lifted** with effect from the suspension end date set out in the amendment. This date may be before the date of the submission of the amendment request.

During the suspension, no prefinancing will be paid. Costs incurred or contributions for activities implemented during grant suspension are not eligible (see Article 6.3).

31.2 EU-initiated GA suspension

31.2.1 Conditions

The granting authority may suspend the grant or any part of it, if:

- (a) a beneficiary (or a person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed or is suspected of having committed:
 - (i) substantial errors, irregularities or fraud or
 - (ii) serious breach of obligations under this Agreement or during its award (including improper implementation of the action, non-compliance with the call conditions,

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submission of false information, failure to provide required information, breach of ethics or security rules (if applicable), etc.), or

- (b) a beneficiary (or a person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed in other EU grants awarded to it under similar conditions systemic or recurrent errors, irregularities, fraud or serious breach of obligations that have a material impact on this grant
- (c) other:
 - (i) linked action issues: not applicable
 - (ii) the action has lost its scientific or technological relevance, for EIC Accelerator actions: the action has lost its economic relevance, for challenge-based EIC Pathfinder actions and Horizon Europe Missions: the action has lost its relevance as part of the Portfolio for which it has been initially selected

31.2.2 Procedure

Before suspending the grant, the granting authority will send a **pre-information letter** to the coordinator:

- formally notifying the intention to suspend the grant and the reasons why and
- requesting observations within 30 days of receiving notification.

If the granting authority does not receive observations or decides to pursue the procedure despite the observations it has received, it will confirm the suspension (**confirmation letter**). Otherwise, it will formally notify that the procedure is discontinued.

The suspension will **take effect** the day after the confirmation notification is sent (or on a later date specified in the notification).

Once the conditions for resuming implementation of the action are met, the granting authority will formally notify the coordinator a **lifting of suspension letter**, in which it will set the suspension end date and invite the coordinator to request an amendment of the Agreement to set the resumption date (one day after suspension end date), extend the duration and make other changes necessary to adapt the action to the new situation (see Article 39) — unless the grant has been terminated (see Article 32). The suspension will be **lifted** with effect from the suspension end date set out in the lifting of suspension letter. This date may be before the date on which the letter is sent.

During the suspension, no prefinancing will be paid. Costs incurred or contributions for activities implemented during suspension are not eligible (see Article 6.3).

The beneficiaries may not claim damages due to suspension by the granting authority (see Article 33).

Grant suspension does not affect the granting authority's right to terminate the grant or a beneficiary (see Article 32) or reduce the grant (see Article 28).

ARTICLE 32 — GRANT AGREEMENT OR BENEFICIARY TERMINATION

32.1 Consortium-requested GA termination

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32.1.1 Conditions and procedure

The beneficiaries may request the termination of the grant.

The coordinator must submit a request for **amendment** (see Article 39), with:

- the reasons why
- the date the consortium ends work on the action ('end of work date') and
- the date the termination takes effect ('termination date'); this date must be after the date of the submission of the amendment request.

The termination will **take effect** on the termination date specified in the amendment.

If no reasons are given or if the granting authority considers the reasons do not justify termination, it may consider the grant terminated improperly.

32.1.2 Effects

The coordinator must — within 60 days from when termination takes effect — submit a **periodic report** (for the open reporting period until termination).

The granting authority will calculate the final grant amount and final payment on the basis of the report submitted and taking into account the costs incurred and contributions for activities implemented before the end of work date (see Article 22). Costs relating to contracts due for execution only after the end of work are not eligible.

If the granting authority does not receive the report within the deadline, only costs and contributions which are included in an approved periodic report will be taken into account (no costs/contributions if no periodic report was ever approved).

Improper termination may lead to a grant reduction (see Article 28).

After termination, the beneficiaries' obligations (in particular Articles 13 (confidentiality and security), 16 (IPR), 17 (communication, dissemination and visibility), 21 (reporting), 25 (checks, reviews, audits and investigations), 26 (impact evaluation), 27 (rejections), 28 (grant reduction) and 42 (assignment of claims)) continue to apply.

32.2 Consortium-requested beneficiary termination

32.2.1 Conditions and procedure

The coordinator may request the termination of the participation of one or more beneficiaries, on request of the beneficiary concerned or on behalf of the other beneficiaries.

The coordinator must submit a request for **amendment** (see Article 39), with:

- the reasons why
- the opinion of the beneficiary concerned (or proof that this opinion has been requested in writing)

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- the date the beneficiary ends work on the action ('end of work date')
- the date the termination takes effect ('termination date'); this date must be after the date of the submission of the amendment request.

If the termination concerns the coordinator and is done without its agreement, the amendment request must be submitted by another beneficiary (acting on behalf of the consortium).

The termination will **take effect** on the termination date specified in the amendment.

If no information is given or if the granting authority considers that the reasons do not justify termination, it may consider the beneficiary to have been terminated improperly.

32.2.2 Effects

The coordinator must — within 60 days from when termination takes effect — submit:

- (i) a report on the distribution of payments to the beneficiary concerned
- (ii) a **termination report** from the beneficiary concerned, for the open reporting period until termination, containing an overview of the progress of the work, the financial statement, the explanation on the use of resources, and, if applicable, the certificate on the financial statement (CFS; see Articles 21 and 24.2 and Data Sheet, Point 4.3)
- (iii) a second **request for amendment** (see Article 39) with other amendments needed (e.g. reallocation of the tasks and the estimated budget of the terminated beneficiary; addition of a new beneficiary to replace the terminated beneficiary; change of coordinator, etc.).

The granting authority will calculate the amount due to the beneficiary on the basis of the report submitted and taking into account the costs incurred and contributions for activities implemented before the end of work date (see Article 22). Costs relating to contracts due for execution only after the end of work are not eligible.

The information in the termination report must also be included in the periodic report for the next reporting period (see Article 21).

If the granting authority does not receive the termination report within the deadline, only costs and contributions which are included in an approved periodic report will be taken into account (no costs/contributions if no periodic report was ever approved).

If the granting authority does not receive the report on the distribution of payments within the deadline, it will consider that:

- the coordinator did not distribute any payment to the beneficiary concerned and that
- the beneficiary concerned must not repay any amount to the coordinator.

If the second request for amendment is accepted by the granting authority, the Agreement is **amended** to introduce the necessary changes (see Article 39).

If the second request for amendment is rejected by the granting authority (because it calls into question the decision awarding the grant or breaches the principle of equal treatment of applicants), the grant may be terminated (see Article 32).

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Improper termination may lead to a reduction of the grant (see Article 31) or grant termination (see Article 32).

After termination, the concerned beneficiary's obligations (in particular Articles 13 (confidentiality and security), 16 (IPR), 17 (communication, dissemination and visibility), 21 (reporting), 25 (checks, reviews, audits and investigations), 26 (impact evaluation), 27 (rejections), 28 (grant reduction) and 42 (assignment of claims)) continue to apply.

32.3 EU-initiated GA or beneficiary termination

32.3.1 Conditions

The granting authority may terminate the grant or the participation of one or more beneficiaries, if:

- (a) one or more beneficiaries do not accede to the Agreement (see Article 40)
- (b) a change to the action or the legal, financial, technical, organisational or ownership situation of a beneficiary is likely to substantially affect the implementation of the action or calls into question the decision to award the grant (including changes linked to one of the exclusion grounds listed in the declaration of honour)
- (c) following termination of one or more beneficiaries, the necessary changes to the Agreement (and their impact on the action) would call into question the decision awarding the grant or breach the principle of equal treatment of applicants
- (d) implementation of the action has become impossible or the changes necessary for its continuation would call into question the decision awarding the grant or breach the principle of equal treatment of applicants
- (e) a beneficiary (or person with unlimited liability for its debts) is subject to bankruptcy proceedings or similar (including insolvency, winding-up, administration by a liquidator or court, arrangement with creditors, suspension of business activities, etc.)
- (f) a beneficiary (or person with unlimited liability for its debts) is in breach of social security or tax obligations
- (g) a beneficiary (or person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has been found guilty of grave professional misconduct
- (h) a beneficiary (or person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed fraud, corruption, or is involved in a criminal organisation, money laundering, terrorism-related crimes (including terrorism financing), child labour or human trafficking
- (i) a beneficiary (or person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) was created under a different jurisdiction with the intent to circumvent fiscal, social or other legal obligations in the country of origin (or created another entity with this purpose)
- (j) a beneficiary (or person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed:

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- (i) substantial errors, irregularities or fraud or
- (ii) serious breach of obligations under this Agreement or during its award (including improper implementation of the action, non-compliance with the call conditions, submission of false information, failure to provide required information, breach of ethics or security rules (if applicable), etc.)
- (k) a beneficiary (or person having powers of representation, decision-making or control, or person essential for the award/implementation of the grant) has committed in other EU grants awarded to it under similar conditions systemic or recurrent errors, irregularities, fraud or serious breach of obligations that have a material impact on this grant (extension of findings from other grants to this grant; see Article 25)
- (l) despite a specific request by the granting authority, a beneficiary does not request through the coordinator an amendment to the Agreement to end the participation of one of its affiliated entities or associated partners that is in one of the situations under points (d), (f), (e), (g), (h), (i) or (j) and to reallocate its tasks, or

(m) other:

- (i) linked action issues: not applicable
- (ii) the action has lost its scientific or technological relevance, for EIC Accelerator actions: the action has lost its economic relevance, for challenge-based EIC Pathfinder actions and Horizon Europe Missions: the action has lost its relevance as part of the Portfolio for which it has been initially selected

32.3.2 Procedure

Before terminating the grant or participation of one or more beneficiaries, the granting authority will send a **pre-information letter** to the coordinator or beneficiary concerned:

- formally notifying the intention to terminate and the reasons why and
- requesting observations within 30 days of receiving notification.

If the granting authority does not receive observations or decides to pursue the procedure despite the observations it has received, it will confirm the termination and the date it will take effect (**confirmation letter**). Otherwise, it will formally notify that the procedure is discontinued.

For beneficiary terminations, the granting authority will — at the end of the procedure — also inform the coordinator.

The termination will **take effect** the day after the confirmation notification is sent (or on a later date specified in the notification; 'termination date').

32.3.3 Effects

(a) for **GA termination**:

The coordinator must — within 60 days from when termination takes effect — submit a **periodic report** (for the last open reporting period until termination).

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The granting authority will calculate the final grant amount and final payment on the basis of the report submitted and taking into account the costs incurred and contributions for activities implemented before termination takes effect (see Article 22). Costs relating to contracts due for execution only after termination are not eligible.

If the grant is terminated for breach of the obligation to submit reports, the coordinator may not submit any report after termination.

If the granting authority does not receive the report within the deadline, only costs and contributions which are included in an approved periodic report will be taken into account (no costs/contributions if no periodic report was ever approved).

Termination does not affect the granting authority's right to reduce the grant (see Article 28) or to impose administrative sanctions (see Article 34).

The beneficiaries may not claim damages due to termination by the granting authority (see Article 33).

After termination, the beneficiaries' obligations (in particular Articles 13 (confidentiality and security), 16 (IPR), 17 (communication, dissemination and visibility), 21 (reporting), 25 (checks, reviews, audits and investigations), 26 (impact evaluation), 27 (rejections), 28 (grant reduction) and 42 (assignment of claims)) continue to apply.

(b) for **beneficiary termination**:

The coordinator must — within 60 days from when termination takes effect — submit:

- (i) a report on the distribution of payments to the beneficiary concerned
- (ii) a **termination report** from the beneficiary concerned, for the open reporting period until termination, containing an overview of the progress of the work, the financial statement, the explanation on the use of resources, and, if applicable, the certificate on the financial statement (CFS; see Articles 21 and 24.2 and Data Sheet, Point 4.3)
- (iii) a request for amendment (see Article 39) with any amendments needed (e.g. reallocation of the tasks and the estimated budget of the terminated beneficiary; addition of a new beneficiary to replace the terminated beneficiary; change of coordinator, etc.).

The granting authority will calculate the amount due to the beneficiary on the basis of the report submitted and taking into account the costs incurred and contributions for activities implemented before termination takes effect (see Article 22). Costs relating to contracts due for execution only after termination are not eligible.

The information in the termination report must also be included in the periodic report for the next reporting period (see Article 21).

If the granting authority does not receive the termination report within the deadline, only costs and contributions included in an approved periodic report will be taken into account (no costs/contributions if no periodic report was ever approved).

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If the granting authority does not receive the report on the distribution of payments within the deadline, it will consider that:

- the coordinator did not distribute any payment to the beneficiary concerned and that
- the beneficiary concerned must not repay any amount to the coordinator.

If the request for amendment is accepted by the granting authority, the Agreement is **amended** to introduce the necessary changes (see Article 39).

If the request for amendment is rejected by the granting authority (because it calls into question the decision awarding the grant or breaches the principle of equal treatment of applicants), the grant may be terminated (see Article 32).

After termination, the concerned beneficiary's obligations (in particular Articles 13 (confidentiality and security), 16 (IPR), 17 (communication, dissemination and visibility), 21 (reporting), 25 (checks, reviews, audits and investigations), 26 (impact evaluation), 27 (rejections), 28 (grant reduction) and 42 (assignment of claims)) continue to apply.

SECTION 3 OTHER CONSEQUENCES: DAMAGES AND ADMINISTRATIVE SANCTIONS

ARTICLE 33 — DAMAGES

33.1 Liability of the granting authority

The granting authority cannot be held liable for any damage caused to the beneficiaries or to third parties as a consequence of the implementation of the Agreement, including for gross negligence.

The granting authority cannot be held liable for any damage caused by any of the beneficiaries or other participants involved in the action, as a consequence of the implementation of the Agreement.

33.2 Liability of the beneficiaries

The beneficiaries must compensate the granting authority for any damage it sustains as a result of the implementation of the action or because the action was not implemented in full compliance with the Agreement, provided that it was caused by gross negligence or wilful act.

The liability does not extend to indirect or consequential losses or similar damage (such as loss of profit, loss of revenue or loss of contracts), provided such damage was not caused by wilful act or by a breach of confidentiality.

ARTICLE 34 — ADMINISTRATIVE SANCTIONS AND OTHER MEASURES

Nothing in this Agreement may be construed as preventing the adoption of administrative sanctions (i.e. exclusion from EU award procedures and/or financial penalties) or other public law measures, in addition or as an alternative to the contractual measures provided under this Agreement (see,

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for instance, Articles 135 to 145 EU Financial Regulation 2018/1046 and Articles 4 and 7 of Regulation 2988/95²²).

SECTION 4 FORCE MAJEURE

ARTICLE 35 — FORCE MAJEURE

A party prevented by force majeure from fulfilling its obligations under the Agreement cannot be considered in breach of them.

'Force majeure' means any situation or event that:

- prevents either party from fulfilling their obligations under the Agreement,
- was unforeseeable, exceptional situation and beyond the parties' control,
- was not due to error or negligence on their part (or on the part of other participants involved in the action), and
- proves to be inevitable in spite of exercising all due diligence.

Any situation constituting force majeure must be formally notified to the other party without delay, stating the nature, likely duration and foreseeable effects.

The parties must immediately take all the necessary steps to limit any damage due to force majeure and do their best to resume implementation of the action as soon as possible.

CHAPTER 6 FINAL PROVISIONS

ARTICLE 36 — COMMUNICATION BETWEEN THE PARTIES

36.1 Forms and means of communication — Electronic management

EU grants are managed fully electronically through the EU Funding & Tenders Portal ('Portal').

All communications must be made electronically through the Portal, in accordance with the Portal Terms and Conditions and using the forms and templates provided there (except if explicitly instructed otherwise by the granting authority).

Communications must be made in writing and clearly identify the grant agreement (project number and acronym).

Communications must be made by persons authorised according to the Portal Terms and Conditions. For naming the authorised persons, each beneficiary must have designated — before the signature of this Agreement — a 'legal entity appointed representative (LEAR)'. The role and tasks of the LEAR are stipulated in their appointment letter (see Portal Terms and Conditions).

²² Council Regulation (EC, Euratom) No 2988/95 of 18 December 1995 on the protection of the European Communities financial interests (OJ L 312, 23.12.1995, p. 1).

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If the electronic exchange system is temporarily unavailable, instructions will be given on the Portal.

36.2 Date of communication

The sending date for communications made through the Portal will be the date and time of sending, as indicated by the time logs.

The receiving date for communications made through the Portal will be the date and time the communication is accessed, as indicated by the time logs. Formal notifications that have not been accessed within 10 days after sending, will be considered to have been accessed (see Portal Terms and Conditions).

If a communication is exceptionally made on paper (by e-mail or postal service), general principles apply (i.e. date of sending/receipt). Formal notifications by registered post with proof of delivery will be considered to have been received either on the delivery date registered by the postal service or the deadline for collection at the post office.

If the electronic exchange system is temporarily unavailable, the sending party cannot be considered in breach of its obligation to send a communication within a specified deadline.

36.3 Addresses for communication

The Portal can be accessed via the Europa website.

The address for paper communications to the granting authority (if exceptionally allowed) is the official mailing address indicated on its website.

For beneficiaries, it is the legal address specified in the Portal Participant Register.

ARTICLE 37 — INTERPRETATION OF THE AGREEMENT

The provisions in the Data Sheet take precedence over the rest of the Terms and Conditions of the Agreement.

Annex 5 takes precedence over the Terms and Conditions; the Terms and Conditions take precedence over the Annexes other than Annex 5.

Annex 2 takes precedence over Annex 1.

ARTICLE 38 — CALCULATION OF PERIODS AND DEADLINES

In accordance with Regulation No 1182/71²³, periods expressed in days, months or years are calculated from the moment the triggering event occurs.

The day during which that event occurs is not considered as falling within the period.

'Days' means calendar days, not working days.

ARTICLE 39 — AMENDMENTS

²³ Regulation (EEC, Euratom) No 1182/71 of the Council of 3 June 1971 determining the rules applicable to periods, dates and time-limits (OJ L 124, 8/6/1971, p. 1).

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39.1 Conditions

The Agreement may be amended, unless the amendment entails changes to the Agreement which would call into question the decision awarding the grant or breach the principle of equal treatment of applicants.

Amendments may be requested by any of the parties.

39.2 Procedure

The party requesting an amendment must submit a request for amendment signed directly in the Portal Amendment tool.

The coordinator submits and receives requests for amendment on behalf of the beneficiaries (see Annex 3). If a change of coordinator is requested without its agreement, the submission must be done by another beneficiary (acting on behalf of the other beneficiaries).

The request for amendment must include:

- the reasons why
- the appropriate supporting documents and
- for a change of coordinator without its agreement: the opinion of the coordinator (or proof that this opinion has been requested in writing).

The granting authority may request additional information.

If the party receiving the request agrees, it must sign the amendment in the tool within 45 days of receiving notification (or any additional information the granting authority has requested). If it does not agree, it must formally notify its disagreement within the same deadline. The deadline may be extended, if necessary for the assessment of the request. If no notification is received within the deadline, the request is considered to have been rejected.

An amendment **enters into force** on the day of the signature of the receiving party.

An amendment takes effect on the date of entry into force or other date specified in the amendment.

ARTICLE 40 — ACCESSION AND ADDITION OF NEW BENEFICIARIES

40.1 Accession of the beneficiaries mentioned in the Preamble

The beneficiaries which are not coordinator must accede to the grant by signing the accession form (see Annex 3) directly in the Portal Grant Preparation tool, within 30 days after the entry into force of the Agreement (see Article 44).

They will assume the rights and obligations under the Agreement with effect from the date of its entry into force (see Article 44).

If a beneficiary does not accede to the grant within the above deadline, the coordinator must — within 30 days — request an amendment (see Article 39) to terminate the beneficiary and make any changes

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necessary to ensure proper implementation of the action. This does not affect the granting authority's right to terminate the grant (see Article 32).

40.2 Addition of new beneficiaries

In justified cases, the beneficiaries may request the addition of a new beneficiary.

For this purpose, the coordinator must submit a request for amendment in accordance with Article 39. It must include an accession form (see Annex 3) signed by the new beneficiary directly in the Portal Amendment tool.

New beneficiaries will assume the rights and obligations under the Agreement with effect from the date of their accession specified in the accession form (see Annex 3).

Additions are also possible in mono-beneficiary grants.

ARTICLE 41 — TRANSFER OF THE AGREEMENT

In justified cases, the beneficiary of a mono-beneficiary grant may request the transfer of the grant to a new beneficiary, provided that this would not call into question the decision awarding the grant or breach the principle of equal treatment of applicants.

The beneficiary must submit a request for **amendment** (see Article 39), with

- the reasons why
- the accession form (see Annex 3) signed by the new beneficiary directly in the Portal Amendment tool and
- additional supporting documents (if required by the granting authority).

The new beneficiary will assume the rights and obligations under the Agreement with effect from the date of accession specified in the accession form (see Annex 3).

ARTICLE 42 — ASSIGNMENTS OF CLAIMS FOR PAYMENT AGAINST THE GRANTING AUTHORITY

The beneficiaries may not assign any of their claims for payment against the granting authority to any third party, except if expressly approved in writing by the granting authority on the basis of a reasoned, written request by the coordinator (on behalf of the beneficiary concerned).

If the granting authority has not accepted the assignment or if the terms of it are not observed, the assignment will have no effect on it.

In no circumstances will an assignment release the beneficiaries from their obligations towards the granting authority.

ARTICLE 43 — APPLICABLE LAW AND SETTLEMENT OF DISPUTES

43.1 Applicable law

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The Agreement is governed by the applicable EU law, supplemented if necessary by the law of Belgium.

Special rules may apply for beneficiaries which are international organisations (if any; see Data Sheet, Point 5).

43.2 Dispute settlement

If a dispute concerns the interpretation, application or validity of the Agreement, the parties must bring action before the EU General Court — or, on appeal, the EU Court of Justice — under Article 272 of the Treaty on the Functioning of the EU (TFEU).

For non-EU beneficiaries (if any), such disputes must be brought before the courts of Brussels, Belgium — unless an international agreement provides for the enforceability of EU court judgements.

For beneficiaries with arbitration as special dispute settlement forum (if any; see Data Sheet, Point 5), the dispute will — in the absence of an amicable settlement — be settled in accordance with the Rules for Arbitration published on the Portal.

If a dispute concerns administrative sanctions, offsetting or an enforceable decision under Article 299 TFEU (see Articles 22 and 34), the beneficiaries must bring action before the General Court — or, on appeal, the Court of Justice — under Article 263 TFEU.

For grants where the granting authority is an EU executive agency (see Preamble), actions against offsetting and enforceable decisions must be brought against the European Commission (not against the granting authority; see also Article 22).

ARTICLE 44 — ENTRY INTO FORCE

The Agreement will enter into force on the day of signature by the granting authority or the coordinator, depending on which is later.

SIGNATURES

For the coordinator

For the granting authority



ANNEX 1



Horizon Europe (HORIZON)

Description of the action (DoA)

Part A

Part B

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DESCRIPTION OF THE ACTION (PART A)

COVER PAGE

 $\textit{Part A of the Description of the Action (DoA) must be completed directly on the Portal Grant \textit{Preparation screens}.}$

PROJECT	
Grant Preparation (General Information scre	en) — Enter the info.
Project number:	101093968
Project name:	Regions for climate change resilience through Innovation, Science and Technology
Project acronym:	RESIST
Call:	HORIZON-MISS-2021-CLIMA-02
Topic:	HORIZON-MISS-2021-CLIMA-02-04
Type of action:	HORIZON-IA
Service:	CINEA/C/01
Project starting date:	fixed date: 1 January 2023
Project duration:	60 months

TABLE OF CONTENTS

Project summary	
List of participants	
List of work packages	
Staff effort	
List of deliverables	
List of milestones (outputs/outcomes)	
List of critical risks	
Project reviews	39

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PROJECT SUMMARY

Project summary

Grant Preparation (General Information screen) — Provide an overall description of your project (including context and overall objectives, planned activities and main achievements, and expected results and impacts (on target groups, change procedures, capacities, innovation etc)). This summary should give readers a clear idea of what your project is about.

Use the project summary from your proposal.

RESIST will strengthen the resilience and accelerate the transformation and increase adaptive capacity of 12 climate-vulnerable EU regions, implementing 4 large-scale demonstrators of resilient innovations for Climate Change Adaptation (CCA) with quintuple-helix partnerships (including 1 in a less developed region) and promote transfer of know-how and innovative solutions to 8 twin regions (of which 4 less developed regions) through both physical mutual-learning activities and innovative immersive digital twins. The consortium will engage EU associations, CCA research groups, scientific experts, social engagement and communication institutions, innovation agencies and 1 Venture Capital Fund to co-create and validate innovative solutions, raise awareness, leverage citizens participation and promote sustainable exploitation of results towards the markets.

RESIST will contribute to the EU agenda on CCA, through intervention in 3 main areas:

Promote and demonstrate an innovative, more participative approach to resilience and CC adaptation in 4 demonstrator and 8 twinning regions (including 5 less developed regions in total) demonstrating >12 new solution lines, accelerating regional resilience and helping reach the adaptation-mission objectives of 'building resilience and upscaling solutions through 100 demonstrators and accelerating the transition in 200 pilot regions and communities by 2030' reaching already 4% and 6% of these aims by 2027, with 4 demonstrators and involvement of 12 regions

Co-design and contribute to the development of new regional measures, policy instruments and social and technological solutions in 12 regions involving 22m citizens, increasing awareness/resilience by 10% and levels of green investments by 20%, reducing economic losses due to natural hazards such as floods by 14% and climate protection gap by 50%; Reduce time-to-market/risk for >100 new CCA Solutions from providers across Europe, offering them scale-up for their products.

LIST OF PARTICIPANTS

PARTICIPANTS

Grant Preparation (Beneficiaries screen) — Enter the info.

Number	Role	Short name	Legal name	Country	PIC
1	COO	SINTEF	SINTEF AS	NO	910945140
2	BEN	INOVA+	INOVA+ - INNOVATION SERVICES, SA	PT	999928478
3	BEN	ESF	FONDATION EUROPEENNE DE LA SCIENCE	FR	999987939
4	BEN	ADELPHI	ADELPHI RESEARCH GEMEINNUTZIGE GMBH	DE	999693350
5	BEN	AUGMENTCITY	AUGMENTCITY AS	NO	889667511
6	BEN	KU Leuven	KATHOLIEKE UNIVERSITEIT LEUVEN	BE	999991334
7	BEN	ZSI	ZENTRUM FUR SOZIALE INNOVATION GMBH	AT	940719872
8	BEN	ERRIN	EUROPEAN REGIONS RESEARCH AND INNOVATION NETWORK	BE	997382713
9	BEN	REVOLVE	REVOLVE	ES	907047195
10	BEN	SERN	STARTUP EUROPE REGIONS NETWORK	BE	913040049

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PARTICIPANTS

 ${\it Grant \ Preparation \ (Beneficiaries \ screen)-Enter \ the \ info.}$

Number	Role	Short name	Legal name	Country	PIC
11	BEN	RCSF	VARSINAIS-SUOMEN LIITTO	FI	950866460
12	BEN	CITY OF TURKU	CITY OF TURKU	FI	993966082
13	BEN	TUAS	TURUN AMMATTIKORKEAKOULU OY	FI	948193431
14	BEN	UTU	TURUN YLIOPISTO	FI	999903064
15	BEN	LUKE	LUONNONVARAKESKUS	FI	934887262
16	BEN	REGION EMT	PERIFEREIA ANATOLIKIS MAKEDONIAS KAI THRAKIS	EL	930725089
17	BEN	DUTH	DIMOKRITIO PANEPISTIMIO THRAKIS	EL	999659109
18	BEN	ENORA	ENORA INNOVATION ETAIREIA PSIFIAKON TEXNOLOGION KAI ERGON KAINOTOMIAS IDIOTIKI KEFALAIOUXIKI ETAIREIA	EL	894788238
19	BEN	NORMANDIE	REGION NORMANDIE	FR	891458131
20	BEN	CEREMA	CENTRE D ETUDES ET D EXPERTISE SUR LES RISQUES L ENVIRONNEMENT LA MOBILITE ET L AMENAGEMENT	FR	948933735
21	BEN	OFB	OFFICE FRANCAIS DE LA BIODIVERSITE	FR	894000307
22	BEN	RM	REGION MIDTJYLLAND	DK	997381452
23	BEN	AU	AARHUS UNIVERSITET	DK	999997736
24	BEN	NATURSTYRELSE	NATURSTYRELSEN	DK	890772438
25	BEN	VIA UC	VIA UNIVERSITY COLLEGE	DK	987834033
26	BEN	NIRAS	NIRAS AS	DK	998006229
27	BEN	BLEKINGE	BLEKINGE LANS LANDSTING	SE	995943233
28	BEN	ВТН	BLEKINGE TEKNISKA HOGSKOLA	SE	999589172
29	BEN	ZPR	ZEMGALES PLANOSANAS REGIONS	LV	950629877
30	BEN	INT	Departament d'Interior - Generalitat de Catalunya	ES	999703438
31	BEN	UPC	UNIVERSITAT POLITECNICA DE CATALUNYA	ES	999976202
32	BEN	UOC	FUNDACIO PER A LA UNIVERSITAT OBERTA DE CATALUNYA	ES	995992024
33	BEN	HYDS	Hydrometeorological Innovative Solutions	ES	998268905
34	BEN	TERRASSA CC	AJUNTAMENT DE TERRASSA	ES	997474572
35	BEN	BLANES	AJUNTAMENT DE BLANES	ES	886632090
36	BEN	REGIONE PUGLIA	REGIONE PUGLIA	IT	999523503
37	BEN	TECNOPOLIS PST	TECNOPOLIS PARCO SCIENTIFICO E TECNOLOGICO SCARL	IT	950162434
38	BEN	CIMBAL	Comunidade Intermunicipal do Baixo Alentejo	PT	891931006
39	BEN	ITECONS	ITECONS INSTITUTO DE INVESTIGAÇÃO E DESENVOLVIMENTO TECNOLOGICO PARA	PT	953461695

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PARTICIPANTS

 ${\it Grant \ Preparation \ (Beneficiaries \ screen)-Enter \ the \ info.}$

Number	Role	Short name	Legal name	Country	PIC
			A CONSTRUCAO ENERGIA AMBIENTE E SUSTENTABILIDADE		
40	BEN	CCDRC	COMISSAO DE COORDENACAO E DESENVOLVIMENTO REGIONAL DO CENTRO	PT	955664468
41	BEN	CIM-RC	COMUNIDADE INTERMUNICIPAL DA REGIAO DE COIMBRA	PT	929602993
42	BEN	CIMT	COMUNIDADE INTERMUNICIPAL DO MEDIO TEJO	PT	886540231
43	BEN	BLC3	ASSOCIACAO BLC3-CAMPUS DE TECNOLOGIA E INOVACAO	PT	951433134
44	BEN	FORESTWISE	FORESTWISE ASSOCIACAO PARA O LABORATORIO COLABORATIVO PARA A GESTAO INTEGRADA DA FLORESTA E DO FOGO	PT	896590692
45	BEN	IPP	INSTITUTO POLITÉCNICO DE PORTALEGRE	PT	949379741
46	BEN	FUNDECYT PCTEX	FUNDACION FUNDECYT - PARQUE CIENTIFICO Y TECNOLOGICO DE EXTREMADURA	ES	951026025
47	BEN	UEX	UNIVERSIDAD DE EXTREMADURA	ES	999858832
48	BEN	VESTERALEN	VESTERALEN REGIONRAD	NO	885391557
49	BEN	ANDFJORD	ANDFJORD SALMON AS	NO	886553617
50	BEN	MEDIOTEJO21	MEDIOTEJO 21 - AGENCIA REGIONAL DEENERGIA E AMBIENTE DA REGIAO DO MEDIO TEJO E PINHAL INTERIOR SUL	PT	983970426
51	BEN	CEDES	ASSOCIACAO PARA UM CENTRO DE ESTUDOS EM DESENVOLVIMENTO SUSTENTAVEL	PT	953501562
52	BEN	ACCENT SUD	ACCENT SUD - ASSOCIATION POUR LA COOPERATION CULTURELLE ET L'ECONOMIE NUMERIQUE TRANSREGIONALE AVEC L'EUROPE DU SUD	FR	889350709
53	BEN	ONU	ODESKIY NACIONALNIY UNIVERSITET IMENI I.I. MECHNIKOVA	UA	998376284
54	BEN	DGPF EXTREMADUR	CONSEJERÍA DE AGRICULTURA, DESARROLLO RURAL, POBLACIÓN Y TERRITORIO - JUNTA DE EXTREMADURA	ES	920867270
55	BEN	FASTTRACK	FASTTRACK ACTION, LDA	PT	898469679
56	BEN	MUSEUM NORD	STIFTELSEN MUSEUM NORD	NO	936214707

LIST OF WORK PACKAGES

Work packages	\$6					
Grant Preparati	Grant Preparation (Work Packages screen) — Enter the info.					
Work Package No	Work Package name	Lead Beneficiary	Effort (Person- Months)	Start Month	End Month	Deliverables
WP1	Technical Framework for Climate-resilient demonstration	5 - AUGMENTCITY	339.30	-	09	D1.1 – Needs Assessment for Leading Regions D1.2 – Transfer methodology to twins D1.3 – Framework for transfer to other regions D1.4 – 4 training workshops on GDT D1.5 – Backend/Frontend architecture D1.6 – GDT Roll-out deployment version D1.7 – Framework/repository of tech approaches/tools D1.8 – Benchmark report D1.9 – Inclusive Gender Equality / Ethics framework D1.10 – Needs Assessment for Twinning Regions D1.11 – Needs Assessment for Leading and Twinning Regions updated and finalised D1.12 – Integration of ethical standards and the principles of gender equality, diversity, inclusion in the project activities D1.13 – Framework/repository of nature based solutions and tech approaches/tools
WP2	Collaboration and Networking Platform	2 - INOVA+	269.90	1	09	60 D2.1 – Articles on RESIST Community of Practice D2.2 – Community of Practice Playbook D2.3 – Exploitation Workshop 1 D2.4 – Exploitation Workshop 2

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Work packages	es					
Grant Preparati	Grant Preparation (Work Packages screen) — Enter the info.					
Work Package No	Work Package name	Lead Beneficiary	Effort (Person- Months)	Start Month	End Month	Deliverables
						D2.5 – Scalability Plan D2.6 – Matchmaking Session for Scalability Plan initial deployment D2.7 – Programme of webinars and missions for external ecosystems D2.8 – VC Financing Plan D2.9 – Initial VC Financing Plan D2.10 – Initial Guidelines on Business Plans structure and use of the demonstrators' exploitable outcomes D2.11 – Report on the Exploitation and Business Plans development intermediate D2.12 – Report on the Exploitation and Business Plans development final D2.13 – Programme of webinars and missions for external ecosystems – updated version
WP3	Large-scale collaborative demonstrators (LSD) and Twinning activities for climate-resilient innovation	8 - ERRIN	2117.40	1	09	60 D3.1 – Benchmark analysis regulatory measures in F1 D3.2 – CBA of NBS solutions/Inspirational catalogue D3.3 – Stormwater systems/ sub-catchments in demos D3.4 – F1 Transferability plans to twins D3.5 – Transferability report D3.6 – Network of loggers D3.7 – XR simulations created D3.8 – 2 demo houses built D3.9 – 5th generation district heating/ cooling network

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Work Package No	Work Package name	Lead Beneficiary	Effort (Person- Months)	Start Month	End Month	Deliverables
						D3 10 - MI and Ann
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						D3.11 – Socio-economic decision support
						tool for CCA
						D3.12 – DK Transfer plans for twins
						D3.13 – Handbook
						D3.14 – Transformative solutions
						D3.15 - Multi-Hazard Early Warning
						System TRL9
						D3.16 – Impact-based Site-Specific
						Warning TRL9
						D3.17 - Tailored Apps/frontend visualisat.
						tools TRL9
						D3.18 – Inclusive framework to disaster
						management and community adaptation
						D3.19 – CAT CCA transfer plans to twins
						D3.20 - Multifunction Bioeconomy Tool
						D3.21 – Lignocellulosic biomass
						valorization TRL7
						D3.22 – Biomass fuel process TRL9
						D3.23 – Genetic map of best performance
						plant
						D3.24 – PT CCA transfer plans to twins
						D3.25 – Final outputs in Large-scale
						Demonstrator in SW Finland with Twinning
						in Normandy and East Macedonia
						D3.26 – Final outputs in Large-scale
						Demonstrator in Central Denmark with
						Twinning in Blekinge and Zemgale
						D3.27 – Final outputs in Large-scale
						Demonstrator in Catalonia with Twinning in
						Puglia and Baixo Alentejo

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Work packages Grant Preparation	Work packages Grant Preparation (Work Packages screen) — Enter the info.					
Work Package No	Work Package name	Lead Beneficiary	Effort (Person- Months)	Start Month	End Month	Deliverables
						D3.28 – Final outputs in Large-scale Demonstrator in CentroPortugal with Twinning in Vesterålen and Extremadura D3.29 – Initial Design of the Multifunction Bioeconomy Tool
WP4	Maximizing impact: Communication, Outreach and Transformation through Social Innovation	7 - ZSI	219.50		09	D4. 1 – Transformative Social Innovation Strategy D4.2 – Social Impact Assessment D4.3 – Report on TSI Co-Creation Workshops and social innovation processes D4.4 – Communication and Dissemination Plan/Visual Identity Guide D4.5 – Website & Communication Packs D4.6 – Report on Digital Campaigns in 12 regions D4.7 – Virtual Interactive Exhibit 1 D4.8 – Virtual Interactive Exhibit 2 D4.9 – Final conference D4.10 – List of scientific publications/ presentations D4.11 – Communication and Dissemination Plan/Visual Identity Guide updated D4.12 – Communication and Dissemination Plan/Visual Identity Guide finalised
WP5	Project management, coordination and policy relations	1 - SINTEF	225.50	1	09	D5.1 – Project Handbook D5.2 – Quality Monitoring Reports 1 D5.3 – Quality Monitoring Reports 2 D5.4 – Quality Monitoring Reports 3 D5.5 – Quality Monitoring Reports 4 D5.5 – Quality Monitoring Reports 4

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Grant Preparat	Grant Preparation (Work Packages screen) — Enter the info.					
Work Package No	Work Package name	Lead Beneficiary	Effort Start (Person- Month Months)	Start Month	End	Effort Start End Deliverables (Person- Month Month
						D5.7 – Data Management Plan D5.8 – Advisory Board composition D5.9 – Data Management Plan updated D5.10 – Data Management Plan finalised

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Work package WP1 – Technical Framework for Climate-resilient demonstration

Work Package Number	WP1	Lead Beneficiary	5. AUGMENTCITY
Work Package Name	Technical Framework for Cli	mate-resilient demonstration	
Start Month	1	End Month	60

Objectives

- O1.1: Develop and monitor implementation of a CCA framework for the demonstrator regions and twins;
- O1.2: Showcase, develop, verify and validate a GDT for each LSD according to the requirements delivered in WP3;
- O1.3: Identify relevant R&D results/innovations of CCA projects, and deploy/ maintain an innovation 'toolbox' for regions;
- O1.4: Establish a gender and ethical framework for demonstration activities and monitor implementation in regions

Description

Task 1.1 Climate adaptation framework for demonstration activities | M1-M60 | Leader: Adelphi; involved partners: all regional demonstration partners;

Description: A CCA framework "is a structured process for developing adaptation strategies, policies, and measures to enhance and ensure human development in the face of climate change, including climate variability" (Lim et al., 2005: 248). The framework and its components are subject to a set of overarching principle: i) a flexible and context specific approach is used in which the developed solutions are tailored to the needs and vulnerabilities of each individual region; ii) design of adaptation solutions and decision-making process is based on a participatory approach, considering the most vulnerable population groups and accounting for the gender-specific impact of climate change. Contributing to a just transition is therefore a central principle of this framework; iii) facilitation of nature-based solutions that are in line with the new EU Adaptation Strategy is a significant building block in this framework; and iv) framework follows a transformative adaptation approach (detailed in section 1) which enables large-scale and long-lasting impacts. The CCA framework to be developed in T1.1 follows a 4-step process:

Step 1: Needs assessment: Central to the CCA framework is a comprehensive needs assessment for each LSD as well as its twinning regions. The needs assessment conducted in this framework will first map the CC risks and secondly map adaptation measures already implemented and their impact on reducing CC risks up to now. In addition, currently planned adaptation measures will be mapped, along with capacities for further adaptation activities. The findings from each mapping exercise are compared in order to determine a) whether sufficient information is available about the climate risks the region is facing, b) whether the current measures are well matched to the risks and sufficiently effective to address the risks, c) how successful the current adaptation approach has been this far, d) whether the existing capacities are sufficient for implementation of further measures, and e) what possible barriers for further adaptation activities exist. As climate risk assessments already exist for frontrunner regions these may be updated and expanded upon to indicate gaps, needs, and possible links for solutions. In the context of twinning regions, a more thorough risk assessment will be carried out as basis for the transfer of innovative solutions in step 3 of this framework.

Step 2: Developing innovative solutions for LSD: adelphi supports the process of developing, implementing, monitoring and evaluating large-scale innovative adaptation solutions in each LSD region. This support will be tailored to each region based on the results of Step 1. However, if there is an overlap between the regions' needs, adelphi will develop support services that target several needs. It is envisioned that the support will cover the following: a participatory cocreation process lead by adelphi in partnership with regional authorities during which adelphi will act as a facilitator, mentor and external adaptation expertise provider. More specifically, design thinking workshops will be conducted in each region, the communication with relevant stakeholders conceptualised and supported, and the regional authorities in local management assisted in drafting arguments in support of transformative and innovative adaptation solutions. Step 2 will include a mixture of consultation formats with regional authorities and stakeholders through virtual and in person meetings as well as larger workshops. Other components include researching new technological, social or regulatory adaptation approaches develop worldwide, supporting the ex-ante assessment of possible solutions, ensuring the avoidance of maladaptation through early impact screenings and the development of a methodology for monitoring, evaluating adaptation in the regions and applications of methods from the realms of big data and machine learning, e.g. for predictive analyses. While frontrunner regions are already advanced in their adaptation efforts, they often lack a strategic and integrative framework that integrates "standard" adaptation measures with new innovative and transformative ways of reducing the impacts of climate change. Such innovations might consist of the widespread application of new technologies that have so far only been used in small pilot schemes. For instance, in Centro PT, which requires an effective land use management, technologies such as drone-based precision irrigation or forest fire monitoring can be

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effective, while for Catalonia, technologies such as remote sensing applications and LIDAR-technology, which cannot only help in the case of an active forest fire but also assess the burning potential of forests according to their biomass in the act of fire prevention can significantly increase resilience.

Step 3: Supporting transfer to twinning regions: research suggests that transferring innovations among similar cities/ regions has the best chance of success, and this is particularly the case for transfer between different countries. Within this step a 3-stage approach, similar to the UIA Pilot Transfer Mechanism – understand, adapt, reuse – will be applied to guide the transfer of the innovative solutions to the twinning regions (URBACT, 2020). A clear understanding of the innovative solutions and the context of each region will be developed first. Afterwards the innovative solutions will be adapted to the respective region and lastly the transfer will be evaluated and prepared for the reuse in other regions. The first step will include an assessment of the transferability of an innovative solution by analysing its context dependency (the degree to which it is dependent on the local context such as infrastructure, government structure, topographic elements of the region etc). Central to a successful transfer from the LSD to a twinning region is also a thorough understanding of the relevant regions and their similarities as well as differences. Thus, a comprehensive comparison between twinning regions and their respective LSD in terms of socio-economic, topographic, climatic conditions will be conducted by adelphi. In this comparison, possible synergies and risks which could foster or impede transferability of the innovative solutions to the twinning regions will be identified. Additionally, direct exchange between managing authorities in the LSD and their twinning regions will be implemented through different event formats. In the second stage the innovative solutions are adjusted and tailored to the context of the respective twinning region. This will partially be based on the results of the needs assessments and will further include the communication and cooperation with the twinning regions' local authorities and stakeholders. Again, an inclusive and participatory process will be implemented to ensure an adjustment of solutions tailored to the regions' specific circumstances. The design, implementation and monitoring process will follow the same structure as that for the LSD regions. In the last stage, opportunities and difficulties, which might have been arisen in the transfer process will be documented and used as orientation for other EU regions.

Step 4: Supporting scaling up RESIST solutions for climate change adaptation to similar EU regions: Regions are complex and have specific contexts but also have similarities. In support of upscaling solutions from LSDs across EU regions beyond the 4 demonstrator and 8 twinning regions through regional exchange, EU policy, and regulators, we take the idea of twinning regions (see Step 3) one step further: We will systematically screen for regions across the EU which are similar to these 12 regions. This supports inter-regional knowledge exchange and upscaling of solutions in RESIST by identifying which regions are most similar to each of the RESIST regions in view of their relevant challenges and developed solutions. Successful emulation, and hence upscaling of RESIST solutions will have greater probability of success in these regions. In order to identify similar regions, regional data will be subject to a well established cluster analysis methodology. A suitable set of key datasets for characterizing regions with respect to climate impacts, exposure, vulnerability, adaptive capacity, as well as geographical, governance, economic, demographic and social criteria are fed into the cluster analysis. This will allow for developing a typology of EU regions. Packages of solutions will then be identified for similar regions (i.e. regions in one cluster of the cluster analysis). An example: Based on clustering with 15 datasets for quantifying identified key characteristics, one cluster could contain Catalonia + 15 other EU regions with high exposure/vulnerability to fluvial/pluvial flooding; little experience with application of NBS, moderate adaptive capacity, etc.

Interdependence with tasks: WP3 – T3.1, T3.2, T3.2, T3.4;

Deliverables/Outputs: D1.1 – Needs Assessment For Leading Regions (M6), D1.2 – Transfer methodology to twins (M24), D1.3 Framework for transfer to other regions (M48); D1.10 Needs assessment for Twinning Regions (M9); D1.11 Needs assessment for Leading and Twinning Regions updated and finalised (M12)

Milestones: M1.1 (M24) - Conclusion of initial assessment of LSD implementation and transfer methodology to twins.

Task 1.2 Graphical Digital Twins framework and deployment | M1-M60 | Leader: AugmentCity; involved partners: SINTEF, all regional demonstration/twinning partners;

Description: This task focuses on the development, enhancement and deployment of cloud-enabled immersive Graphical Digital Twin (GDT) for each LSD/Twinning regions, built on the advanced state of the art platform developed by AugmentCity that contains a generic set of services to collect, store, analyse and visualise streaming or static data on distributed cloud infrastructure. These generic simulations and visualisations will be customized and further developed according to the LSD regions requirements, and will enhance a human-computer interaction layer empowering the target groups to become active players in fighting the climate change, to be done in 4 subtasks:

Subtask T1.2.1 Introduction to GDT |M3-M6: Four introductory workshops will be organized for the leading and following regions in the UN Future Lab in Norway to demonstrate the methodologies and tools enabling quintuple helix co-creation approach combined with a site visit and hand-on training on the concepts to be used in RESIST in order to unleash the full potential of the GDT. For this purpose, participants will be able to add and visualise available data from various open data sets (e.g. Copernicus data, national statistics, local and regional municipalities data, and national environmental agencies data) and get insights on how the regional communities may benefit from the GDT. This will

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help to identify required data sources and formats, expose potential gaps in services/simulations and introduce early requests for new functionalities.

Subtask T1.2.2 Backend GDT development |M3-M40| The specification of the GDT backend architecture will be customised to deliver data input, simulation engine and graphics engine layers, according to requirements, pre-simulated scenarios and solutions and data sets from the regional demonstrators (WP3). The GDT will base its simulations on numerous data sources, e.g. in-situ measurements (e.g. topography, bathymetry and orthophotos and data from local sensors), airborne and satellite data (e.g. Copernicus) and nature based models (e.g. planting more trees). The simulations will establish the spatial and temporal scenarios and include a long-term perspective. This task will implement (semi-) automatic mechanism for service and solutions deployment and orchestration on cloud platform to be accessed by edge and mobile units. The required data flows from existing data sources through the core and services towards the simulated models will be integrated and validated. Compatibility between interfaces will be examined and realigned if necessary. Then, the procedures for downloading simulated models and data sets and executing them will be verified. AugmentCity will continually monitor/update the state of-the-art cyber security measures and adhere to privacy preserving regulations reflecting on the latest EU/national policies and legislations and technical solutions in the market. Specific scenarios of LSD regions will contribute to enrich the generic analytics algorithms in the form of descriptive/predictive data analytics harnessing cloud-enabled distributed infrastructure.

Subtask T1.2.3 Frontend GDT Development |M3-M40| This subtask will give a special focus to the human interface layer, to be designed and implemented so the demo regions will be able to generate rich user experiences based on the GDT. Unlike other works, a visualization engine will work as a middleware between the stored digital resources and the end-user applications, producing dynamic animated environments that can be delivered in various interfaces. The layer will support user interactions for exploring the contents of the digital twin, switching time periods and changing locations, and will produce content optimized for the required execution environment, i.e. virtual or augmented reality. The platform will also add functionality for the citizen to add and enhance the content of the twin. The work will focus on visualisations in the context of heatmaps, ribbons, BIM timeseries, the population and business grids and overlays which will be developed according to the requirements of the pilot demonstrators. The interface control document will contain all definitions and protocols; clearly considering relevant aspects like networks, data formats, bandwidth, performances, security etc. AI analytics and visualization and intercation services to be used in the different applications in the pilot workflows will require sophisticated methods and technologies enabling seamless human-computer interactions. User Experience (UX) Designers will shape the Graphical User Interface (GUI) and workflow to maximize user engagement and participation, based on immersive user

experiences and gamification and will implement iterative development of the AR/VR solutions. The GDT will provide possibilities to test proposed mitigation or adaptation measures to the climate change and visualize their potential effects, giving the users additional insights by providing impact assessment on their actions. The possibility of simulating "what, if" scenarios will transform the output into a virtual experience. The GDT performance with the multiple stakeholders will be also carefully measured, analysed and compared with the existing benchmarks. The open architecture of the GDT will allow the EU regional actors to integrate their solutions on the platform.

Subtask T1.2.4 Verification and validation of the Graphical Digital Twin |M6-M60| The user experience from the GDT will be verified and validated by SINTEF considering aspects of

psychology and human factors in order to determine how these influence the effectiveness and sustainability of planned environmental measures and policies. This assessment will be conducted through user studies, surveys and interviews with the demonstrators. AC will provide a dedicated training and helpdesk for users, implement technical support and continual maintenance of the GDT and also will conduct business and technical performance assessment of the GDT. For example, it will provide guidance on identification of devices that are necessary for the seamless service, demonstrate scalability of the platform by the regional demonstrators present in the project and stretched by the additional stakeholders that may get interest in using the GDT and, finally, will analyse, measure, and benchmark the technological KPIs (e.g. response time, robustness, explainability). Lessons learned will be extracted in the GDT guidelines to be disseminated to stakeholder community and outside it.

Interdependence with tasks: WP3 - T3.1-T3.4;

Deliverables/Outputs: D1.4 – 4 Training Wks (M6), D1.5 – Backend/Frontend architecture (M24), D1.6 – GDT Deploy version (M48);

Milestones: M1.2 (M24) - First GDT demo

Task 1.3 Technical Framework for Climate-resilient innovation | M1-M54 | Leader: KU Leuven; involved partners: INOVA+, all regional demonstration and twinning partners;

Description: This task will define and develop a common, expandable and replicable framework for assessing and benchmarking the processes and technologies used in the context of CCA activities at the regional level. The framework includes a methodology to collect relevant information on CCA related practices and workflows, the data, technologies and tools used, as well as an approach to evaluate them. RESIST will focus on both technical approaches in CCA, e.g. how water management is performed, but also how related information is collected, management and processed in

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view of understanding and improving environmental practices, e.g. using tools and algorithms to monitor and predict excessive water quantities (MIKE SHE). The overall aim is to get a good overview of the current state of affairs, but also to discuss and decide how regions can learn from each other. The benchmarking will be performed several times since the technological practices and environment are evolving over time (starting with a 0-measurement). Following activities are included: 1) To fine-tune, adapt and describe the framework and how the framework can be applied within the different LSD's taking into account the particular situation in the regions involved; 2) To map current CCA related workflows in the different regions, its activities, the involved actors, the data and technologies used and the outputs/outcomes generated; 3) To document and assess the current methods/ technologies used in the regions participating, and to compare and benchmark them in view of their replication and adaptation in other contexts and other regions. RESIST will mobilize the participating regions involved in the LSD on how to collect information, and to contribute to the evaluation and validation process.

Interdependence with tasks: WP3 - T3.1-T3.4, T1.2, T2.2, T4.4;

Deliverables/Outputs: D1.7 Framework and repository of technical approaches/tools (M12); D1.8 – Benchmark report (M54); D1.13 Framework/repository of nature based solutions and tech approaches/tools (M30).

Milestones: M1.3 (M12) – Repository, M1.3 (30) - Framework/repository of nature based solutions and tech approaches/tools

Task 1.4 Impact monitoring & ethics/gender analysis framework M1-M60 | Leader: ESF; involved partners: ZSI, all regional demonstration and twinning partners;

Description: This task will focus on implementing an analytical framework to monitor the ethics and gender dimensions throughout the project, assuring the alignment of RESIST's scope, aims, and activities with the adopted ethical standards and with the principles of diversity and inclusion. The task will: 1) implement and monitor compliance with adopted ethical standards and procedures, providing support and assistance to teams' ethical challenges and updating the ethical guidelines in T5.3 as necessary; 2) set the framework and monitor the gender dimension and balance across the project by developing specific indicators and KPIs (data collection every 6 months); 3) co-create with WP/Task leaders a set of guidelines on the organisation of inclusive and gender equal activities, including collaborative demonstrator actions (WP3), stakeholder consultations (e.g. workshops, surveys in WP4), and other events to assure a shared knowledge on inclusive and gender equal practices; 4) review communication/dissemination activities and outputs with an inclusive gender lens to assure that diversity (of genders, ages, ethnicities, social backgrounds), inclusiveness and prevention of gender stereotypes are addressed. At M60 a Ethics report will be developed with the periodic/final assessment results of Gender indicators and KPIs.

 $Interdependence\ with\ tasks:\ WP3-T3.1,\ T3.2,\ T3.3,\ T3.4,\ T5.3;$

Deliverables/Outputs: D1.9 Inclusive Gender Equality and Ethics framework (M6); D1.12 Integration of ethical standards and the principles of gender equality, diversity, inclusion in the project activities (M30)

Milestones: M1.4 (M60) – Ethics/gender report on KPIs achievement, M1.4 (30) Integration of ethical standards and the principles of gender equality, diversity, inclusion in the project activities

Work package WP2 - Collaboration and Networking Platform

Work Package Number	WP2	Lead Beneficiary	2. INOVA+
Work Package Name	Collaboration and Networkin	g Platform	
Start Month	1	End Month	60

Objectives

- O2.1: Promote mutual-learning and collaborative activities between LSD and twin regions
- O2.2. Followup the LSD deployment from a market-oriented perspective to identify gaps in terms of business strategies, marketing, IPR and financial plans and provide training, advice and counselling to prepare beneficiaries' individual and common exploitation plans
- O2.3: Scale up exploitable results by outreaching to, and attracting investors and funding programmes to invest in new products, services and technologies and build success stories
- O2.4: Link and promote results to other EU ecosystems

Description

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Task 2.1 Networking and mutual-learning layer | M1-M60 | Leader: ERRIN; involved partners: all partners; Description: This task will i) develop a RESIST Community of Practice and Identification of needs for the mutuallearning scheme (M1-M12). Mutual-learning opportunities will form the backbone of the RESIST Community. They will be tailored to the different needs of both the demonstrator and twinning regions and informed by the broader analysis of the common challenges shared within the Community. ERRIN will organise a series of peer-reviews with both demonstrators and twinning regions to gather insights into their innovations for CCA, their challenges, and their expectations related to mutual learning. This input will feed into the design of a dedicated mutual-learning scheme with demonstrators and twinning regions, which will be implemented to facilitate knowledge-sharing and replication of innovations for CCA; ii) Linking LSD/Twinning regions with the Community of Interest (M12-M60). After the project's first year, a larger Community of Interest will be involved in the mutual-learning scheme. To this end, ERRIN will open a call for expression of interest to engage additional front-runners and less experienced regions interested in sharing their challenges and experiences within the mutual-learning programme. To underpin this process, a mapping on regions with CCA strategies or adaptation themes in their regional specialization strategies (S3) will be conducted. ERRIN will design and organise a series of open webinars/workshops, integrating key methods/tools developed in collaboration with partners to share knowledge and facilitate mutual learning. In synergy with WP4, activities will also serve to gather feedback on the demonstrators/twinning activities by involving the 12 regions' quintuple-helix stakeholders. As a result, a Community of Practice Playbook will be developed with a step-by-step approach in synergy with WP4 results.

Interdependence with tasks: WP3 (T3.1 - 3.4), WP 4 (T4.1 - 4.4), T5.4.

Deliverables/Outputs: D2.1 -Articles on RESIST Community of Practice (M13); D2.2 - Community of Practice Playbook (M48)

Milestones: M2.1 (M24) - Launch of the RESIST Community of Practice

Task 2.2 Innovation and Exploitation layer | M1-M60 | Leader: INOVA+; involved partners: all regional demonstration and twinning business-oriented partners;

Description: Innovation is the key driver of societal change and economic growth and we've we have witnessed, in this century, major examples of this such as the development of new vaccines at large scale, and novel re-use and recycling of resources. Yet, traditional models of innovation and entrepreneurship based on profit-orientation and competition remain dominant but will not suffice to solve global challenges such as CC. For this, new mission-based models are needed, and will be used in RESIST in order to promote exploitation of project results and scalability of regional policies and approaches. As such, and instead of conventional measures for promotion of 'redocean' type ventures based on trade, apps or consulting, activities in this task will rather support 'quintuple-helix' partnerships in regions in developing their potential to become scalable and mission-driven ventures with blue-ocean approaches. This strategy will include in a first stage: developing plans and guidelines for use of the demonstrators' exploitable outcomes by means of several bilateral or small-scale sessions (presential and online) to be held in each of the 4 demonstration regions, and also two large scale exploitation workshops integrated into the project consortium meetings, at the end of the 3rd (M36, D2.3) and of 4th year (M48; D2.4). All partners will be involved in the exploitation workshops, to be held in tandem with project meetings to save on travel costs and time, which outcomes will be: i) The characterisation of the exploitable results, identification of new results as the project progresses and selection of results with the highest exploitation potential within 'blue-ocean' strategies (Key Exploitable Results); ii) The validation of the business opportunities for these results (value proposition of the RESIST solutions for each customer and potential market segments), which depend on their replication potential; iii) Development of business models for the Key Exploitable Results and associated exploitation roadmap (i.e. roadmap to be followed beyond the project end); iv) Identification of potential follow-up funding (Horizon Europe, LIFE+, nat./ reg projects, or private funding -> under T2.4); v) Competition analysis (benchmarking analysis of existing or emerging alternative solutions); vi) Identification/assessment of risks/barriers to overcome to enable exploitation of results, and design of mitigation plans; vii) At the final exploitation workshop: fine-tuning and validation of the exploitation plan, in particular IP and the business model(s) for each of the key exploitable results. The outcomes from this first stage, will then be developed into a comprehensive Scalability Plan (D2.5) that will include a sustainable innovation pathway for each region. For this we shall define an individually tailored coaching and mentoring in exploitation issues to each solution-owner involved in each demonstrator pilot, and an 'Innovation and Exploitation Coach' will be assigned to each demonstrator with the role of providing a competent advice in scope of IPR management, standardisation activities, future business models and exploitation plans, stakeholders' engagement strategy and any similar support required to bring forward the innovative ideas of financially supported projects, for example closer to end-users and quicker to the real market conditions by the consortium and external mentors and coachers. With support from these Coaches the key resources, lessons learnt, and guidelines will be extracted, generalized and transformed in an implementation canvas and a go-to-market funding plan. A key step in this process will be a technical assessment/ validation phase, aimed at identifying the specific DNA of each large-scale demonstrator (and twinning regions) and at translating it into practical building blocks that might be assembled as a greatest common factor in scalable and replicable projects. Conclusions will be developed into a Business Model Canvas/Business Plan for each exploitable output, to be included in final Scalability

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Plan. This task will also coordinate all initial activities for upscaling the results and outreach towards EU investor & innovation networks/communities. An online matchmaking session (D2.6) will be organised in synergy with an EIP-SCC event, to match the innovative solutions with companies, investors, accelerators, venture capitalists, and public authorities for initialising the deployment of the Scalability Plan together with T2.3 and T2.4.

Interdependence with tasks: T3.1-T3.4, T2.3, T2.4; T4.1 – 4.2.

Deliverables/Outputs: D2.3 Exploitation Workshop 1 (M36), D2.4 Exploitation Workshop 2 (M48), D2.5 (Scalability Plan, M56), D2.6 Matchmaking Session for Scalability

Plan initial deployment (M58); D2.10 Initial Guidelines on Business Plans structure and use of the demonstrators' exploitable outcomes (M18); D2.11 - Report on the Exploitation and Business Plans development intermediate (M48); D2.12 - Report on the Exploitation and Business Plans development final (M60)

Milestones: M2.2 (M58) – Conclusion/on-line publication of Scalability Plan (public version); M2.2 Small-scale sessions held in the 4 demonstration regions

Task 2.3 Upscaling towards other entrepreneurial ecosystems | M6-M60 | Leader: SERN; involved partners: all regional demonstration and twinning partners;

Description: Within this task, SERN will promote active collaboration between the LSD/Twinning regions and their stakeholders and outputs, and actors in more than 50 innovation ecosystems across EU and beyond, with in particular a high number of innovative startups that are eager to transfer and further develop towards the market the most promising CCA innovations. To achieve this aim, SERN will organize webinars and missions of external ecosystems to the LSD, promoting visualization of impacts via the GDT and matchmaking meetings between results owners in the 12 RESIST regions and external startups.

Interdependence with tasks: WP3 - T3.1 - 3.4, T1.2, T2.2.

Deliverables/Outputs: D2.7 Programme of webinars and missions for external ecosystems (M12); D2.13 Programme of webinars and missions for external ecosystems – updated version (M36)

Milestones: M2.3 (30). Identified at least 30 innovation ecosystems with a high number of innovative startups

Task 2.4 Private funding layer M24-M60 | Leader: FASTTRACK; involved partners: INOVA+, all regional demonstration and twinning business partners;

Description: T2.4 aims to identify private investment opportunities to leverage the Business Plans developed by the business partners (regional demonstrators and twinning). Once Business Plans are finalized and available (T2.2), FASTTRACK will work with the partners to assess their investment readiness and needs and match them with relevant sources of private investment (particularly, BAs, BAAs, VCs, and funds). Firstly, FASTTRACK will quantitatively assess partners' IRL using a modified version of the SME Instruments IR assessment methodology, focusing on i) product and technology readiness level; ii) market readiness level; iii) leadership capability and management readiness level; iv) financial strategy observation. Secondly, FASTTRACK will map relevant private investment opportunities. FASTTRACK counts with a database of more than 400 investors investing in deeptech/digital solutions worldwide (particularly, EU), of which more than 20% invest in Green/cleantech. Thirdly, FASTTRACK will match partners with the most suitable private investment sources, according to their IRL and needs. Upon partners agreement, FASTTRACK will conduct warm introductions between partners and investors, with support on preparing required materials (investment teaser, pitch presentation, detailed financials, etc.) and training. Public funding opportunities will also be mapped and presented via T2.2 and T2.3.

Interdependence with tasks: all;

Deliverables/Outputs: D2.9 - Initial VC Financing Plan (M36); D.2.8: VC Financing Plan (M60);

Milestones: M2.4 (M60) - Funding round with results from LSD.

Work package WP3 – Large-scale collaborative demonstrators (LSD) and Twinning activities for climate-resilient innovation

Work Package Number	WP3	Lead Beneficiary	8. ERRIN
Work Package Name	Large-scale collaborative den resilient innovation	nonstrators (LSD) and Twinnin	ng activities for climate-
Start Month	1	End Month	60

Objectives

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

O3.1: To deploy, manage and run homogenous Large-Scale Demonstrators in 4 regions and 8 twinning regions, enabling quintuple-helix collaborative approaches to climate and social challenges that serve as places where innovative experiments are co-created, prepared, discussed and further developed

O3.2: Implement principles and monitoring mechanism to allows regions to compare against their current implementation, and against each other allowing to stepwise improve their platforms for enhanced society and economic value;

O3.3: Promote the societal adoption and regional funds convergence towards solutions for just societal transformation and building climate resilience with the 12 regions.

Description

Task 3.1 Large-scale Demonstrator in SW Finland with Twinning in Normandy and East Macedonia | M1-M60 | Leader: RCSF; involved partners: all regional partners;

Description: T3.1.1: Analysis of regulatory measures introduced in FI: their efficiency in promoting NBS for water retention as well as financial and social implications M1-M24. Cities in Finland currently use a variety of different regulations for promoting use of NBS in new development areas. The requirements may concern retention volume, coverage of green elements, percentage of permeable surface etc. and that may be stated in the general or detailed plans, or in the building code at district or city level. There is a need to harmonise regulations, however it is important to first analyse the impacts of different regulation alternative regarding their efficiency in increasing water retention and green space, and their implications to financial sustainability and social justice. In addition to the existing ways of regulation, new approaches will be tested and analysed, such as catchment-scale stormwater management plans developed through participatory actions and setting minimum criteria for ecosystem services in new infrastructure projects to be included in innovative procurement and construction contracts.

T3.1.2: Development of information guidance and participatory co-creation methods for raising interest and motivation of stakeholders to invest on NBS for water retention M1-M54. To engage stakeholders in the implementation of NBS, they need to be convinced of NBS benefits. This subtask will perform an in-depth Cost Benefit Analysis (CBA) for these solutions, including quantification and monetization of benefits: stormwater retention and other ecosystem services, e.g. biodiversity, water quality, cooling, recreational value or image of addressed areas. The CBA will be used for assessing the efficiency of NBSs in monetary terms, thus the units of measurement are monetized and the valuation of effects is based on market prices (e.g., operating costs, avoidance costs, damage costs). In parallel, partners will develop activities to raise awareness on real costs of NBSs, factors affecting them, and ways and guidance to minimize them. The assumption is that private property owners would be more willing to invest in NBS f if buying was easier and if they knew beforehand what they can get for which price. To test this hypothesis, an inspirational catalogue of raingardens with photos and prices will be developed, to make it easy for property owners to buy them. The catalogue will be done in collaboration with different local service providers, who will be invited to publish their offerings. The message will be transmitted to stakeholders that will be mobilized/engaged through targeted training and co-creation workshops and through participatory processes in urban planning/design emphasizing CCA.

T3.1.3: Local Demonstration of NBS solutions M12 – M60: 3 demo sites will be developed and all of them will include water monitoring and data collection and fusion for building hydrological models and digital twins. However, each demo site has their own characteristics: i) Renovation and redesign of the stormwater system leading to the Rauvola bay, assessment of ecosystem services of NBSs' and inclusion of the 4500 inhabitants of the area in drafting of the drainage-basin based stormwater plan are central; ii) Renovation and redesign of the stormwater system in Oriketo industrial area leading to Vähäjoki river. Technical innovations and co-creation are needed to manage contaminated stormwaters and remove hazardous substances from the industrial area that hosts major waste management and recycling industries. Therefore, the most central task of the project will be to discuss the alternatives and to co-create novel solutions with the 120 companies of the industrial area and motivate then to contribute to a jointly financed solution for runoff

management. The regional environmental authority, ELY-centre, will participate, too, also as a supporting member of the project consortium iii) Renovation and redesign of a sub-catchment of a river leading to the Archipelago Sea, to be selected during the demo implementation, which aims to nudge landowners to have a behavioural change to more sustainable water management by developing and providing information, guidance and creating dialogue between different interest groups. For this, participatory methodologies for catchment-specific water management planning and establishment of a catchment specific multi-beneficial water retention plan (water retention, water protection, erosion control, biodiversity) will be developed. Evidencing the impacts of NBS by modelling different scenarios and visualizing them in 3D models (through GDT from T1.2) that can dynamically represent the physical effects of different NBS and will enable showcasing their effects along the river system and the interrelation of different system elements. Digital methods (models, Open Data, GIS-based analyses) will be used to find the optimal water retention methods for the catchment. Field work will be done to verify remote sensing and other existing data and to improve the model and spatial analyses. Implementing innovative NBS (e.g. two-stage channels/ditch restoration, restoring ditched peatlands,

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reforesting riparian buffer zones) and business models (e.g. water hosting) that would allow their wider uptake will be studied. Landowners will be supported in applying for concrete restoration investments from national programmes benchmarked in T3.1.1.

T3.1.4 Twinning, transferability and scalability M12-M60: this subtask aims at transferring tools, outputs and frameworks to the twinning regions and assess and promote dissemination to other regions, linking with WP4 and using GDT (T1.2), and addressing scalability/sustainability of outputs with WP2.

Interdependence with tasks: T1.1 (CCA frameworks), T1.2 (Digital Twin), T2.2 (Sustainability Plan);

Deliverables/Outputs: D3.1 - Benchmark analysis of regulatory measures (M12), D3.2 - CBA analysis of NBS solutions/ Inspirational catalogue of raingardens (M36), D3.3 - Stormwater systems & sub-catchments in demo sites (M54); D3.4 - Transferability plans to twins (M24), D3.5 - Transferability Report (M48). D3.25 Final outputs in Large-scale Demonstrator in SW Finland with Twinning in Normandy and East Macedonia (M60)

Milestones: M3.1 (M48) Conclusion of deployment of demo sites, M3.1 (M60) Final outcomes of demonstrators

Task 3.2 Large-scale Demonstrator in Central Denmark with Twinning in Blekinge and Zemgale | M1-M60 | Leader: RM; involved partners: all regional partners;

Description: The work on this LSD will be divided in the following subtasks:

T3.2.1: TECH - Large Scale demonstrators M1-M48. i) Logging – data collection – citizen science - a dense network of data loggers will be set up to measure the groundwater level in the coastal towns of Juelsminde and Thyborøn as well as in an urban area with summer houses. To support the IoT data collection, as well as engage the local community, citizens in these areas provide additional measurements of the groundwater level and precipitation; ii) NBS – how to use NBS in existing urban areas – what is durable? In the coming years, a large number of NBS solutions will be built in the five pilot areas. Using XR technologies to illustrate the various NBS, we will facilitate a dialogue with the citizens and authorities about what types of NBS they would like to build, where they can be built and consequences (risk, protection, biodiversity, sea views, etc.; iii) Invite the water – flood proofing houses and raising the level of houses. This activity invites the water into the built environment and works with the construction industry to construct 2 demonstration buildings that can withstand flooding - either by raising or waterproofing the house. The demonstration buildings are used to start a dialogue with citizens about flood risks, house level CCA and social resilience; iv) Multifunctional climate adaptation solutions – this action deals with multifunctionality in infrastructure with a point of departure in three pilots; a new dike in Horsens as a flood prevention system with a road section on top; a flood defence infrastructure and multifunctional design in Randers city; and a groin to prevent flooding in an inland fjord of Natura2000 in the Western Limfjord.

T3.2.2: Tools M1-M54 i) XR – Data visualization. To complement the GDT (T1.2), VIA will make local XR visualizations for 3.2.1. The simulations will foster and supplement the citizen and authority engagement; ii) ML to predict future climate impact – creating an app that warns the citizens. Based on the data collected in T3.2.1 and by applying machine learning (ML), a warning system app is developed, allowing citizens and authorities to prepare for storms and major rainfall events. The work is based on preliminary field

investigations at Juelsminde and ML model development in the C2C-CC project; iii) Integrated socio-economic decision support tool incl. all flood sources – these actions will target decision makers to prioritize CCA investments and hereby accelerating the decision-making process. Based on the tool developed in C2C CC on rainwater, this action takes an integrated approach adding recreational value of CCA projects by use of hedonic pricing method and also integrates damage costs of rising groundwater, watercourse floods and storm surge. Since Denmark has good data availability, the task analyses levels for generalization related to data availability with the aim to define minimum data needed. The tool is calibrated for twins and it is reported how it can be implemented in other regions.

T3.2.3: Governance/ citizen engagement/ social resilience M6-M60. This task aims to identify mechanisms contributing to accelerate implementation of CCA. Identification of the

driving mechanisms across local contexts has transferability value. Moreover, the uncertainty of the precise impact of climate change requires governance mechanisms that foster learning and adaptability as well as willingness to prioritize longer term needs to ensure sustainable CCA. It will include the following actions: i) Climate adaptation is slowly integrated in governance and this WP assesses the present and future impact of the current governance system to identify enablers and barriers for implementing CCA measures, incl. NBS. This includes analysis of the regulatory framework to identify what policies have promoted integrated climate adaptation at the local level, and what, if any, policy gaps have hindered climate adaptation planning; ii) Defining driving mechanisms for CCA implementation – in the face of uncertainty and crowded agendas, policymakers as well as citizens risk prioritizing short-term and more salient issues over sustainable and systemic climate adaptation. A key question in this WP is whether the use of tools can foster an adaptive (learning) approach to governance that contributes to integrated and sustainable climate adaptation planning at all levels (including citizens) of policy making;

iii) Transferability potential - this action analyzes comparability between context of Danish LSD and twin regions for transferability of adjustments in governance mechanisms. T3.2.4: Twinning and transferability M12-M60: this task aims at transferring best practice in CCA planning to the twinning regions. The WP gathers and evaluates existing templates

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for and experiences in climate adaptation plans and experiences from various EU projects e.g. TRAMI, C2C CC, C5a, BWN, FRAMES and also planning approaches such as Dynamic Adaptive Policy Pathways (DAPP). It will include the following actions: i) Transferability of template for climate adaptation plans and best practice tools for decision support - A first step for CCA is to know how to initiate a CCA process and plan making. This WP reviews existing templates and taylors templates for CCA for the twinning regions. The templates are made in co-creation with twin regions and stakeholders. Knowledge transfer of existing flood risk approaches and screening tools are incorporated in the process; ii) based on above-mentioned EU projects, WP4.1, WP2.1 and best practice in decision support tools, a handbook for CCA officials is gathered with the aim to accelerate local CCA in EU. Partners will address the scalability/ sustainability of outputs with WP2.

Interdependence with tasks: All;

Deliverables/Outputs: D3.6 Network of loggers (M12); D3.7 XR simulations created (M24); D3.8 2 demo houses built (M24); D3.9 5th generation district heating/cooling network (M24); D3.10 ML and App (M24); D3.11 Socio-economic decision support tool for CCA projects: (M36); D3.12 CCA Transfer plans for twins (M24); D3.13 Handbook (M48); D3.26 Final outputs in Large-scale Demonstrator in Central Denmark with Twinning in Blekinge and Zemgale (M60). Milestones: M3.2 (M48) Demo houses validated, M3.2 (M60) Final outcomes of demonstrators

Task 3.3 Large-scale Demonstrator in Catalonia with Twinning in Puglia and Baixo Alentejo | M1-M60 | Leader: INT; involved partners: all regional partners;

Description: T3.3.1: Development of pilot transformative solutions in Terrasa CC and Blanes M1-M36: Partners, in solid cooperation with the Regional Civil Protection Authorities and Civil society representatives from two front-runner municipalities (259,584 population), transformative solutions will be co-designed and co-created to enable appropriate actionable decisions to reduce risks of extreme events or climate emergencies. The demonstration will focus on adapting the following key enabling tools and the developed solutions to a smaller-size municipality (Blanes) and a medium-size city (Terrassa CC) with the goal of transferring to + 20 municipalities in Cat. as well to the 2 twinning regions with similar needs (and beyond to EU regions).

T3.3.2: Deployment of Key Enabling Tools M1-M54: On this subtask, research and business partners will collaborate to adapt previous results from H2020 and national projects, including: i) ANYWHERE Multi-Hazard Early Warning System (TRL 8> market) for which an upgraded version will be developed that will be better connected to regional and local sensors (e.g., stream gauges, wildfire thermal cameras) as well as to the impact forecasting capabilities with the operational Copernicus Emergency Management Services (e.g., EFAS for floods, EFFIS for wildfires and EDO for droughts, and Rapid Mapping for Pre-Tasking of satellites); ii) Impact-based Site-Specific Warning services (TRL7 > TRL 8-9) SSW services will integrate high-resolution local vulnerability and exposure information regarding the most affected people applying an inclusive framework to disaster management and community adaptation tailored to such as children and young people, elderly, gendercentred. Tailored community protection protocols will consist of pre-defined actions and recommendations able to be realistically adopted by citizens, volunteers and authorities to reduce vulnerability and losses once a climate emergency is forecasted. Tailored place-based governance will support the areas or sectors at high risks to build their resilient strategy, actions, and rules adapted to the case of a climate crisis. Tailored Apps and frontend visualisation tools (TRL 7 > TRL 8-9) will efficiently disseminate these SSWs and enhance communication capabilities between citizens and authorities through effective visualisation and built-in functionalities of interactive user-participation, with the immediate collection of their feedback that will further support the decisionmaking. E-training modules, connected to the Digital Twin developed under T1.2, will incorporate social learning based on data-driven analyses of the resilient community surveys, supporting userlearnability, exploiting SSWs and solutions, and training sessions (hands-on and virtual in T3.3.3.).

T3.3.3 Local Demonstration Activities M1-60: In collaboration with Community of Practice (CoP), the subtask will: i) implement a municipality-based co-creation framework for disaster risk reduction, resilience and climate change adaptation [M1-M60]. Activities engaging local and regional CoP will be regularly carried out (link to T1.1 and WP4) ii) define the most vulnerable impact areas, co-assess tailor-made measures, and co-design transformative actions for locally adapted technological and social innovation solutions. Following the inclusive framework, the regional resilient community survey will be conducted (co-led by INT and UOC) [M3-M30] iii) adapt the key enabling tools and implement solutions by all partners to the local needs and develop interactive online training modules (co-led by UPC and HYDS) [M9-M48]; iv) run real-time 24/7 operational demonstrations in Catalonia, led by INT [M15-M52]: With 2 cycles; i.e., 1st starting at M15 (in Terrassa CC and Blanes), 2nd starting at M32 with updated versions built with feedback/evaluation collected from Civil society and to more cities. The first demonstration cycle will help enhance the systemic accessibility (fully integrated with local systems and options of handy functionalities including Apps) to be replicated or twinned to less experienced cities and regions. The second cycle will facilitate the testing and consolidate the scalability and exploitation strategies by replicating more than 20 municipalities (led by HYDS); v) validate the new functionalities and acquire all the relevant data (duly anonymised including 112 calls, record of first responders' interventions, social media and communication exchanges between authorities and citizens) to create a set of events. The work will showcase how the capabilities of newly implemented tools can support municipalities to transform local

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governance strategies for climate change adaptation and community resilience building. Feedback from INT, TER, BLA, and the engaged CoP will be analysed (led by UOC and UPC) [M18-M60]; and vi) organise local training and educational activities by all partners; organising 2 local hands-on training sessions (led by each TERRASA CC, BLANES, INT) and 4 regional workshops (led by UPC and UOC). The aim is to show and co-evaluate the results of the demonstrations and to discuss recommended better practices with the involved stakeholders. This will also include results of co-assessing DRR Indicators, impact analysis, documentation of the lessons learnt during the demonstration, which will be disseminated through videos/publications/policy briefs/Adapt-Climate platform/EU Union Civil Protection Mechanism knowledge network.

T3.3.4: Twinning and transferability M12-M60: this task will transfer tools, outputs and frameworks to twinning regions and assess and promote dissemination to other regions, linking with WP4 and making use of the GDT (T1.2) and addressing scalability/sustainability of outputs with WP2.

Interdependence with tasks: All;

Deliverables/Outputs: D3.14 - Transformative solutions (M36); D3.15 - Multi-Hazard Early Warning System TRL9 (M36), D3.16 - Impact-based Site - Specific Warning services TRL9 (M36), D3.17 - Tailored Apps and frontend visualisation tools TRL9 (M36); D3.18 - Inclusive framework to disaster management and community adaptation (M42); D3.19 CCA transfer plans to twins (M24); D3.27 Final outputs in Large-scale Demonstrator in Catalonia with Twinning in Puglia and Baixo Alentejo (M60).

Milestones: M3.3 (M48) - Deployment and validation of tools in user-context; M3.3 (M60) Final outcomes of demonstrators

Task 3.4 Large-scale Demonstrator in Centro Portugal with Twinning in Vesterålen and Extremadura | M1-M60 | Leader: CCDRC; involved partners: all regional partners;

Description: The PT demonstrator will take place in the less economical developed regions of Coimbra and Médio-Tejo, in Centro Portugal under coordination of the Regional Authority (CCDRC).

T3.4.1: Multifunctional bioeconomy pilot region: a tool for Climate Change fight M1-M48 This task is focused on agroforest socioeconomic metabolism and region, with the intervention objectives of development a new multifunctional Bioeconomy Tool with 4 level functions in response to climate change: i) Circular (increase the lifetime and

the efficiency use of the bioresources; reuse and recycle materials throughout the value chain); ii) Sustainable (responsible use of shared and consumption of resources; upgrade residues and waste to higher value products and ecosystem services to optimize the quality and value of biomass; develop and share financially viable and sustainable business models; provide scientific and technological R&D infrastructures; facilitates the reuse, recycling and upcycling of bio-based products; encourage green procurement in both the public and private sectors; commit to education and awareness of sustainable practices from kindergarten to university); iii) Resilient (value the biodiversity and genetic knowledge & new silviculture models against the rural/forest fires, hydric stress and phytosanitary problems that are increasing with the climate change; resilient and diverse ecosystems; support and promote actions to and refine alternatives to fossil#based products and processes); and iv) Safe (security byproducts; no competition with agrifood sector; preserve the land and resources; security human zones against rural/forest fires and floods, caused by storms). Based on this tool, partners will promote co-creation and demonstration of new business models and economic viability from AIGP and "Village Condominiums" and implementation of property consolidation models for establishment of larger agri areas. To develop an integrated system applied to the demonstrator, it will be necessary to accurately analyse the various alternatives of how stakeholders experience and contribute to the implementation of complex processes such as innovation and systems transformation. This configuration of the relevant sectoral innovation systems and associated value chains is crucial, in order to promote changes in the landscape and better planning, establishing a collaborative model with private landowners and public administration entities. The outcome will be a new business model associated with the use of residues resulting from rural activities associated with micro-ownership, creating solutions that allow their use, which may include the creation of door-to-door collection services (private and public partnership), that can be used in the design of new regional programmes (for the 2027-2034 period).

T3.4.2 Residual lignocellulosic biomass valorisation in high value cascade use biorefinery process M6-M60. This subtask will build on STI solutions to enhance the necessary dynamics in production processes and resource use associated with the bioeconomy. For that it will implement and demonstrate new systems of conversion residual lignocellulosic biomass into high value bioproducts (from forest residues, marginal land and the controller of invasive species) in smaller and modular unit, using knowledge generated in e.g. Biomass4Synthons (H2020), BioVino (Interreg Europe) and GOTECFOR project and new processes or equipment better adapted for small scale operations, along the value chain. Identifying and, whenever possible, testing solutions that have been developed in other projects, from solutions using clean energy for vegetation/residues management,

to processing biomass in the forest and marginal land, that allows to make the collection and transportation in an easier and cheaper processes, among others. A prototype of an equipment will be used to test the transformation of biomass into bioproducts with zero waste concept process (the biorefination process will capacity for multi-products

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with approximately distribution of: 12% fine chemicals, 6% feed and food, 11% biomaterials, and 72% for advanced biofuels).

T3.4.3 Residual agroforestry biomass-to-renewable gases process M6-M60 will promote management of residual agroforestry biomass, through its energetic valorisation and thus, creating an economic incentive to agroforestry management. To facilitate the collection of biomass, in particular waste from private management activities, the potential location of transfer stations for biomass will be analysed in this subtask. Activities will take place at a demonstration renewable gas production owned by IPP (existent infrastructure) where biomass will be converted in renewables gases, including but not limited to hydrogen. One of the possible conversion pathways to use within this concept is the gasification technology, which is the partial burning of biomass in a gasifier at a temperature of roughly 1000 #. Gasification allows for the use of a very large array of biomass feedstocks to produce syngas, which primarily consists of hydrogen, carbon monoxide, carbon dioxide, and methane and others CxHy. The syngas, which is already a renewable gas, can be used directly to generate heat or used in internal combustion engines, but it can also be further processed into biomethane or hydrogen. In the bioeconomy context, the gasification process is highly promising due to the practical advantages that these renewable gases, have over solid fuels, such as handling, transport, storage and supply. The renewables gases produced will then be used through a specific refuelling station for the use of vehicles to transport biomass between the collection points and the gasifier. The surplus production will be available to the community, as an alternative source of energy, sustainable, for use in transport or other, thus contributing to a greater diversification of energy sources in the region and, as such, greater security and resilience of the regional energy system.

T3.4.4 Twinning, transferability and scalability M12-M60 this subtask aims at transferring tools, outputs and frameworks to the twinning regions and assess and promote dissemination to other regions, linking with WP4 and making use of the Digital Twin (T1.2), and addressing the scalability and sustainability of outputs together with WP2.

Interdependence with tasks: all

Deliverables/Outputs: D3.20- Multifunction Bioeconomy Tool (M48); D3.21- New systems of lignocellulosic biomass valorization TRL7 (M36); D3.22 - Biomass fuel process TRL9 (M54); D3.23. - Genetic map of best performance plant against hydric stress /Molecular Biology & Plant Health & Preventing models (M36); D3.24 - CCA transfer plans to twins (M24); D3.28 Final outputs in Large-scale Demonstrator in CentroPortugal with Twinning in Vesterålen and Extremadura (M60); D3.29 Initial Design of the Multifunction Bioeconomy Tool (M18)

Milestones: M3.4 (M48) Deployment of Tool for a multifunctional bioeconomy region; M3.4 (M60) Final outcomes of demonstrators

Work package WP4 – Maximizing impact: Communication, Outreach and Transformation through Social Innovation

Work Package Number	WP4	Lead Beneficiary	7. ZSI
Work Package Name	Maximizing impact: Commu Innovation	nication, Outreach and Transfo	ormation through Social
Start Month	1	End Month	60

Objectives

- O4.1. To maximize social impact through a) empowerment of regional stakeholder systems, b) provision of directionality for transition, c) establishment of new practices and networks within, between regions and with trans-European discourses:
- O4.2. Communicate the main activities and findings of the project through appropriate channels and tools or effective community engagement based on the communication strategy plan
- O4.3 Support capacity-building and knowledge exchange and dissemination between the various stakeholder groups (both within and between the regions).

Description

Task 4.1 Social impacts through transformative social innovation | M1-M60 | Leader: ZSI; involved partners: all partners: Description: The task aims to maximise social impacts through activating transformative social innovation and reflexive regional change processes in line with the LSDs and Twinning activities, building regional stakeholder capacities to collectively and sustainably manage transformational change, and perform a social impact assessment. To achieve this, ZSI will develop and implement a RESIST Transformative Social Innovation Strategy (TSI; D4.1), thereby guiding

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LSD regions in developing a narrative of change, supporting the regional social engagement and innovation process, providing regional training on visioning, co-creation and Transition Management for the regional teams. As part of the TSI implementation, ZSI will host co-creation TSI workshops during and after LSD implementation in each LSD region (one in-person) (D4.3). Reflections and learnings of the LSD regions will be summarized and shared with the twinning regions in an online workshop format during their development period (in cooperation with T2.1). Additionally, ZSI will monitor the regional social innovation processes and assess their social impact through formative and summative evaluations, reported in D4.2. During their implementation, the LSDs will be monitored in quarterly meetings which will focus on both the process and outcomes of the LSD and the TSI process with regard to social innovation, governance, social practices, stakeholder engagement, upscaling activities, narratives of change, etc. The evaluative approach is based on indepth evaluative questionnaires (interviews) and on-site visits to the LSD regions and will capture the ongoing negotiation processes among different stakeholders in the LSD and TSI. The main aim of the social impact assessment activities is to support the development of the LSD and Twinning activities and to foster self-reflection and responsiveness by identifying opportunities, challenges and barriers to sustained social change beyond the action. The questionnaire will be sent prior, at least once during, and after the LSDs. On-site visits by evaluation team and reflection workshops will be organised in M50.

Interdependence with tasks: T2.1, T3.1-T3.4, T4.2 & 4.3.

Deliverables/Outputs: D4.1 - RESIST Transformative Social Innovation Strategy (M24), D4.2 - Social Impact Assessment, (M55), D4.3 - Report on TSI Co-Creation Workshops and social innovation processes, (M60). Milestones: M4.1 (M55) – Conclusion of TSI and Co-creation workshops.

Task 4.2 Digital Communication & Outreach | M1-M60 | Leader: REVOLVE; involved partners: all partners;

Description: The purpose of the Communication & Outreach Task is to advance and enhance the impact and results of the project all across EU. Based on the strategic communication plan and stakeholder group analysis, REVOLVE will lead the messaging and outreach tactics in coordination with all partners. The stakeholder groups will be updated every year and public opt-in forms will be made available for interested parties to receive the quarterly e-newsletter in compliance with the EU General Data Protection Regulation (GDPR). REVOLVE will lead the development and management of the project website and oversee and implement the brand coherence of all communication materials, including those in different languages. This task will do the online reporting on the EC portal of communication activities and will coordinate media relations, regional workshops, the interactive exhibit, and the final conference. The goal of this task is to connect and raise awareness about the activities of the 4 leading regions and their 8 twinning regions, in their own territory and in the disseminating regions and to engage communities around EU to emulate the novel demonstration projects being deployed for climate adaptation and greater regional resilience. Specific activities will include: i) develop of Strategic Communication Plan + Visual Identity Guidelines; ii) Project Website + Communication Packs and implementation of communication activities; iii) Development of Knowledge Dissemination Communication packages in all 12 regions.

Interdependence with tasks: T2.1, T3.1-T3.4, T4.1 & T4.3.

Deliverables/Outputs: D4.4- Communication and Dissemination Plan/Visual Identity Guidelines (M3); D4.5- Website & Communication Packs (M6); D4.6 Report on Digital Campaigns in 12 regions (M58). D4.11 Communication and Dissemination Plan/Visual Identity Guide updated (M30); D4.12 Communication and Dissemination Plan/Visual Identity Guide finalised (M48).

Milestones: M4.2 (M6) Launch of project website

Task 4.3 Events and institutional dissemination | M12-M60 | Leader: INOVA+; involved partners: AugmentCity, SERN, ERRIN, all Regional Partners;

Description: Educational programs are an indispensable tool to reach the citizens and empower them to change behaviours. This task will focus on designing and producing a virtual interactive exhibit (D4.3.1) based on RESIST demo activities/outputs, building on GDT platforms developed with T1.2. The exhibit will be designed as an interactive experience highlighting the importance of behaviour change, community engagement and participatory approach to build climate-adapted resilient communities. All the materials will be available online to enable their virtual use in independent trainings and in risk awareness sessions (e.g. in schools). The exhibit will virtually "travel" and be presented to institutional partners and in events in several communities in EU, with support from the regional partners. Each destination will have its organization (museum or local authority) taking patronage of the exhibit and synergies with major events, incl. the European Researchers' Night, an EU initiative with +1,6 million visitors across the different events organized across EU every year (and of which INOVA+ is a regular organizer in Portugal, incl. for 2022 and 2023). This task will also organise the project's final conference (D4.3.2) to take place physically in Brussels and partner cities/regions in a simultaneous digital summit with different break-out rooms and panels, discussing and presenting results in an interactive and engaging way. All partners will be involved, and we'll target an on-site audience of 100 people and 1,000 digital attendees.

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Interdependence with tasks: T4.1-4.2, T1.2, T3.1-3.4

Deliverables/Outputs: D4.7-D4.8 Virtual Interactive Exhibit (M36-60), D4.9 Final conference (M60).

Milestones: M4.3 (M60) – Organisation of final conference; M4.3 (M24) Virtual interactive exhibit campaign activities and outcomes

Task 4.4 Scientific Dissemination | M24-M60 | Leader: KU LEUVEN; involved partners:, all scientific partners; Description: It will focus on delivery of scientific production in line with section 2.2 Specifically, RESIST has an ambitious goal to deliver 25 scientific publications and at least 150 presentations at relevant scientific peer-reviewed conferences in climate, environment, digital technologies and social sciences and humanities domains. It will conduct

a series of workshops and webinars enabling discussion with scientists/innovators, and aiming also to include UA

researchers.

Interdependence with tasks: T4.1-4.2

Deliverables/Outputs: D4.10 Final list of scientific publications/presentations (M60).

Milestones: N/A

Work package WP5 - Project management, coordination and policy relations

Work Package Number	WP5	Lead Beneficiary	1. SINTEF
Work Package Name	Project management, coordin	ation and policy relations	
Start Month	1	End Month	60

Objectives

- O5.1. Manage the project to timely completion of the objectives, milestones and deliverables, at the highest possible quality level and within planned resources
- O5.2. Execute financial/legal management of project, manage the consortium's relationship with the EC and steer R&D orientations
- O5.3 Ensure effective communication and exchange of information among partners
- O5.4. Identify and mitigate internal/external risks, prepare and implement DMP, and adhere the project activities to ethics requirements
- O5.5 Interface and influence policy-makers at EU/national/regional level towards more active CCA policies, and link with other programmes, projects, initiatives for better critical mass on CCA resilience.

Description

To ensure effective management of this complex and large project, the leadership of the project management has been divided among SINTEF, INOVA, and ESF responsible for different but closely interlinked tasks. This divisional leadership structure will create more accountability and transparency and provide favourable settings for the consortium performance and reinforce collaborative culture. Also, and under ERRIN coordination and through an Advisory Board, this WP will setup interface to policy-makers in the field of CCA in the European institutions, national and regional governments and other relevant programmes, projects and initiatives.

Task 5.1 Operational Project management | M1-M60 | Leader: INOVA+; involved partners: all partners;

Description: The task is dedicated to daily management of the project activities and included but is not limited to: i) preparation of the Project Handbook (M1) which is an internal document aligned with the Grant Agreement and supporting efficient project implementation and includes a project management structure: roles and responsibilities of the project management bodies and its governance, decision-making, conflict management, financial and risks management and communication flows among the beneficiaries, ii) set and manage consortium communication flows iii) prepare templates for the project reports iv) implement quality control of deliverables including drafting the periodic reports to the EC, v) organise operational meetings and follow-up with reporting, vi) manage documentation repository and SharePoint, viii) monitor, assess and mitigate internal and external risks occurring within the project.

Interdependence with tasks: all

Deliverables/Outputs: D5.1 Project Handbook (M1), D5.2 - D5.5 Quality Monitoring Reports (M12, M24, M36, M48). Milestones: M5.1 (M60) – Successful completion of project

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Task 5.2 Strategic Project Management and Institutional Relations | M1-M60 | Leader: SINTEF; involved partners: all partners;

Description: This involves financial and legal management of the project and also steers the project scientific performance. The following activities are planned: i) verify and submit deliverables/reports to the EC timely and with high quality and in accordance with rules and procedures, ii) manage financial grant by distributing payments received from the EC to the other beneficiaries without delay and monitor and control overall budget iii) steer the project work according to the GA and the CA, iv) coordinate the preparation of the project reviews v) prepare and execute the strategic meetings of project, e.g. annual General Assembly vi) steer the scientific direction of the project vii) act as the intermediary for all communications between the consortium and EC.

Interdependence with tasks: T5.1, T5.3 T5.4.

Deliverables/Outputs: D5.6 Strategic Management Guidelines (M3);

Milestones: M5.2 (M3) – Successful kickoff/approval of strategic mgmt guidelines.

 $Task\ 5.3\ DMP\ \&\ and\ adherence\ to\ ethics\ requirements\ |\ M1-M60\ |\ Leader:\ ESF;\ involved\ partners:\ all\ partners;$

Description: This task will assure a harmonised approach to management of research data and outcomes, their generation and processing during the project, under the FAIR principles. A Data Management Plan (DMP, D5.3.1) will outline how data will be processed or generated within the project and provide concrete specifications for the data producing WPs. The DMP covers ethics consideration to treatment and storage of personal/sensitive data. The task also provides second level quality assurance to the produced datasets before they are published, harmonises formatting and labelling and will take care of channelling the datasets into the data repositories within the timeframe identified by the EC. This task will provides operational guidelines/procedures to ensure that all work adheres to HE ethical principles and relevant EU, national and international legislation. The project activities raise ethics issues in Humans, Data, Artificial Intelligence and Environment, Health and Safety. An overview of those issues and applicable procedures to address them are documented in Part A. ESF will establish the Ethics Help Desk to guide and support the beneficiaries in addressing the data management and ethics issues according to best practices and applicable legislation. An external Ethics Advisor will be onboarded to get an additional expertise in Data/AI aspects, to be appointed at M2, will submit annual reports and get reimbursed for her/his contributions.

Interdependence with tasks: T1.4, T5.1 -T5.2 (Operational and Strategic mgmt.)

Deliverables/Outputs: D5.7 Data Management Plan (M6); D5.9 - Data Management Plan updated (M30); D5.10 - Data Management Plan finalised (M60).

Milestones: M5.3 (M2) - Launch of Ethics Help Desk/ appointment of Ethics Advisor

Task 5.4 Advisory Board and External Relations | M1-M60 | Leader: ERRIN; involved partners: all partners;

Description: This task will setup a high-level Advisory Board with a minimum of 8 members, with preference to personalities from regions not represented in the consortium. The task will promote links with relevant initiatives, projects and policy actions on CCA at EU, national and regional level. An active involvement of JRC will be sought to ensure maximal outreach and contribution to a better integrated knowledge of the research community through EU Science Hub and through integration of various developed services and solutions in relevant JRC data bases. Further JRC will be consulted on numerous aspects throughout the project lifetime, however their expert advice in assessing the costs and benefits of various options to reduce climate change hazards by adaptation is deemed the most beneficial to RESIST. Collaborations with relevant projects and initiatives from EU Missions, e.g. Mission Oceans through SINTEF is part of this task. RESIST will collaborate with projects launched under the EU Mission for Adaptation to Climate Change, e.g. with R4C coordinated by VTT specifically by including a representative of VTT in the External Expert Advisory Board of RESIST and taking part in the Advisory Board of R4C, collaborating in generating the external funds and exchanging best practises of the European regions as well as sharing experiences in the Digital Twin technologies. RESIST will collaborate with projects launched under the EU Mission for Adaptation to Climate Change, e.g. with R4C coordinated by VTT specifically by including a representative of VTT in the External Expert Advisory Board of RESIST and taking part in the Advisory Board of R4C, collaborating in generating the external funds and exchanging best practises of the European regions as well as sharing competencies in the Digital Twin technologies. ERRIN will also leverage its partnership in both the RESIST and PEERS projects and itself continuing work with the EIT Climate KIC, to provide additional support and input to the PEERS project via the RESIST Community of Practice. The PEERS project will work to engage over 100 regions in the Mission itself. Finally, RESIST will also look to ensure that partners are active on the Mission Platform and engage within the wider Community of Practice.

Interdependence with tasks: all.

Deliverables/Outputs: D5.8 – Advisory Board composition (M6).

Milestones: M5.4 (M3) - Collaboration with JRC.

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Participant	WP1	WP2	WP3	WP4	WP5	Total Person-Months
1 - SINTEF	40.00	4.00	21.10	7.00	32.80	104.90
2 - INOVA+	11.00	130.00	20.00	53.00	53.00	267.00
3 - ESF	30.00				12.00	42.00
4 - ADELPHI	76.70		6.20		2.50	85.40
5 - AUGMENTCITY	163.00		12.00		2.80	177.80
6 - KU Leuven	16.00		2.00	15.00	2.00	35.00
7 - ZSI	2.60		5.10	37.20	2.60	47.50
8 - ERRIN		21.20	16.00	5.00	15.40	57.60
9 - REVOLVE				48.00	8.00	56.00
10 - SERN		66.70		13.30	2.80	82.80
11 - RCSF			61.00		2.00	63.00
12 - CITY OF TURKU			90.10		2.00	92.10
13 - TUAS			71.00		3.00	74.00
14 - UTU			53.90		2.10	56.00
15 - LUKE			46.30		2.00	48.30
16 - REGION EMT			17.90		2.10	20.00
17 - DUTH			100.00		2.00	102.00
18 - ENORA			46.50		1.50	48.00
19 - NORMANDIE			68.00		2.00	70.00

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28.00

36.00 70.00 33.00 10.00 72.00 24.00 37.90 36.30 26

Staff effort per participant

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Participant	WP1	WP2	WP3 WP4	WP5	Total Person-
20 - CEREMA			25.00	3.00	
21 - OFB			34.00	2.00	
22 - RM			00.89	2.00	
23 - AU			31.00	2.00	
24 - NATURSTYRELSEN			8.00	2.00	
25 - VIA UC			70.50	1.50	
26 - NIRAS			22.50	1.50	
27 - BLEKINGE			35.90	2.00	
28 - BTH			34.40	1.90	
29 - ZPR			98.00	2.00	
30 - INT			34.00	2.00	
31 - UPC			102.00	2.00	
32 - UOC			46.00	2.00	
33 - HYDS			88.00	2.00	
34 - TERRASSA CC			34.00	2.00	
35 - BLANES			34.00	2.00	
36 - REGIONE PUGLIA			38.60	2.00	
37 - TECNOPOLIS PST			51.80	2.00	
38 - CIMBAL			09:06	2.00	
39 - ITECONS			18.00	2.00	
40 - CCDRC			10.00	2.00	

104.00

48.00

36.00

36.00 36.00 36.00 40.60 92.60

20.00

53.80

12.00

Staff effort per participant

Grant Preparation (Work packages - Effort screen) — Enter the info.

Particinant	WP1	WP2	WP3	WP4	WPS	Total Person-Months
41 - CIM-RC			58.00		2.00	00.09
42 - CIMT			58.00		2.00	00.09
43 - BLC3			30.50		1.50	32.00
44 - FORESTWISE			22.50		2.00	24.50
45 - IPP			27.30		1.50	28.80
46 - FUNDECYT PCTEX			14.60		1.00	15.60
47 - UEX			135.00		2.00	137.00
48 - VESTERALEN			8.00		1.00	00.6
49 - ANDFJORD			8.50		1.50	10.00
50 - MEDIOTEJO21			26.50		2.00	28.50
51 - CEDES			4.00	11.00	2.00	17.00
52 - ACCENT SUD			4.00	9.00	2.50	15.50
53 - ONU			12.00	21.00	3.00	36.00
54 - DGPF EXTREMADUR			52.60		2.00	54.60
55 - FASTTRACK		48.00			4.00	52.00
56 - MUSEUM NORD			44.50		1.00	45.50
Total Person-Months	339.30	269.90	2117.40	219.50	225.50	3171.60

LIST OF DELIVERABLES

Grant Preparation (Deliverables screen) — Enter the info.

Deliverables

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: 4				E		4
Denverable No	Deliverable Deliverable Name No	work Package No	Lead Beneficiary	Lype	Dissemination Level	Due Date (month)
D1.1	Needs Assessment for Leading Regions	WP1	4 - ADELPHI	R — Document, report	PU - Public	9
D1.2	Transfer methodology to twins	WP1	4 - ADELPHI	R — Document, report	SEN - Sensitive	24
D1.3	Framework for transfer to other regions	WP1	4 - ADELPHI	R — Document, report	PU - Public	48
D1.4	4 training workshops on GDT	WP1	1 - SINTEF	DEC —Websites, patent filings, videos, etc	PU - Public	9
D1.5	Backend/Frontend architecture	WP1	5 - AUGMENTCITY	OTHER	SEN - Sensitive	24
D1.6	GDT Roll-out deployment version	WP1	5 - AUGMENTCITY	DEM — Demonstrator, pilot, prototype	PU - Public	48
D1.7	Framework/repository of tech approaches/ WPI tools	WP1	6 - KU Leuven	DEM — Demonstrator, pilot, prototype	PU - Public	12
D1.8	Benchmark report	WP1	6 - KU Leuven	R — Document, report	PU - Public	54
D1.9	Inclusive Gender Equality / Ethics WPI framework	WP1	3 - ESF	R — Document, report	PU - Public	9
D1.10	Needs Assessment for Twinning Regions	WP1	4 - ADELPHI	R — Document, report	PU - Public	6
D1.11	Needs Assessment for Leading and WPI Twinning Regions updated and finalised	WP1	4 - ADELPHI	R — Document, report	PU - Public	12
D1.12	Integration of ethical standards and the WP1	WP1	3 - ESF	R — Document, report	PU - Public	30

Ssociated with document Ref. Ares(2022)8439002 - 06/12/2022

Deliverables

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Deliverable No	Deliverable Deliverable Name No	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
	principles of gender equality, diversity, inclusion in the project activities					
D1.13	Framework/repository of nature based WPI solutions and tech approaches/tools	WP1	6 - KU Leuven	R — Document, report	PU - Public	30
D2.1	Articles on RESIST Community of Practice WP2	WP2	8 - ERRIN	DEC—Websites, patent filings, videos, etc	PU - Public	13
D2.2	Community of Practice Playbook	WP2	8 - ERRIN	R — Document, report	PU - Public	48
D2.3	Exploitation Workshop 1	WP2	2 - INOVA+	DEC—Websites, patent filings, videos, etc	PU - Public	36
D2.4	Exploitation Workshop 2	WP2	2 - INOVA+	DEC—Websites, patent filings, videos, etc	PU - Public	48
D2.5	Scalability Plan	WP2	2 - INOVA+	R — Document, report	PU - Public	99
D2.6	Matchmaking Session for Scalability Plan WP2 initial deployment	WP2	2 - INOVA+	DEC—Websites, patent filings, videos, etc	PU - Public	58
D2.7	Programme of webinars and missions for WP2 external ecosystems	WP2	10 - SERN	DEC—Websites, patent filings, videos, etc	PU - Public	12
D2.8	VC Financing Plan	WP2	55 - FASTTRACK	DEC—Websites, patent filings, videos, etc	SEN - Sensitive	09
D2.9	Initial VC Financing Plan	WP2	55 - FASTTRACK	R — Document, report	SEN - Sensitive	36
D2.10	Initial Guidelines on Business Plans WP2	WP2	2 - INOVA+	R — Document, report	SEN - Sensitive	18

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Deliverable No	Deliverable Deliverable Name No	Work Package No	Lead Beneficiary	Туре	Dissemination Level	Due Date (month)
	structure and use of the demonstrators' exploitable outcomes					
D2.11	Report on the Exploitation and Business Plans development intermediate	WP2	2 - INOVA+	R — Document, report	SEN - Sensitive	48
D2.12	Report on the Exploitation and Business WP2 Plans development final	WP2	2 - INOVA+	R — Document, report	SEN - Sensitive	09
D2.13	Programme of webinars and missions for WP2 external ecosystems – updated version	WP2	10 - SERN	DEC—Websites, patent filings, videos, etc	PU - Public	36
D3.1	Benchmark analysis regulatory measures in FI	WP3	13 - TUAS	R — Document, report	PU - Public	12
D3.2	CBA of NBS solutions/Inspirational WP3 catalogue	WP3	14 - UTU	R — Document, report	PU - Public	36
D3.3	Stormwater systems/ sub-catchments in demos	WP3	12 - CITY OF TURKU	DEM — Demonstrator, pilot, prototype	PU - Public	54
D3.4	FI Transferability plans to twins	WP3	15 - LUKE	R — Document, report	PU - Public	24
D3.5	Transferability report	WP3	11 - RCSF	R — Document, report	PU - Public	48
D3.6	Network of loggers	WP3	25 - VIA UC	OTHER	PU - Public	12
D3.7	XR simulations created	WP3	23 - AU	OTHER	PU - Public	24
D3.8	2 demo houses built	WP3	24 - NATURSTYRELSEN	DEM — Demonstrator, pilot, prototype	PU - Public	24

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Deliverable No	Deliverable Deliverable Name No	Work Package No	Lead Beneficiary	Туре	Dissemination Level	Due Date (month)
D3.9	5th generation district heating/cooling WP3 network	WP3	25 - VIA UC	OTHER	PU - Public	24
D3.10	ML and App	WP3	25 - VIA UC	OTHER	PU - Public	24
D3.11	Socio-economic decision support tool for WP3 CCA	WP3	22 - RM	R — Document, report	PU - Public	36
D3.12	DK Transfer plans for twins	WP3	23 - AU	R — Document, report	PU - Public	24
D3.13	Handbook	WP3	22 - RM	R — Document, report	PU - Public	48
D3.14	Transformative solutions	WP3	30 - INT	DEC —Websites, patent filings, videos, etc	PU - Public	36
D3.15	Multi-Hazard Early Warning System TRL9	WP3	33 - HYDS	R — Document, report	PU - Public	36
D3.16	Impact-based Site-Specific Warning TRL9	WP3	31 - UPC	R — Document, report	PU - Public	36
D3.17	Tailored Apps/frontend visualisat. tools WP3	WP3	33 - HYDS	R — Document, report	PU - Public	36
D3.18	Inclusive framework to disaster management WP3 and community adaptation	WP3	32 - UOC	DEM — Demonstrator, pilot, prototype	PU - Public	42
D3.19	CAT CCA transfer plans to twins	WP3	30 - INT	R — Document, report	PU - Public	24
D3.20	Multifunction Bioeconomy Tool	WP3	43 - BLC3	DEM — Demonstrator, pilot, prototype	PU - Public	48
D3.21	Lignocellulosic biomass valorization TRL7 WP3	WP3	44 - FORESTWISE	OTHER	PU - Public	36

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Deliverable No	Deliverable Deliverable Name No	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D3.22	Biomass fuel process TRL9	WP3	45 - IPP	DEM — Demonstrator, pilot, prototype	PU - Public	54
D3.23	Genetic map of best performance plant	WP3	43 - BLC3	OTHER	PU - Public	36
D3.24	PT CCA transfer plans to twins	WP3	41 - CIM-RC	R — Document, report	PU - Public	24
D3.25	Final outputs in Large-scale Demonstrator in SW Finland with Twinning in Normandy and East Macedonia	WP3	11 - RCSF	R — Document, report	PU - Public	09
D3.26	Final outputs in Large-scale Demonstrator in Central Denmark with Twinning in Blekinge and Zemgale	WP3	22 - RM	R — Document, report	PU - Public	09
D3.27	Final outputs in Large-scale Demonstrator in Catalonia with Twinning in Puglia and Baixo Alentejo	WP3	31 - UPC	R — Document, report	PU - Public	09
D3.28	Final outputs in Large-scale Demonstrator in CentroPortugal with Twinning in Vesterålen and Extremadura	WP3	40 - CCDRC	R — Document, report	PU - Public	09
D3.29	Initial Design of the Multifunction WP3 Bioeconomy Tool	WP3	43 - BLC3	R — Document, report	PU - Public	18
D4.1	Transformative Social Innovation Strategy	WP4	7 - ZSI	R — Document, report	PU - Public	24
D4.2	Social Impact Assessment	WP4	7 - ZSI	R — Document, report	PU - Public	55

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Deliverable No	Deliverable Deliverable Name No	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D4.3	Report on TSI Co-Creation Workshops and social innovation processes	WP4	7 - ZSI	DEC —Websites, patent filings, videos, etc	PU - Public	09
D4.4	Communication and Dissemination Plan/ WP4 Visual Identity Guide	WP4	9 - REVOLVE	DEC —Websites, patent filings, videos, etc	PU - Public	3
D4.5	Website & Communication Packs	WP4	9 - REVOLVE	DEC —Websites, patent filings, videos, etc	PU - Public	9
D4.6	Report on Digital Campaigns in 12 regions	WP4	9 - REVOLVE	R — Document, report	PU - Public	58
D4.7	Virtual Interactive Exhibit 1	WP4	2 - INOVA+	DEC —Websites, patent filings, videos, etc	PU - Public	36
D4.8	Virtual Interactive Exhibit 2	WP4	2 - INOVA+	DEC —Websites, patent filings, videos, etc	PU - Public	09
D4.9	Final conference	WP4	2 - INOVA+	DEC —Websites, patent filings, videos, etc	PU - Public	09
D4.10	List of scientific publications/presentations	WP4	6 - KU Leuven	R — Document, report	PU - Public	09
D4.11	Communication and Dissemination Plan/ WP4 Visual Identity Guide updated	WP4	9 - REVOLVE	DEC —Websites, patent filings, videos, etc	PU - Public	30
D4.12	Communication and Dissemination Plan/ Visual Identity Guide finalised	WP4	9 - REVOLVE	DEC —Websites, patent filings, videos, etc	PU - Public	48
D5.1	Project Handbook	WP5	2 - INOVA+	R — Document, report	SEN - Sensitive	1

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Deliverable No	Deliverable Deliverable Name No	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D5.2	Quality Monitoring Reports 1	WP5	2 - INOVA+	R — Document, report	SEN - Sensitive	12
D5.3	Quality Monitoring Reports 2	WP5	2 - INOVA+	R — Document, report	SEN - Sensitive	24
D5.4	Quality Monitoring Reports 3	WP5	2 - INOVA+	R — Document, report	SEN - Sensitive	36
D5.5	Quality Monitoring Reports 4	WP5	2 - INOVA+	R — Document, report	SEN - Sensitive	48
D5.6	Strategic Management Guidelines	WP5	1 - SINTEF	R — Document, report	SEN - Sensitive	3
D5.7	Data Management Plan	WP5	3 - ESF	DMP — Data Management Plan	SEN - Sensitive	9
D5.8	Advisory Board composition	WP5	8 - ERRIN	R — Document, report	PU - Public	9
D5.9	Data Management Plan updated	WP5	3 - ESF	DMP — Data Management Plan	SEN - Sensitive	30
D5.10	Data Management Plan finalised	WP5	3 - ESF	DMP — Data Management Plan	SEN - Sensitive	09

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Deliverable D1.1 – Needs Assessment for Leading Regions

Deliverable Number	D1.1	Lead Beneficiary	4. ADELPHI
Deliverable Name	Needs Assessment for Leadin	ng Regions	
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	6	Work Package No	WP1

Description	
Needs Assessment for Leading Regions	

Deliverable D1.2 – Transfer methodology to twins

Deliverable Number	D1.2	Lead Beneficiary	4. ADELPHI
Deliverable Name	Transfer methodology to twins		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	24	Work Package No	WP1

Description	
Transfer methodology to twins	

$Deliverable\ D1.3-Framework\ for\ transfer\ to\ other\ regions$

Deliverable Number	D1.3	Lead Beneficiary	4. ADELPHI
Deliverable Name	Framework for transfer to other regions		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	48	Work Package No	WP1

Description	
Framework for transfer to other regions	

Deliverable D1.4 – 4 training workshops on GDT

Deliverable Number	D1.4	Lead Beneficiary	1. SINTEF
Deliverable Name	4 training workshops on GD7	Γ	
Туре	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	6	Work Package No	WP1

Description	
4 training workshops on GDT	

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Deliverable D1.5 – Backend/Frontend architecture

Deliverable Number	D1.5	Lead Beneficiary	5. AUGMENTCITY
Deliverable Name	Backend/Frontend architecture		
Туре	OTHER	Dissemination Level	SEN - Sensitive
Due Date (month)	24	Work Package No	WP1

Description	
Backend/Frontend architecture	

Deliverable D1.6 – GDT Roll-out deployment version

Deliverable Number	D1.6	Lead Beneficiary	5. AUGMENTCITY
Deliverable Name	GDT Roll-out deployment ve	ersion	
Туре	DEM — Demonstrator, pilot, prototype	Dissemination Level	PU - Public
Due Date (month)	48	Work Package No	WP1

Description	
GDT Roll-out deployment version	

Deliverable D1.7 – Framework/repository of tech approaches/tools

Deliverable Number	D1.7	Lead Beneficiary	6. KU Leuven
Deliverable Name	Framework/repository of tech	n approaches/tools	
Туре	DEM — Demonstrator, pilot, prototype	Dissemination Level	PU - Public
Due Date (month)	12	Work Package No	WP1

Description

Framework/repository of tech approaches/tools. The report with the integrated framework to describe, understand and assess CCA solutions. Such solutions descriptions are then structured in a repository that allows/supports the presentation, querying and better understanding of the solutions.

Deliverable D1.8 – Benchmark report

Deliverable Number	D1.8	Lead Beneficiary	6. KU Leuven
Deliverable Name	Benchmark report		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	54	Work Package No	WP1

DescriptionBenchmark report - it is the report with the results of the assessment and benchmark of the different solutions and how

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far the regions stand with respect to this. The repository would also allow to add regions and new innovative solutions, but also e.g. regions where the replicated a solution in a different context.

Deliverable D1.9 - Inclusive Gender Equality / Ethics framework

Deliverable Number	D1.9	Lead Beneficiary	3. ESF
Deliverable Name	Inclusive Gender Equality / E	Ethics framework	
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	6	Work Package No	WP1

Description Inclusive Gender Equality / Ethics framework

Deliverable D1.10 – Needs Assessment for Twinning Regions

Deliverable Number	D1.10	Lead Beneficiary	4. ADELPHI
Deliverable Name	Needs Assessment for Twinning Regions		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	9	Work Package No	WP1

Description	
Needs Assessment for Twinning Regions	

Deliverable D1.11 – Needs Assessment for Leading and Twinning Regions updated and finalised

Deliverable Number	D1.11	Lead Beneficiary	4. ADELPHI
Deliverable Name	Needs Assessment for Leading and Twinning Regions updated and finalised		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	12	Work Package No	WP1

Description	
Needs Assessment for Leading and Twinning Regions updated and finalised	

Deliverable D1.12 – Integration of ethical standards and the principles of gender equality, diversity, inclusion in the project activities

Deliverable Number	D1.12	Lead Beneficiary	3. ESF
Deliverable Name	Integration of ethical standards and the principles of gender equality, diversity, inclusion in the project activities		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	30	Work Package No	WP1

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Description

Integration of ethical standards and the principles of gender equality, diversity, inclusion in the project activities

Deliverable D1.13 – Framework/repository of nature based solutions and tech approaches/tools

Deliverable Number	D1.13	Lead Beneficiary	6. KU Leuven
Deliverable Name	Framework/repository of nature based solutions and tech approaches/tools		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	30	Work Package No	WP1

Description

Framework/repository of nature based solutions and tech approaches/tools

Deliverable D2.1 – Articles on RESIST Community of Practice

Deliverable Number	D2.1	Lead Beneficiary	8. ERRIN
Deliverable Name	Articles on RESIST Commu	nity of Practice	
Type	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	13	Work Package No	WP2

Description

Articles on RESIST Community of Practice defining envisaged design of the Community and including an articulation of its mission, vision, goals, and member norms and agreements.

Deliverable D2.2 - Community of Practice Playbook

Deliverable Number	D2.2	Lead Beneficiary	8. ERRIN
Deliverable Name	Community of Practice Playb	pook	
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	48	Work Package No	WP2

Description

Community of Practice Playbook is a document developed in synergy with WP4 results that will consists of guidance, good practices from among key methods/tools implemented as well as feedback on the LSD/twinning activities, aimed to assist various stakeholders to develop, engage and empower successful communities of practice.

Deliverable D2.3 - Exploitation Workshop 1

Deliverable Number	D2.3	Lead Beneficiary	2. INOVA+
Deliverable Name	Exploitation Workshop 1		

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

V 1	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	36	Work Package No	WP2

Description	
Exploitation Workshop 1	

Deliverable D2.4 – Exploitation Workshop 2

Deliverable Number	D2.4	Lead Beneficiary	2. INOVA+
Deliverable Name	Exploitation Workshop 2		
Туре	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	48	Work Package No	WP2

Description	
Exploitation Workshop 2	

Deliverable D2.5 – Scalability Plan

Deliverable Number	D2.5	Lead Beneficiary	2. INOVA+
Deliverable Name	Scalability Plan		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	56	Work Package No	WP2

Description	
Scalability Plan	

Deliverable D2.6 – Matchmaking Session for Scalability Plan initial deployment

Deliverable Number	D2.6	Lead Beneficiary	2. INOVA+
Deliverable Name	Matchmaking Session for Sca	alability Plan initial deployme	nt
Туре	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	58	Work Package No	WP2

Description	
Matchmaking Session for Scalability Plan initial deployment	

Deliverable D2.7 – Programme of webinars and missions for external ecosystems

Deliverable Number D2.7	Lead Beneficiary	10. SERN
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Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Deliverable Name	Programme of webinars and missions for external ecosystems			
Туре	DEC —Websites, patent ilings, videos, etc Dissemination Level PU - Public			
Due Date (month)	12	Work Package No	WP2	

Description	
Programme of webinars and missions for external ecosystems	

Deliverable D2.8 – VC Financing Plan

Deliverable Number	D2.8	Lead Beneficiary	55. FASTTRACK
Deliverable Name	VC Financing Plan		
Type	DEC —Websites, patent filings, videos, etc	Dissemination Level	SEN - Sensitive
Due Date (month)	60	Work Package No	WP2

Description	
VC Financing Plan	

Deliverable D2.9 – Initial VC Financing Plan

Deliverable Number	D2.9	Lead Beneficiary	55. FASTTRACK
Deliverable Name	Initial VC Financing Plan		
Туре	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	36	Work Package No	WP2

Description
D2.9 Initial VC Financing Plan

$\label{lem:policy} \textbf{Deliverable D2.10-Initial Guidelines on Business Plans structure and use of the demonstrators' exploitable outcomes$

Deliverable Number	D2.10	Lead Beneficiary	2. INOVA+	
Deliverable Name	Initial Guidelines on Business Plans structure and use of the demonstrators' exploitable outcomes			
Туре	R — Document, report Dissemination Level SEN - Sensitive			
Due Date (month)	18	Work Package No	WP2	

Description	
Initial Guidelines on Business Plans structure and use of the demonstrators' exploitable outcomes	

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Deliverable D2.11 - Report on the Exploitation and Business Plans development intermediate

Deliverable Number	D2.11	Lead Beneficiary	2. INOVA+
Deliverable Name	Report on the Exploitation and Business Plans development intermediate		
Туре	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	48	Work Package No	WP2

Description

Report on the Exploitation and Business Plans development intermediate

Deliverable D2.12 - Report on the Exploitation and Business Plans development final

Deliverable Number	D2.12	Lead Beneficiary	2. INOVA+
Deliverable Name	Report on the Exploitation and Business Plans development final		
Туре	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	60	Work Package No	WP2

Description

Report on the Exploitation and Business Plans development final

$\label{eq:Deliverable D2.13-Programme of we binars and missions for external ecosystems-updated version$

Deliverable Number	D2.13	Lead Beneficiary	10. SERN
Deliverable Name	Programme of webinars and	missions for external ecosyster	ms – updated version
Туре	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	36	Work Package No	WP2

Description

 $Programme\ of\ we binars\ and\ missions\ for\ external\ ecosystems-updated\ version$

Deliverable D3.1 - Benchmark analysis regulatory measures in FI

Deliverable Number	D3.1	Lead Beneficiary	13. TUAS
Deliverable Name	Benchmark analysis regulatory measures in FI		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	12	Work Package No	WP3

Description

Benchmark analysis regulatory measures in FI

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

$Deliverable\ D3.2-CBA\ of\ NBS\ solutions/Inspirational\ catalogue$

Deliverable Number	D3.2	Lead Beneficiary	14. UTU
Deliverable Name	CBA of NBS solutions/Inspir	rational catalogue	
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	36	Work Package No	WP3

Description
CBA of NBS solutions/Inspirational catalogue

Deliverable D3.3 – Stormwater systems/ sub-catchments in demos

Deliverable Number	D3.3	Lead Beneficiary	12. CITY OF TURKU
Deliverable Name	Stormwater systems/ sub-cate	chments in demos	
Туре	DEM — Demonstrator, pilot, prototype	Dissemination Level	PU - Public
Due Date (month)	54	Work Package No	WP3

Description	
Stormwater systems/ sub-catchments in demos	

Deliverable D3.4 – FI Transferability plans to twins

Deliverable Number	D3.4	Lead Beneficiary	15. LUKE
Deliverable Name	FI Transferability plans to twins		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	24	Work Package No	WP3

Description	
FI Transferability plans to twins	

Deliverable D3.5 – Transferability report

Deliverable Number	D3.5	Lead Beneficiary	11. RCSF
Deliverable Name	Transferability report		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	48	Work Package No	WP3

Description	
Transferability report	

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

$Deliverable\ D3.6-Network\ of\ loggers$

Deliverable Number	D3.6	Lead Beneficiary	25. VIA UC
Deliverable Name	Network of loggers		
Туре	OTHER	Dissemination Level	PU - Public
Due Date (month)	12	Work Package No	WP3

Description	
Network of loggers	

Deliverable D3.7 – XR simulations created

Deliverable Number	D3.7	Lead Beneficiary	23. AU
Deliverable Name	XR simulations created		
Туре	OTHER	Dissemination Level	PU - Public
Due Date (month)	24	Work Package No	WP3

Description	
XR simulations created	

Deliverable D3.8 – 2 demo houses built

Deliverable Number	D3.8	Lead Beneficiary	24. NATURSTYRELSEN
Deliverable Name	2 demo houses built		
Туре	DEM — Demonstrator, pilot, prototype	Dissemination Level	PU - Public
Due Date (month)	24	Work Package No	WP3

Description	
2 demo houses built	

$Deliverable\ D3.9-5th\ generation\ district\ heating/cooling\ network$

Deliverable Number	D3.9	Lead Beneficiary	25. VIA UC
Deliverable Name	5th generation district heating/cooling network		
Туре	OTHER	Dissemination Level	PU - Public
Due Date (month)	24	Work Package No	WP3

Description	
5th generation district heating/cooling network	

 $\label{eq:project:101093968} \textbf{--} \, \text{RESIST} \, \textbf{--} \, \text{HORIZON-MISS-2021-CLIMA-02}$

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Deliverable D3.10 – ML and App

Deliverable Number	D3.10	Lead Beneficiary	25. VIA UC
Deliverable Name	ML and App		
Туре	OTHER	Dissemination Level	PU - Public
Due Date (month)	24	Work Package No	WP3

Description	
ML and App	

Deliverable D3.11 - Socio-economic decision support tool for CCA

Deliverable Number	D3.11	Lead Beneficiary	22. RM
Deliverable Name	Socio-economic decision support tool for CCA		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	36	Work Package No	WP3

Description	
Socio-economic decision support tool for CCA	

Deliverable D3.12 – DK Transfer plans for twins

Deliverable Number	D3.12	Lead Beneficiary	23. AU
Deliverable Name	DK Transfer plans for twins		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	24	Work Package No	WP3

Description	
DK Transfer plans for twins	

Deliverable D3.13 - Handbook

Deliverable Number	D3.13	Lead Beneficiary	22. RM
Deliverable Name	Handbook		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	48	Work Package No	WP3

Description

Based on experiences with transfer and replication of plans, tools and best practices to twinning regions, the handbook will be made as a guide to further advance replication in other contexts. The handbook will include experiences on transnational replication and how to transfer knowledge from one context to another to be used by officials within CCA engaging in cross-border transfer and replication. The guide will also include a description of tools to develop replication through technologies such as XR.

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Deliverable D3.14 – Transformative solutions

Deliverable Number	D3.14	Lead Beneficiary	30. INT
Deliverable Name	Transformative solutions		
Туре	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	36	Work Package No	WP3

Description

Fact Sheets on RESIST transformative solutions for the Disaster Risk Management Strategy of the local and regional Civil Protection". This material will be open to the public and made available through the RESIST project website and/or other websites.

Deliverable D3.15 - Multi-Hazard Early Warning System TRL9

Deliverable Number	D3.15	Lead Beneficiary	33. HYDS
Deliverable Name	Multi-Hazard Early Warning System TRL9		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	36	Work Package No	WP3

Description	
Multi-Hazard Early Warning System TRL9	

Deliverable D3.16 – Impact-based Site-Specific Warning TRL9

Deliverable Number	D3.16	Lead Beneficiary	31. UPC
Deliverable Name	Impact-based Site-Specific Warning TRL9		
Туре	R — Document, report Dissemination Level PU - Public		
Due Date (month)	36	Work Package No	WP3

Description	
Impact-based Site-Specific Warning TRL9	

Deliverable D3.17 - Tailored Apps/frontend visualisat. tools TRL9

Deliverable Number	D3.17	Lead Beneficiary	33. HYDS
Deliverable Name	Tailored Apps/frontend visua	lisat. tools TRL9	
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	36	Work Package No	WP3

Description
Tailored Apps/frontend visualisat. tools TRL9

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Deliverable D3.18 - Inclusive framework to disaster management and community adaptation

Deliverable Number	D3.18	Lead Beneficiary	32. UOC
Deliverable Name	Inclusive framework to disast	ter management and communi	ty adaptation
Туре	DEM — Demonstrator, pilot, prototype	Dissemination Level	PU - Public
Due Date (month)	42	Work Package No	WP3

Description

Inclusive framework to disaster management and community adaptation

Deliverable D3.19 - CAT CCA transfer plans to twins

Deliverable Number	D3.19	Lead Beneficiary	30. INT
Deliverable Name	CAT CCA transfer plans to twins		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	24	Work Package No	WP3

Description

CAT CCA transfer plans to twins

Deliverable D3.20 – Multifunction Bioeconomy Tool

Deliverable Number	D3.20	Lead Beneficiary	43. BLC3
Deliverable Name	Multifunction Bioeconomy T	ool	
Туре	DEM — Demonstrator, pilot, prototype	Dissemination Level	PU - Public
Due Date (month)	48	Work Package No	WP3

Description

Multifunction Bioeconomy Tool

Deliverable D3.21 – Lignocellulosic biomass valorization TRL7

Deliverable Number	D3.21	Lead Beneficiary	44. FORESTWISE
Deliverable Name	Lignocellulosic biomass valorization TRL7		
Туре	OTHER	Dissemination Level	PU - Public
Due Date (month)	36	Work Package No	WP3

Description

Lignocellulosic biomass valorization TRL7

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Deliverable D3.22 – Biomass fuel process TRL9

Deliverable Number	D3.22	Lead Beneficiary	45. IPP
Deliverable Name	Biomass fuel process TRL9		
Туре	DEM — Demonstrator, pilot, prototype	Dissemination Level	PU - Public
Due Date (month)	54	Work Package No	WP3

Description	
Biomass fuel process TRL9	

Deliverable D3.23 – Genetic map of best performance plant

Deliverable Number	D3.23	Lead Beneficiary	43. BLC3
Deliverable Name	Genetic map of best performance plant		
Туре	OTHER	Dissemination Level	PU - Public
Due Date (month)	36	Work Package No	WP3

Description
Genetic map of best performance plant

Deliverable D3.24 – PT CCA transfer plans to twins

Deliverable Number	D3.24	Lead Beneficiary	41. CIM-RC
Deliverable Name	PT CCA transfer plans to twins		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	24	Work Package No	WP3

Description	
PT CCA transfer plans to twins	

Deliverable D3.25 – Final outputs in Large-scale Demonstrator in SW Finland with Twinning in Normandy and East Macedonia

Deliverable Number	D3.25	Lead Beneficiary	11. RCSF	
Deliverable Name	Final outputs in Large-scale Demonstrator in SW Finland with Twinning in Normandy and East Macedonia			
Type	R — Document, report Dissemination Level PU - Public			
Due Date (month)	60	Work Package No	WP3	

Description
Final outputs in Large-scale Demonstrator in SW Finland with Twinning in Normandy and East Macedonia

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Deliverable D3.26 – Final outputs in Large-scale Demonstrator in Central Denmark with Twinning in Blekinge and Zemgale

Deliverable Number	D3.26	Lead Beneficiary	22. RM
Deliverable Name	Final outputs in Large-scale Demonstrator in Central Denmark with Twinning in Blekinge and Zemgale		
Туре	R — Document, report Dissemination Level PU - Public		
Due Date (month)	60	Work Package No	WP3

Description Final outputs in Large-scale Demonstrator in Central Denmark with Twinning in Blekinge and Zemgale

Deliverable D3.27 – Final outputs in Large-scale Demonstrator in Catalonia with Twinning in Puglia and Baixo Alentejo

Deliverable Number	D3.27	Lead Beneficiary	31. UPC	
Deliverable Name	Final outputs in Large-scale Demonstrator in Catalonia with Twinning in Puglia and Baixo Alentejo			
Туре	R — Document, report	R — Document, report Dissemination Level PU - Public		
Due Date (month)	60	Work Package No	WP3	

Description
Final outputs in Large-scale Demonstrator in Catalonia with Twinning in Puglia and Baixo Alentejo

Deliverable D3.28 – Final outputs in Large-scale Demonstrator in CentroPortugal with Twinning in Vesterålen and Extremadura

Deliverable Number	D3.28	Lead Beneficiary	40. CCDRC
Deliverable Name	Final outputs in Large-scale Demonstrator in CentroPortugal with Twinning in Vesterålen and Extremadura		
Туре	R — Document, report Dissemination Level PU - Public		
Due Date (month)	60	Work Package No	WP3

Description
Final outputs in Large-scale Demonstrator in CentroPortugal with Twinning in Vesterålen and Extremadura

Deliverable D3.29 – Initial Design of the Multifunction Bioeconomy Tool

Deliverable Number	D3.29	Lead Beneficiary	43. BLC3
Deliverable Name	Initial Design of the Multifunction Bioeconomy Tool		
Туре	R — Document, report Dissemination Level PU - Public		
Due Date (month)	18	Work Package No	WP3

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Description Initial Design of the Multifunction Bioeconomy Tool

Deliverable D4.1 – Transformative Social Innovation Strategy

Deliverable Number	D4.1	Lead Beneficiary	7. ZSI
Deliverable Name	Transformative Social Innovation Strategy		
Туре	R — Document, report Dissemination Level PU - Public		
Due Date (month)	24	Work Package No	WP4

Description
Transformative Social Innovation Strategy

Deliverable D4.2 – Social Impact Assessment

Deliverable Number	D4.2	Lead Beneficiary	7. ZSI
Deliverable Name	Social Impact Assessment		
Туре	R — Document, report Dissemination Level PU - Public		
Due Date (month)	55	Work Package No	WP4

Description	
Social Impact Assessment	

Deliverable D4.3 – Report on TSI Co-Creation Workshops and social innovation processes

Deliverable Number	D4.3	Lead Beneficiary	7. ZSI
Deliverable Name	Report on TSI Co-Creation V	Vorkshops and social innovation	on processes
Туре	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	60	Work Package No	WP4

Description
Report on TSI Co-Creation Workshops and social innovation processes

$Deliverable\ D4.4-Communication\ and\ Dissemination\ Plan/Visual\ Identity\ Guide$

Deliverable Number	D4.4	Lead Beneficiary	9. REVOLVE
Deliverable Name	Communication and Dissemination Plan/Visual Identity Guide		
Туре	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	3	Work Package No	WP4

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Description

Communication and Dissemination Plan/Visual Identity Guide

Deliverable D4.5 – Website & Communication Packs

Deliverable Number	D4.5	Lead Beneficiary	9. REVOLVE
Deliverable Name	Website & Communication P	acks	
Туре	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	6	Work Package No	WP4

Description

Website & Communication Packs

Deliverable D4.6 - Report on Digital Campaigns in 12 regions

Deliverable Number	D4.6	Lead Beneficiary	9. REVOLVE
Deliverable Name	Report on Digital Campaigns in 12 regions		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	58	Work Package No	WP4

Description

Report on Digital Campaigns in 12 regions

Deliverable D4.7 – Virtual Interactive Exhibit 1

Deliverable Number	D4.7	Lead Beneficiary	2. INOVA+
Deliverable Name	Virtual Interactive Exhibit 1		
Туре	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	36	Work Package No	WP4

Description

Virtual Interactive Exhibit 1

Deliverable D4.8 – Virtual Interactive Exhibit 2

Deliverable Number	D4.8	Lead Beneficiary	2. INOVA+
Deliverable Name	Virtual Interactive Exhibit 2		
Туре	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	60	Work Package No	WP4

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Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Description Virtual Interactive Exhibit 2

Deliverable D4.9 – Final conference

Deliverable Number	D4.9	Lead Beneficiary	2. INOVA+
Deliverable Name	Final conference		
Type	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	60	Work Package No	WP4

Description	
Final conference	

Deliverable D4.10 – List of scientific publications/presentations

Deliverable Number	D4.10	Lead Beneficiary	6. KU Leuven
Deliverable Name	List of scientific publications/presentations		
Туре	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	60	Work Package No	WP4

Description	
List of scientific publications/presentations	

Deliverable D4.11 - Communication and Dissemination Plan/Visual Identity Guide updated

Deliverable Number	D4.11	Lead Beneficiary	9. REVOLVE
Deliverable Name	Communication and Dissemination Plan/Visual Identity Guide updated		
Туре	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	30	Work Package No	WP4

Description	
Communication and Dissemination Plan/Visual Identity Guide updated	

Deliverable D4.12 - Communication and Dissemination Plan/Visual Identity Guide finalised

Deliverable Number	D4.12	Lead Beneficiary	9. REVOLVE
Deliverable Name	Communication and Dissemination Plan/Visual Identity Guide finalised		
Туре	DEC —Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	48	Work Package No	WP4

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Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Description

 $D4.12\ Communication\ and\ Dissemination\ Plan/Visual\ Identity\ Guide\ finalised\ (M48)\ -\ lead\ REVOLVE,\ Type-DEC,\ dissemination\ level\ -\ PU$

Deliverable D5.1 - Project Handbook

Deliverable Number	D5.1	Lead Beneficiary	2. INOVA+
Deliverable Name	Project Handbook		
Туре	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	1	Work Package No	WP5

Description	
Project Handbook	

Deliverable D5.2 – Quality Monitoring Reports 1

Deliverable Number	D5.2	Lead Beneficiary	2. INOVA+
Deliverable Name	Quality Monitoring Reports		
Туре	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	12	Work Package No	WP5

Description	
Quality Monitoring Reports 1	

Deliverable D5.3 – Quality Monitoring Reports 2

Deliverable Number	D5.3	Lead Beneficiary	2. INOVA+
Deliverable Name	Quality Monitoring Reports 2	2	
Туре	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	24	Work Package No	WP5

Description	
Quality Monitoring Reports 2	

Deliverable D5.4 – Quality Monitoring Reports 3

Deliverable Number	D5.4	Lead Beneficiary	2. INOVA+
Deliverable Name	Quality Monitoring Reports 3		
Туре	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	36	Work Package No	WP5

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Description Quality Monitoring Reports 3

Deliverable D5.5 – Quality Monitoring Reports 4

Deliverable Number	D5.5	Lead Beneficiary	2. INOVA+
Deliverable Name	Quality Monitoring Reports 4		
Туре	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	48	Work Package No	WP5

Description
Quality Monitoring Reports 4

Deliverable D5.6 – Strategic Management Guidelines

Deliverable Number	D5.6	Lead Beneficiary	1. SINTEF
Deliverable Name	Strategic Management Guidelines		
Туре	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	3	Work Package No	WP5

Description	
Strategic Management Guidelines	

Deliverable D5.7 – Data Management Plan

Deliverable Number	D5.7	Lead Beneficiary	3. ESF
Deliverable Name	Data Management Plan		
Туре	DMP — Data Management Plan	Dissemination Level	SEN - Sensitive
Due Date (month)	6	Work Package No	WP5

Description	
Data Management Plan	

Deliverable D5.8 – Advisory Board composition

Deliverable Number	D5.8	Lead Beneficiary	8. ERRIN
Deliverable Name	Advisory Board composition		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	6	Work Package No	WP5

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

Description	
Advisory Board composition	

Deliverable D5.9 – Data Management Plan updated

Deliverable Number	D5.9	Lead Beneficiary	3. ESF
Deliverable Name	Data Management Plan upda	ted	
Туре	DMP — Data Management Plan	Dissemination Level	SEN - Sensitive
Due Date (month)	30	Work Package No	WP5

Description	
Data Management Plan updated	

Deliverable D5.10 – Data Management Plan finalised

Deliverable Number	D5.10	Lead Beneficiary	3. ESF
Deliverable Name	Data Management Plan finali	sed	
Туре	DMP — Data Management Plan	Dissemination Level	SEN - Sensitive
Due Date (month)	60	Work Package No	WP5

Description	
Data Management Plan finalised	

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

LIST OF MILESTONES

Project: 101093968 — RESIST — HORIZON-MISS-2021-CLIMA-02

Milestones					
Grant Prepar	Grant Preparation (Milestones screen) — Enter the info.				
Milestone No	Milestone Name	Work Package No Lead Beneficiary		Means of Verification	Due Date (month)
1	M5.3 - Launch of Ethics HelpDesk/ WP5 appointment Ethics Advisor		3-ESF	Contract advisor / contacts HD	2
7	M5.2 – Kickoff/approval mgmt. guidelines; WP5 M5.4 – collaboration JRC	WP5	1-SINTEF	Minutes / Collaboration agreem.	3
3	M4.2 – Launch of project website / WP4 collaboration platform	WP4	9-REVOLVE	Access to platform (public/reser.)	9
4	M1.3 – Framework and repository of WP1 technical innovations	WP1	6-KU Leuven	Access to Repository (public). The milestone is to have this consolidated/integrated framework, but also the repository of data and tools (which can be further complemented/enhanced in the course of the project).	12
N	M1.1 — Conclusion assessment of LSD implementation/transfer method M1.2 — First GDT public demo; M2.1 RESIST Community of Practice; M2.2 Small-scale sessions held in the 4 demonstration regions	WP2, WP1	5-AUGMENTCITY	Publication of assessment report/access to GDT/ Launch of CoP M1.1 – Conclusion assessment of LSD implementation/transfer method M1.2 – First GDT public demo; M2.1 RESIST Community of Practice; M2.2 Small-scale sessions held in the 4 demonstration region	24
9	M3.1 / M3.2 / M3.3 / M3.4 – Public results of Demonstrators/ M4.3 Virtual interactive exhibit campaign activities and outcomes	WP3, WP4	8-ERRIN	Reports, videos, pics	48
7	M4.1 - Conclusion of TSI and Co-creation workshops; M3.2 Matchmaking meetings and webinars organised with results owners from each RESIST LSD	WP3, WP4	7-ZSI	Workshops minutes, reports, pics	55

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Milestones					
Grant Prepar	Grant Preparation (Milestones screen) — Enter the info.				
Milestone No	Milestone Name	Work Package No Lead Beneficiary	Lead Beneficiary	Means of Verification	Due Date (month)
∞	M2.2 - Conclusion/ publication of Scalability WP2 Plan (public version)	WP2	2-INOVA+	Publication on public website	28
6	M1.4 - Ethics/gender report on KPIs WP2, WP3, WP5, achievement; M2.4 - Funding round; M4.3 WP1, WP4 - Final conference; M5.1 - Successful completion; M4.3 Virtual interactive exhibit activities and outcomes; M3.1 / M3.2 / M3.3 / M3.4 Final outcomes of demonstrators	WP2, WP3, WP5, WP1, WP4	2-INOVA+	Publication/ Report funding round /report final conf. / Final report/Final outcomes of demonstrators	09
10	M2.3. Identified at least 30 innovation wP2, WP1 ecosystems; M1.4 Integration of ethical standards and the principles of gender equality, diversity, inclusion in the project activities; M1.3 Framework/repository of nature based solutions and tech approaches/ tools	WP2, WP1	10-SERN	M2.3. Identified at least 30 innovation ecosystems with a high number of innovative startups that are eager to transfer and further develop towards the market the most promising CCA innovations from RESIST regions M1.4 Integration of ethical standards and the principles of gender equality, diversity, inclusion in the project activities: M1.3 Framework/repository of nature based solutions and tech approaches/tools.	30

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

LIST OF CRITICAL RISKS

Critical risks & risk management strategy

Grant Preparation (Critical Risks screen) — Enter the info.

Risk number

All consortium partners are highly committed to the project, but risk of potential underperforming partners in the project could be encountered. The risk is mitigated by the project structure, governance and management procedures that will allow to recognise and react to such issues. The project management team will continuously monitor performed work vs. project plan and decide on adequate corrective actions, e.g., shifting the required resources towards the tasks requiring more attention, re-assessing the expected results of the task and focusing on the critical path, etc. Critical path: In worst-case scenario, with the task in question part of WP and experience of partners assures that the probability of this risk is low and that problems projects' critical path, the overall project timing will be re-assessed, and an updated work Path-dependencies: In the main project development phase, close interaction and coordination of work across all WPs will be assured through coordinating activities in WP5 with special emphasis on the link to WP1-4. Governance: The project management structure, Consortium: One of the requisites for demonstration leads is connection to strong regional networks and to regional opinion/decision-makers. Approach: The project uses co-creation **Proposed Mitigation Measures** are rapidly recognised. plan implemented. WP5, WP5, Time/resources for finalisation of specific tasks are WP2, WP3, WP5, Work Package No(s) WP2, WP3, WP1, WP4 WP3, WP2, WP3 WP1, WP4 WP1, WP4 Lack of acceptance within regions' stakeholders WP3 Lack of interaction across WP's and tasks (low/ Underperformance of partners (medium/medium) underestimated (medium/high) (medium/high) Description medium)

27

partners have experience with these. Showcases: BPs/success stories can be used to showcase

methods to include the variety of stakeholders and to enable active participation, and all

The consortium consists of several experienced partners who have successfully managed innovation processes. Incentives: An initial analysis indicates that innovative organisations that could contribute solutions do exist in each of the regions. Business support: The project

Lack of innovative solutions for adaptation WP3, WP1 (medium/high)

will support co-development of attractive business plans and request funding for growing their business

Critical risks & risk management strategy

Ssociated with document Ref. Ares(2022)8439002 - 06/12/2022

Grant Prepai	Grant Preparation (Critical Risks screen) — Enter the info.		
Risk number	Description	Work Package No(s)	Proposed Mitigation Measures
9	Lack of adequate participation of stakeholder (high/ WP2, WP3, WP4 high)	WP2, WP3, WP4	Participation: Existing networks of all partners will be used to assure the adequate representation of quintuple helix stakeholders for all co-creation events like workshop, etc. Communication: The dissemination concepts for the pilot regions will be developed by professional marketing agencies. High visibility of the project increases the incentive to participate in the project activities.
7	Insufficient incorporation of gender related issue (low/medium)	WP2, WP3, WP1, WP4	WP5, To minimize discriminating (against gender, race, etc.) the methodology of co-creation is used. The composition of working groups (e.g., in workshops) will be selected carefully. Emphasis will be put on diverse and representative sample-groups. All partners are equalopportunity employees with active measures in place (e.g. flexible maternity leave, flexible working policies).
∞	Platforms in use do not meet the regional or project's WP3, WP1 needs (low/high)	WP3, WP1	Preparations: A first analysis of all platforms used (provider, name of product, use cases) and assessment of relevant needs in regions was already conducted. Technical developments: LSDs will further develop platforms (digital/other) partly already in use in regions. Tech providers are integrated in WPI/WP3 to assure that issues can be addressed and that additional functions are easily integrated. Scalability of GDT is addressed by using cached data and cloud infrastructure
6	Standardization recommendations not taken up by regions (high/high)	WP3, WP1	Mutual development: Standardization recommendations will be developed and agreed upon with the regions and relevant stakeholders to increase impact and relevance. Networking: As standardization procedures are time intensive and require different viewpoints all partners will use networks to increase visibility, prior to issuing recommendations, or starting the implementation

Ssociated with document Ref. Ares(2022)8439002 - 06/12/2022

PROJECT REVIEWS

Project: 101093968 — RESIST — HORIZON-MISS-2021-CLIMA-02

Project Reviews Grant Preparation (Reviews screen) — Enter the info.	Review (month)Timing (month)LocationComments	RV1 15	RV2 33	RV3 51	RV4 63	
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		HISTORY OF CHARGES CIATED With document Ref. Ares (2022))8439002 - 06
ersion	Date	Changes	Section
-1	22.07.22	1.1 Primary Coordinator Contact changed to Vilija Balionyte-Merle	Part A
		email: Vilija.Balionyte-Merle@sintef.no, Jan Skjetne	
		Jan.H.Skjetne@sintef.no is Coordinator Contact.	
		1.2 Beneficiary DGPF EXTREMADUR No. 47 PIC 927585102	Part A
		changed to No. 55 PIC 920867270 due to use of non-valid PIC of the	
		same organisation at the proposal stage. Contact person remains the	
		same: Jose Luis Del Pozo Barron, email: joseluis.pozo@juntaex.es.	
		Beneficiary 47 removed from the list.	
		1.3 Beneficiary FastTrack No.11 PIC 887312254 (the UK branch)	Part A
		changed to FastTrack No. 56 PIC 89846967 (Portugal branch) due to	
		the UK still being in the process of associating to the Horizon	
		Europe Programme. Contact person remains the same: Sónia	
		Magalhães, email: smagalhaes@fasttrack.vc	
		Beneficiary 11 removed from the list.	
		1.4 Beneficiaries budget adjustments done in the column of	Part A
		"Requested EU contribution" due to number rounding:	
		No. 2 INOVA: decreased by 0.50 € up to 1,380,312.50 €	
		No. 5 AUGMENTCITY: decreased by 0.50 € up to 1,498,787.50 €	
		No. 12 CITY of TURKU: increased by 0.25 € up to 699,156.25 €	
		No. 14 UTU: increased by 0.25 € up to 382,716.25 €	
		No. 27 BLEKINGE: decreased by 0.50 € up to 351,969.50 €	
		No. 28 BTH: decreased by 0.50 € up to 350,719.50 €	
		No. 32 OUC increased by 0.25 € up to 316,721.25 €	
		No. 33 HYDS decreased by 0.50 € up to 449,487.50 €	
		No. 45 FORESWISE decreased by 0.25€ up to 201,063.75 €	
		No. 55 ACCENT SUD increased by 0.25 € up to 102,656.25 €	
		1.5 Beneficiaries budget adjusted for the Norwegian pilot	Part A
		demonstrator (3 Beneficiaries). The total requested EU funding	1 411111
		remains the same: 701,062.5 €with the following modifications	
		- in €:	
		Beneficiary 48 Vesteralen – 96,875.00 € instead of 150.625 €	
		Beneficiary 50 Lofotr - 525,437.50 € instead of 145,312.50 €	
		Beneficiary 51 Andfjord – 78,750 € instead of 405,125 €	
		- in PMs in - WP3:	
		Beneficiary 48 Vesteralen – 8.0 PMs instead of 11 PMs	
		Beneficiary 50 Lofotr - 44.5 PMs instead of 11.5 PMs	
		Beneficiary 51 Andfjord – 8.5 PMs instead of 54.5 PMs 1.6 Updated the short name of beneficiaries	Dort A
			Part A
		1.7 The milestones' description complemented adding the lead	Part A
		beneficiaries following information given in the WP descriptions	D. t t
		1.8 Risk No.3 mitigation measures adjusted by adding the correct WP	Part A
		numbers (editorial error)	<u> </u>
		1.9 The researchers' data updated	Part A
		1.10 Created a section 4 'ethics self-assessment' and copied	Part B
		information to this section from the ethics self-assessment form which	
		had been part of the proposal Part A	
		1.11 Changed location for the beneficiary FastTrack from the UK to	Part B
		Portugal (p.22) following the branch change from the UK to PT	
		1.12 Table 3.1 Subcontracting costs all harmonised	Part B
		• numbers of beneficiaries adjusted following the new numbering in	
		Part A	
		 added beneficiary No. 56 with 5.000 € subcontracting as per 	
		budget table in Part A of the proposal (editorial error)	
		• beneficiary 48 Vesteralen transferred 20.000 € the same amount	
		of subcontracting to beneficiary 49 Lofotr (both belong to the	
		Norwegian pilot region)	



			,
		 the total amount of subcontraging adjusted from 1.833.994€ to 2022) 	8439002 - 06/1
		1.838.994€ following the information in Part A	D . D
		1.13 Updated beneficiaries' short names	Part B
7.3	22/00/22	1.14 Updated Gantt Chart (short names and numbers of deliverables) 2.1 Beneficiary Lofotr no. 49 PIC 914422105 changed PIC 885514456	Part B Part A
V-2 22/08/22	22/08/22	because it was impossible to conduct the beneficiary validation with	Part A
		old PIC.	
		2.2 Beneficiary Blekinge Institute of Technology (BTH) No.28 PIC	Part A
		999589172 has made changes in the budget by transferring the sub-	1 art /1
		contracting costs (94 697,00 €) to personnel costs. The personnel costs	
		increased from 181 818,00 € to 257 575,60 €.	
		The change has been requested due to available expertise in-house.	
		The number of PMs remains the same because more senior staff	
		members will be engaged in the project.	
		2.3 Deliverables list updated:	Part A
		Deliverables updated:	
		D1.7 updated by providing its content description	
		D1.8 updated by providing its content description	
		D2.1 updated by providing its content description	
	D2.2 updated by providing its content description		
		D3.13 updated by providing its content description.	
		D3.14 updated by providing its content description.	
		D3.15 responsible changed from UPC to HYDS / Type changed from	
		OTHER to R	
		D3.16 responsible changed from UOC to UPC / Type changed from	
		OTHER to R	
		D3.17 Type changed from OTHER to R D3.18 responsible changed from HYDS to UOC	
		D1.1 Needs assessment (M6) changed to the following delivery:	
		D1.1 Needs assessment (wo) changed to the following derivery:	
	D1.10 Needs assessment for Twinning Regions M9		
	D1.11 Needs assessment for Leading and Twinning Regions		
		updated and finalised M12	
		D4.4 name corrected adding "Dissemination".	
		Added deliverables:	
	WP1		
	D1.12 Integration of ethical standards and the principles of gender		
	equality, diversity, inclusion in the project activities (M30) - lead ESF,		
	Type – R, diss. level – PU		
	D1.13 Framework/repository of nature based solutions and tech		
	approaches/tools (M30) – lead KU Leuven, Type – R, diss.level PU		
	WP2 D2.9 Initial VC Financing Plan (M36) - lead FASTTRACK, type – R,		
	diss. level – SENS		
	D2.10 Initial Guidelines on Business Plans structure and use of the		
	demonstrators' exploitable outcomes (M18) – lead INOVA, type – R,		
	diss. level – SENS		
		D2.11 Report on the Exploitation and Business Plans development	
	intermediate (M48), lead INOVA, type R, diss. level - SENS		
	D2.12 Report on the Exploitation and Business Plans development		
	final (M60) - lead INOVA, type R, diss. level – SENS		
		D2.13 Programme of webinars and missions for external ecosystems –	
		updated version (M36) – lead SERN, type DEC, diss. level - PU	
		WP3	
		D3.25 Final outputs in Large-scale Demonstrator in SW Finland with	
	1	Twinning in Normandy and East Macedonia (M60) - lead RCSF, type	1

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D3.26 Final outputs in Large-scale Demonstrator in Central Denmark with Twinning in Blekinge and Zemgale (M60) – lead RM, type – R, diss. level – PU	3439002 - 06/1	2/2022
D3.27 Final outputs in Large-scale Demonstrator in Catalonia with Twinning in Puglia and Baixo Alentejo (M60), lead UPC, type – R, diss.		
level – PU D3.28 Final outputs in Large-scale Demonstrator in CentroPortugal with Twinning in Vesterålen and Extremadura (M60) - lead CCDRC,		
type – R, diss. level – PU D3.29 Initial Design of the Multifunction Bioeconomy Tool (M18) – lead BLC3, type – R, diss.level -PU		
WP4		
D4.11 Communication and Dissemination Plan/Visual Identity Guide updated (M30): lead REVOLVE, type – DEC, diss. level - PU D4.12 Communication and Dissemination Plan/Visual Identity Guide		
finalised (M48) - lead REVOLVE, type – DEC, diss. level – PU WP5		
5.9 Data Management Plan updated (M30): lead – ESF, type – DMP, diss. level - SEN		
D5.10 Data Management Plan finalised (M60): lead – ESF, type – DMP, diss. level – SEN		
2.4 Milestones Milestone M4: its content updated.	Part A	
Milestone M5: additional measure "M2.2 Small-scale sessions held in the 4 demonstration regions"		
Milestone M6: editorial error corrected: M3.1/M3.2/M3.3/M3.4 (instead of M4.4) and additional measure added "M4.3 Virtual interactive exhibit campaign activities and outcomes", indicated WP4.		
Milestone M7: additional measures added "M3.2 Matchmaking meetings and webinars organised with results owners from each RESIST LSD" and indicated WP3.		
Milestone M9: additional measures added 1) M4.3 virtual interactive exhibit activities and outcomes", 2) MM3.1 / M3.2 / M3.3 / M3.4 final outcomes of demonstrators and indicated WP3.		
Milestone M10 (M30) added with the following measures: M2.3. Identified at least 30 innovation ecosystems; M1.4 Integration of ethical standards and the principles of gender equality, diversity, inclusion in the project activities M1.3 Framework/repository of nature based		
solutions and tech approaches/tools 2.5 A sentence added under Task 5.3 "the DMP covers ethics consideration to treatment and storage of personal/sensitive data".	Part A	
2.6 Resources	Part A	
SINTEF: 10.9 PMs moved from WP1 to WP5 to strengthen the		
strategic management (T5.2) and collaboration task (T5.4)		
EERIN: 2.5 PMs moved from WP2 to WP5 to strengthen the collaboration task (T5.4)		
2.7 Table 3.1 Subcontracting costs aligned with Part A due to changes	Part B	
in subcontracting for BTH, included partners acronyms and explanations for subcontracting costs.		
2.8 Task 5.4 specified by adding "RESIST will collaborate with projects	Part B	
launched under the EU Mission for Adaptation to Climate Change, e.g.		
with R4C coordinated by VTT specifically by including a representative of VTT in the External Expert Advisory Roard of RESIST and taking		
of VTT in the External Expert Advisory Board of RESIST and taking part in the Advisory Board of R4C, collaborating in generating the		
external funds and exchanging best practises of the European regions		
as well as sharing competencies in the Digital Twin technologies.		



V-3	10/10/22	ERRIN will also leverage its partnership in both the RESIST Ares (1992). PEERS projects and itself continuing work with the EIT Climate KIC, to provide additional support and input to the PEERS project via the RESIST Community of Practice. The PEERS project will work to engage over 100 regions in the Mission itself. Finally, RESIST will also look to ensure that partners are active on the Mission Platform and engage within the wider Community of Practice". 2.9 MTK and also the others (Finnish Forest Centre, ELY Centre, and Turku Business Region) will act as a stakeholder, therefore references to them as to associated partners have been removed in section 1.2.2. 3.1 Beneficiary Vesteralen no. 46 PIC 925 669 546 changed to PIC 885 391 557 because it was impossible to conduct the beneficiary validation with old PIC.	Part B
		3.2 Beneficiary Regione Puglia no. 36 PIC 900317432 changed to PIC 999523503 because it has been already validated PIC for the beneficiary in the system.	Part A
		3.3 Updated Table 3.1g Description and justification of subcontracting costs providing detailed explanation of the costs 3.4 Updated Table 3.1h 'Purchase costs' items (travel and subsistence, equipment and other goods, works and services) providing detailed explanation of the costs.	Part B Part B
		3.5 The SW Finland demonstrator side specified on p.11, specifically "Paattistenjoki river leading to Vähäjoki-Aurajoki rivers" changed to "Savijoki river leading to Aurajoki river"	Part B
		 3.6 Budget adjustments: Partner No. 16 REGION EMT moved 9.000 € from equipment to other goods, works and services Partner No.17 DUTH moved 24.000 € from equipment to other goods, works and services Partner No. 55 DGPF EXTREMADUR moved 5.000 € from subcontracting to travel (4.000 € travel and 1.000 € overheads) Partner No. 25 VIA UC has modified its budget structure: 100.000€ added to sub-contracting following a clarification of linked cost items 70.000 € moved from equipment to subcontracting 30.000 € moved from other goods, works and services to subcontracting 12.000 € added to personnel costs Partner No. 25 VIA UC total budget share decreased by 10.000€ Partner No. 1 SINTEF increased their total budget by 10.000 € (added 8.000€ to personnel costs) due to remaining budget after refinement made at VIA UC to slightly cover the resources adjustment referred in point 2.6 in this document. 	Part A
V-4	28/10/22	3.7 LOFOTR PIC 885514456 has been replaced by its mother company MUSEUM NORD PIC 936214707 with the same budget provisions 4.1 Updated Table 3.1g Description and justification of subcontracting	Part A Part B
·	20/10/22	costs providing detailed explanation of the costs 4.2 Updated Table 3.1h 'Purchase costs' items (travel and subsistence,	Part B
		equipment and other goods, works and services) providing detailed explanation of the costs.	1 art D
-			



SECTIONS 1 - 3 Associated with document Ref. Ares(2022)8439002 - 06/12/2022



Letters of Intent (uploaded in Participants Portal): Regional Council of Southwest Finland; Région Normandie; Region of Eastern Macedonia & Thrace; Region Midtjylland; Region Blekinge, Zemgale Planning Region; Generalitat de Catalunya; Regione Puglia, Comunidade Intermunicipal Baixo Alentejo; Comissão Coordenação e Desenvolvimento Regional do Centro; Vesterålen Regionråd; Junta de Extremadura

Letters of Support (uploaded in same document): City of Turku; Metsäkeskus Forest Centre; Centre for Economic Development, Transport and the Environment of Southwest Finland; Ministry of Agriculture and Forestry of Finland; CEREMA - Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement; Hedensted Kommune; Horsens Kommune; Lemvig Kommune; Norddjurs Kommune; Randers Kommune; ACCIÒ – Agency for Business Competiveness of Catalonia; Comunidade Intermunicipal da Região de Coimbra; Comunidade Intermunicipal do Médio-Tejo.

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List of abbreviations: LSD: Large-Scale Demonstrator; CC: Climate Change; CCA: Climate Change Adaptation; GDT: Graphic Digital Twin; Twin: Twinning Region; XR: Extended Reality; AI: Artificial Intelligence; KPI: Key Performance Indicator; WP: Work Package; GA: Grant Agreement; CA: Consortium Agreement; ERDF: European Regional Development Fund; NextGen: Next Generation EU Funds; VC: Venture Capital Funds; IRL: Innovation Readiness Level;



1. EXCELLENCE (

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

"Planet Earth faces a ghastly future of mass extinction, declining health and climate-disruption upheavals. The scale of threats to the biosphere and all its lifeforms – including humanity – is in fact so great that it is difficult to grasp for even well-informed experts". These sobering words are from a report in 'Frontiers in Conservation Science' published January 2021, written by a group of top scientists and that says the planet is in a much worse state than most people – even scientists – understood. Most of the effects of climate change (CC) are now irreversible and adaptation is more necessary than ever. But despite this and according to the World Bank², the R&D efforts in adaptation have very much stagnated in comparison with mitigation and are concentrated only in a limited number of countries, leaving many vulnerable areas in EU (including most of less developed regions) in need of innovative solutions for improved climate resilience. The recent IPCC 6th Assessment Report³ has again confirmed these facts.

With RESIST we believe that unconventional challenges need unconventional approaches. At a time when Europe faces unprecedented challenges in terms of CC, with its regions more and more vulnerable to sea level rise, erosion, flooding, drought and fires, and when other great challenges (COVID, Ukraine war) take the centre stage and diverge efforts and public attentions from climate changes, its policymakers and professionals are called more than ever for

coming forward with 'out of the box' solutions that can promote innovation, protect welfare and stimulate resilience by limiting negative impacts and indicate new adaptation pathways. EU is united in this challenge under the Green Deal banner and is calling on countries and regions to take action, but change cannot come from the top government level alone - as Gary Hamel said, "change must come from bottom, after all how often has the monarch led the uprising?4" - and must be driven by regions, civil society, businesses and local research & entrepreneurial communities, with regionspecific quintuple-helix approaches⁵, but also with increased collaboration amongst and transfer of know-how from more to less experienced regions.

RESIST is up to this challenge and will strengthen the resilience and accelerate the transformation and increase adaptive capacity of 12 climatevulnerable EU regions, implementing 4 large-scale demonstrators (including 1 in a less developed region) of resilient innovations for Climate Change Adaptation (CCA) at *air*, *water* and *soil* level with quintuple-helix partnerships, and promote transfer of know-how and innovative solutions to 8 twin regions (of which 4 less developed regions) through both physical mutual-learning activities and innovative immersive digital twins. The consortium will engage Regions, EU associations, CCA research groups, scientific experts, social engagement and communication institutions, innovation agencies and 1 Venture Capital Fund to co-create and validate innovative solutions, raise awareness, leverage citizens participation and promote sustainable exploitation of results towards the markets.

1.1 Objectives and Ambition

Over the last years the planetary climate emergency has finally become socially widely admitted⁶ and the urgency to adapt and react in front of CC effects have passed from being considered a scientific discussion to be a

social priority with huge

implications.

The COVID-19 pandemic first, and now the tragic war in Ukraine, have largely taken public attention away from CC issues and relieved public pressure for quicker policy change, but the problem is more urging than ever and has again been placed at the centre of the EU agenda in 2020 by an agreement by EU leaders to reduce CO2 emissions by 55% until 2030. Such an ambitious objective, implying both the adoption of new innovations, polices and measures and the phase-out of inadequate ones, and with strong community engagement, can only be achieved through experimentation and demonstration, as shown in Fig. 1.1.

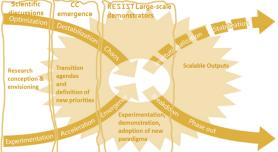


Figure 1.1 – Experimentation as change-driver (Loorbach et al. 2017)

https://www.frontiersin.org/articles/10.3389/fcosc.2020.615419/full;

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Table 1.1. RESIST factcheck

- 4 demonstrators in 4 more experienced and vulnerable EU regions in terms Climate Change Adaptation (Southwest Finland, Central Denmark, Catalonia and Centro Portugal, the latter a ERDF less developed region)
- less experienced regions as Twinning Regions per demonstrator, which demonstrator from less developed regions)
- 16m€ allocated for demonstrators and twinning regions
- 12m citizens directly outreached in 10m demonstrators another and citizens outreached through the & additional twinning regions
- 3% of EU territory covered by digital twins in line with DestinE
- 12 letters of intent from 12 regional authorities in the EU₁ responsible for over **21 billion euros of** ERDF/nextgen funds in the current period, regarding their commitment fund t.o continue to activities, beyond its end
- +100 new and innovative adaptation products, regulations, policies and methods validated in 1 Sustainability Plan
- 25m€ of private venture capital funding available within the project partnership to fund business results from start-ups
- 50% gender balance in terms allocated staff resources

https://blogs.worldbank.org/climatechange/innovation-climate-change-adaptation-does-it-reach-those-who-need-it-most

https://www.ipcc.ch/assessment-report/ar6/
 Strategy as a Revolution', Gary Hamel, Harvard Business Review

⁵ https://innovation-entrepreneurship.springeropen.com/articles/10.1186/2192-5372-1-2

⁶ You can find over 482 M of links in google, amongst which <u>climateemergencydeclaration.org</u>, <u>www.theclimatemobilization.org</u> or <u>www.climatealliance.org</u>.



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RESIST will contribute to this EU agenda, through intervention in 3 main areas:

- Promote and demonstrate an innovative and more participative approach to resilience and CCA adaptation in 4 demonstrator and 8 twinning regions (including 5 less developed regions in total) demonstrating >12 new solution lines (technologies, social methods, polices - KPI #1 and #8), accelerating regional resilience and helping reach the adaptation-mission objectives of 'building resilience and upscaling solutions through 100 demonstrators and accelerating the transition in 200 pilot regions and communities by 2030' reaching already 4% and 6% of these aims by 2027, with 4 demonstrators and the involvement of 12 regions;
- Co-design and contribute to the development of new regional measures, policy instruments and social and technological solutions in 12 regions involving 22m citizens (KPI # 2 and #10), increasing community awareness/resilience by 10% (KPI #19) and levels of green investments by 20% (KPI # 6 and #9), reducing economic losses due to natural hazards such as floods by 14% (KPI #5) and climate protection gap (KPI #18) by 50%;
- Reduce time-to-market/risk for >100 new CCA Solutions from providers across Europe, offering them coaching, business support and potential regional markets to scale-up their solutions, within the present proposal, aiming to create >1000 new direct jobs and >80.000 indirect ones (KPI #12), and inject over 500m€ in the economy (KPI #13).

The ambition of the project is to demonstrate innovative resilient solutions for water/air/land CC issues – including a number of research results from previous R&D projects, such as NBS based stormwater retention systems, new incentive mechanisms, IoT data loggers, early warning systems and apps, micro-ownership planning tools, mobile biomass transformation equipment and immersive 4D visualization systems - and promote the sustainable upscale of these new solutions towards end-users for increased regional resilience towards climate change, resulting in increases in public and private green investments, reduction of regional climate protection gaps and, ultimately, social benefits (reduced number of climate change related deaths, improvements in quality of life - measured in KPI #19) and economic growth (KPIs #6, 12, 13, 14 and 15). More specifically, RESIST objectives are as follows:

Table 1.2. Specific objectives (SO)/challenges to be addressed, innovative outputs and KPIs (see also Section 2 for more detail on KPIs)

SO1: Implementation of 4 Large Scale Demonstrators for Innovative Climate Change Resilience (WP1/WP3) Outputs KPIs:

RESIST will promote a common framework (within T1.1) for regions to implement Large-Scale demonstrators (LSD) to experiment/validate new adaptation solutions based on tech tools, social measures, incentives, and regulatory policy instruments, in order to find answers to increase resilience to CC issues. Regions will tap into on-going/recent innovative projects (of EU or regional scale) and will be encouraged to use further innovative tools and frameworks mapped in T1.3, as e.g., the framework used in Leuven 20307. An ethics/gender framework for demonstrators will also be developed (in T1.4) and monitored. Demonstrators will be implemented in 4 regions (including 1 less developed region) in WP3, through a total of 22 partners representing quintuple-helix approaches, and 1 immersive Graphical Digital Twin (GDT) will be developed for each region (T1.2), promoting stakeholders and citizen engagement/participation. The LSD WP will be coordinated by ERRIN and supported through WP2 (towards business sectors/markets), WP4 (civil society) and WP5 (policy makers).

- a) 4 Large-Scale demonstrators, #1: No of tested new policy with 12 different lines of
- 22 organisations directly involved from governance (4)/ business (4) / research (8) /civil sectors (6);
- c) Up to 12m citizens outreached with 10% directly involved in +500 experiments, and GDT
- d) 4 immersive Graphic Digital Twins (GDT)
- e) 50% of activities /investment for floods
- f) 8b€ of ERDF/Nextgen funding available in region
- g) 50% participation of women in LSDs

- instruments and CCA Solutions:
- #2: No of citizens involved in demo activities:
- N^{o} #3: of involved:
- #4: Area covered by GDT (Km²)
- #5: Reduced flood damaged costs (€)
- #6: Increase in climate related regional funds (%)
- #7:Gender balance indicators (% of women actively involved LS Demonstrators actions)

SO2: Transfer of know-how/innovation to 8 Twinning Regions, through cross-border mutual learning and Graphical Digital Twin (WP1/WP3) Outputs KPIs:

Each LSD in RESIST will be paired with 2 less-experienced (as regards CCA issues) twinning regions with similar vulnerabilities and challenges, of which 1 will be a less-developed region. In total up to 10m citizens can be outreached through these twin activities, which will happen through mutual learning physical activities (workshops, joint events, transfer of know-how through dedicated deliverables in WP3) and by means of Digital Twin development and demonstrations, resulting in over +100 planned demonstration activities in the twinning regions. CCA impacts, ethics and gender compliance will be monitored using the

- 8 Transferability developed within WP3 and +8 GDTs developed in T1.2;
- 19 local organisations involved in twin activities governance (8)/ business (2), research (6)/ civil sectors (3);
- Up to 10m citizens outreached in 8 regions, of which 5% directly, outreached
- k) 13b€ of ERDF/Nextgen

- Plans #8: No of transferred CCA solutions:
 - #9. Increase in Regional Green Investments (%);
 - #10: No of citizens engaged twinning in activities
 - Gender balance indicators (%

https://www.leuven2030.be/

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frameworks developed in WP1, and outputs will be screened and 4) 50% women participation women involved in Associated with document Ref. Ares (2022) 8439002 - 06/12/2022 supported in their scalability trough WP2, WP4 and WP5. twin regions activities)

SO3: Develop viable scalability plans for demonstrated solutions, making use of public and private funds and collaboration with other entrepreneurial ecosystems (WP2) Outputs:

Co-creation amongst demonstrators will be fostered in T2.1 and RESIST will upscale outputs from the project and support and coach local stakeholders from a sustainable 'blue-ocean' perspective (T2.2) and develop a final Scalability Plan (D2.5) proposing innovative pathways forwards for each Exploitable Result, covering issues such as Business Model Concept, market analysis, social impact and funding, incl. public instruments such as HE/regional funds. Results (social & tech) will be promoted towards +50 other EU entrepreneurial ecosystems (T2.3) and screened by VC Fund with +25m€ for green solutions (T2.4).

m) +100 Exploitable businessoriented Results;

- n) +50 business plans screened by VCs
- o) +50 mentoring sessions;
- p) 2 Exploitation Worskhops
- q) 1 Matchmaking event
- r) 1 Scalability Plan

KPIs:

- #12: No jobs created (2030) #13: Total Revenues Expected in Business Plans (m€);
- #14: Public investment in Green solutions from quintuple-helix (m€);
- #15: Private investment in Green Business Solutions (m€)

SO4: Promote wide stakeholder engagement and increase of region's massive community resilience to climate change (WP4) KPIs:

RESIST will capitalise on the window of opportunity that the LS Demonstrators and Twinning approaches provide through actively integrating narratives of change and supporting social innovation processes. To do so, it will implement a Transformative Social Innovation (TSI) Strategy (T4.1) that shall leverage the implementation of the LSD and Twinning by initiating change processes in social practices and relations, based on new ways of doing, organising, knowing and framing regional practices, and thus creating social impacts through social innovation. Citizens will also be outreached through communication digital communication strategies (T4.2) and events, virtual exhibitions (T4.3), while scientific stakeholders will be reached through publications and conferences in **T4.4**.

- 1 social impact monitoring #16: 10.000 campaign questionnaires
- 12 Virtual Exhibitions
- u) 1 Final Event with +100 physical and +1000 digital
- v) +25 scientific publications and +150 posters/presentations
- w)+ 5000 researchers reached incl. +50 of Ukraine via P56
- x) 50% reduction protection gap

- Nº attendants workshops, events;
- Level of survey responses
- Reduction of Climate #18 protect. gap (%)
- Increased level of awareness/confidenc e at regional level in terms of social impacts in regions (level of selfimprovement in %);

SO5: Upscale results towards Policy makers, regulators and European institutions (WP5)

Through WP5 RESIST will promote interface policymakers at EU, national and regional level. First, and above all, with the EC for successful two-way communication on the project, its progress and outputs, but also (through T5.2) with other projects/EU R&I initiatives in CCA and support of a highlevel advisory board with policy-makers in other regions (T5.4)

y) +12 regions signing the Mission Charter

Outputs:

- Cooperation with +20 projects
- aa) 100% approval rate for project deliverables & costs
- KPIs:
- #20: No regions signing mission-charter
- #21:Nº of cooperation agreements signed other with projects/initiatives

1.2 Methodology

1.2.1. OVERALL METHODOLOGICAL APPROACH



Figure 1.2 - Methodological approach No.101093968

RESIST aims to ensure wide support to adaptation solutions by regional governments and mobilising the respective support and regional funding programmes (from ERDF and NextGenEU) to support the mission objectives. The innovative solutions demonstrated and validated by this project will strongly tackle governance, societal needs and citizen behaviours, as well as public and financing targets, following the methodological approach represented in Fig. 1.2. At the core of RESIST are the Large-Scale Demonstration (LSD) activities of innovative solutions - in water/air/land CC issues - for more climate-resilient regions that will be implemented in 4 front-runner regions (Southwest Finland, Central Denmark, Catalonia and Centro Portugal, the latter a less developed region) in terms of climate change adaptation. Each of these demonstrators will be paired with 2 Twinning Regions, one more developed region and one less developed region (as regards ERDF criteria) that will act as followers for adoption of adaptation practices and innovations. LSD/twinning activities take place in WP3.

RESIST



A 'newgen' immersive Graphical Digital Twin (GDT) will be developed within WP1 (T1.2) for each demonstrator to facilitate and accelerate local engagement, twinning and dissemination of results beyond the project, towards both business and economic communities and social stakeholders and citizens. The focus, challenges and innovation ambitions of the demonstrators/twinning regions are described in detail in section 1.2.2. The cross-fertilization and mutual learning between demonstrators and their interface with climate change practice community, including scientific, technology and practitioner actors (in WP1), businesses and investors communities (in WP2), civil society (in WP4) and policy makers and regulators including the EU (in WP5), will allow the project to achieve its farreaching objectives, through the methods described below:

a) Alignment of demonstrators with CCA best practices and policy trends (WP1): To achieve a high-level resilience of EU regions towards the CC impacts a transformative adaptation approach is necessary and will form the basis of the development of the LS demonstrators and their subsequent transfer to twinning regions and beyond. A more systemic approach to adaptation is an integrative part of the EU's new adaptation strategy and transformational change as an outcome of adaptation is widely supported on the international level (UNFCCC, 2019). Transformative adaptation goes beyond dealing with individual climate risks and explicitly questions societal structures that support social inequalities and existing power relations. Fedele et al. (2019) describe transformative adaptation as fundamental changes in the ecological and/or societal properties and functions of a system, with the aim of reducing the causes of vulnerability to climate change and creating more sustainable, resilient states. In this sense, transformative adaptation can be understood as part of a societal socio-ecological transformation, and a central requirement for a successful transformative adaptation is the design of custom-fit solutions and the continuous adaptation of strategies. The need for pronounced flexibility and, if necessary, realignment on the basis of evaluation results is therefore an important component. In addition, tailor-made measures are needed to link adaptation goals with economic, ecological or health-related interests. Transformative adaptation solutions should have a cross-actor and cross-level impact in order to contribute to systemic change. This approach to adaptation, will be the basis of the framework to be developed in T1.1 by adelphi and that will guide the work in implementation of demonstrators.

b) Collaboration between demonstrators and leverage of results towards business sector and investor communities (WP2): The upscaling of project results towards commercial exploitation and final end-users will be carried out through a series of complementary activities that will combine in bringing demonstrators outputs closer to the market. Under T.2.1, ERRIN will lead the promotion of mutual learning and peer reviewing of activities and outputs between demonstrators and will build and manage the RESIST Community of Practice (CoP) composed of the 4 demonstrators, the 8 twinning regions, and their quintuple-helix stakeholders. Within the CoP activities to exchange, learn, cross-fertilise, test, and deploy the most suitable solutions and exchange best practices across regions will be developed, including Peer Reviews and Open Webinars and Workshops. The goal is to promote sustainability, uptake and scalability of RESIST results outside the consortium by fostering knowledge-sharing and mutual-learning amongst members of the Community of Interest. These activities will be complemented by T2.2 (Business innovation and exploitation activities), led by INOVA+ and that will support all oriented partners in the demonstrators in the development of their exploitation paths. The final results will be compiled into a single Scalability Plan (D2.5) pointing to clear exploitation paths for each of the project outputs from all the 12 regions. For this task, INOVA+ will build on its 15+ experience of developing similar plans for EU cities and regions under the EU programmes <u>URBACT</u> and <u>Urban Innovation Actions</u>. For this stage, to be carried out within Task 2.2, partners will make use of Design Thinking methods tested in several earlier projects to develop a clear and innovative vision on: i) markets to be targeted; ii) adaptation technologies it will build on; iii) creativity and degree of innovation; iv) market offer and social impact. These will in turn be the inputs for the final "Scalability Plan", that for all relevant scalable outputs will address the following issues: a) Business model concepts (applications, production/industrialisation, target markets, competitors, price definition, financial needs, impact and time to market); b) Development Plans (with focus on the continuity of the actions and exploitation of results over the subsequent 36 months); c) Funding opportunities (need in terms of training, assistance and services on all financial matters concerning seeking finance and financial investment); and d) Business Partnerships (sale channels, tech partners and other business partnerships).



The following schema (Fig. 1.3) shows interaction between Validated Outputs (from WP3) and the Scalability Plan conceived in WP2 for their scale-up. Once this is achieved, Business Plans from Business partners will be screened by the VC partner to discuss investment opportunities (in *Task* 2.4) and disseminated towards EU innovation and entrepreneurial ecosystems (in T2.3), and regional authorities will be helped with applying for public

Funding Sources, at EU (eg Horizon Europe, LIFE+, etc.), national or regional level. The upscaling towards other business ecosystems will be led by SERN that will engage its <u>network of members</u>, which entail a large range of stakeholders of the innovation ecosystems - from entrepreneurs, startups, innovation agencies, incubators & accelerators, universities, chambers of commerce, business associations to public bodies in >50 entrepreneurial &



innovation ecosystems in EU and beyond, and promote an environment for exchange and networking development and match with potential interested business partners or investors to further expand these models and solutions in their territories. Within *T2.4* business partners will receive support to leverage private investment (particularly, equity investment), according to their Investment Readiness Level (IRL). IRL will be quantitatively assessed using an adapted version of the SME Instruments methodology, which tackles four main dimensions: i) product and technology readiness level; ii) market readiness level; iii) leadership capability and management readiness level; iv) financial strategy observation. Based on the initial IRL, business partners will be matched with private investors, incl. business angels (BA), Venture Capitalists (VC), etc., that best suit their needs and readiness. Warm introductions between partners & investors will be organized, as well as support on preparing materials (investment teaser, pitch presentation, financials, etc.). FASTTRACK, a fund with +25m to invest in green tech, leads this task.

- c) Social and civil society outreach (WP4): WP4 will comprehend a series of tasks to interface the project demonstration activities with civil society at large and measure the social impacts achieved. Partners including ZSI, REVOLVE, ESF and ERRIN amongst others will capitalise on the window of opportunity that the LSDs and Twinning approaches provide through actively integrating narratives of change and supporting social innovation processes. Based on the RESIST Transformative Social Innovation Strategy (TSI, D4.1) and the RESIST Social Impact Monitoring and Evaluation Concept (SIMEC, D4.2) reflexive regional change processes will complete the LSDs and will be monitored and evaluated within the 12 regions for their social impact. Social engagement will be based in a Multi-level networking approach to support the strategic establishment of relations in the pilot regions (develop empowering collectives), support the strategic establishment of relations between the pilots, the Twinning-regions and trans-local networks, strategic support of stakeholder groups in establishing a narrative of change and connecting it with institutional change, strategic support of stakeholder groups in connecting pilots to broader changes in the socio-technical context and thus establish empowered regional groups dedicated to systemic transformation. Monitoring will happen through baseline surveys, 4 monitoring meeting per pilot/year, ex-post questionnaires and on the spot-evaluation meetings to establish societal impacts achieved.
- d) <u>Upscaling towards EU policy makers, regulators and institutions (WP5)</u>: The coordination and steering of the RESIST project will also ensure the permanent interface with EU policy makers, regulatory and planning institutions and projects, in Brussels and across all of Europe. In addition to on-going contacts with the European Commission for project management, evaluation and monitoring, the project will develop a permanent interface (through ERRIN) to the Climate Change Adaptation Mission and ensure adherence to the <u>Mission Charter</u>, and will set-up a high-level advisory board with regional representatives to develop links with regions beyond the present partnership. ESF will monitor adherence to ethics/data mgmt requirements, and with KU Leuven will promote scientific dissemination.

1.2.2. LARGE-SCALE DEMONSTRATORS AND TWINNING ACTIVITIES (WP3)

Every response to the impacts of climate change and the design of adaptation solutions must be specific to each region. As such, regional and local authorities have a significant role to play for adaptation to climate change, and our RESIST project builds from this reality, with its implementation being anchored in the challenges of 4 vulnerable regions across Europe and its links with a further 8 Twinning regions, as presented below:

Table 1.3 – Summary of Regions involvement

Vulnerabilities Demonstrator approach

Twinning

Region	Vulnerabilities	Demonstrator approach	Twinning regions	Twinning approach	Total regional funds available (2021-2027)
Southwest Finland	Droughts, Floods	NBS for stormwater retention	Normandy, East Macedonia	Twin plan, GDT, co-creation workshops	5b€
Central Denmark	Sea level rise, erosion	Data loggers, NBS protections	Blekinge, Zemgale	Twin plan, GDT, co-creation workshops	3b€
Catalonia	Floods, droughts, heatwaves, fires	Multi-hazard Early Warning Systems	Puglia, Baixo Alentejo	Twin plan, GDT, co-creation workshops	6b€
Centro Portugal	Droughts, heat, forest fires	Landscape planning and biomass conversion	Vesteralen, Extremadura	Twin plan, GDT, co-creation workshops	7b€

Large Scale Demonstrator: Southwest Finland



The **Region of Southwest (SW) Finland** (population **479.000**) is a diverse bundle of 27 municipalities, including City of Turku, the region's vibrant centre with around 195.000 inhabitants, but also municipalities from 1000 inhabitants with dispersed settlement. SW Finland is a high-income developed region, situated at the coast of the vulnerable Archipelago Sea which is in a critical stage due to excessive nutrient runoff mainly from agriculture and aggravated by CC effects. The City of Turku has been driving climate adaptation in the region for +20 years, and the region is amongst EU most experienced regions in addressing CCA. According

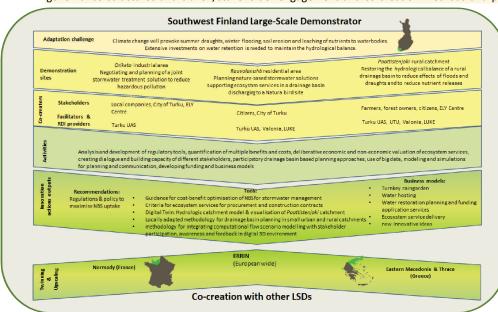
to the <u>CDP</u> organisation, Turku ranks among the world's best climate cities (Class A as of November 2021), and in 2020 Turku was selected as the best climate city in the European Covenant of Mayors Awards in the category of middle-sized cities that use a diverse range of innovative digital tools in all stages of climate resilience planning and citizen involvement. The City of Turku and local R&D partners (TUAS and UTU) have been working together in



numerous projects linked with stormwater management such as H2020 in RESPONSE (IntegRatEd Solutions for 1022) POsitive eNergy and reSilient Cities). In RESIST partners will establish collaboration with MTK (Central Union of Agri Producers/Forest Owners), Finnish Forest Centre, ELY Centre, and Turku Business Region.

VULNERABILITY / EXPOSURE TO CC: SW Finland is called Finland's granary and is of great significance for the food security of the whole country. There are approximately 5000 farmers, 26 % of land area is in agricultural use and the variety of cultivated species is wide. In addition to farmers, there are approximately 20 000 forest owners in the region who also play a critical role in adapting to climate change. Long-lasting droughts during growing periods and extensive floods can cause serious impacts for water protection, agriculture and forestry. In SW Finland there are not many lakes which could provide retention space to mitigate floods and droughts. In urban areas, challenges are like many other parts of EU. Due to CC and increasing amounts of impervious surfaces, the risks for both sea and stormwater floods increase, while excessive heat can cause problems in the summer. The amount and biodiversity of green spaces has been reduced and requires urgent action. Major parts of the stormwater infrastructure have been dimensioned and constructed long ago and its capacity is neither adapted to changing climate nor to land use changes. Thus, the need for large scale uptake of decentralized and easily adaptable NBS for stormwater management has been recognised.

DEMONSTRATION ACTIVITIES: The overall objective of the SW Finland LSD (**73.1**) is to improve knowledge on the effectiveness of NBSs and policy instruments, increase capacity and motivation of multiple rural and urban stakeholders, act for and invest in NBS for water retention to maintain the hydrological balance. Developing governance structures and citizen/stakeholder engagement and co-creation methods and practices are deemed



necessary for successful transition. Decision makers in municipalities play important role in adaptation and resilience measures. The systemic approach should be present in all decision making. In addition, it is crucial but challenging to engage all different actors citizens. e.g.

forest owners. This will be implemented through 4 main lines of intertwined activities, represented above. To achieve this, 3 major demo sites will be developed (under T3.1.3) using NBS and participatory methods with local inhabitants and users engagement and co-creation: i) the renovation and redesign of the stormwater system leading to the Rauvola bay, a nature reserve; ii) the renovation and redesign of the stormwater system in the Oriketo industrial area leading to the Vähäjoki river, for which challenges in both stormwater quality and quantity will be studied and innovative technical solutions sought for in collaboration with industrial users; and iii) renovation and redesign of a rural sub-catchment of the Savijoki river leading to Aurajoki river, for which catchment-scale inclusion of stakeholders is needed to implement NBS and design develop water management practices. These activities will be complemented with activities for Benchmark & validation of regulatory measures (73.1.1) where partners will analyse regulations at different levels of planning, such as retention requirements in detailed plans of a new area, requirements for permeable surfaces and green spaces (Blue-Green Factor) or different requirements in the building code, that have been recently applied across Finland. There will also be complementary activities for development of information guidance and participatory co-creation methods for investments on the NBS for water retention (T.3.1.2) where partners will initially carry out a cost-benefit analysis for the demonstrated solutions, and will promote stakeholder engagement and awareness. Finally, there will be a set of activities for Twinning, transferability and scalability activities (73.1.4) with focus on transfer know-how to



the 2 twin regions, by means of the Digital Twin (from **71.2**), missions visits, working groups, virtual exhibit (**D.4.3.1**) and the development of the Scalability Plan for the exploitable results, within the support of **72.2**.



TWINNING REGION 1 'NORMANDY' (FRANCE): Normandy has a population of **3.325.032** inhabitants on a territory of 29 906 km². The region is a transition ERDF region, but is still developing its climate adaptation strategy with the ambition to finalize it within the next 5 years (i.e. in line with RESIST timeline) by identifying and implementing adaptation solutions that meet local needs. The regional council is the executive body for implementation of sustainable development policies and measures with

special competences related to biodiversity protection and restoration of natural areas. Climate change will aggravate Normandy's vulnerability towards extreme weather events and increase several related risks, especially droughts, more frequent intense rain events in winter and summer, coastal and agricultural soils erosion, floods, more frequent heat waves in cities as well as biodiversity modification (appearance of invasive and/or dangerous species for public health). The preliminary climate vulnerability assessment done by the local IPCC/"GIEC Normand highlights an increased risk of intensification of seasonal (winter and summer) intense rain events, leading to increased risks of erosion and water runoff in urban and rural areas, which are shared with SW Finland. These more frequent intense rain events lead to the similar consequences in both regions: flood risks, degradation of the aquatic environments and of the water supplies due to pollutant releases and leaks.

The regional authority will implement twinning activities in collaboration with the French Centre for Studies and Expertise on Risks (CEREMA) and the French Biodiversity Agency (OFB) as partners, and with support from other local authorities managing demonstration projects and respective stakeholders (landowners, industrial and rural stakeholders, infrastructure and land managers) as well as local scientific and technical partners (research organisations, experts of the GIEC Normand, agricultural chambers, water management agencies, regional development agency, the Normandie Agency for Biodiversity and Sustainable Development, etc.). Together, they expect to benefit from the know-how of SW Finland LSD, and in particular from: i) setting-up a comprehensive and coordinated approach to ensure a coherent management at the level of the river basins, including an upstream-downstream and a land-sea logic and promoting the use of NBS (from *T3.1.2* and from the demonstrations in *T3.1.3*); ii) building-up a comparative cost-benefit analysis between NBS and water infrastructures (from *T3.1.2*); and iii) developing stakeholders' engagement methods and decision-making tools to support all stakeholders (local authorities, landowners, firms, urban planners, etc.) to apply NBS (from *T3.1.1, T3.1.2* and *T3.1.3*). The region will also develop know-how on Digital Twins, of which it has no previous experience, and make use of *T1.2* for dissemination/engagement purposes and of *WP4* results (incl. *D4.7, D4.8*, Virtual Inter. Exhibit) for regional awareness.



TWINNING REGION 2 'EASTERN MACEDONIA AND THRACE' (GREECE): The region, with a population of **608,000**, is a less-developed region according to ERDF and one of the poorest regions in the EU. In terms of CC, the region is less experienced and has not yet been able to establish a coherent road map, which will include specific actions and works to minimize flood impacts, surface water pollution and irrigation water scarcity. The region is subject to increasing CC-related problems and disasters, e.g. several severe

floods affected the Evros, Rodopi and Xanthi Prefectures during the past years. These caused a series of economic losses in residential and agricultural areas. The large number of rivers with torrential flow, which pass through cities and villages, along with anthropogenic pressures in these rivers (e.g. wastewater treatment plants, industrial areas, livestock farms, olive mills and agricultural activity) have increased river vulnerability, as they are subjected to water quality pollution, which are shared problems with SW Finland. Further, the 2 regions share similar geographic features (e.g peculiar coastlines and islands). The local innovation ecosystem includes the Regional Authority, the Democritus University of Thrace (DUTH) that will participate with two Labs addressing water research and IT/AI methods, with support from ENORA Innovation, an innovation and IT development company focused on the convergence of Internet of Things (IoT) with AI and Blockchain. The local consortium aims to receive know-how from the SW Finland LSD and demonstrate outputs in its own territory (basins of Laspias and Kosynthos torrents), especially: i) Stakeholder engagement: Raising awareness of landowners and farmers and nudging them towards more sustainable water management (from T3.1.2 and T3.1.3); ii) Collecting data on costs-benefits of NBS for water retention, enhanced use of available open data for identification of sites to prioritize and for hydrological modelling and scenario simulations (from T3.1.2 and T1.2); iii) Developing application for flood warning systems and water quality status (from T3.1.3 and also T3.3) and iv) Developing a road map for using NBSs in flood retention, water quality pollution protection and irrigation water scarcity management (from T.3.1.1 and T3.1.3). WP4 outputs/activities are used for reg. dissemination/awareness.

Task	Outputs	Date (month)	N° of end- users	Twinning involvement / Transfer. to other regs.	Simulated in Digital Twin
3.1.1	Benchmark analysis of regulatory	12	200.000	YES / Medium	No
	measures				



PUTS	3.1.2	CBA analysis of NBS solutions Inspirational catalogue of raingardens	36 36	5.000 Associa 100.000	ated with document Ref. Ares(2	022)8439002 - 06/12/202
OUT	3.1.3	Stormwater system in Rauvola bay Stormwater system in Oriketo ind. area Sub-catchment in Rural catchment	54 54 54	500 250 5000	YES / Medium	Yes
	3.1.4.	1 Transferability Plan for Normandy 1 Transferability Plan for East Macedonia-Thrace	24 24	4,1 million	YES / Low	No
	3.1.4.	1 Transferability Report	48	all regions in EU	NO / High	No



Large-Scale Demonstrator (LSD): Central Denmark (Midtjylland)

Denmark is a high-income country and is administratively divided into five regions of which CDR administers the central part of the Jutland peninsula with *1,300,000 inhabitants* (23% of DK population). CDR ensures regional development within natural resources, environment, circular economy, transport and mobility, and energy and green transition. Under CDR, the authority of

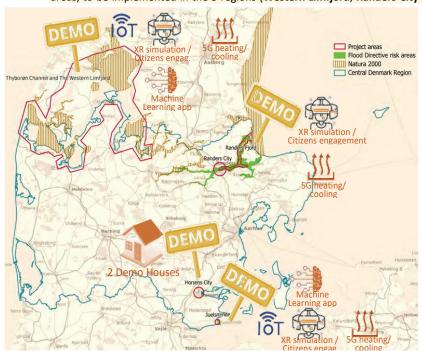
water and CCA is mainly divided between municipalities/water utility companies, thus the LSD involves five pilot areas incl. five municipal authorities. CDR has since 2010 successfully worked for bridging domains with the aim to increase CCA action incl. capacity building of local officials, and in 2022 the region was appointed as national beacon for CCA/water tech with REACT-EU grants. The local ecosystem incl. Aarhus University with the research centre iClimate, VIA University College, a national centre for climate adaptation (Climatorium), Technological Institute and many water tech and service companies. Half of the Danish Innovation Fund grants are given to water tech companies in the region. The EU-life project CCCCC has delivered many findings but also created a solid network of municipalities, universities, regions, state and other stakeholders that will be used as recipients of the output from RESIST together with the Danish Network for Climate adaptation DNNK.

VULNERABILITY / EXPOSURE TO CC: Rainwater is an issue for the region due to an increase in the amount and intensity of rain/cloudbursts. The 5 pilot areas are at high risk of flooding from all flood risk sources (increase rains, rising sea level/storm surges, rising shallow groundwater, water course floods), described below:

Pilot	Municipal	Main challenges	EU directives	Builds on	Main learnings from previous
area	stakeholder	addressed in RESIST			experience relevant for twins
Western	Lemvig	Erosion, sea level rise,	Natura2000,	EU LIFE	CCA Planning across seven local
Limfjord	Municipality	storm surge, Shallow	Water Fwk	C2C CC	authorities
		groundwater	Directive		
Randers	Randers,	Sea level rise, storm	EU Floods	EU LIFE	CCA planning based on Dynamic
Fjord	Norddjurs	surge, conflicts	Directive,	C2C CC,	Adaptive Policy Pathways (DAPP)
	Municipalities	between habitats and	Natura2000,	Realdania	
		the Floods Directives	Water Fwk		
			Directive		
Randers	Randers	Sea level rise, storm	EU Floods	EU LIFE	CCA planning based on DAPP
city	Municipality	surge, water course	Directive,	C2C CC,	Flood risk as basis for urban
		flooding, shallow	Natura2000,	Realdania	planning and development
		groundwater,	Water Fwk		XR visualizations in Citizen
		cloudbursts	Directive		Involvement
Juelsminde	Hedensted	Sea level rise, storm	EU Floods	EU LIFE	Logging, data collection and
	Municipality	surge, shallow	Directive	C2C CC,	machine learning in monitoring
		groundwater		Realdania	interaction between storm surge
				Cities and	and groundwater; Citizen
				the rising	involvement in storm surge
				sea	protection and CCA planning
Horsens	Horsens	Sea level rise, storm	Water	EU LIFE	Socio-economic decision support
city	Municipality	surge, cloud bursts,	Framework	C2C CC	tool to prioritise cloudburst
		water course floods	Directive		projects; Applying socio-economic
					assessment in CCA planning



DEMONSTRATION ACTIVITIES: The demonstration activities in Central Denmark (73.2) will cover 12 complementary areas, to be implemented in the 5 regions (Western Limfjord, Randers City and Randers Fjord, Horsens City and



Juelsminde), as pictured next. The 1st area addresses *infrastructural* demonstration (T3.2.1), and for this partners will set up a dense network of IoT data loggers to measure the groundwater level in the coastal towns of Juelsminde and Thyborøn as well as in an urban area with summer houses. In Horsens. partners will work with the construction industry to construct 2 demonstration buildings that can withstand flooding - either by raising or waterproofing the house - and we'll use them to start a dialogue with citizens about flood risks. CCA and social house level resilience. Also, as part of demonstration, we will implement and validate 3 new multifunctional infrastructure in 3 of the sites: a new dike in Horsens as a flood prevention system with a road section on top; a flood defense

infrastructure and multifunctional design in Randers city; and a groin to prevent flooding in an inland fjord of Natura 2000 in the Western Limfjord. A second area of demonstration will focus on decision-support systems (T3.2.2) and as complement to the GDT (from T1.2), VIA will make local XR visualizations for the infrastructural elements above (NBS solutions and flood-resistant buildings). The simulations will foster and supplement the citizen and authority engagement and decision capacity. Based on the data collected by the IoT data loggers and in synergy with the Catalonia LSD, and by applying machine learning (ML), a warning system app will be developed, allowing citizens and authorities to prepare for storms and major rainfall events. The work is based on preliminary field investigations at Juelsminde and ML model development in the C2C-CC project. Within this area we'll also target decision makers to prioritize CCA investments and hereby accelerating the decision-making process. Based on the tool developed in C2C-CC on rainwater, this action takes an integrated approach adding recreational value of CCA projects by use of hedonic pricing method and also integrates damage costs of rising groundwater, watercourse floods and storm surge. Since Denmark has good data availability, the WP analyses levels for generalization related to data availability with the aim to define minimum data needed. The tool can be calibrated for the twinning regions, and it will be addressed how the tool can be implemented also in other EU regions. The third demonstration area focuses on governance (T3.2.3), and here partners will aim to identify mechanisms contributing to accelerate implementation of CCA. The uncertainty of the precise impact of climate change requires governance mechanisms that foster learning and adaptability as well as willingness to prioritize longer term needs to ensure sustainable CCA. For that we will assess the present and future impact of the current governance system to identify enablers and barriers for implementing CCA measures, incl. NBS. This includes analysis of the regulatory framework to identify what policies have promoted integrated climate adaptation at the local level, and what, if any, policy gaps have hindered climate adaptation planning. At the same time, we'll analyze the comparability between the institutional context of the Danish LSD and twinning regs to examine transferability of or necessary adjustments in gov. mechanisms. Finally, the 4th area focuses on twinning of demonstration conclusions (73.2.4), and partners will focus on transferring best practice in CCA planning to twinning regions, evaluating existing experiences in CCA plans incl. Covenant of Mayors, ICLEI, C40 (DK2020) and outputs from EU projects e.g. TRAMI, C2C CC, C5a, BWN, FRAMES and also planning approaches such as Dynamic Adaptive Policy Pathways (DAPP). Based on the above-mentioned EU projects and best practice in decision support tools from this demonstrator, a handbook for CCA officials is developed with the aim to accelerate local CCA in the EU. The handbook will incl. examples from practice and will be disseminated in close partnership with WP4. Partners will work on upscaling of results across the LSD with T2.2.





TWINNING REGION 'BLEKINGE' (SWEDEN): Blekir Region & Sweden (popre 160.000); is 300 Baltie (Se2022 bordering region with an archipelago with over 1000 islands and five municipalities. It is a developed region, but less experienced in terms of CCA. Sweden has 16 national environmental quality objectives for 2030, and the County Administrative Board lead the regional work with energy transition and the reduction of climate impact and follow up on the performance in regard to the environmental objectives.

However, in the latest evaluation 2021 it was concluded that by 2030 none of the 16 objectives are expected to be reached in the region. The region is a rural area sparsely populated and challenged by big demographic changes and the effects of urbanization, while the long coastline and archipelago, visibly affected by change, makes the climate crisis a serious threat to everyday life. Blekinge has the potential to trial transformational innovations at lower cost and greater speed due to smaller population and supportive political environment, and recent focus (within local smart specialization strategy) to develop the region as a mission-region

Specific urgency is highlighted to the following topics related to climate change and climate adaptation: i) Depleted marine ecosystem, specifically near the coastline and in lakes/waters affecting coastal communities. Lack of data and monitoring to establish cause and effect; ii) Decreasing ground water levels and an expected decrease due to climate change; iii) Increased risk of flooding. With Central DK, Blekinge shares common vulnerabilities as ground water shortage and risk of flooding. Common needs for both regions are increased awareness among citizens and decision makers, need for monitoring and data collection, development of decision-making tools and increased policy coherence. T3.2.1 will be very relevant to City Expo Karlskrona, an innovation and development project taking place up until 2025 in Blekinge. It is an excellent opportunity to engage citizens as well as stakeholders in demonstrations on e.g. the demo-houses, early warning app etc. T3.2.2 outputs, related to creating awareness of climate risks among citizens will support local authorities and policy makers in processes of climate adaptation will be tested in at least two municipalities in Blekinge in relation to their Risk Management Plans and Blekinge is further interested in knowledge exchange on the conflicts between demand of increased building development and the need for climate adaptation and risk management. **73.2.3** will aid planning processes of the region by identifying driving mechanisms for accelerating decision making and increased systematic quintuple-helix work on CCA, particularly relevant regarding the platforms "Climate collaboration Blekinge" and "Regional coastal collaboration". WP4 outputs, and D4.7, D4.8 (Virtual Exhibition) will be used for regional dissemination and awareness raise.



TWINNING REGION 'ZEMGALE' (LATVIA): Zemgale Planning Region is a regional public authority under the Ministry of Environmental Protection and Regional Development and representing 6 local Municipalities forming Regional political body – *Jelgava State City, Dobele County, Jelgava County, Bauska County, Aizkraukle County, Jekabpils County* with a total pop. of **228,409**. The region is a less-developed region and less experienced in terms of CCA. Within the region, there are significant differences in the

availability of various natural resources, which are determined by both natural conditions and human economic activity. Zemgale region is located in the area of high spring floods and there are several flood risks in the Lielupe and Daugava River basins, incl. risks related to river floods and risks of flooding of hydroelectric power plants and other hydraulic structures. Several flood control measures have been taken in Zemgale, but much remains to be done, and the risk of flooding is one the common vulnerabilities shared with Central DK. As a Twinning Region, Zemgale will address the transferability potential of *T3.2.1* in regard to establishment of data collection, analysis and monitoring systems and how to apply these in planning practices regional and locally for installation of flood monitoring stations. *T3.2.2* outputs can be either replicated or the methods behind an app for early warnings can be transferred. For Zemgale this is especially relevant and accompanied with capacity building related to municipal operational information centres, as the one existing in Jelgava, which is the benchmark in Latvia for this type of centres. For Zemgale, as a regional policy coordinator, it is important to ensure that climate change is included in the planning documents of all municipalities in their region. Workshops between partners are planned on knowledge transfer and capacity building in regard to CCA plans and governance processes, and also organization of at least 1 Virtual Interactive Exhibition, using *D4.7*, *D4.8*.

Task	Sk Outputs		N° of end- users	Twinning involvement / Transfer to other regs	Simulated in Digital Twin
3.2.1	Network of IoT loggers.	12	7000	YES / Medium	No
	Establish. of citizens to log water level	12			
3.2.1	XR simulations created.	24	50.000	YES / High	Yes
	Citizen and government engagement	36			
3.2.1	2 demo houses built	24	25.000	YES / Medium	Yes
	Citizen and government engagement	48			
3.2.1	5th generation district heating and	24	7000	Medium	Perhaps
	cooling network established				
3.2.2	XR simulations	36	50.000	YES /High	Yes
3.2.2 ML and App		24	7000	YES / Medium	Perhaps

OUTPUTS

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3.2.2	Socio-economic decision support tool for CCA projects: 1 model calibration for twin region; 1 report on tool implem. in other countries	36	Municipalities, 87 wastewater utilities	YES / Medium ated with document Ref. Ares(2	022)8439002 ^P 06/12/202
3.2.3	Reports and scientific papers	60		YES / Medium	No
3.2.4.	1 CCA plan template for Blekinge	24	400.000	YES / Low	No
	1 CCA plan template for Zemgale				
3.2.4.	1 Handbook	48	all EU regions	NO / High	No

Demonstrator: Catalonia, Spain

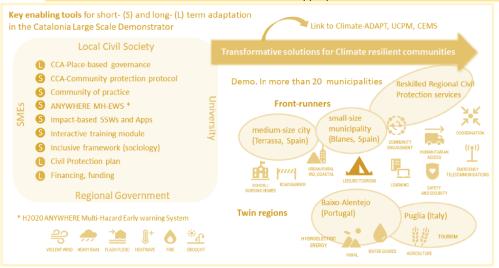


Catalonia (total population: **7.566.000**) has a climate that due to diverse geographical/orographic conditions ranges from Mediterranean (most populated areas in Barcelona, Tarragona, Girona provinces) to local continental, oceanic and alpine. In recent decades, CC effects have increased the climate-induced emergencies over the region. In the wake of this, there have been numerous casualties and significant damages to built infrastructure, affecting natural systems (e.g., water, coast), socio-economic sectors and leading to cross-border adaptation strategies at the Pyrenees/the Ebro river/the Litoral coast (see

#ETSELCANVI). Currently, the updated CCA strategy (ESCACC 2021-2030 based on the Climate Change Law 16/2017) targets better climate change adaptation and resilience-building including public participatory approaches (e.g., the Environmental strategic assessment, ECSACC30). The Department of Interior of Generalitat is responsible for CCA policies and has worked very closely with local research groups on disaster risk management (UPC, UOC) and also with SMEs working in the sector (e.g., HYDS). The participation of Civil Society through municipalities has also increased for building resilient management to anticipate hazards, absorb impacts, respond to crises, recover and learn from experiences. (e.g., Terrassa city is currently one of 100 intelligent cities challenge of EC initiative, Blanes municipality was an active stakeholder adopting ANYWHERE tools for coastal camping sites). All are partners in the LSD and active on collaboration with Twins and with LSD (e.g. Central DK).

VULNERABILITY / EXPOSURE TO CLIMATE CHANGE: Catalonia was evaluated and qualified as a zone with a medium vulnerability to continuous temperature increase and high vulnerability in extreme weather phenomenon, according to the EC study "Regional Challenges in the Perspective of 2020". Catalonia experienced in the last decades a sustained increase of the frequency of the climate-induced emergencies as floods, storms, wildfires, heatwaves and droughts, resulting in numerous casualties and significant damages to communities in an unprecedented way. There is substantial evidence that the CC will increase the intensity of these emergencies, and it presses to improve preparation and responsiveness of local government and population to climate emergencies.

DEMONSTRATION ACTIVITIES: the activities with the Catalonia Demonstrator will focus on solutions for promoting human wellbeing, local safety and security infrastructure, water management, and more resilient local economic systems against the high risks induced by extreme events such as flash and pluvial floods, wildfires, heatwaves, and strong winds. It will include three main lines of activities., pictured next. Under **T3.3.1** partners will co-design and co-create new transformative solutions to enable appropriate actionable decisions to reduce risks of extreme



events or climate emergencies in 2 pilot municipalities. Developed solutions will better support disaster risk management and building community resilience, particularly in: i) EU flood-directive flooding areas: e.g., campsites and leisure touristic activities,

industrial/ commercial/ public/ private area with different adaptation activities; ii) Urban areas affected by a Wildland Urban Interface (WUI) prone to wildfire affectations focusing on vulnerabilities in social aspects, local



safety and security infrastructure, and ecosystems (e.g., natural park); iiii Schools/nursing-homes/municipal or rity022 communities under multiple affectations from compound/cascading events including high temperatures, wind, flash flood due to a torrential river crossing it, or increment of assistance pressure during heatwaves/ disease events. On T3.3.2 partners will focus on adaptation and large-scale validation of previous results from ANYWHERE H2020 IA including: i) Multi-Hazard Early Warning System (TRL 8) capable of adapting evidence-based scientific big data from earth observations (in-situ, remote sensing at both local/regional/Pan-European scale) and NWP, enabling the monitoring of complex emergencies. This tool will be shared with the Central DK LSD (73.2.2); ii) Impact-based Site-Specific Warning services (IB-SSW, from TRL7 to TRL 8-9) effectively tailored to various impact areas and connected with risk management plans or place-based governance; iii) Tailored Apps and frontend visualisation tools (from TRL 7 to TRL 8-9) to efficiently disseminate these SSWs and enhance communication capabilities between citizens and authorities; iv) Interactive e-training modules based on real-case and projected scenarios (Digital Twin Approach, from T1.2); v) Inclusive framework to disaster management and community adaptation to address the exclusion of the needs, knowledge, and capacities of most disadvantaged and/or voiceless groups. Under T3.3.3 INT and partners will engage with a wide range of stakeholder institutions, civil society organisations, and business sectors at local and regional levels, that will participate in regional workshops and local training sessions providing feedback and will support the exploitation strategies ensuring the long-term suitability of the project outcomes. This subtask will: i) implement a municipality-based co-creation framework for disaster risk reduction, resilience and climate change adaptation, ii) define the most vulnerable impact areas, coassess tailor-made measures, and co-design transformative actions for locally adapted technological and social innovation solutions; iii) adapt the key enabling tools and implement solutions by all partners to the local needs and develop interactive online training modules; iv) run real-time 24/7 operational demonstrations in Catalonia, led by INT; v) validate the new functionalities and acquire all the relevant data to create a set of events and vi) organise local training and educational activities by all partners. Subtask T3.3.4 (Twinning) will focus on transferring best practices and outputs to the 2 twinning regions, by means of the Digital Twin (from 71.2) but also missions, visits, working groups and dissemination material from WP4, and collaborative demonstration actions in T3.3.3. and development of Scalability Plan together with 72.2.



TWINNING REGION 'PUGLIA' (ITALY): The territory of Puglia (*population: 3,953,000*) has experienced geographical phenomena of temperature increase and decrease in rainfall associated with warmer and drier climatic conditions, very much like Catalonia. Drought phenomena appear more frequently, often associated with fires and depletion of aquifers. This constitutes a threat above all for the agricultural sector, also because Puglia is a region historically poor in water resources that it imports from

neighbouring regions. In addition, the coastal areas, heavily anthropized and subject to great anthropogenic pressure especially in the summer due to intense tourist flows, are subject to phenomena of sea level changes, coastal erosion and the intrusion of salt water into the aquifers. Added to this are extreme climatic events such as floods and tornadoes, increasingly frequent especially in the summer. In economic terms Puglia is a developed area but regarding CCA the region is less experienced and began only in 2020 to work on a Regional Climate Change Adaptation Strategy (RCCAS) in order to identify measures capable of strengthening the resilience of the territories and improve the ability to react to the stresses induced by climate change. This strategy will have the following goals: i) containing of natural, social and economic systems vulnerability to CC; ii) increasing their ability to adapt to climate change; iii) improving coordination of actions at different government levels. However, this strategy is still under definition and the Puglia Region currently lacks climate resilience building tools and expertise. Within T3.3., Puglia region will adapt enabling tools from Catalonia (e.g., SSWs linked to place-based governance, from T3.3.2) and solutions in in the tourism sector. This will support development of resilience strategy, actions, and rules adapted to the case of a climate crisis situation (e.g., strong winds, floods, snow). The region will work with Tecnopolis on the customisation and local dissemination of these tools, and will collaborate in demonstration activities in T3.3.3. using outputs from WP4, incl. D4.7, D4.8 (exhibition)



TWINNING REGION 'BAIXO ALENTEJO' (PORTUGAL): Baixo Alentejo (114,887 inhabitants) is part of Alentejo region and integrates 13 municipalities which are gathered under the Regional Authority CIMBAL. The region is a low-income Objective 1 region for ERDF. In CCA terms, the region has started the development of a <u>Climate Change Adaptation Action Plan</u>, but still lacks expertise in this area. Baixo Alentejo has a Mediterranean climate, characterized by a high annual average temperature, between 15°2 and 17.5°2. According to the CCA Action Plan, there is an average increase of the

minimum, average and maximum annual temperatures, for the whole territory; e.g., at the end of the century, the minimum temperature could rise, between +1.7ºC and +3.2ºC, according to the most moderate scenario (RCP 4.5) and most extreme scenario (RCP 8.5). Regarding the average annual precipitation (accumulated), a potential decrease in the order of 10% (equivalent to an annual average decrease of about 43 mm) is predicted for the whole territory according to the most extreme scenario. Baixo-Alentejo region is facing risks triggered by increased

extreme events (heatwaves, forest fire, drought), of similar nature than those faced by Catalogia and Puglia, Theoregion will take advantage of adapting LSD enabling tools (73.3.1 and 73.3.2) to i) reskill the regional workforce (e.g., an improved coordination by Civil protection) and ii) support adaptation actions in small-size, rural, and dispersed villages by finding their transformative solutions, particularly in the sectors of water management (risk of water scarcity), forest management (risk of forest fire), and energies (risk of reduced hydroelectric energy production. To do so, the region and its partners will contribute with all the relevant information, contribute for the definition of the most vulnerable impact areas, co-assess tailor-made measures, and to the co-design transformative actions for locally adapted technological and social innovation solutions. Also, CIMBAL will perform dedicated local training and educational activities and workshops for its 13 municipalities and overall population and disseminate specific surveys, incl. 1 interactive exhibition using **D4.7**, **D4.8**.

Task	Outputs	Date (month)	N° of end- users	Twinning involvement / Transfer to other regs	Simulated in Digital Twin
3.3.1	Transformative solutions for flooding areas, Wildland Urban Interface	36	259,584	YES / Medium	Yes
3.3.2	ANYWHERE Multi-Hazard Early Warning System TRL9	36	2 million	YES / High	No
3.3.2	Impact-based Site-Specific Warning services TRL9	36	2 million	YES / High	No
3.3.2	Tailored Apps and frontend visualisation tools TRL9	36	2 million	YES / High	No
3.3.2	Interactive e-training modules	42	300.000	YES /High	Yes
3.3.2	Inclusive framework to disaster management and community adaptation	42	2 million	YES / High	Perhaps
3.3.3	Municipality-based co-creation framework	60	948 Municipalities	YES / Low	Yes
3.3.3	Local training and educational activities by all partners	60	100.000	YES / Medium	No
3.2.4.	1 CCA action plan template for Puglia 1 CCA action plan template for B Alentejo	24	4,15 million	YES / Low	No



Demonstrator: Centro Portugal (less-developed ERDF region)

The region of Centro (*population:* **2.227.912**) is one of the 5 administrative regions in continental Portugal and the 3rd largest in population. The region is a less developed and Objective 1, in terms of ERDF criteria, and is characterized by biodiversity and quality of endogenous resources as a decisive factor in the installation of industries that have as a competitive advantage the proximity

of access to these raw materials. The extensive forest and marginal land area represents also a broad economic potential for valorisation in production, tourism, biobased products, agri and energy, but also a risk hazard for rural/forest fires and other climate-change inducted hazards, as it has happened in the great rural fires of 2017, <mark>that caused over 100 deaths</mark>. The main challenges that call for new tech solutions, policies, investments and new financing mechanism in the context of the rural/forest fires and CC are: (i) fuel availability, (ii) very low economic activity with high marginal land areas, (iii) necessity to increase the gross economic value of the bioresources-tobioproducts conversion (new value chains) (iv) the non-existence of the framework responsibility for the management land use and resources, (iv) and logistic difficult to access of the bioresources. As a consequence of the 2017 fires, a set of public policies were implemented to increase resilience, part of which are already in place, contributing to the region's significant experience in CCA and resilience measures. Still, a number of these have yet to be validated terms of social and economic impacts, such as AIGP (Integrated Areas of Landscape Management) and "village condominiums" programs to increase territory resilience to forest fires, through a set of actions to ensure the change of use and occupation of soil and management of fuels around settlements, encouraging owners to take over the maintenance of land, ensuring its cleanliness and promoting an income-generating land occupation. The main regional stakeholders, including the Regional Authority (CCDRC), subregional admins (as Intermunicipal Communities of Coimbra and Médio Tejo), R&D (as Polytechnic Portalegre), environmental agencies (Médio-Tejo 21), forest clusters (Forestwise) and interface/tech centres (BLC3) will be part of the demo.

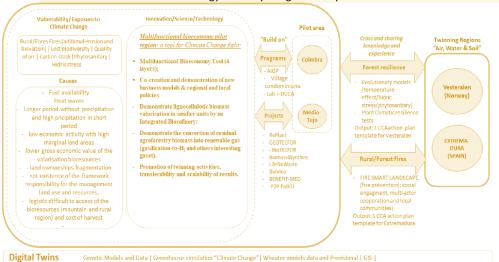
VULNERABILITY / EXPOSURE TO CLIMATE CHANGE: Rural/Forest fires and consequent externalities: erosion and lixiviation of the soils; lost biodiversity; decrease the investment and interest of the private sector; quality of the air; and the stock carbon emissions from the burn bioresources), droughts and water shortages conditions are accentuated by high summer temperatures and heat waves in the region. The demonstration will focus on 2 areas:

OUTPUTS



Pilot area	Stakeholder	Main challenges addressed in RESIST	Builds Associ	Main learnings from previous experience diated with document Ref. Ares(2022)8439002 - 06/12/2 relevant for twinning regions	
Coimbra	CIMRC (19 municipalities)	Droughts, heatwaves, land ownership fragmentation, lack of socio-economic drivers, erosion and lixiviation of the mountain soils, water quality of the wild rivers,	AIGP - Integrated Areas of Landscape Management; Replant, GEOTECFOR, BioTECFOR, Biomass4Synthons (H2020)	Change of use and occupation of the soil and the management of fuels available, encouraging owners to take over the maintenance of land, ensuring its cleanliness and promoting an income-generating land occupation and the valorisation of the bioresources from agroforest residues and marginal land (new value chain with high gross value added by Integrated Biorefinery process)	
Médio- Tejo	CIMT (13 municipalities)	Droughts, heatwaves, rural/forest fires, poor forest mgmt, re- forestation burnt areas	AIGP - Integrated Areas of Landscape Management	Promoting better land use, forest management and the through the renewable synthesis gas recovery of agroforestry biomass	

DEMONSTRATION ACTIVITIES: activities focus on solutions for promoting better land use, forest management and the biocircularity of green bio-waste, through the change of use and occupation of the soil and the management of fuels around settlements and energy recovery of agroforestry biomass.



The include three main lines of activities: in 4 subtasks: T3.4.1 will be mostly carried out in the Region of Coimbra and will focus on the study of improving the participatory and governance model of AIGP (Integrated Areas of Landscape Management) "village and

condominiums" regional programs, as well as exploring innovative economic models to private owners, in order to demonstrate its impacts and to increase the resilience of territories to rural/forest fires. Through the implementation of the results of the envisaged model in pilot areas of the project, will be possible to promote changes in the landscape and better planning, establishing a collaborative model with private landowners and public administration entities. It is intended to develop two studies of performance models: on at the level of the AIGP and the other at the level of the "village condominiums". After the assessment of the studies, the proposed models will be tested in the pilot areas located in CIMRC and CIMT, namely in AIGP approved by the Direção-Geral do Território (National Agency for Territory Management) and in "village condominiums" located in areas with high rural dynamics, in order to test with the widest possible scope the existing heterogeneities in the territory and the influence they have on the implementation of collaborative models. T3.4.2 will go one step further and demonstrate in the field solutions developed in other initiatives and projects, some of which already have a medium to high TRL (BLC3 has a TRL5 Biorefinery process), but need to be tested and adapted to real contexts, such as: i) new systems of lignocellulosic biomass valorisation in high value biobased products by a (1) new planning and governance mechanism to biomass collection with with economic viability and (2) increase the value and efficiency process use of biomass based on Integrated Biorefinery process (production of fine chemicals, biobased materials and advanced biofuels, based on cascade use principles). using the knowledge generated in several projects (e.g. Biomass4Synthons, BioVino and GOTECFOR, project s; ii) promote the utilization new solutions related to new equipment better adapted for small scale operations for processing and mobilize the forest-based raw material, other innovative solutions supported by digital tools and decision support systems that enhance network collaboration and the creation of local business dynamics. **73.4.3** will be focused in Médio-Tejo and will collect and transport local biomass to an existent gasification reactor managed by Instituto Politécnico de Portalegre where it will be converted in renewables gases, including but not limited to hydrogen. The renewables gases produced will



then be used through a specific refuelling station for the use of policies to transport biomass, between the collection points and the gasifier. The surplus production will be available to the community, as an alternative source of energy, sustainable, for use in transport or other, thus contributing to a greater diversification of energy sources in the region and, as such, greater security and resilience of the regional energy system. T3.4.4 (Twinning and Scalability) will focus on transferring best practices and outputs to the 2 twinning regions, by means of the Digital Twin that will be focused on agroforestry management (developed within T1.2 and BLC3 will provide controlled greenhouse (CO2, temperature and humidity) applied to plants and digital twins) and WP4 outputs, and development of Scalability Plan with T2.2, as well as identifying investment for business-oriented results (prototypes of T3.4.2, renewable gases exploitation of T3.4.3).

TWINNING REGION 1 VESTERALEN (NORWAY): Vesterålen is a region in the north of Norway with surface area of 3100 km2 where live about 32 000 inhabitants. Vesterålen is located on the coast of Norway and is island based,

with steep topography, and geographical distances between the local communities. Vesterålen has a higher degree of innovation, compared to other regions in the north, but has a lower level of education compared to urban areas. There's a high level of technological competence related to both marine industry and also entrepreneurial industry. The region is vulnerable because the rising sea level will flood buildings and industrial areas, and the extreme weather change may ruin homes and infrastructure and

make living conditions even harder. Due to the steepness of the mountains, the risk of avalanches both in winter and in summer is increased and could be <u>potentially life threatening</u> for inhabitants, <mark>resulting in hazards as those</mark> felt in Centro PT. The region is relatively unexperienced with CCA innovation, and the GaiaVesterålen project (2.2 mEUR) started only in 2020 to showcase CC and its effect to society, and to showcase historical data and make prediction about the future. The activities of the demonstrator, to be implemented jointly by demonstrator to be implemented by Vesteralen Region, Lofotr Nearingsdrift (Museum Nord) and Andfjord Salmon AS will be focused on: 1) further develop and use the GaiaVesterålen platform with AR and VR technology to showcase the impact of joining the environmental contract and use the Digital Twin (from 71.2) to ensure that industry and society change their behavioural patterns to better adapt to climate change and participate in the transformation set by the green shift, and develop a system for young people to participate in public planning. 2) demonstrate CC and its consequences for the industry with focus on the marine industry, e.g. prepare a demonstration to showcase both the worst-case scenario and best-case scenario for this industry. 3) demonstrate CC effects and adaptation measures to the arctic island groups with focus on effects caused by extreme weather changes (e.g. water level increase) by showcasing how governmental planners decisions may influence the environment in the region and by demonstrating predictions for planners and entrepreneurs. 4) knowledge sharing and creating synergies between European cities/regions via arranged Artic Climate Summit as part of Bodø 2024 (European cultural capital) event.



TWINNING REGION 2 'EXTREMADURA' (SPAIN): Extremadura (population: 1,087,778) is a less developed region in economic terms and objective 1 for ERDF. The region is one of the warmest in Spain with an average daily high temperature of 22º and the uninterrupted, abandoned, non-managed thick forests, rich in fuel wood provide the perfect conditions for megafires. Over the last decades this landscape has degraded due to population loss and fire damage, in a similar situation to that of Centro Portugal. Most

forest land is owned by municipalities but managed by regional government, leading to social tensions and entrenched conflicts. The traditional mosaic pattern of the landscape, once so common, need to be restored to create a FIRE SMART LANDSCAPE (FSL). FSLs are defined as territories in which cost-effective actions for fire prevention are designed through social engagement and multi-actor cooperation, including both local communities and official fire suppression bodies. In practice, a FSL integrates productive fuel breaks (preventing fire through agro-silvo-pastoralism performed by local farmers) and suppression infrastructures (designed by official fire services to facilitate extinction after ignition). However, this integrated approach to fire management has been not developed in practice, and as such the region lacks experience in CCA practices and policies and needs to enhance knowledge and solution-transfer in outputs and technologies adapted to these challenges. On this project, Univ. of Extremadura, Regional Government (Dirección General de Política Forestal) and Fundecyt, the main CCA stakeholders, will work to design and execute the first FSL in Extremadura based on the outputs from the LSD in Centro PT and know-how from the other LSDs. Based also on previous experiences with social-ecological networks and joint efforts with public bodies (Proyecto Mosaico), our activities will capitalize on the traditional knowledge that has secured fire-resistant landscapes in the past, and coordinate the efforts of local associations of forests owners, tree growers, shepherds in order to maximize capacity to reduce fuel load in the landscape. Continuous collaboration with fire suppression bodies will ensure that farming activities are developed in strategic areas and contribution of farmers to fire-resilient landscapes is compensated by a market label associated to main products.

STUTPUTS



Task	Outputs Outputs		N° of end-	Twinning involvement / tod with document Ref. Ares(2 transfer to other regs	Simulated in 022 8439002 T 06/12/202 Digital Twin
3.4.1	in micro-owned rural activities		100.000	YES / High	Yes
3.4.1	Multifunctional Bioeconomy tool	48	100.000	YES / High	No
3.4.2	3.4.2 New systems of lignocellulosic biomass valorization TRL7		20.000	YES / High	No
3.4.3	Biomass fuel process TRL9	54	500.000	YES / High	Yes
3.4.4.	Genetic map	36	100.000	YES / High	No
3.4.4.	4.4. Molecular Biology & Plant Health		100.000	YES / High	Yes
3.4.4.	1 CCA action plan for Extremadura 1 CCA action plan for Vesteralen	24 24	1,15 million	YES / Low	No

1.2.3. IMMERSIVE DIGITAL TWIN (T1.2)

In order to facilitate i) local citizen/stakeholder engagement, ii) transfer of experiences to twinning regions, iii) broadscale dissemination of activities and outputs and social outreach beyond the partner regions, the consortium will develop a 'nextgen', fully immersive Graphical Digital Twin (GDT) (within T1.2) for (and based at) each of the LSD and twinning regions. Many expert models created by researchers, such as heat islands, diversity loss zone, projected water or energy demand, coastal erosion, sea-level rise, NBS to mitigate and adapt to climate change, fail to reach a broad audience and impact their decisions due to failure to convey the message in a comprehensive, complete and convincing manner. Many big data projects gather insights that remain hidden from the stakeholders that make a difference in adaptation to Climate Change. GDT developed by AugmentCity for RESIST is different. The combination of immersive technologies, presented in this GDT empowers stakeholders to take more informed and precise decisions and estimate impact of those decisions by giving historical, current, and simulated data in 4D visualisation (time and space) in an intuitive/interactive manner. The GDT has been adopted by 20 cities and regions

Figure 1.4 RESIST GDT architecture



<u>United</u> Nation <u>Programme</u> U4SSC, Sustainability which have chosen the AugmentCity solution to be their preferred simulation and visualisation suite. The GDT uses advanced state of the art methods and techs allowing to visualise various models and data, and travel in time and space to share insights in a collaborative and virtual environment.

in Norway and worldwide and by the

presents a layered approach. The "Data Input" layer with IoT, Big Data. **Points** Cloud, LIDAR. multispectral imagery, Digital Elevation Models, Orthophotos,

GDT technical architecture (figure 1.4)

Bathymetry, Environmental Models (JONSWAP), demographic density data (historical and prediction), weather data (historical), climate data (prediction), pollution data is the foundation layer of the architecture. The data can be collected statically or dynamically from authoritative sources (Copernicus, national agencies, universities). The "Simulation Engine" layer combines all the data from the bottom layer (where applicable) and presents them as

simulations: mathematical or hydrographic, or traffic models where necessary. The "Graphics Engine" layer provides an intuitive human representation of the simulation models. Specifically, it demonstrates a photorealistic picture of the environmental scenario, and goes a step further by visualising augmented data with additional features, e.g. heatmap, ribbons, pins, etc.). This approach improves the



Figure 1.5 GDT 360 Dome

contextualisation of insights established by underlying simulation models. Finally, "Human Interface" provides intuitive and interactive interfaces, from simple 2D screen to full immersive co-creation 360 Dome (figure 1.5).

1.2.4. RESEARCH & INNOVATION ACTIVITIES RELATED TO THE PROJECT

The background knowledge and interactions with other national and international activities from project partners is presented in the following table, where the most relevant on-going/past projects carried out by the partners – and that will be used within the 'sandbox demonstrators' – are presented in a non-exhaustive list. Additional projects with which synergies and collaborations will be explored will be added-up within the course of the project (see KPI #24).

Table 1.5. Prior and parallel R&D activities conducted by the RESIST consortium partners with strong link to the project

Project acronym	Funding source	Partner/s involved	Experience /Outputs to be used in RESIST		
GAIAVesterålen	Norway	SINTEF	Digital Twins (WP1), Regional Demonstrator (WP3)		

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<u>U4SSC</u>	United Nations	AugmentCity	Digital Twins (WP1)		
<u>IMPREX</u>	H2020	adelphi	Digital Twins (<i>WPI</i>) Associated with document Ref. Ares(2022)8439002 – 06/42/2022 CCA framework (<i>WPI</i>) and LSD support (<i>WP3</i>)		
Leuven 2030	Flanders region	Flanders region KUL Technological Benchmarks (WP1)			
<u>OpenAgri</u>	UIA	INOVA+	Development of Sustainability Plan for Milan and Lombardy (WP2)		
<u>IoTXChange</u>	URBACT	Development of Sustainability Plans for Regions Nevers Jelgan			
ePlus Ecosystem	H2020	INOVA+	Business model development (WP2)		
<u>Unalab</u>	H2020	H2020 ERRIN Co-creation/ NBS replication within regional c			
Mosaic	H2020 ERRIN		Multi stakeholder engagement (WP2)		
RESPONSE	H2020 Turku, TUAS, UTU NBS solutions for CCA (WP3)		NBS solutions for CCA (WP3)		
C2CCC	Life+	Midtjylland	CCA social and tech solutions (WP3)		
<u>ANYWHERE</u>	H2020	UPC, Hyds	Multi-hazard early warning solutions and apps (WP3)		
GOTECFOR	ERDF	BLC3, Forest.	Woody biomass small units transformers (WP3)		
<u>RIPEET</u>	H2020	ZSI/ERRIN	Social Impact Measurement Framework (WP4)		
Europlanet2024	H2020	ESF	DMP, Gender, Ethic frameworks for responsible research (WP1, 5)		
Biocircularcities	H2020	Revolve	Communication policies for enhancing climate action (WP4)		

1.2.5 INTERDISCILINARY AND SOCIAL SCIENCES CONSIDERATIONS

RESIST aims to maximise the benefits of interdisciplinary research. It will significantly contribute to R&D capacity building and the overall strengthening of Europe's human capital in research and innovation. Interdisciplinarity is embedded in RESIST by the representation of climate science, a variety of environmental disciplines such as water and floods management, digital technologies such as AI, ML and GDT as well as social sciences and humanities (SSH). SSH forms an integral part of the RESIST methodology, its technology development, the work of the demonstrators and the exploitation plans. SSH will contribute to closing the gap between technical and social issues that are often treated separately, e.g. human-machine interaction and citizens science in the GDT, it will provide economics/business insights such as quantitative economics, economic analysis and financial management that will be incorporated in the scalability plans (D2.3, D2.4), and will incorporate gender dimension as a transversal priority. 1.2.6 GENDER DIMENSION:

CC impacts the different societal actors in different ways and can exacerbate gender inequalities. Women, genderdiverse and trans people are more likely to be affected by CC-caused hazards than men, particularly in rural, vulnerable areas where they may have less access to resources and assistance and are less likely to actively participate in policy planning and recovery efforts. People have different adaptation needs, depending on where they live, how they sustain their livelihoods, and roles they play in families and communities. There are socially determined differences too - in opportunities, responsibilities and decision-making power - and all of these influence how vulnerable people are to CC9. Without understanding these dynamics, often influenced by gender, there is a risk that the people with greatest needs for adaptation are left behind. To tackle this, RESIST is dedicated to adopt an interseccional approach to gender, understanding it as non-binary and intersected with other social, cultural, and economic dimensions. In addition, RESIST consortium understands the integration of gender dimension as a transversal priority that permeates the full proposal through the design of the WPs and tasks, and in particular in the Large-Scale demonstrators, stakeholders consultations and dissemination/communication campaigns. An Inclusive Gender Equality and Ethics framework will be developed for the project and its activities in co-creation with the WP and task leaders as part of T1.4. This framework will set the principles of gender equality & inclusion, provide a compilation of best practices for the project activities and identify a set of indicators including KPIs to monitor their implementation and assess their impact. For the Large-Scale demonstrator activities (WP3), regional partners will ensure that that the experiences of women and men are captured in a balanced way, embracing gender diversities whenever possible, to provide a greater perspective and increased knowledge which will help to design a more comprehensive and sustainable adaptation approach to reach regional innovation package. Inclusive consultation with people from all genders at the implementation phases of LSDs will provide a thorough approach representative of the strengths that diversity generates. Communication/dissemination campaigns will be inclusive, addressing all genders, avoiding the perpetuation of gender roles and stereotypes, and using inclusive language and representation of people (WP4). Not only the gender dimension will be considered as cross-cutting all project activities, but also gender balance will be pursued at every step of the project. RESIST will fully align with New ERA for R&I objectives, the EU Gender Equality Strategy (2020-2025), EU LGBTIQ Equality Strategy 2020-2025, as well as the recent Ljubljana Declaration on Gender Equality in R&I, and commits to deliver gender inclusive outcomes.

1.2.6 OPEN SCIENCES PRACTICES, DATA MANAG. AND MANAGEMENT OF OTHER RESEARCH OUTPUTS

Open Science Practices: RESIST is committed to Open Science practices and strives to make a transition to a more open and participatory way of conducting, publishing, and evaluating the work in the project to increase cooperation and transparency at all phases of the project. The project outcomes will be the topic of scientific journal papers, open access material, webinars, and conference presentations, where appropriate in a gold publishing mode, or in

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^{8 [}UN Women on behalf of the Global Gender Climate Alliance (GGCA) through the Women's Environment and Development Organisation (WEDO)

⁹ IISD - International Institute for Sustainable Development



repositories in line with the EC's OA regulations. In alignment with the RESIST Communication strategy to guide project output sharing, Open Science tools will include use of shared reference libraries (e.g., Zotero) during evidence collection, preregistration of project tasks at RESIST's OSF site, sharing data and codes (e.g., Zenodo and GitHub), sharing protocols and workflow (e.g., Protocols.io), sharing preprints at preprint archives (such as bioRxiv), using open peer review at journals, where possible, publishing in open access journals and using open publishing licences. RESIST will participate in the EC's Open Research Data program, making use of the European Open Science Cloud as well as RESIST's own OSF site and institutional repositories to ensure maximum openness of results. RESIST will also ensure that data is managed and shared in line with FAIR data principles, being released as open as possible and closed for IPR reasons when necessary. To increase awareness and knowledge about Open Science, the project will ensure that all partners become familiar with principles of open science, open collaboration, reproducible research and data analysis, open research data/sources/software, open access and public engagement with sciences.

Data management and management of other research outputs: Data Management and FAIR principles: RESIST takes an interdisciplinary approach and contributes to the advancement of responsible open science practices. The project's central philosophy is to ensure that online access will be provided to all relevant information provided by the project, free of charge to readers. Open access will focus on access to peer-reviewed scientific research articles, published in academic journals, and shared via RESIST's website set up on the Open Science Framework (OSF). RESIST will ensure that data is managed and shared in line with FAIR data principles, being released as open as possible and closed for GDPR reasons when necessary. WP5 will develop a Data Management Plan (DMP, M6) outlining how research-related data will be handled during/after the project, describing what data will be collected, processed, or generated and following what methodology and standards, whether and how this data will be shared with whom and/or made available under an open access in a specified trusted repository, and how it will be curated and preserved. At all times adherence to ethical standards described in Part A of this proposal will be maintained. Ownership and access to key knowledge developed in RESIST will be regulated by a Consortium Agreement (CA).

2. IMPACT (

2.1 Project pathways towards impacts

In spite of all policy intentions, climate change (CC) is already inevitably underway and will increasingly affect all aspects of life, including access to natural resources, ecosystems, food security, agricultural yields and stability of infrastructures, deeply affecting the well-being of citizens. CC impacts may now seem less important than other pressing and tragic events, such as the COVID 19 pandemic or the Ukraine war, that call for more immediate actions. However, if left unchecked, CC will cause significant economic and ecological damages, and its long-term effects will surely overscale that of COVID and other political/economic crisis.

2.1.1 IMPACTS TOWARDS THE TOPIC AND WIDER IMPACTS

Table 2.1 –Impacts listed in topic

Systemic demonstration of a climate-resilient society, fully adapted to the unavoidable impacts of CC by 2050 (...)
RESIST contributions: The EU Strategy on CCA covers 3 main targets: encouraging adaptation actions by MS, supporting more conscious and informed decision-making steps, and supporting adaptation of vulnerable sectors. RESIST addresses all 3 targets, by encouraging and supporting 4 vulnerable regions to set-up and roll-out collaborative platforms to demonstrate 12 new social and tech approaches for support environmental decision making and innovative policy practices, directly reaching out to about 1% of the regions' population. Regions will be assisted to build up adaptation capacity and on influencing a growth of climate related funds to 30% of all regional funds (currently 25,4% 10), representing 2,4 b€ of ERDF/Nextgen funds in the 4 regions. We will especially address the impacts of floods in coastal/riverside areas, where benefits are estimated in the EU strategy as 6€ for each 1€ of investment 11 . RESIST will also directly impact other EU strategies such as DestinE 12 , with the creation of 4 graphic digital twins (GDT).

KPI	Output Target	Description
#1 - Nº of tested new instruments / CCA Solutions	a) 12	RESIST will implement 4 Large-Scale demonstrators in 4 regions, each with 3 different lines of demonstration for new instruments and CCA solutions, stemming from previous/on-going R&I projects and innovative policy measures (see Section 3 for detail)
#2 - N° of citizens involved in LSD	c) 120.000	The project will aim to directly engage 120.000 (1% of regions pop.) citizens in the Large-Scale Demonstration activities (events, GDT exhibitions, focus groups, co-creation experiments, physical demonstration activities)
#4 – Area covered by GDT	d) 84.000 Km ² (3% of EU- 27 surface)	The Graphical Digital Twins in RESIST cover an area of about 84.000 Km², contributing to DestinE objective to develop a very high precision digital model of Earth to develop/test scenarios that would enable more sustainable EU environmental policies
#5 - Reduced flood damaged costs	e) 30 m€	RESIST will invest 10m€ in 4 Large Scale Demonstrators, out of which half is estimated to directly impact flood risks, leading to a reduction in damages of 30m€, about 14% less in the targeted regions.

¹⁰ Report on the implementation of the EU Adaptation Strategy, 2018, https://eur-lex.europa.eu/legal-ntent/EN/TXT/?uri=CELEX:52018DC0738

https://ec.europa.eu/clima/sites/clima/files/docs/eu_strategy_en.pdf, page 3
 https://ec.europa.eu/digital-single-market/en/destination-earth-destine



#6 – Increase in climate-related regional funds	f)	30%	Climate-related funds within ERFD/CFESFEMFF/EAERD funds currently (2018 data) stand at 25,4%. RESIST experiments and transfer policies shall result in new policies, programmes and measures that should bring this share to 30% in addressed regions (to be measured from reg. gov. data), within the total package of 8b€ currently available
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Innovative climate resilience socio-technological solutions are scaled up and largely deployed through collaboration and twinning between front-runners and less experienced regions, vulnerable to similar climate risks and impacts RESIST contributions: The 4 LS Demonstrators in RESIST will transfer know-how and demonstrated measures (minimum 16) to 8 twinning regions (of which 4 are less developed regions), that will directly engage 0.5% of their population in demonstration activities and aim to increase climate-related regional investments to 4b€. The combination between LS Demonstrators and twins will result in a major economic growth effect, stepping up a green and inclusive recovery, and benefiting from increased public and private funds to invest in the green recovery¹³. RESIST will devote approx. 25% of the investment in demonstrators to the business community, i.e. an investment of 4m€ for new green business solutions, and will coach and assist the SME, startups and entrepreneurial stakeholders to develop business models and commercial plans for faster, more sustainable and more ambitious exploitation of the know-how and innovative products developed within the context of the demonstrators, aiming to create 1000 new jobs and develop 500m€ of new business generation.

KPI	Target	Description
#8: N° of	h) 8 plans with	The 4 LSD will develop 8 Transferability Plans (one per twinning region) for transfer of
transferred CCA solutions to twins	16 measures	demonstrated/validated new measures and tools to twinning regions, according to their needs and challenges. At least 2 (of the 3) measures per LSD should be transferred to twin
#9: Increase in		The 8 twinning regions have a total budget of 13b€ from ERDF/Nextgen programmes for
Regional Green	k) 30%	the current period. Twinning activities are expected to contribute to an increase in climate-
Investments (%)		related funds from the current 25% to 30%, corresponding to about 4b€.
#10: No of citizens	j) 50.000	Twinning activities aim to directly engage 0.5% of total population (10m) in demonstration
in twinning demos	J) 30.000	activities, including GDT sessions (in rooms or online), events, exhibits and promotion.
#3: Nº of	b) & i):	4 business entities will be directly involved in LS Demonstrators and 1 in twinning activities.
businesses	100	Promotion towards other ecosystems in T2.3 will allow to reach >100 business
#12: No jobs	n), r): 1000	The aim for the total of new jobs to be created by business partners involved in upscaling of
created (by 2030)	11), 1). 1000	demonstrators' results, within the long term is of 1000 new jobs, i.e. 10 jobs per result
#13: Long term	n), r): 500m€	Business partners will be assisted in developing business plans for upscaling of results, with
revenues from BPs	11), 1). 300111C	an estimated medium-term revenue of 500m, (avg 5m€/ result), as an conservative estimate
#14: EU Public		All quintuple-helix demo partners will be assisted to develop a strategy for addressing EU
investment in	m) 100m€	public funds (Horizon, LIFE, and other ERDF funds), aiming to capture up to 100m€ for the
Green solutions		project's 100 exploitable results, i.e. a conservative estimate of 1m€ per result.
#15: Private	m), n) q), r): 25	FastTrack, a Venture Capital from Portugal specialized in Green Investments will participate
investment in	m€	in the project and directly screen all exploitable and business-oriented results, with the aim
Green Solutions	inc	to invest up to 25m€ in new ventures and technologies, while mobilizing other investors.

Suitable solutions for just societal transformation and building climate resilience at the regional and local level are developed and adopted, through tailor-made measures matching the local needs (...)

RESIST contributions: For reaching just societal transformation a particular focus will be placed in the participation of citizens and social engagement (in WP4). Following the co-creation of the adaptation pathways, a selected number of stakeholders (aprox. 17.000) will be invited to focus group and surveyed on to explore the topic of behavioural change and long-term commitment, trust, social acceptance and buy-in from people, communities, and organisations, such as regional governments. The project will ensure a gender balanced participation, and will measure the reduction of the climate protection gap, and the increased level of social benefits across the 12 regions and beyond through links with other initiatives

KPI	Target	Description
#7, #11: Gender	g), l) 50%	RESIST will develop a gender framework for demonstration activities and monitor all
balance indicators	5), 1) 3070	activities, imposing a 50% gender balance across both LSD and twinning activities.
#16, #17: Active social	s), t), u)	Through social and communication activities, including a large-scale social impact survey,
citizen engagement	17.000	RESIST will monitor social impacts in 10% of outreached citizens, i.e. 17.000
#18 Reduction of	x) 50%	Currently (2019) only 35 % of total losses caused by extreme weather/climate-related
climate protection gap	X) 30 /0	events in EU are insured 14 (65% gap). Our goal is to reduce to 50% in addressed regions.
#19 Increased level of	s) 77%	Currently (2019 survey) 70% of EU citizens agree that adapting to adverse impacts of
awareness/confidence	(+10%)	climate change can have positive outcomes ¹⁵ . We'll aim to raise this to 77% in addressed
at regions level	(+10%)	regions (measured by survey).
#20, #21, No regions	y), z) 12	All 12 involved regions in RESIST have already expressed their interest in joining the
signing mission-	regions, + 20	Adaptation mission and will sign the Mission Charter once available. In addition, RESIST
charter and links with	other	will tap into other initiatives, using partnership with JRC, and contacts/networks into the
other initiatives	initiatives	Climate-ADAPT platform and other H2020 projects.

[/]www.oecd.org/coronavirus/en/themes/green-recovery

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¹⁴ EIOPA Staff Discussion Paper Protection gap for natural catastrophes, https://register.eiopa.eu/Publications/EIOPA-19-485_EIOPA%20Staff_Discussion_Paper_Protection_Gap.pdf
¹⁵ https://ec.europa.eu/clima/citizens/support_en



Wider impacts across the Adaptation process: RESIST will protection between the result of the results of the re with climate disruptions and preparing for managing climate risks and to accelerate the transformation to a climate resilient future. At a time when EU will be emerging from the COVID-19 pandemic while facing the consequences of the war in Ukraine, our project will offer contributions across the whole circle of the adaptation process, including:

Engaging a wide range of stakeholders: our project, once implemented, will involve Demonstrators with a quintuple-helix approach, resulting in the direct involvement of +20 regional actors Furthermore, we will involve 8 twin regions, resulting in mobilization of

of multiscale, hundreds multisectoral stakeholders for climate-resilience adaptation.

Raising awareness ambition: our demonstrators and GDT will allow to visualize impacts of new solutions and raise the level of expectations and ambitious of populations.

Providing political space for engagement: Stakeholders and

civil society will be called to intervene, engage, experiment and as a result co-design new policies and instruments for climate change resilience, and validate new tech solutions.

Sharing information, knowledge and guidance: RESIST will assist the regions in upscaling their plans towards implementation in WP2 and in outreaching civil society in WP4

Strengthening technical and institutional capacities:

The support by RESIST to regions will reinforce their technical and institutional capacities, in digitalisation (WP1), stakeholder engagement,

internationalisation (WP4) and marketization (WP2).

Facilitating the provision of financial and technological support: RESIST will provide

Figure 2.1. Source: UNFCC

regions with financial, technological and methodological support and will assist their actors in applying for further public and private funds for climate-resilient solutions.

Contribution to European Innovation Capacity and creation of new market opportunities and growth: with evident synergies between environmental sustainability and economic performance, tackling CC can be an opportunity for EU businesses that are among the world leaders on clean tech. CCA actions have an impact on labour markets, job quality and health/safety at work, but also foster innovation/productivity. Economic impact is most visible in employment creation, an area extremely relevant in the post-Covid period. Simulations based on two global macroeconomic models (JRC-GEM-E3 and E3ME) provide detailed results for sectoral employment under ambitious climate policies (+1.5°C scenarios, implying zero net emissions by 2050, and +2°C scenarios implying an 80% reduction in emissions compared with 1990 levels). In terms of total employment in 2050, the 1.5°C scenario point to potential gains of 0.6% to 0.9%, or about 1.5 to 2 million jobs in the EU, compared with the baseline, which translated to RESIST potential outreach of a population of 22m, corresponds to around 88 thousand new jobs in all addressed regions. Building preparedness for climate change through investments in adaptation can incentivize new and expanded economic activity, help create jobs, and reinforce efforts to reduce emissions across nearly all sectors, but especially: i) Water management: EU companies are leaders in developing advanced water management technologies, such as purification, desalination, and water filtration and reuse, and RESIST demonstrators (e.g. Central DK) will work with economic agents to develop sustainable business models for upscaling of new water management solutions; ii) Energy Supply: renewable energy solutions/supply chains, such as biomass to energy technologies (demonstrated in Centro PT) can help meet the demand for renewable/cleaner energy sources and address the EU energy dependence problem; iii) Disaster Preparedness: Finding more effective ways of preparing for and recovering from hurricanes, cyclones, and other extreme weather events can save lives, property, and money. RESIST will help the partners at NIRAS and HYDS (SMEs) to refine their products and develop sound business plan for successful upscaling; iv) Coastal and natural resource management: + 60% of world's population lives within 60 miles of a coastline, putting millions at risk as sea levels rise and we face increasingly severe storms and heavy rains. Better land/resource management such as basin and watershed planning, developed in FI/DK demonstrators, will create natural barriers that will meet a growing demand for coastal areas vulnerable to climate impacts, v) Insurance and other financial instruments: Analysts predict that CC will significantly increase costs of insurance pay-outs for weather-related disasters, and instruments developed in SW Finland can drive growth in this sector; vi) Climate Change consulting services: Service providers as INOVA+, AugmentCity or ZSI, or R&D groups at KUL/SINTEF, can help public/private sectors to understand CC threats and develop adaptation strategies. Social impacts: Without vigorous adaptation, CC will further exacerbate vulnerabilities, place human health and

security at risk and impede sustainable development 16 and increasingly affect people's daily lives everywhere in terms of employment and livelihoods, health, housing, water, food security and nutrition, and the realization of gender equality and other human rights. Impacts will hit those living in poverty the hardest, due to their more prevalent dependency on the very natural resources affected by CC and also because they have less capacity to protect themselves, adapt or recuperate losses. New, effective policies to reduce negative social impacts are only possible

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through evidence-based policy making, localization, polycentrally Amplie in the policy in the Agreement policy in the Agreement are the best form to provide a way forward in terms of innovative CCA, policy development, governance, and more widely, sustainable development, by offering innovative ways of tackling the grand challenges of CC resilience. RESIST social impacts largely develop from this demonstration character, and the integration of social dimensions into CC measures in the project can be simplified as part of 3 key steps of the policy cycle: i) the assessment of social issues within demonstration process; ii) the process of social policy/measures experimentation and development; and iii) the results (monitoring and evaluation of impacts, and relevant restructuring of policy), and are presented below:

Table 2.2 – Main Social Impact While urban areas are the primary locus of consumption and greenhouse gas emissions, they fortunately also offer better chances for long-term sustainability as well as social development. Through CCA policies (e.g. Turku, Barcelona), the compactness and economies of scale of cities can reduce per capita costs and increase population resilience, while also minimizing pressures on surrounding land and natural resources. Urbanization is also a major factor in fertility decline and there is a strong correlation between lower fertility rates and the empowerment of women. Proactive planning for urban growth, particularly through securing the land and housing needs of the urban poor, multiply people's adaptive capacities. It can increase efficiency of and access to services by all people but most importantly by those living in poverty/vulnerable to the CC impacts. The co-benefits to health of sound adaptation measures are vast. Decreasing emissions and slowing CC will reduce and asthma and respiratory diseases, water and vector-borne diseases, and malnutrition that results from food Health a insecurity. Additionally, improved health infrastructure and services are an essential component of CC adaptation and contribute to the empowerment of women, enable families to build their resources and reduce poverty, and thus increase the resilience of their households and communities to prepare for and deal with CC impacts. CC adaptation measures that bring renewable energy to remote micro-communities and households - as in Centro PT – will have the co-benefits of supporting the sustainable growth of these small gatherings; enabling new 'green' economic enterprises; diversifying income sources where agricultural decline is likely due to CC; and increasing chances that the poor - especially women - can engage in these enterprises and access equal opportunities. Comprehensive and holistic risk and vulnerability reduction strategies should be a core part of both sustainable risk development and adaptation to weather-related extreme events, with benefit to both agendas. Climate variability Disaster causes changing weather patterns that will most likely result in more extreme weather events including a higher frequency/magnitude of weather-related hazardous events. Strategies to link expertise in various communities, including disaster risk reduction (e.g. Catalonia) promote resilience and reduce risk of lives/livelihoods lost. Realization of human rights is a critical co-benefit of sound CCA policies and related good governance practices, and simultaneously enhances the success of climate change resilience measures. Empowered people contribute to Human rights and good governance society through independent research, innovations and enterprises, an enlarged tax base, and informed choices and sustainable behaviors; all elements needed to achieve poverty eradication and sustainable development. Engaging stakeholders in decision-making processes, especially at the local level as it will happen in all 4 RESIST LSDs, increases the likelihood that initiatives will be locally appropriate, and thus adopted and sustained, while simultaneously empowering those involved and holding decision-makers accountable. This kind of 'active citizenship', as well as the effective protection of human rights - such as through access to information, the ability to effectively participate in decision-making processes, as well as access to justice, education, health and housing are all important to strengthening climate resilience of individuals and communities. Enabling infrastructure and technology that enhances efficiency and provides CCA solutions can simultaneously enabled services advance sustainable human development, welfare and rights in various areas, bringing economic opportunity and wealth to often marginalized segments of society. Efficient CCA solutions such as those that will be tested and mainstreamed in RESIST, including nature-based solutions, green/low-carbon product design, IT-enabled services (such as the GDT), information access and sharing tools do more than merely connect society efficiently. They provide economic & social networking opportunities at an unprecedented rate, allowing developing regions to leapfrog the development trajectory and offer tools for social transformation.

Barriers/obstacles and activities required to achieve the expected impact: It is clear that there are many obstacles to CCA, otherwise the world would be in a much better situation. In practice, only a small subset of all wished/suggested CCA measures will be implemented due to technical and physical limits as well as to differences in objectives. The outermost circle of **Fig. 2.2** gives the adaptation space that basically defines the adaptation need, as defined in each region. Hence, all actions are included that would be required to avoid all negative effects and capture all positive effects of CC. The second circle represents a subset of all needed adaptation actions including all actions that are technically and physically feasible.





Fig. 2.2: The narrowing of adaptation

So, what cannot be prepriete the total wild actions, and in line with available resources, policy priorities and citizen ownership (WP2 and WP4). The key for an efficient adaptation policy is to be aware of and to overcome these limitations and barriers, as those below, that can prevent national and local players (both public and

private) from adaptation decision-making, such as transaction costs. Other barriers emerge due to market failures such as externalities, information asymmetries, and moral hazards. The 5th Assessment Report of the International Panel on CC offers a comprehensive survey identifying main barriers to CCA decision-making¹⁷:

Table 2.3 – Main barriers to successful CCA implementation

Transaction costs	These are mainly divided into information and adjustment costs. Information acquisition costs can represent a significant obstacle, for instance when climate and weather data are costly or difficult to access but can be minimized (e.g as in Catalonia demonstrator). Adjustment costs represent another barrier, especially in the presence of uncertainty and include, e.g., mobilizing labor to build or fix storage facilities in times of flooding, water allocation and crop rotation schemes at times of droughts. Because of transaction costs, a beneficial adaptation may be undesirable or unpractical, and demonstrators (WP3) will provide data on transaction costs of adaptation measures to facilitate planning.
Market failures/missing markets	These include externalities, information asymmetries, and moral hazards. As a consequence, some socially desirable actions may not be privately profitable. In such contexts, public norms and standards, direct public investment, tax measures, can work and will be tested.
Behavioral	Includes all behavioral issues that lead to irrational decisions without using all the available information and
obstacles to	are time inconsistent. Social norms/cultural factors also have an inadequate influence on adaptation-decision
adaptation	making. These aspects will be addressed in WP1 and WP4.
Ethics and	These issues (addressed in WP1/WP5) connect to the aforementioned differences in vulnerability and adaptive
distributional	capacity. Economic approaches suggest choosing the most cost-effective projects, but ethical concerns imply
issues	that adaptation decision-making needs to account for both the net benefits and the impacts on equity.
Coordination,	Even though public decision-makers are supposed to remove barriers listed above, they themselves face barriers
gov. failures,	such as insufficient knowledge or resources. Addressing this requires high coordination between different gov.
political econ.	levels, as we'll ensure in sandboxes.
	This represents one of the largest barriers to adaptation as it expands into different dimensions: future
Uncertainty	demographics, technologies and economics, and future climate change, but it can be minimized through
	controlled experiments, as we'll put in place.

2.2 Measures to maximise impact

2.2.1 PLAN FOR DISSEMINATION AND EXPLOITATION OF THE RESULTS: RESIST has created a path for an effective exploitation of results by preparing a first draft of the project Exploitation Plan, where partners have analysed the following aspects: i) Exploitation/dissemination targets (presented in Table 2.4); ii) First Exploitable results (M36) and preliminary business plans (presented in Table 2.5, below) iii) Identification/analysis of possible exploitation paths within Consortium members iv) scientific dissemination and communication strategies. This Exploitation Plan will be further detailed along in T2.2, where a full Scalability Plan (D2.5) containing detailed innovation pathways for all exploitable technological and social results successfully demonstrated in the LSD/twin regions. Scalability is tackled by RESIST with 3 primary aims: i) create sustainability of the cross-sectoral platforms, services and applications developed within the regions; ii) enable new business opportunities beyond the pilots by upscaling the applications and ensuring their market replication via the RESIST networks and marketplaces, including twinning and disseminating regions and members of involved networks. A specific upscaling programme targeting additional EU entrepreneurial ecosystems and other relevant stakeholders (T2.3) will promote exploitation in territories sharing an interest in establishing climate resilient innovation ecosystems and support the implementation of the proposals' outputs and concepts across >50 EU regions; iii) thirdly, RESIST will empower innovators from the quintuple helix (startups, climate actors, civil society, policy-makers responsible for CCA) to better understand specificities of CC vulnerable areas when developing business models, strategies, digital services, etc., and will promote these towards investor communities for a faster uptake of results and mobilization of private funding (T2.4), as well as support them in applying for public funding sources (T2.2), in particular

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¹⁷ Climate Change 2014: Impacts, Adaptation, and Vulnerability.



EU programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and Interreg, and horizon from the three programmes as Horizon Europe, LIFE+ and LIFE+ a

	Table 2.4 – Exploitation & Dissemination Targets
Scientific communities (R&D)	Researchers and research communities will be interested in RESIST outcomes and will be approached to benefit from and contribute to RESIST objectives and research challenges. Scientific outcomes and participation in engagement activities will let the R&D community to spot and provide feedback on strengths and weaknesses of the RESIST effort and thereby influence the course ahead and overall contribute to the ERA. Outreach channels: scientific publications. European and national projects will be contacted to collaborate and cross benefit from exchange of knowledge and expertise in the sci- tech developments and gain a better understanding of limitations/challenges faced by the target groups in the context of CCA. Outreach channels: projects listed in Part A (1.2.4) and newly established connections.
Industry (IND)	Industry players operating locally, nationally and/or globally will benefit from the RESIST outcomes and will be hungry for new methods, methodologies and tools. RESIST will become a success story by proposing an added value to a diverse nature of industry players and innovation funding agencies. Outreach channels: EDIHs (e.g. FAIR Finland, ATTRACT- Portugal, agROBOfood, in Denmark), national innovation funding agencies (e.g. Innovation Norway, ANI – Portuguese Innovation Agency) and industry partners in the consortium and beyond.
Government (policy) (GOV)	European and international bodies will receive input to their agendas and will contribute to RESIST visibility and outreach. In particular, the project will liaise with JRC for support in the development of specific synergetic actions in the area of climate adaptation among Horizon Europe, national research and innovation programmes, cohesion policy programmes and the Next generationEU recovery instrument. Outreach channels: European Technology Platforms (ETP) (e.g. CESAER, ARTEMIS), alliances (e.g. EARMA, EFFRA), Public-Private-Partnerships (PPP), e.g. DAIRO and EIT Climate KIC, EIPs, e.g. Smart Cities Marketplace, EU platforms such as Climate-ADAPT platform, JRC Climate Change Unit. Policy and regulatory authorities will be approached to guarantee RESIST developments and contributions to the policy and regulatory agendas, e.g. Green Deal, AI Act 2021 at the national and European levels and contribute to the European standardisation efforts through open dialogue based on discussions of core outcomes of RESIST. Outreach Channels: DG CNECT, DG RTD, DG CLIMA, CINEA, JRC, ETSI and CENCENELEC and national bodies such as: Ministry of Local Government and Regional Development (Norway).
Public (PUB)	European citizens will be engaged at the largest possible scale to spread knowledge and to create more awareness about climate change and adaptation measures proposed by RESIST. To this category of stakeholders belong school children, students (bachelor studies), public administrations/ municipalities and citizens interested in technology development. Outreach channels: schools, universities, local communities and municipalities and civil society actors.

2.2.1.2 Exploitable Results (ER) and market paths: The RESIST consortium has already drafted a plan for Exploitation of those results that will be already in place by the end of year 3 (M36). These ER are analysed from the main exploitation partners point of view, the target communities/markets, as well as an initial exploitation path.

Table 2.5 – Exploitable Results by Month 36

#1: CBA analysis of NBS solutions/Inspirational catalogue of raingardens (SW Finland)

Value proposition: The SW FI pilot will develop tools for promoting NBS in stormwater management, incl. a CBA tool for: quantification and monetization of benefits: stormwater retention and other ecosystem services, like noise reduction, biodiversity, air quality, cooling, recreational value or image of the area, and a "turnkey" raingarden catalogue for private property owners, to promote NBS use in construction development projects (new and rehabilitation projects).

Main exploitation roles: City of Turku: promotion, dissemination, certification of solutions; TUAS/UTU: methodological development; LUKE: regulatory support; Turku Business Region: promotion amongst construction sectors for product ownership; MTK: promotion across wood sector for new product development

Main markets: Local level and Twinning Regions: Construction developers, including public (social houses) and private, either for new projects and rehabilitation., incl. construction firms and individual owners, and NBS producers, wishing to diversify/expand product range; EU level: other regions and associations of developers /forest owners across EU.

#2: Flood-resistant building / #3: Warning System App (Central DK)

Value proposition: Two flood-resistant demo houses, making use of NBS, will be demonstrated in the project and promoted towards construction sectors and individual owners (#2); a first version of a warning system app allowing citizens and authorities to prepare for storms and major rainfall events, will be developed by NIRAS (#3)

Main exploitation roles: NIRAS: commercial exploitation and client support (#3); NTY: certification, mkt development (#2); AU/VIA: technical development (#2/#3); MID: early user (#3) and promotion (#2).

Main markets: Local level and twinnings: regions and municipalities as first target (#3); Construction developers and individual owners (#2); EU level: collaboration with HYDS (#4) and promotion to other Nordic regions before a comprehensive roll-out to all EU vulnerable regions with support from ERRIN/SERN (#2 and #3)

#4 ANYWHERE Multi-hazard early warning system and apps (Catalonia)

Value proposition: A multi-hazard platform for proactive management of climate-induced emergencies to reduce damages and increase climate resilience in EU regions and a set of Site-Specific Early Warning services to reduce climate-induced

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vulnerabilities in key community systems, including new full ionalites with better the frage and capabilities with the operational Copernicus Emergency Management Services (EFAS for floods, EFFIS for wildfires and EDO for droughts), and with the available high-resolution local vulnerability cartographies in different EU regions.

Main exploitation roles: HYDS: commercial exploitation and client support; UPC/UOC: technical development; Generalitat de Catalunya: early adopter and promotion; Terrassa / Blanes: early adopters

Main markets: Local level and Twinning regions: all municipalities in addressed regions as first target; Regional Level: other Spanish, Italian and Portuguese Regions; EU level: collaboration with NIRAS (#3) and comprehensive roll-out to all EU vulnerable regions with support from ERRIN/SERN.

#5 New systems of lignocellulosic biomass valorization / #6 Molecular Biology & Plant Health & Preventing models

Value proposition: The demonstrator will show out high value biobased products produced in a biorefinery pilot presenting in the region: multi supply framework of bioresources from forest and marginal land ecosystem based on residues and raw materials that do not represent the deforestation (#6) and new models for profiles of CC in Northern Europe through models of knowledge and molecular evolution of plants in Southern Europe (first to suffer CC effects) *Main exploitation roles:* BLC3/FW: main development and service provision (#6,7); MT21: support services; IPP: technical field services, FW: commercial take-up.

Main markets: Local level and twinning regions: CIMRC (Coimbra) and CIMT (Médio-tejo) municipalities, and twinning forest municipalities for #6; EU level: Northern regions that use #7 to anticipate and prevent CCA effects

#7 Graphical Digital Twin Platforms

Value proposition: RESIST will serve to test the scalability and repeatability of the GDT methodology and technology in the diverse context of leading and following regions.es. The goal is to establish a strong sustainable brand: AugmentCity will use the pilots to build a reputation and get a solid foothold in regional authorities as a GDT planning platform and become a de facto standard for digital twinning of regions. The project will also allow to further develop methodologies & technologies as seamless user experience and enabled citizens participation in the DT for co-creation with world-renown experts, thereby increase customer-retention and pilot-to-customer conversion and establish strong partnerships in a network of excellence and find sound market opportunities in regions, cities, countries.

Main exploitation roles: AugmentCity: core development, customisation, commercialization and technical support; SINTEF: development of human-computer interaction layer.

Main markets: all regions and cities concerned with climate change impacts and align with DestinE principles, for developing a very high precision digital models to monitor and simulate natural and human activity, and to develop and test scenarios that would enable sustainable development and support EU environmental policies.

2.2.1.2 Estimation of market impacts and economic return: Economic gains resulting from the innovative pathways developed in demonstrators will be accurately estimated during and again at the end of the project, using Cost Benefit Analysis methods and the framework provided by Adelphi (T1.1). Most of the gains are expected to be of a societal nature and in the long term, and a first estimation carried out places this at increasing community awareness and resilience by 10% (*KPI #19*) and levels of green investments by 20% (*KPI #6, #9*), and reducing economic losses due to natural hazards by 14% in the next 10 years in the addressed regions (*KPI #5*). But from the first analysis, there are also shorter terms gains of an economic nature to be expected. The 'adaptation economy' was estimated at a worth value of €279 billion (2015/2016), with 11% growth rates until 2022¹⁸, which have only been slowed by the pandemic but that are expected to raise from this year onwards, fuelled by the EC Recovery Funds. This, and possible ways in which economies will be organized as a result of the pandemic – where low-contact economies could also be low-carbon economies – opens relevant growth prospects for innovations from RESIST.

Table 2.6 – Market impacts in terms of community gains (indirect benefits) and direct economic benefits to project partners from outputs

Adaptation Solution:	2025 - 2027		2028 - 2030	
	Indirect benefits	Direct benefits	Indirect benefits	Direct benefits
CBA analysis of NBS solutions/Inspirational catalogue of	+ 12%	-6%	+20%	-12%
raingardens (increased awareness levels/cost reductions)				
Flood-resistant building (reduction of economic losses)	-8%		-14%	
Early warning systems (reduction in economic losses)	-5%		-8%	
Biomass valorization tools (reduction in fossil imports)	-2%		-4%	
Graphic Digital Twins for cities & regions (sales turnover)		2.000.000€		+ 7.000.000€

2.2.1.3 Exploitation paths per sector/type of partner: As a result of RESIST, the following strategies will be taken by the different types of partners involved:

¹⁸ Climate-KIC's Climate Change Adaptation Innovation Approach



Beneficiaries	Exploitation models Table 2.7 – Exploitation pains per type of pariner
Large-Scale Demonstrator Regions	Regional authorities will use their channels and direct contact with regional/national ecosystems to disseminate project opportunities and results and activate further collaborations and interest in terms of implementation of project results and achievements. For this, they will concentrate their exploitation activities on creating further opportunities for local stakeholders regarding the design and development or adaptation of solutions for climate vulnerable areas, and supporting them through policies/services such as: i) Developing and implementing new regional adaptation strategies (RAS); ii) Building value chains aimed at the development of technological solutions, innovative products and services in strategic application domains (e.g., health, mobility, sustainable tourism, culture, green economy) for climate vulnerable territories; iii) Technology intelligence - giving visibility of the state-of-the-art technologies provided by the territories in terms of research and development and in terms of products and solutions already present on the market or already adopted by Public Administrations; iv) Identification of economic models for adoption, diffusion and sustainability of the solutions; v) Networking, support for creation and development of relations between companies and administrations; vi) Support adoption of new forms of innovation procurement. Furthermore, through its network of clusters and other similar entities.
Twinning regions	Twinning regions will be the first adopters of the solutions validated in the demonstrator pilots and will replicate them in their territory, ensuring an innovation potential in the development of local dynamics and communities. The cross-cutting policies, apps and services developed in the sandboxes, will be used in the follower regions to promote public services that can further support and develop their ecosystems in innovative ways thanks to increased connection to global networks, and attract existing businesses into the regions thanks to competitive costs, strong local identity and high environmental quality.
Other Regions	Disseminating partners will contribute to the targeted dissemination of the demonstrator outputs towards other regions, and SERN/ERRIN towards their regional members, promoting transfer of knowledge and solutions through networking and clustering mechanisms to over 50 regional ecosystems in Europe.
Business Partners, incl. SMEs and startups	Business partners will be involved in the demonstrators for development/customization/configuration of new tools, platforms and other solutions (such as Nature Based Solutions), and will benefit in two ways: i) to re-use the knowledge and competences acquired, gathered and developed within the project in future commercial and research projects/activities, in particular with public authorities; ii) to enrich the products and services provision to clients interested and operating in related fields. SMEs and startups exploitation strategy benefits from project's support in development of new sustainable business models, links with investors and partners (WP2) and increased visibility due to communication activities (WP4); SMEs will in particular target first the national and regional public procurement markets, benefiting from the links established in the project, and later the foreign markets, benefiting from the interoperability nature of the project. Focus will be on the commercialization of new cross-cutting apps/services for vulnerable areas.
Research partners	R&D partners with an established track record of partnership with local authorities and actors, can guarantee these a constant follow-up/permanent refresh of the material/immaterial infrastructure and knowledge network built during the projects, therefore enhancing its efficacy and durability. Furthermore, it will be possible to support local authorities in the transcription of pilot achievements in planning documents and local rules (building codes), a necessary condition for dissemination of experience. The proposed solution of Graphical Digital Twins and geospatial data management application might be also applied to different exploitation scenarios and will be able to start specific projects in the next few years. R&D partners will support and maintain common structure/community of developers and service providers in which tools and skills can reside to organically synthesize the characteristics of different application scenarios (smart cities, search & rescue, patrolling and early warning systems, NBS implementation, etc.) and their related experimental solutions. The proposed blended approach for development will complement the pre-existing infrastructure to boost the adaptation capabilities of the vulnerable areas.

2.2.1.4 Scientific Dissemination: RESIST will involve not only scientific partners, but also representatives from public bodies, private sector and citizens (where possible and appropriate) in scientific dissemination, in order to stimulate scientific thinking. This might occur in the stage of analyzing and writing-up findings, but also as part of the internal reviewing process. Scientific dissemination will follow the principles of Open Science, in line with Open Access Regulations, making use of the Open Science Framework and tools, while maximizing the publication in Open Science Journals. The aim is to publish at least 25 scientific publications in international peer-reviewed journals, such as Virtual Reality (Springer), International Journal of Virtual and Augmented Reality (IGI Global) and IEEE Instrumentation and Measurement Magazine. RESIST will target oral presentations at min. 150 domain-specific scientific conferences and a minimum of 5000 scientists reached at conferences. A non-exhaustive list of events includes: ICML, AAAI, CHI, *STI* Policies for Sustainable Development; Int. Conf. on Public Policy, Futures Conference; Living Knowledge Conf.; Sustainability Science Days; Urban Transitions Conf.; Living Knowledge Conference. Activities include: 1) identifying/documenting target publications, conferences and potential scientific and other journals/magazines in a repository; 2) mobilization of scientific members of the consortium, and stakeholders



series of workshops/webinars enabling fruitful discussion among scientists, innovators, professionals and citizens involved; 4) review internally draft publications in order to stimulate scientific thinking and writing. Multidisciplinary and interdisciplinarity aspects, including links with psychology and other behavioural sciences, are taken into account. 2.2.1.5 Knowledge management and protection strategy: The Grant Agreement (GA) and Consortium Agreement CA) will be lead by SINTEF and signed by all beneficiaries before start of the project. The CA includes project management structure and governance (e.g. management bodies and their roles), beneficiaries' responsibilities and rights, financial management of the EU grant, and IPR management strategy. It will list all items of knowledge relating to the work of the project (both pre-existing know-how and results developed in the project) and make explicit for each item: (i) the owner(s), (ii) the nature of the knowledge and its perceived exploitation potential (iii) the currently agreed status of the item concerning access rights, plans to use the knowledge in exploitation, or plans to disseminate it outside the Consortium. The IPR management strategy will include three principal goals: (i) Fostering a focused project approach towards generating IPR (e.g., patents, design rights, copyright) as one of the main drivers of the project work; (ii) Evaluating project results to identify opportunities for IPR protection; and (iii) Avoiding premature disclosure, which could compromise the ability to secure patents. This process will be managed by monitoring external publication or disclosure of project results. Specifically, during the entire duration of the project, WPL are responsible within their WP for the identification, monitoring and release of outcomes and observations of assets of relevance for protection or sensitivity to confidentiality and will draft an IPR Chapter in their periodic reporting. INOVA will set the procedures and processes and oversee all the innovation and IPR matters and implement the project strategy, which also includes standardisation and regulatory activities and will maintain an IPR Directory throughout lifetime of the project. All external actors in the various steps of the project, will sign Non-Disclosure Agreements (NDAs), verifying that they will not proceed to improperly use information, technical designs and other sensitive information of beneficiaries.

2.2.2 COMMUNICATION ACTIVITIES

The overall communication objective of RESIST is to facilitate the exchange of knowledge between key target groups and disseminate project results, through a Communication Strategy (CommS) with specific measures to ensure that project results are catalogued, curated and protected and that specified components are communicated, disseminated and exploited for a range of stakeholders (section 2.2.1.1). CommS will be reviewed and regularly updated (every 6m). 2.2.2.1 Communications tools and methods: The RESIST CommS (D4.4) will implement a strategy, embedded in WP4. The plan will address a wide range of target end-users and stakeholders, and will include: i) Development of the project visual identity (logo, icon, strapline) and communication kit templates (Word letterhead, PPT presentation, online banners, comms guidelines); ii) A stakeholder analysis with a more complete identification of outreach channels to the identified target groups (Section 2.2.1.1), their needs and characteristics to encourage their movement from awareness to action; iii) The development and deployment of an interactive exhibition (T4.3 including website, videos, pathways and feedback loops), building on the outcomes of the Graphic Digital Twins; iv) Establishing a strong presence on social media that will provide sign-posting to project outputs and other relevant material, first for the project and later for the Climate-Resilient Regions and Communities Alliance; v) Targeted specific communication measures through Knowledge Products (factsheets, online shareables, leaflets), vi) Routes for building bridges and engaging Brussels (policy briefs, forums, events), vii) Project training and legacy planning to ensure the RESIST website, resources and tools are available to the Climate-Resilient Regions and Communities Alliance and have impact beyond the project lifetime. Specific activities are:

a) Visual Identity and Communication Templates: The visual identity includes the logo and templates for different communication materials such as reports, presentations, and press releases will be created to adapt and be used in their respective languages if so desired; b) Development and deployment of the RESIST Exhibition: The project website will be the main communication and dissemination platform to allow stakeholders to have access to the project developments and results, including all the deliverables, latest news, videos, infographics, events, and the future scenarios journey. The website will also host the immersive and interactive **RESIST Exhibition** which will provide the viewer with the opportunity to virtually visit the regions and learn about climate adaption practices. A key element of the exhibition will be the Augmented Reality (AR) technology and the decision-making mapping (arborescence) developed in WP1 for visitors to see and understand different challenges and solutions to achieving more sustainable regional climate scenarios. The exhibit will guide the visitor through three steps: (1) to create awareness about risks surrounding us, using attractive audio-visual material presenting past emergencies that may occur again and promoting the desire to be prepared through personal involvement; (2) to build a risk management plan for our community & family tailored to different types of hazards guided with the support of specific webpages adapted to be visited with mobile devices; (3) to familiarise the visitor with the RESIST developments to naturally associate the proposed warnings with actions through the built risk management plan; thus, promoting resilience through understanding how to be best prepared to react in case of climate emergencies reducing socio-ecological impacts, loss of lives and damages. The exhibit will "travel" virtually and be presented in 50 communities in the EU; c) Social Media Outreach: RESIST will establish a portfolio of social media with the aim of communicating with specific target



groups across Europe and beyond. These will include a 🌉 Trabeciavideous harring that hists (2022 https://doi.org/10.1001/10.0002) engagement, and a Flickr gallery of images. A dedicated LinkedIn page will be created to connect professionals from different backgrounds and areas of expertise related to regional development and climate resilience, from scientist to policy to business. Through social media, **RESIST** will be linked to other EU initiatives with high visibility; d) Knowledge Products: Project findings will be disseminated through more traditional routes for scientific and nonscientific target groups, supplemented by press releases at relevant stages through usual organisational routes, including web and social media. Specific products will include (i) Videos/Infographics/Videographics and digital storytelling. Different types of videos will be created: 20-25 video interviews including videos for secondary school children, 1 videographic explaining the project process and the demo pilots being developed. Additionally, infographics (5-8) and a decision-tree (arborescence) will be made available within the interactive exhibition to take visitors on a digital journey around the regions. This journey will be made available online and a tracking of visitors will be recorded by capturing emails and social media handles; (ii) Internal & External E-Updates. WP4 will deploy a quarterly bulletin to update partners and the relevant stakeholders (opted in with permission) and via voluntary signup options in accordance with the EU GDPR via a dedicated Mailchimp account. The RESIST bulletin will include project developments, early results and upcoming internal and external events for stakeholders to engage more readily. This rich mix of past-present-future will provide for good momentum-building, and will be complemented by regular News Flash items, webinar invites, event announcements and publication promotions. An original mix of internal & external communication channels will include the dissemination of RESIST via partner newsletters, flyers and others. e) Building Bridges + Engaging Brussels: Ensuring the cross-promotion and networking with other similar projects and international initiatives will increase the overall impact of RESIST and facilitate feedback and capacity-building. **RESIST** will also strive to participate in EU events like the EU Green Week, the EU Week of Regions and Cities and others to promote the RESIST activities and outcomes. RESIST will look to align its own events with EU Council Presidencies as well throughout the duration of the project to have political impact. Amongst the countries where RESIST partners are located, potential options for the upcoming years include: Spain (July-Dec 2023), Belgium (Jan-June 2024), and Denmark for 2025 for the final forum. A mid-project forum will be organised to update of progress, to take stock, gather feedback, digest input and suggestions, and lay out the planning for the second half of the project Then, the final event is planned at the project to reveal its outcomes and support its long-term sustainability. To bring together a maximum number of policy, research, businesses and citizens from around Europe both forums will have a format of digital summits and live events which will be live streamed on Facebook and YouTube.; f) Media Relations - Non-scientific publications and press: RESIST will engage journalists and ensure media coverage of the project throughout its course via social media content, news and press releases. Several press releases will be published on different media (EURACTIV, POLITICO, REVOLVE, EU Observer, Europe's World), as well as high-level media outlets throughout the project, including project website. At least 40 press releases / 6 informative articles are planned.

 Table 2.8 – Communication Strategy KPIs and Targets

Project Output & KPI	Stakeholder	r Targets				
	Group	Year 1	Year 2	Year 3	Year 4	Year 5
Interactive Digital Platform (# visits/year)	All	2,500	5,000	10,000	15,000	20,000
Video Sharing Hub (# video views per year)	All	1,000	2,000	4,000	7,000	10,000
Twitter (# of followers per year)	All	500	1000	2,000	3,000	5,000
LinkedIn (# of followers per year)	All	750	1,500	3,000	6,000	6,000
Project Leaflet/Flyer (# of flyers distributed)	All	1,000	1,000	1,000	1,000	1,000
Digital Campaigns (# of campaigns per year)	All	1	3	3	3	3
Press Releases	All	2	2	2	2	2
Quarterly Newsletter (# of Mailchimp e-alerts)	All	4	4	4	4	4
(# of digital subscribers)		250	750	1,500	2,000	2,500
Media Kit	All	1	-	1	-	-
Media Coverage (# of press articles per year)	All	5	10	15	15	15
Videos (# of project videos per year)	All	6	6	6	6	6
Educational videos for sec. school children	PUB	-	2	2	2	-
Comms Kit	All	1	-	1	-	-
Impact Report (# of reports per year)	All	4	4	4	4	4
Digital Dashboard (# of dashboards per year)	All	4	4	4	4	4
Knowledge Exchange Workshops	R&D, IND,	4	8	8	6	4
(# of group workshops per year)	GOV					
Knowledge Training Sessions (#trainings/year)	R&D, IND, GOV	=	4	4	4	2
External Event Participation (#events attended)	R&D, IND, GOV	100	100	200	200	200
Media Briefings (# of press brown-bag lunches)	All	1	2	2	2	2



Sister-Project Exchanges (# of com. webinars)	R&D, IND,	Associat	ed with⊿docume	nt Ref. ₄ Ares(20	22)84 <u>3</u> 9002 -	06/12/2/022
(# of webinar attendees)	GOV	100	200	400	600	600
European Researcher's Nights (#annually)	R&D, PUB	1	1	1	1	1
Mid-Term & Final Forums (# of attendees)	All	-	400	-	1000	1000



SPECIFIC NEEDS

- **General needs (EU Level)**: i) build CCA resilience and upscale innovative solutions through 100 demonstrators and accelerating the transition in 200 pilot regions and communities by 2030 (MISSION CLIMATE); ii) develop a highly accurate digital model of Earth to monitor/predict interaction between natural phenomena and human activities (DestinE) iii) improve R&D&I efforts for CCA, as they have stagnated as regards mitigation (WorldBank);
- Region-specific needs: i) SW Finland: increase NBS for water retention/erosion control in both urban and rural catchments; enhance governance structures and citizen/stakeholder engagement/co-creation methods for successful transition; ii) Central DK: address risk of flooding from risk sources (rains, rising sea level and storm surges, rising shallow groundwater and water course floods); identify which polices/policy gaps have promoted/hindered integrated CCA at the local level; iii) Catalonia: build resilient management to anticipate hazards, absorb impacts, respond to crises, recover and learn from past experiences; iv) Centro PT: address desertification, poor land use and forest mgmt due to micro-ownership, increase circularity of bio-waste.

TARGET GROUPS

- Up to **22m** citizens outreached by project in 12 regions, including school children, students (bachelor studies), public administrations/ municipalities and citizens
- Regional authorities and organisations responsible for management of +21 billion $\mathfrak E$ of regional funds (ERDF and Nextgen) until 2027.
- Regional authorities and institutions responsible for implementation of CCA policies in the amount of **5.5billion** € until 2027.
 - Business and industry community that will receive approx. 25% of RESIST investments in demonstrators Scientific community across EU and in Ukraine
- Investment community, Innovation agencies, media

(represented by Odessa National University)

EXPECTED RESULT

- 4 Large-Scale demonstrators, 12 lines of activity and 22 organisations involved from governance (4)/business (4) / research (8) /civil sectors (6);
- 8 Transferability Plans developed for 8 twinning regions, with 19 local organisations involved from governance (8)/ business (2), research (6)/ civil (3);
 - Physical demonstration implemented in 12 locations: Stormwater sys. in Rauvola bay, Oriketo industrial area, sub-catchment in Rural catchment (FI), IoT network in Juelsminde and Thyborøn, 2 flood-resistant homes and a new dike in Horsens, a flood defense infrastructure in Randers and a groin in the W. Limfford (DK); a 24/7 operational warning system in Terrassa and Blanes (ES); a multifunctional bioeconomy tool in Coimbra and a biomass fuel process in Médio Tejo (PT)
 - 12 immersive Graphic Digital Twins (GDT) available for experimentation/simulation in 12 regions
- Gender balance (50%) in all demonstration activities, including design, implementation, management and participation.

OUTCOMES

- -170.000 citizens directly addressed by project activities, including physical and GDT demos
 -84.000 Km2 (3% of EU-27 surface) covered with
- 100m of or burden of contract of contrac
- 100me of public funding captured for upscale of project public and business owned solutions
 25me of private investment captured for upscale of
 - 5.5me of private investment captured for upscale of project business owned solutions Increase level of awareness/confidence in CCA
 - solutions in addressed regions by 10% to 77% 17.000 stakeholders surveyed for social impacts. Over 10m€ in GDT business results until 2030

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- Dissemination: i) Scientific dissemination: 25 scientific publications in international peer-reviewed journals; 150 domain-specific scientific conferences; 5000 researchers reached incl. +50 from Ukraine through Partner 56; ii) technical & innovation dissemination: cooperation with +20 R&I projects and initiatives through partners networks and contact and privileged interface with JRC; + 50 innovation ecosystems in Europe and beyond through ERRIN and SERN members; iii) policy dissemination: 1 advisory board with >8 members from regions not covered by the project; 3 disseminating partners in Portugal, France and Ukraine to amplify results of the project to further regional and national policy makers; 1 Community of Practice including all 12 regions; +12 regions signing the mission charter.
 - Communication: 1 Virtual Interactive Platform, 1 Virtual Interactive and Itinerant Exhibition addressing +50 communities; 20-25 video interviews (incl. videos for secondary school children) 1 videographic explaining the project process and the demo pilots
- Exploitation: +100 Exploitable business-oriented Results, +50 business plans screened by VCs, +50 mentoring sessions, 2 Exploitation Worskhops, 1 Matchmaking event, 1 final Scalability Plan

IMPACTS

- A growth of climate related funds from 25,4% to **30%** of all regional funds representing **6,4 b¢** of ERDF/Nextgen funds in the 12 regions until 2030.
- Reduce flooding risks by **14%** and damages in **30m€** in the targeted regions. **88 thousand now tobs** indirectly created in all addressed
 - 88 thousand new jobs indirectly created in all addressed regions
- Reduction of protection gap in addressed regions from 65% to 50%
- Increased competitiveness of EU greentech business sector, especially in water management, energy supply, Disaster Preparedness, Coastal management, Insurance and other financial instruments, Consulting and technical services.
 - Increased quality of life and reduced social unbalances

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3. QUALITY AND EFFICIENCY OF THE IMPLEMENTATION

3.1 Workplan and resources

The main purpose of the 5 RESIST WPs and their input/output relations are summarized in Figure 3.1. WP1 will setup the innovation and CCA framework for the Large-Scale Demonstrators to support and guide regions to experiment new approaches, policies, methods and regulatory frameworks for addressing their climate challenges – including the core development of a Graphic Digital Twin for each LSD region - and develop an ethics and gender framework which will be used throughout the project. WP2 ensures that the innovation packages developed within RESIST result from a collaborative approach between regions and that results are replicable and market-oriented with ecosystems stakeholders taking ownership of these solutions and promoting its enlarged use by citizens and communities in Europe. WP3 is the core of the project, concentrating 68% of effort and 66% of claimed costs, with the LSD and twinning activities taking place in 12 climate-vulnerable regions in Europe, including 5 less developed regions in Portugal, Spain, Greece and Latvia. WP4 will interface society and citizens at large, promoting wider social adoption and awareness of the new and innovative solutions. Finally, WP5 will promote policy dialogues with the EC for management of the project and with other relevant EU projects and initiatives.

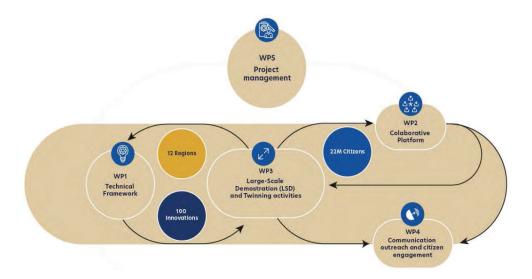


Fig 3.1: Pert Diagram

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WP# T# Work Package and Tasks	LEADER	E	37 Wouth 32 32 32 32 32 32 32 32 32 32 32 32 32	3£	89 29 99 99 89 89 29 19 09 67 87	09 69
WP1 Technical Framework for Climate-resilient demonstration	ent Augment					
T1.1 Climate adaptation framework for demonstration activities	ADELPHI	PIQ	D1.2; M1.1		D1.3	
T1.2 Digital Twins framework and deployment	ent Augment	714	D1.6; N11.2		D1.6	
T1.3 Technical Framework for Climate-resillent Innovation	ent KU Leuven				01.8	
T1.4 Ethics/gender and social analysis framework	ESF	619				M1.4
WP2 Collaboration and Networking Platform	ו INOVA+					
T2.1 Networking and mutual-learning layer	ERRIN	02.1	M2.1		02.2	
T2.2 Innovation and Exploitation layer	INOVA+		0000,0000,0000,0000,0000,0000,0000,0000,0000	D2.3	D2.4 D2.5 D2.6;	2.6;
Upscaling towards other entrepreneurial ecosystems		D2.7				
T2.4 Private funding layer	FASTIKAC					D2.8 M2.4
UP3 Large-scale collaborative demonstrators (LSD) and Twinning activities	'S ERRIN					
Large-scale Demonstrator in SW Finland + T3.1 Twinning in Normandy/E. Macedonia	ld + RCSF	03.1	03.4	03.2	D3.5; D3.3	000000000000000000000000000000000000000
T3.2 Large-scale Demonstrator in Central DK + Twinning in Blekinge/Zemgale	· + RM	03.6	03.8; 03.9; 03.9;	D3.11	03.13; M3.2	
Large-scale Demonstrator in Catalonia + T3.3 Twinning in Puglia/Baixo Alentejo	+ +		D3.19	D3.14, D3.15, D3.16, D3.17	M3.3	
T3.4 Large-scale Demonstrator in Centro PT+ Twinning in Vesterâlen/Extremadura	+ CCDRC		D3.24	D3.21; D3.23	03.20; 03.22 M3.4	
Maximizing impact: Communication, WP4 Outreach and Broader Citizen engagement	ent ZSI					
T4.1 Social Impact & Citizens engagement	ISZ		D4.1		D4.2;	D4.3
T4.2 Digital Communication & Outreach	REVOLVE	D44 D43;			D4.6	
T4.3 Events and institutional dissemination	INOVA+			D4.7		D4.8 D4.9
T4.4 Scientific Dissemination	KULeuven					D4.10
WP5 Project management, coordination and policy relations	SINTEF					
T5.1 Operational Project management	INOVA+	05.1	D5.3	D5.4	D5.5	M5.1
T5.2 Strategic Project management and Institutional Relations	SINTEF	D6.6; M5.2				
T5.3 DMP & and adherence to ethics requirements	ESF	BE3 D57				
TS.4 Advisory Board and External Policy Relations	ERRIN	D5.8				

Fig. 3.2 – Gantt chart

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Risk Management: RESIST risk analysis/mitigation is based on a continuous process and cross-partner risk awareness, incl.: A. Risk Planning deals with identifying risk mgmt procedures/responsibilities. B. Risk Identification is about uncover risks before they become problems. A first overview of identified risks is in table below; C. Risk Analysis involves evaluating risk attributes and prioritizing risks, establishing values for probability (likelihood) and impact (in terms of significance for the project); D. Risk Response the process of deciding what should be done with a risk, if anything, and answers 2 key questions: (1) who owns the risk (responsibility) and (2) what can/should be done (scope/actions); E. Risk Monitoring keeps track of risks and evaluates effectiveness of response actions. Op. Coordinator is responsible for risk process and procedures.

Table 3.1g Description and justification of subcontracting costs

Partner	Subc. Costs €	Justification
INOVA	70.000	INOVA+ will employ external IPR and thematic experts (in specific technologies within the CCA range), within the scope of T2.2, for carrying out the review of specific sections of business models for the Key Exploitable Results and associated exploitation roadmap in terms of Competition analysis (benchmarking analysis of existing or emerging alternative solutions), Identification/assessment of risks/barriers to overcome to enable exploitation of results, and design of mitigation plans; IP strategies for key exploitable results. The project foresees a KPI of up to 100 exploitable business-oriented results, which will be grouped in batches by technological domain. We foresee 10 batches for 10 specific technological areas, each one to be revised by 1 Thematic Expert and 1 IP Expert, at 3.500 per batch and per expert, therefore: $10 \times 3.500 \times 2 = 70.000$ for 20 experts (10 Thematic and 10 IP)
RCSF	66.000	Expert services as to co-creation processes and detailed planning for rural catchment T3.1.3: 12.000 € Expert services as to planning for rural catchment (expertise in GIS, forestry, agriculture, modelling), 12.000 € Facilitating services for co-creation process (such as digital surveys to landowners, organising events), 12.000 € Surveys needed for the detailed planning and for monitoring of restoration such as drone filming, 30.000 € Expert services for detailed planning for nature-based water retention methods in rural catchment, such as detailed design of constructed wetland, 2-stage ditches etc.
CITY OF TURKU	125.000	Expert services as to co-creation processes and detailed planning in WP3, Task 3.1.3. Rauvola Bay ■ Baseline inventory (water analysis, field survey, nature mapping etc.) 10 000 € ■ Participatory actions 10 000 € Total 20 000 € Oriketo industrial area ■ Baseline inventory (water analysis, field survey, nature mapping etc.) 10 000 € ■ Participatory actions and alternative solutions 10 000 € ■ General planning 10 000 € ■ Different stages of detail planning 25 000 € Total 55 000 € Development of stormwater management Stormwater general plans for catchment areas 17 000 € Participatory and co-creative actions 17 000 € Impact assessments and monitoring 16 000 € Total 50 000 € Grant Total 50 000 €
TUAS	25.000	Water analyses in an external laboratory, audit in WP3 T3.1
LUKE	30.000	Survey implementation (by a commercial survey firm selected with tendering) in WP3 T3.1.
NORMANDIE	50.000	Specialized planning and expert services, communication costs, e.g. to promote this European project on our territory in WP3 T3.1
RM	400.000	Sub-contracting costs are linked to WP3, T3.2.1 and are detailed as follows: 1) Expenses covering implementation of the project in Randers and Norddjurs Municipalities (supporting actors) towards the implementation of ii) NBS in existing urban areas; iii) Invite the water in - public awareness raising; iv) multifunctional climate adaptation solutions - 100.000€, 2) Expenses covering implementation of the project in Hedensted Municipality (supporting actor) towards the implementation of i) Logging and citizens science; ii) NBS in existing urban areas - 75.000€ 3) Expenses covering implementation of the project in Horsens Municipality (supporting actor) towards the implementation of ii) NBS in existing urban areas; iii) Invite the water in - public awareness raising; iv) Multifunctional climate adaptation solutions 75.000€, 4)



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		Expenses covering implementation of the project in Lemvig Municipality (supporting actor) towards the implementation of ii) NBS in existing urban areas; iv) Multifunctional climate adaptation solutions - 75.000€ and 5) Technical consultants to support implementation of demos - 75.000€
BLEKINGE	94.697	Costs related to guarantee involvement of local councils in planning of twinning demo in Blekinge - 50.000€ (T3.2.4); Participating and planning costs for City Expo Karlskrona as a demo space in Blekinge 2025 - 20.000€ (T3.2.1); External expert consults in planning support for the region – 24.697€ (T3.2.3).
CIMBAL	133.850	The subcontracting is related to the collection and processing of regional data by experts for the adaptation of the tool to the territory. Support to report production and some support to communication. The costs are linked to WP3, T3.3 These are specialised services for adapting the pilot demonstration tool to the reality of the Baixo Alentejo region and its characteristics, both at a territorial level and in terms of identifying risk areas, risk level, impact, etc. This includes all the collection and processing of the necessary information, for example, at the geographical level. The breakdown structure of the subcontracting costs: Collection and processing of regional data by experts for the adaptation of the tool to the territory - 69.950€ External support to report production - 29.850€ Support to project communication - 34.050€
CIM-RC	225.000	The costs are linked to WP3, T3.4 Actions to be implemented in Villages (Aldeia) Condominiums — Investment of €105,000: This investment will be allocated to contracting external services for the implementation of 100-meter Forest Fuel Management Strips around previously selected villages, with the objective of guaranteeing safety conditions for populations in the event of a forest fire. The planning of these actions is based on the Landscape Transformation Program that Portugal intends to implement, and with this project we intend to promote the valorization of forest biomass resulting from preventive forestry interventions carried out around the villages, namely through its use by the population for generation of energy, cattle feeding or incorporation into the soil, and the methods to be used are the subject of a study to be carried out upstream for later application in these pilot areas. Actions to be implemented in Integrated Landscape Management Areas — Investment of €120,000: This investment will be allocated to the contracting of external services for the implementation of mosaics of Forest Fuel Management Strips that allow the creation of areas of opportunity for the control and reduction of the intensity of rural fires. The aim is to intervene in the territory and change land use, in order to make the territory more resilient to forest fires. With this project, we intend to promote the valorization of forest biomass resulting from these preventive forestry interventions, creating value in the by-products that the forest may generate. Biomass recovery methods will be previously studied for implementation in these pilot actions. These actions are also based on the Landscape Transformation National Program.
CIMT	225.000	Subcontracting is linked to linked to WP3, T3.4. 175.000€ - This investment will be allocated to the contracting of external services for the implementation of mosaics of Forest Fuel Management Strips that allow the creation of areas of opportunity for the control and reduction of the intensity of rural fires. The aim is to intervene in the territory and change land use, in order to make the territory more resilient to forest fires. With this project, the intention is to promote the valorization of forest biomass resulting from these preventive forestry interventions, creating value in the by-products that the forest may generate. Biomass recovery methods will be previously studied for implementation in these pilot actions. These actions are also based on the Landscape Transformation National Program. 50.000€ - For modelling/definition of transport circuits, optimization of biomass eco-deposit location (s). This investment will be allocated to the contracting of external services for the modelling circuits of transport optimization of biomass, access and needed vehicles, definition localization of the eco-deposit and technical specifications.
FORESTWISE	40.000	Contracting services to management bodies promoting grouped management models (ZIF and AIGP) for the systematic collection of the necessary information for monitoring these initiatives, through surveys and work sessions (15.000€). Contracting of specific services for the implementation of testbeds that will be monitored with the support of specialists and will support demonstration actions (25.000€). These costs are linked to WP3, T3.4



IPP	50.000	IT services for tool modelling associated with T3.4.3 Residual agroforestry biomass-to- renewable gases process" in order to ensure the possibility of carrying out interventions to adapt IPP pilot unit to meet specific RESIST project objectives.
UEX	142.500	 External services for the implementation of productive fire-breaks in high risk areas (115.000€), communication and dissemination costs (27.500€) for the activities within T3.1.4 Twinning, transferability and scalability in the region of Extremadura. The external services will be implemented by companies providing the following "fuel reduction" services: Mechanical vegetation (fuel) removal Periodical soil ploughing Implementation of small infrastructures to support grazing (water sources, fencing, seeding of forage species). Tree removal to reduce competition and increasing accessibility for resin harvesters. Planting of scattered fruit trees in ploughed soils. Installing advertisements and informative panels.
MUSEUM NORD	20.000	Projection mapping, digital solutions in WP3, T3.4.
MEDIOTEJO21	42.250	The costs are linked to Task 3.4, subtask T3.4.3 Residual agroforestry biomass-to-renewable gases process and are related to the management of residual agroforestry biomass and to the provision to the community of an alternative, sustainable source of energy, for use in transport or otherwise. Elaboration of a digital guide for fuel biocycle - 6.500 € Production of communication and engagement materials - 15.000 € Event organisation support services (logistics, catering, sound, and image - 20.750 €
VIA UC	100.000	Construction services for 2 demonstration/mock-up houses − 100.000 €. It covers services to build two full-size demonstration mockups (two physical test cubes each spanning 5m x 5m). A double setup allows the possibility to conduct multiple tests simultaneously as well as to have control- and reference situations to verify results if needed. The purpose of the mock-up buildings is to test the robustness and resilience of main building components exposed to high water impact, simulating extreme weather conditions, flooding, or high water pressure.
TOTAL:	1.839.297	(6,5% of total project costs)

Table 3.1h: 'Purchase costs' items (travel and subsistence, equipment and other goods, works and services)

Partners have detailed their purchase costs if these costs (i.e. the sum of the costs for 'travel and subsistence', 'equipment', and 'other goods, works and services') exceeds 15% of the personnel costs for that partner according to the budget table.

Participant Number/Short Name	Cost (€)	Justification	
No. 8 / ERRIN			
Travel and subsistence	48.000	Travels to meetings on Community of Practice and Pilots, Consortium Meetings and Project Meetings. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). Breakdown explanation for this core RESIST partner (WP3 leader): 16.000€ (consortium meetings – 1 kick-off and 4 annual meetings, 2 review meetings and 1 final event) 24.000€ (meetings at leading and twinning pilots due to WP3 leadership) 8.000€ (travels linked to external relations Task 5.4)	
Equipment			
Other goods, works and services	25.000	5.000€ Costs related to planning of events around the Community of Practice 16.000€ Advisory Group 4.000€ CFS	
Remaining purchase costs (<15% of pers. Costs)			
Total	73.000		
No. 9 /REVOLVE			
hotel, daily allowances and other related costs). Breakdown explanation for this core partner (communication activities • 7.000€ (consortium meetings – 1 kick off and 4 meetings, 2 review		Breakdown explanation for this core partner (communication activities leader): • 7.000€ (consortium meetings – 1 kick off and 4 meetings, 2 review meetings	



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		• 19,000€ (leading and twinning regions, conferences and other events)	
Equipment			
Other goods, works and services		Final hybrid event 30.000€, Photography/Image Stock 5.000€, Web Development 15.000€, Exhibition/Trade Fairs 10.000, Audit Fee 3.000€ Printing Costs (Leaflet/roll-ups/poster/briefs) 10.000€ Web (Domain/Hosting)1.200€ Software (Adobe/Asana/Trello) 6.000€ which is directly attributed to the project.	
Remaining purchase costs (<15% of pers. Costs)			
Total	110.200		
No. 15 / LUKE			
Travel and subsistence	15.000	Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). • 8.000€ (consortium meetings – 1 kick-off and 4 annual meetings, 2 review meetings and 1 final event) • 3.000€ for travels to conferences, workshops, etc. (e.g. GDT). • 4.000€ regional travels	
Equipment		nooce regional days.	
Other goods, works and services	15.000	Costs linked to activities (workshops) in WP3 Task 3.1. Workshops focus on the deliberation of benefits and costs of NBS. The costs include the rent of the venue, catering for participants, possible facilitator and other costs such as transcribing the discussions from tapes.	
Remaining purchase costs (<15% of pers. Costs)	17.000		
Total	47.000		
No. 16 / REGION EMT			
Travel and subsistence	15.000	Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). • 8.000€ (consortium meetings – 1 kick-off and 4 annual meetings, 2 review meetings and 1 final event) • 7.000€ for travels to conferences, workshops, etc. (e.g. GDT).	
Equipment	6.000	Six (6) personal computers x 1,000.00 \in = 6,000.00 \in Equipment will be used only on the Resist project demonstrators. Due to the cost being under 1,500.00 \in , the depreciation period is one (1) year (according to Greek Finance Law).	
Other goods, works and services	19.000	Preparatory activities for two (2) pilot sites $x ext{ } 5,000.00 ext{ } \in = 10,000.00 ext{ } \in$ Organization of three (3) stakeholder workshops $x ext{ } 3,000.00 ext{ } \in = 9,000.00 ext{ } \in$	
Remaining purchase costs			
(<15% of pers. Costs) Total	40.000		
No. 17 / DUTH	40.000		
	10.000	Traval costs for consortium mactings workshops conferences On course the	
Travel and subsistence	10.000	Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). 8.000€ (consortium meetings – 1 kick-off and 4 annual meetings, 2 review meetings and 1 final event) 2.000€ for travels to conferences, workshops and other events	
Equipment			
Other goods, works and services	48.000	 15,000.00 € for chemical reagents and consumables, which are necessary for the water bodies monitoring. 14,000.00 € will be used to cover open access publications (six (6) scientific papers). 9,600.00€ organization of two (2) workshops and one (1) public event x 3,200.00 € 	



		5,400.00 € cloud infrastructure for machine learning services and deployment
		x 150.00 € x € 36 months
Remaining purchase costs		4,000.00€ Certificate on the Financial Statement
(<15% of pers. Costs)		
Total	58.000	
No. 24/NATURSTYRELSEN		
Travel and subsistence	20.000	 Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). 8.000€ (consortium meetings – 1 kick-off and 4 annual meetings, 2 review meetings and 1 final event) 12.000€ for travels to conferences, workshops, etc. (e.g. GDT).
Equipment	15.000	Mock-up/3D model for climate proofing of houses, software, camera and additional equipment
Other goods, works and services	15.000	Production of community engaging films and graphical material
Remaining purchase costs (<15% of pers. Costs)		
Total	50.000	
No. 25 / VIA UC		
Travel and subsistence	20.000	Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). • 8.000€ (consortium meetings – 1 kick-off and 4 annual meetings, 2 review meetings and 1 final event) • 12.000€ for travels to conferences, workshops, etc. (e.g. GDT).
Equipment		•
Other goods, works and services	270.000	The budget covers costs to construct and collect data from the demonstration buildings as described in Task 3.2) + the costs for the required CFS. Groundwater loggers 100 items X 500€ = 50.000 € Hololenses – 5 items X 3500€ =17.500 € Other XR equipment (license) - 8.500€ Materials/goods for 2 demonstration buildings – 160.000 € Covers over two full-size demonstration mockups (two physical test cubes each spanning 5m x 5m. A double setup allows the possibility to conduct multiple tests simultaneously as well as to have control- and reference situations to verify results if needed. The purpose of the mock-up buildings is to test the robustness and resilience of main building components exposed to high water impact, simulating extreme weather conditions, flooding, or high water pressure. Different strategies are considered to test constructions which could lead to ways to define water-resilient building constructions. The strategies span from preventing permanent damage to chosen façade constructions by application of fully resistant materials to alternatives that demonstrate disassembly and exchange possibilities of components and accessibility to dry out affected wet elements. The exact selection and definition of types of construction will be finalized and verified at initial workshops with relevant actors and project members. All tests will be monitored, measured, logged, and documented during the test runs. Other services (buildings permits, ground investigations etc.) – 5.000€ Equipment for measuring e.g. moisture in the buildings – 25.000€
Remaining purchase costs		
(<15% of pers. Costs) Total	290.000	
No. 29 / ZPR	270.000	
Travel and subsistence	30.000	Travel costs for consortium meetings, workshops, conferences. On average the
Traver and Subsistence	30.000	costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs).



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		 10.000€ (consortium meetings – 1 kick-off and 4 annual meeting, 2 reviews and 1 final event) 			
		• 14.000 € (conferences, and workshops, e.g. GDT)			
	40.000	• 6.000€ (national travels)			
Equipment	40.000	Equipping the Jēkabpils operational information and monitoring center for the purposes of the pilot demonstration: 8.000 € - PC with support of 2 video cards, 4 32" monitors, keyboard, mouse, audio speakers and monitoring software 10.000 € - as minimum 12 cameras 22.000 € - rescue boats and lifeboats, communication rations/radio, lights, rescue tents. It is planned to buy 4-5 rescue boats/lifeboats. The number depends on the specification of the boat and the price at the time of purchase. The pictures demonstrate the exemplary lifeboats which will be considered for RESIST.eg.; Whaly 500 R professional and Whaly 455 R professional.			
Other goods, works and	50.000	7.000 € - purchase and development of the constructional technical			
services		documentation (construction project, permission, acceptances, electricity connection project and documentation etc.),			
		35.000 € - station equipment and modules (measurement modules: water level,			
		temperature, humidity, precipitation, snow thickness). 5.000 € - provision of the station's construction and installation, including			
		electricity installation,			
		3.000 € - additional infrastructure for the station (fence, security			
Remaining purchase costs		camera)			
(<15% of pers. Costs)	120 000				
Total No. 30 / INT	120.000				
Travel and subsistence	8.500	Travel costs for consortium meetings, workshops, conferences. On average the			
	0.000	costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). • 6.000€ (consortium meetings – 1 kick-off and 4 annual meeting, and 1 final event) • 2.500€ (workshops: regional and GDT)			
Equipment					
Other goods, works and services	44.000	 40.000€ Regional resilient survey services for engaged communities (survey distribution and data collection, (Task 3.3.2) Pre-demonstration surveys (about current risks, preparedness, emergency response, climate change, land use Planning in the areas of risk, etc) in the selected municipalities of the region including Terrassa and Blanes (online and in-person, 20.000 € in 2023) Ongoing-demonstration surveys (including the impact assessment of the implemented tools) in the selected municipalities of the region including Terrassa and Blanes (online and in-person, 20.000 € in 2025) 4.000€ logistic costs to organise 2 hands-on training sessions (Task 3.3.3): Two hands-on training at the regional level (logistics) 1-day event - one meal and coffee 45 euros, max 40 participants, minor expenses 200€ (e.g., room rent) total: 2 *(45*40 + 200) = 4000€ 			
Remaining purchase costs					
(<15% of pers. Costs) Total	52.500				
No. 36/ REGIONE PUGLIA					
Travel and subsistence	20.000	Travel costs for consortium meetings, workshops, conferences. On average the			
		costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily			
		allowances and other related costs). 8 project meetings (1-2 people) - 10.000€			
		8 project meetings (1-2 people) - 10.000€ 2 workshops in Catalunia 3 people - 4.500€			
		2 workshops in Portugal 3 people - 4.500€			



		10 internal travels - 1.000€		
Equipment	5.000	1 notebook 1.500€ and 5 tablets 3.500€ exclusively for the purposes of the demonstrator		
Other goods, works and services	10.000	Technical assistance for promoting training and local hands-on training session, e.g. assistance for scouting/selection of participants and stakeholders		
Remaining purchase costs (<15% of pers. Costs)				
Total	35.000			
No. 37/ TECNOPOLIS PST				
Travel and subsistence	20.000	Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). 8 project meetings (1-2 people) - 10.000€ 2 workshops in Catalunia 3 people - 4.500€ 2 workshops in Portugal 3 people - 4.500€ 10 internal travels - 1.000€		
Equipment	3.000	1 notebook 2.300€ 1 tablet 700€ exclusively for the purposes of the demonstrator		
Other goods, works and services	40.000	2 hands-on local training sessions: € 10.000 (2.000€ speakers, 8.000€ translation, rent, place, material, catering) Educational activites: • communication agency € 3.000 • catering/coffee break during training € 3.000 • tutor € 8.000 • trainers/coaches/mentors € 10.000 € 6.000 - CFS		
Remaining purchase costs (<15% of pers. Costs)				
Total	63.000			
No. 38/ CIMBAL				
Travel and subsistence	18.840	Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). • 8.000€ (consortium meetings – 1 kick-off and 4 annual meeting, 2 reviews and 1 final event) • 6.000 € (conferences, and workshops, e.g. GDT) • 4.840€ (national travels)		
Equipment	96.950	Equipment is needed to make the tool adapted and available to the territory (computers, ipads,). The equipment will be installed in each municipality (civil protection department) and other protection and rescue entities to serve for the warning purposes. Depreciation: Years - 4 % depreciation per year - 25% Months of usage in the project - 24 months. The equipment will be used for pilot demonstration. The equipment will be essential for the use of the LSD adaptation tool in the Baixo Alentejo region. The equipment will be available for the 13 municipalities, for the region's protection and rescue entities and critical infrastructure management entities. The main objective is to have the risk monitoring and management tool available to various regional entities as a tool to be made available during and after the RESIST project. The goal is to obtain 40 computers (13 for the region's municipalities (1 per municipality), 1 for CIMBAL and 26 for other entities, such as rescue and protection entities, public services and critical infrastructure management entities, these which are dispersed in the region's territory). CIMBAL will acquire tablets to be used in a portable form, as the region has a high number of dispersed people and structures. This equipment must be acquired by CIMBAL since the entities, to whom the equipment will be made available, do not have any equipment that can be made available for the exclusive use of the pilot demonstration tool.		



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that are national and the necessity to have all the information in production of support material for the dissemination of the tool in the support for all the meetings in the region. • Stakeholders' meetings: 15.500€ • Translations: 16.710€ • Support for the production of dissemination and communaterials: 20.900€ • Other meetings and events participation support: 15.650		 Stakeholders' meetings: 15.500€ Translations: 16.710€ Support for the production of dissemination and communication materials: 20.900€ Other meetings and events participation support: 15.650€ 			
Remaining purchase costs					
(<15% of pers. Costs)	100 550				
Total	190.550				
No. 39/ ITECONS					
Travel and subsistence	12.000	 Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). 8.000€ (consortium meetings – 1 kick-off and 4 annual meetings, 2 review meetings and 1 final event) 4.000€ for travels to conferences, workshops and other events 			
Equipment		, ,			
Other goods, works and services	10.000	This includes the materials for the construction of large-scale demonstrators, software licences and laboratory tests			
Remaining purchase costs (<15% of pers. Costs)					
Total	22.000				
No. 40/ CCDRC					
Travel and subsistence	10.000	 Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). 6.000€ (consortium meetings – 1 kick-off and 4 annual meetings, and 1 final event) 4.000€ for travels to conferences, workshops and other events 			
Equipment		, ,			
Other goods, works and services					
Remaining purchase costs (<15% of pers. Costs)					
Total	10.000				
No. 41/ CIM-RC					
Travel and subsistence	25.000	 Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). 10.000€ (consortium meetings – 1 kick-off and 4 annual meeting, 2 reviews and 1 final event) 10.000 € (conferences, and workshops, e.g. GDT) – 10 travels to be implemented during the project lifetime following communication, dissemination and exploitation plan. 4.000€ (regional, national travels) 			
Equipment	50.000	This investment was calculated based on a budget estimate for the acquisition of equipment for transporting heavy machinery necessary for the implementation of interventions in the pilot areas that will take place in the Coimbra Region. The objective of the investment is to acquire second-hand equipment, with a maximum of 5 years of use, so that it can be used in the 3 years of the project in which the physical interventions in the territory will take place. Since this type of equipment has a useful life of 8 years, it is considered that the equipment will be fully depreciated during the execution period of the project.			



Other goods, works and services	75.000	CIM RC is a public administration entity, so the rules applied on depreciation to public entities are defined by Portuguese legislation, namely the Accounting Standardization System in the Portuguese Public Administration - Law Decree-Law no. 192/2015 of September 11 (Complementary Classifier 2), which are fully complied by CIM-RC. As CIM-RC and CIMT will acquire machineries, an explanation for differencies is provided under CIM-RC. The option of CIM RC to acquire a machine for the implementation of the actions foreseen in the pilot areas, instead of sharing equipment with CIMT, is based on the fact that the actions that we intend to develop require the permanent availability of this equipment, in order to carry out the interventions during the whole project execution period, which would not be possible to ensure in case of equipment sharing between both entities. Furthermore, the territories of CIM RC and CIMT belong to different NUT III, with different orographies and land occupation. They are on average about 150 km apart (there are forest territories that are more than 200 km away), so sharing equipment is not operationally viable (in addition to the fact that it would require long journeys with all the costs associated with fuel and equipment maintenance), therefore the acquisition of equipment by each entity becomes more efficient, environmentally sustainable and economically advantageous. Since the intervention methodologies to be carried out in the CIM-RC pilot areas will be previously studied within this project, before the project start it is not possible to yet precisely define the type of machine to be acquired. Neverthless, it can antecipated that the investment of €50,000 will be necessary for the acquisition of a machine, such as, for example, a truck for transporting tractors that will carry out preventive silviculture actions or transport forest biomass resulting from the interventions that will be carried out, or for the acquisition of a tractor with bio-shredder for use of biomass. An est
Remaining purchase costs		CIMRC will study and assess the use of forest biomass in the valorization of actions associated with Villages (Aldeia) Condominiums and Integrated Landscape Management Areas, in a logic of local use for the economic improvement of these areas, as well as for the use by the populations who live and develop their activity nearby these areas. CIM RC and CIMT adress different methodologies, since the CIM RC study has a logic of local exploitation (no need for transport) and the CIMT study has a logic of transporting and parking the biomass for later use.



Total	150.000		
No. 42/ CIMT			
Travel and subsistence	25.000	 Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). 10.000€ (consortium meetings – 1 kick-off and 4 annual meeting, 2 reviews and 1 final event) 10.000 € (conferences, and workshops, e.g. Graphical Digital Twin) - 10 travels to be implemented during the project lifetime following communication, dissemination and exploitation plan. 4.000€ (regional, national travels). 	
Equipment	50.000	Equipment – €50,000 – in the promotion of better land use, forest management a the circularity of green bio-waste, through the energy recovery of agrofores biomass, the acquisition of machinery for support in the introduction of biomainto the soil and containers (ecodeposits) for its deposition and subsequent transferred to the bio refinery is planned. It is estimated that amortization of the equipment will be during the last 3 years of the project. The objective of the investment is to acquire second-hand equipment, with a maximum of 5 years use, so that it can be used in the 3 years of the project in which the physic interventions in the territory will take place. Since this type of equipment has useful life of 8 years, it is considered that the equipment will be fully depreciated during the execution period of the project. Estimated acquisition of a bio-shredder to tie to the tractor for biomass treatmen 1 container for forest waste deposition. These acquisitions are dependent on the solutions existing at the time and on the pilot's own implementation. Further, CIM Médio Tejo is a public administration entity, so the rules applied depreciation to public entities are defined by Portuguese legislation, namely the Accounting Standardization System in the Portuguese Public Administration - La Decree-Law no. 192/2015 of September 11 (Complementary Classifier 2), while are fully complied with by CIMT.	
Other goods, works and services	75.000	An estimation of 25.000€ for the elaboration of the methodology to be adopted in in the project, namely the use of Forest biomass in interventions carried out in forest management in the Integrated Areas of Landscape Management and condominiums. This investment will allocated be to hire a technical advice for CIMT with the objective of conducting a study on the differentiation of forest biomass to be incorporated into the soil and the biomass to be forwarded to power generation from the bio refinery from the interventions to be carried out in the pilot areas. In summary, it is essential to understand the best management model of this resource in order to capitalize on its use to generate energy or introduce nutrients into the soil from a circular encomia perspective. An estimation of 15.000€ in consumables to carry out the pilot. An estimation of 15.000€ for organization events or meetings under the project, including support, if necessary, kick-off meeting, hiring facilities and catering, etc. An estimation of 10.000€ for communication and dissemination of the project. An estimation of 5.000€ in travel of external entities that may collaborate An estimation of 5.000€ for CFS.	
Remaining purchase costs			
(<15% of pers. Costs) Total	150.000		
No. 46 / FUNDECYT PCTEX			
Travel and subsistence	8000	Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). • 6.000€ (consortium meetings – 1 kick-off, 4 annual meetings, 1 final event) • 2.000€ for travels to conferences, workshops and other events	
Equipment	0	0	
Other goods, works and services	6550	Organisational costs for regional stakeholders' meetings and for promotion tasks of project's activities and results, in particular, findings and outcomes of all 4 LSD and twinning regions.	



Remaining purchase costs	0			
(<15% of pers. Costs)	1.4550			
Total	14550			
No. 52 / CEDES				
Travel and subsistence	12.000	 Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). 8.000€ (consortium meetings – 1 kick-off, 4 annual meetings, 2 review meetings and 1 final event) 4.000€ for travels to conferences, workshops (international and national) 		
Equipment				
Other goods, works and services				
Remaining purchase costs (<15% of pers. Costs)	1.000			
Total	13.000			
No. 54 / ONU				
Travel and subsistence	12.500	Travel costs for consortium meetings, workshops, conferences. On average the costs per each travel are estimated of 1.000€ (travel, 2 nights hotel, daily allowances and other related costs). This also includes visa requirements. 8.000€ (consortium meetings – 1 kick-off, 4 annual meetings, 2 review meetings and 1 final event) 4.500€ for travels to conferences, workshops (international and national)		
Equipment	0			
Other goods, works and services	3.000	Access to peer-reviewed scientific publications, data maintenance/storage, and conference fees for presenting project-related research		
Remaining purchase costs (<15% of pers. Costs)	0			
Total	15.500			

Table 3.1i: 'Other costs categories' items (e.g. internally invoiced goods and services) - not applicable

3.2. Capacity of participants and consortium as a whole

RESIST brings forward an open, incremental approach to establish and develop climate-resilient adaptation solutions for, with and in four vulnerable regional ecosystems: Southwest Finland, Central Denmark, Catalonia (ES) and Centro



(PT, this one a less developed region), directly addressing circa 12 million people. For each of these regions, local stakeholders representing the quintuple-helix approach are involved in the partnership together with Reg. Authorities, incl. leading research partners such as Turku's University and University of Applied Sciences, Aarhus University, VIA, U. Politecnica de Catalunya and Polytechnic Portalegre, businesses as Hyds, NIRAS, ForestWise cluster and Union of Agricultural Producers and Forest Owners of Finland (associate) and municipalities and associations representing civil sector. Each of these front-runner demonstrator regions is paired with 2 less experienced twinning regions with similar vulnerabilities, of which half are less developed regions. These are: Normandy (FR), East Macedonia and Thrace (GR), Blekinge (SE), Zemgale (LV), Puglia (IT), Baixo-Alentejo (PT), Vesteralen (NO) and Extremadura (ES), with an overall population of 10 million.

The consortium capacity to reach its aims, is ensured by a set of 'horizontal' partners that are leaders in their respective



fields: <u>SINTEF</u>, one of one of Europe's largest independent research organisations and innovation developers, with several thousand projects carried every year for customers large and small.; <u>INOVA+</u>, one of EU leading innovation firms and with experience in developing scalability plans for cities/regions within Horizon, UIA and URBACT; the <u>European Science Foundation</u>, a non-governmental, internationally-oriented, non-profit association committed to promoting the highest quality science in Europe to drive progress in research and innovation; <u>adelphi</u>, the leading independent think-and-do tank in Europe for climate, environment and development, with over 280 strategists, thought leaders and practitioners; <u>AugmentCity</u>, a world leading simulation/visualizing company and a DigitalTwin developer recognised by the UN; <u>KU Leuven</u>, one of the leading academic scientific organisation in Europe; <u>ERRIN</u>, the EU network for R&I regions; <u>SERN</u>, the EU network of startup ecosystems; <u>FASTTRACK</u>, a Venture Capital fund with >25m to invest in green tech; <u>ZSI</u>, one of the EU top social impact research institutes; <u>REVOLVE</u> a leading communication agency.

Finally, the partnership includes 3 'dissemination partners' which role will be to further disseminate the activities and results of the project towards different EU regions – especially less developed ones – and promote adhesion of more regions towards the <u>CLIMATE MISSION charter</u>. These partners are: <u>CEDES</u>, a sustainable development agency with experience of EuropeAid projects, that will promote the project towards Mediterranean regions, including neighbour policy countries; <u>ACCENT-SUD</u>, a South of France based association for cooperation with Southern countries that will promote the project towards these regions, from Portugal to Turkey; and the <u>Odessa I.I. Mechnikov National University in Ukraine</u>, that will promote the participation of Ukrainian researchers in the project activities (in line with <u>EC initiative for Solidarity with refugee researchers of Ukraine</u> – target is to address >50 researchers from Ukraine, Output *x*)) and promote the uptake of the project outputs in Ukraine as soon as the local conditions allow it, during the project implementation period.



4. ETHICS SELF-ASSESMENT

4.1. Ethical dimension of the objectives, methodology and likely impact

Ethical dimension of project activities will be handled within a specific Task, T5.3 (DMP & and adherence to ethics requirements) to be managed by the European Science Foundation (ESF) with support from all partners, within the Management WP (WP5). This task will provide operational guidelines/procedures to ensure that all work adheres to HE ethical principles and relevant EU, national and international legislation. The project activities raise ethics issues in Humans, Data, Artificial Intelligence and Environment, Health and Safety. An overview of those issues and applicable procedures to address them are documented in Part A. ESF will establish the Ethics Help Desk to guide and support the beneficiaries in addressing the data management and ethics issues according to best practices and applicable legislation. An external Ethics Advisor will be onboarded to get an additional expertise in Data/AI aspects, to be appointed at M2, will submit annual reports and get reimbursed for her/his contributions.

Stakeholders (industry, academia, authorities, NGOs, etc.) related with innovation and co-creation processes and related regional policies will be interviewed and invited for workshops for the refinement of the strategy and business plan of the new ecosystem. For this purpose, the project will not collect personal data on adults unable to give informed consent or children, nor will it involve adults unable to give informed consent or children in any other way. The project will not collect sensitive personal data such as health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction etc. The project aims to receive feedback and involvement from regional and international organisations at various levels. So the project will not collect personal private opinions.

During the development and validation activities focus groups and target users will be involved. The project might include studies (in the form of surveys) that involve human participants. When the need arises for such trials the necessary ethical and legal approvals will be obtained prior to commencing any such studies. We commit to carry out innovation and demonstration activities in compliance with:

- the Declaration of Helsinki regulating medical research;
- the principles enshrined in the Oviedo Bioethics Convention;
- EU Regulation No 536/2014 of the European Parliament and of the Council on clinical trials on medicinal products for human use, and repealing Directive 2001/20/EC.

No research activities involving human embryonic stems cells are foreseen.

4.2. Compliance with ethical principles and relevant legislations

Procedures and criteria for the identification/recruitment of research participants. These procedures and criteria will be defined prior to commencing the trials, and will prior to commencement be adjusted according to requirements as expressed by the relevant ethical committees and data protection agencies. The European Science Foundation (ESF) runs an ethics commission that will be used as the main body responsible for assessing and validating the procedures and methodologies to be used in the project and in order to be compliant with the ethical standards and guidelines of Horizon Europe. Basic principles covering the involvement of humans as study participants will be applied:

- Participation of persons in the research will be entirely voluntary and their informed consent will be requested in advance.
- Study participants will be provided with a detailed 'information sheets' describing the aims, methods and implications of the research and their rights.
- Ethics approvals will be requested to the Ethics Committees of the Institutes involved in the part of the research
 raising ethics issues through the preparation of protocols submitted to the Ethics Committees. Ethics approvals
 will be requested before the commencement of the part of the research raising ethics issues.

Informed consent procedures to be implemented: Informed consent material will be provided in writing. Designated trial staff will also inform in face to face meetings with potential participant about the scope and risks about the trial, and that participant is voluntary and can be aborted by the participant at any stage at his/her own discretion. The ethics commission from ESF will be the main body responsible for assessing and validating the procedures and methodologies to be used in project. This includes validating the informed consent procedures and the training procedures of the staff involved. Research activities will be compliant with the Regulation No 536/2014 of the European Parliament and of the Council on clinical trials on medicinal products for human use, repealing Directive 2001/20/EC (OJ L158, 27/5/2014). Although these are not yet defined the following guidelines will be assured. The participants will be provided with Informed Consent Form and Information Sheets, both will:



- be in a language and in terms fully understandable to them
- describe the aims, methods and implications of the research, the nature of the participation and any benefits, risks or discomfort that might be involved
- explicitly state that participation is voluntary and that anyone has the right to refuse to participate and to
 withdraw their participation, samples or data at any time without any consequences
- indicate how biological samples and data will be collected, protected during the project and either destroyed
 or reused subsequently
- indicate what procedures will be implemented in the event of unexpected or incidental findings (in particular, if the participants have the right to know, or not to know, of any such findings).

Ethical approvals for the collection of personal data by the competent National Data Protection authority: The activities for the project are still being planned and studies involving the collection of personal data are as yet planned. However, whenever research activities will involve collecting or processing of personal data and any information, private or professional, which relates to an identified or identifiable natural person a procedure will be put in place in order to protect the privacy of the study participants in order to be compliant with national and EU legislation. Copies of ethics approvals for the collection of personal data will be requested National Data Protection authority before the commencement of the related activity. Procedures to be implemented for data collection, storage, protection, retention and destruction and confirmation will comply with national and EU legislation (protection of personal data): These procedures have not yet been defined but will comply with national and EU legislation. Only anonymised data will be used in any publication and other public dissemination of project results. Personal (demographics) and medical data will be separated as required by national law. Authorisation and/or notification according to EU and national law will be arranged prior to commencing collection of personal data not in public domain. Possibility for opt out will be granted to all participants



5. COMMITMENT LETTERS



To:

European Commission

Brussels

Subject: Application of the Region of Southwest Finland to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs, Madames.

In my role as Region Mayor, I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.

Yours/sincerely,



Kari Häkämies

Region Mayor Regional Council of Southwest Finland

Regional Council of Southwest Finland | Box 273, 20101 Turkii | Kirjaamo@varsinals-suomi.fi | www.varsinals-suomi.fi

No.101093968 RESIST 51





The President

European Commission Brussels

Subject:

Application of Normandie Region to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs,

Normandie Region is fully committed towards climate mitigation and adaptation. Indeed, a case in point, for instance, a « Normandy IPCC » was inaugurated in 2019. Gathering 23 regional experts, this multidisciplinary scientific group aims at analysing the effects of climate change in the region. This diagnosis will, then, feed a collective reflection to identify the most relevant climate mitigation and adaptation measures for the territory and will have a direct impact on future regional climate-related public policies.

This is why, in my role as President of Normandie Region, I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.

Yours sincerely,

Hervé Morin President of Normandie Region

No.101093968 RESIST 52



Komotini, % /4/2022

Reference numb. 100445/1495



HELLENIC REPUBLIC REGION OF EASTERN MACEDONIA & THRACE

Address : G. Kakoulidou 1 Postal Code: 69132, Komotini, Greece

Information: P. Chouridou Telephone: + 0030 25313 52126

E-mail : pchouridou@pamth.gov.gr

To:

European Commission Brussels

Subject:

Application of the Region of Eastern Macedonia & Thrace to the topic "HORIZON-

MISS-2021-CLIMA-02-04"

Dear Sirs,

In my role as Regional Governor of Eastern Macedonia & Thrace, I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.



We must state that after we receive your approval for this proposal we are going to have the consent of the relevant Board of the Region for our participation.





Regionshuset

Viborg
Regional Udvikiling
Skottenborg 26
DK-8800 Viborg
Tel. +45 7841 0000
regional-udvikling@ru.rm.dk/
https://www.rm.dk/

To: European Commission Brussels

Subject: Application of Region Midtjylland (CDR) to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs.

In my role as Head of Office of Climate, Environment, and Resources at Region Midtjylland (CDR), I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.

Yours sincerely,

Rolf Johnsen Central Denmark Region



Date 10.03.2022

Rolf Johnsen Head of Office Tel. +45 29620830 rolf.johnsen@ru.rm.dk

Page 1





To:

European Commission Brussels

Subjects

Application of the (region name) to the topic "HORIZON-MISS-2021-

CLIMA-02-04"

Dear Sirs,

In my role as (position of signalory person), I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary futurical resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.

Youry Sincerely,

yanni yaani camii

Director, Region Development, The Region of Blekinge

Sida 1





LATVIJAS REPUBLIKA

ZEMGALES PLĀNOŠANAS REĢIONS

Katoļu iela 2B., LV-3001, Jelgava, Reģ. Nr. 90002182529, Tāir,/fakss (371) 63084949, E-pasts zpr@zpr.gov.lv

To: European Commission, Brussels

Subject: Application of the Zemgale Planning Region to the topic "HORIZON-MISS-2021-CLIMA-02-

04"

Dear Sirs,

In my role as Executive Director, I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.

Yours sincerely

VALDIS VEIPS

Executive Director of Zemgale Planning Region



Generalitat de Catalunya Departament d'Interior Direcció General de Protecció Civil

To:

European Commission

Brussels

Subject:

Application of the Catalan region to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs,

In my role as general director of Civil Protection of the Catalan autonomous government, I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede to it and to the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.

Yours sincerely,

| Mercé Salvat | Supris agration | Collinjoan | Profession | Ohi | Collins |

Mercè Salvat Guinjoan

General Director





DIPARTIMENTO TURISMO, ECONOMIA DELLA **CULTURA E VALORIZZAZIONE DEL TERRITORIO** DIREZIONE



21 marzo 2022

AOO_004/0001634 PROTOCOLLO USCITA

Trasmissione a mezzo posta elettronica al sensi dell'art.47 del D.Lgs n. 82/2005

To: European Commission Brussels

Subject: Application of the APULIA REGION - Department Tourism, Economy of Culture, Valorization of territory to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs,

In my role as director of Department Tourism, Economy of Culture, Valorization of territory, I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change. Yours sincerely,

> Aldo Patruno Director of Department Tourism, Econom

www.regione.puglia.it

Dipartimento turismo, economia della cultura e valorizzazione del territorio

Fiera del Levante - Lungomare Starita, 4 - Pad. 107

70132 Bart - Italia

Tel: 080 540 5615/6519

mail: gipartimento.turismocultura@regione.puglia.it

pec: direttore.dipartimentoturismocultura@pac.rupar.puglia.it





To:

European Commission Brussels

Subject: Application of Baixo Alentejo region to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs,

In my role as CIMBAL's first secretary, I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.

Yours sincerely,

Fernando Romba

CIMBAL's first secretary





To: European Commission, Brussels Coimbra, March 2022



Subject: Application of CCDRC, Centro of Portugal to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs,

In my role as president of the Regional Coordination and Development Commission of Centro (CCDRC - Comissão de Coordenação e Desenvolvimento Regional do Centro de Portugal), I would like to stress the strategic impact of this proposal for the increase of the regional resilience and adaptation capacity to climate change impacts.

The fact that our organization is involved as a partner in this proposal, which gathers regional and European institutions of research & innovation of excellence, is an indicator of the major importance that we concede it. Furthermore, it is our belief that it will have a relevant role to play in the context of the regional Smart Specialization Strategy and in articulation with the regional funding lines from ERDF and from the NextGenEU, as well as from other national and regional sources.

We foresee that the results that will stem out of this proposal will play a future key role in the regional, as well as national and European, innovation pathways for climate change adaptation. In order to achieve this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level, which will be needed for its implementation, scalability and transfer to other regions. These resources will be particularly important in the context of investments in infrastructure and equipment aimed at increasing resilience and adaptation to climate change.

Yours sincerely,

Isabel Assinado de forma digital por Isabel Damasceno Universa de Campos Costa Campos Costa 10 58:05 +01'00'

Isabel Damasceno

President of CCDRC





Dato: 04.03.2022 Saksbehandler: Holle Niess Ref.: 22/13 Dok nr: 2 Deres dato:

European Comission, Brüssels

APPLICATION OF VESTERAALEN REGIONAL COUNCIL TO THE TOPIC "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs,

In my role as head of Vesteraalen Regional Council, I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.

Yours sincerely,



Hugo Jacobsen, head of Vesteraalen Regional Council

Vedlegg

()

 Postadresse:
 Telefon:
 E-post:
 Bankgiro:
 Organisasjonsnn.:

 Postboks 243
 76 11 15 00
 postmottak@vestreg.no
 45 70 13.12892
 974 790 653

 8401 SORTLAND



Converse gale Assumes

Full known of Joseph de Paris | 1 paris |

Lagran and Converse de Paris | 1 paris |

Lipococa Compa de Pillir I Busino

JUNTA DE EXTREMADURA



To: European Commission Brussels

Subject: Application of the Extremadura to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs,

In my role as **Director General de Política Forestal de la Consejeria de Agricultura, Desarrollo Rural, Población y Territorio de la Junta de Extremadura**. I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.

Yours sincerely,

Pedro Muñoz Barco Director General de Política Forestal

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Firmado Por	PEDRO MUÑOZ BARCO		
Uri De Vertificación	https://sede.gobex.es/SEDE/csv/codSeguroVerificacion.jsf	Página	1/1

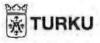


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OTHER LETTERS OF INTEREST FROM MUNICIPALITIES, SUB-REGIONS AND ASSOCIATED PARTNERS





To: European Commission Brussels

Subject: Application of the City of Turku to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs, Madames, In my role as Director for Strategic Projects, I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

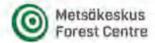
The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the local, regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.

Yours sincerely,

Björn Grönholm Director - Strategic Projects Central Administration City of Turku p. +358 44 9075987 email bjorn.gronholm@turku.fi





1(1)

5.4.2022

To: European Commission Brussels

Subject: Proposal "RESIST" submitted to the topic "HORIZON-MISS-2021-

CLIMA-02-04"

Dear Sirs,

In my role as Public Relations Director I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to support and scale-up its outputs, and contribute to their future implementation, scalability and transfer to other regions, both during and beyond the end of the project.

Yours sincerely,

Helena Herttuainen

Public Relations Director, Western Finland

The Finnish Forest Center

Helena.herttuainen@metsakeskus.fi



To:

European Commission Brussels

Subject: Proposal "RESIST" submitted to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs,

In my role as a director of the Centre for Economic Development, Transport and the Environment for Southwest Finland, I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to support and scale-up its outputs, and contribute to their future implementation, scalability and transfer to other regions, both during and beyond the end of the project.

Yours sincerely,

27.3.2022

Director Olli Madekivi



1(1)

stra of Assisidana and Programa of Palen

Letter

29.3.2022

VN/10292/2022 VN/10292/2022-MMM-2

European Commission Brussels

Proposal "RESIST" submitted to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs.

In my role as director of water resources management at the Ministry of Agriculture and Forestry of Finland, I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to support and scale-up its outputs, and contribute to their future implementation, scalability and transfer to other regions, both during and beyond the end of the project.

Yours sincerely,

Olli-Matti Verta

Director, Water Resources Management, Ministry of Agriculture and Forestry







Case followed by: Sylvain LAIGNEL Tel.: +33 (0)2 35 68 82 45 Mail: sylvain:laignel@cerema.fr Direction Normandie Centre / DIR

Normandie Regional Council

Grand Quevilly, 25th of March 2022

Subject: Letter of support for the european project proposal RESIST

Dear Madam or Sir,

First of all, I would like to thank you for the exchanges between your services and those of Cerema, regarding the European project proposal « RESIST ».

I confirm that Cerema is willing to support Normandie Region regarding the implementation and scientific approach on pilot/local experiments if this proposal is selected.

The theme of mobilising nature-based solutions to improve the climate resilience of risk-exposed territories is one of the main targets of our institution, labeled « Clim' Adapt Carnot Institute » by the French National Research Agency.

Our role in the project, in addition to participating with Normandie Region as "twinning region" in the learning process with our Finnish and Greek partners, could be as follows:

- · Scientific and technical support for pilot sites;
- · Feedback of nature-based solutions currently tested in France;
- · Capitalization of the solutions developed by the Finnish region and their adaptation to the Normandie context, according to the typologies of problems chosen for the French pilot sites;
- · Participation, with the Region, in the monitoring/facilitation of pilot sites;
- · Participation, with the Region, in the formalization of the scientifical and technical outputs towards our European partners;
- · Capitalization of the knowledge acquired at regional level, for dissemination to all Normandie territories concerned and to the French scientific community.

My teams remain at your disposal for further details;

Please accept, Madam, Sir, my best regards.

Jérôme WABINSKI Territorial Director

Cerema Normandie & Centre-Val-de-Loire

Jerome WABINSKI

Signature numérique de Jerome WABINSKI 2310004598wj 2310004598wj Date: 2022.03.25 18:13:55 +02'00' Date: 2022.03.28





Stationsparken 1 7160 Tørring T: 79755000

Per Nørmark D: +4579755660 M: +4529275033 Mail: Per-Normark @Hedensted.dk Sagsnr. 01.00.00-P20-4-22

9.3.2022

EXPRESSION OF SUPPORT

REFERENCE: HORIZON-MISS-2021-CLIMA-02-04

I, the undersigned, hereby express the support of Hedensted Municipality in the project CONTOURS coordinated by Inova+ - Innovation Services, S.A., under the Horizon Europe Framework Programme (HORIZON), topic "HORIZON-MISS-2021-CLIMA-02-04". Hedensted Municipality is a local authority situated in the eastern part of Central Denmark Region.

CONTOURS aims at developing novel innovation packages for transformational adaptation of European regions and communities, and rooting their uptake in strong stakeholder engagement and a massive increase of community resilience and capacities to cope with unavoidable effects of climate change.

The CONTOURS project has three wide objectives:

- Establish a systemic approach to resilience and adaptation to climate change in (pilot) regions by bringing together existing local and regional strategies, plans and projects into a coherent framework to accelerate regional resilience and to reach the mission objectives.
- Create an enabling environment that allows quadruple helix collaboration on climate change
 adaptation ensuring that the (pilot) regions can co-design, co-implement, and co-monitor the
 adaptation measures and solutions together with their key stakeholders. The collaboration will
 be supported by digital tools.
- Understanding the potential barriers and drivers that allow replication and upscaling of the (most promising) adaptation solutions. The replication will be supported first among the five replication regions and as a second step within wider community of regions.

Hedensted Municipality hereby confirm our willingness to participate and provide the best conditions to implement the pilot of Juelsminde and support the implementation of the CONTOURS project by:

- · Sharing experiences and opinions that can be used to improve the actions of the project.
- · Supporting the dissemination and communication of the project outcomes.
- Supporting the future inclusion of recommendations from the participation and deliberation pilots in the policymaking process.



This Letter of Intent shall be annexed to the final application.



Horsens Kommune

Horsens Municipality Rådhustorvet 4, 8700 Horsens Denmark

www.horsens.dk Sagsnr. 06.00.07-P20-1-22 Date: 10.3.2022

EXPRESSION OF SUPPORT

REFERENCE: HORIZON-MISS-2021-CLIMA-02-04

I, the undersigned, hereby express the support of Horsens Municipality in the project CONTOURS coordinated by Inova+ - Innovation Services, S.A., under the Horizon Europe Framework Programme (HORIZON), topic "HORIZON-MISS-2021-CLIMA-02-04". Horsens Municipality is a local authority situated in the eastern part of Central Denmark Region.

CONTOURS aims at developing novel innovation packages for transformational adaptation of European regions and communities, and rooting their uptake in strong stakeholder engagement and a massive increase of community resilience and capacities to cope with unavoidable effects of climate change.

The CONTOURS project has three wide objectives:

- Establish a systemic approach to resilience and adaptation to climate change in (pilot) regions by bringing together existing local and regional strategies, plans and projects into a coherent framework to accelerate regional resilience and to reach the mission objectives.
- Create an enabling environment that allows quadruple helix collaboration on climate change adaptation ensuring that the (pilot) regions can co-design, co-implement, and co-monitor the adaptation measures and solutions together with their key stakeholders. The collaboration will be supported by digital tools.
- Understanding the potential barriers and drivers that allow replication and upscaling of the (most promising) adaptation solutions. The replication will be supported first among the five replication regions and as a second step within wider community of regions.

Horsens Municipality hereby confirm our willingness to participate and provide the best conditions to implement the pilot of Horsens City and support the implementation of the CONTOURS project by:

- · Sharing experiences and opinions that can be used to improve the actions of the project.
- · Supporting the dissemination and communication of the project outcomes.
- Supporting the future inclusion of recommendations from the participation and deliberation pilots in the policymaking process.

Christina Skipper Ravn: Department manager, Nature and Environment, Water Department

Phone +45 76297450

March 11, 2022

Signature and Star HGRSENS KOMMUNE
EKNIK OG MILJØ
Rödhustorvet 4
8700 Horsens

This Letter of Intent shall be annexed to the final application.

Find os www.horsens.dk Kontakt oa 76292929 Felg os

facebook.com/endelafflokken

inkedin.com/company/horsens-kommune



Lemvig Kommune



EXPRESSION OF SUPPORT

REFERENCE: HORIZON-MISS-2021-CLIMA-02-04

I, the undersigned, hereby express the support on behalf of the partnership of the Western Limfjord in the project CONTOURS coordinated by Inova+ - Innovation Services, S.A., under the Horizon Europe Framework Programme (HORIZON), topic "HORIZON-MISS-2021-CLIMA-02-04". The partnership of the Western Limfjord consists of 7 municipalities and 7 water suppliers, situated in the western part of Central Denmark Region, collaborating on the project of Thyborøn Canal and the Western Limfjord.

CONTOURS aims at developing novel innovation packages for transformational adaptation of European regions and communities, and rooting their uptake in strong stakeholder engagement and a massive increase of community resilience and capacities to cope with unavoidable effects of climate change.

The CONTOURS project has three wide objectives:

- Establish a systemic approach to resilience and adaptation to climate change in (pilot) regions by bringing
 together existing local and regional strategies, plans and projects into a coherent framework to accelerate
 regional resilience and to reach the mission objectives.
- Create an enabling environment that allows quadruple helix collaboration on climate change adaptation ensuring that the (pilot) regions can co-design, co-implement, and co-monitor the adaptation measures and solutions together with their key stakeholders. The collaboration will be supported by digital tools.
- Understanding the potential barriers and drivers that allow replication and upscaling of the (most promising)
 adaptation solutions. The replication will be supported first among the five replication regions and as a second
 step within wider community of regions.

On behalf of the partnership of the Western Limfjord, Lemvig Municipality hereby confirm our willingness to participate and provide the best conditions to implement the pilot of Thyborøn Canal and the Western Limfjord and support the implementation of the CONTOURS project by:

- · Sharing experiences and opinions that can be used to improve the actions of the project.
- · Supporting the dissemination and communication of the project outcomes.
- Supporting the future inclusion of recommendations from the participation and deliberation pilots in the
 policymaking process.

Name: Claus Borg

Position: Direktør for Teknik & Miljø, Lemvig Kommune

Place, Date: Lemvig, 15. marts 2022

Signature and Stamp:



Lemvig Kommune Teknik & Miljø Rådhusgade 2 7620 Lemvig







Dato: 11. marts 2022

Reference: Norddjurs Kommune

Journalnr.: 22/2950

EXPRESSION OF SUPPORT

REFERENCE: HORIZON-MISS-2021-CLIMA-02-04

I, the undersigned, hereby express the support of Norddjurs Municipality in the project CONTOURS coordinated by Inova+: Innovation Services, 5.A., under the Horizon Europe Framework Programme (HORIZON), topic "HORIZON-MISS-2021-CLIMA-02-04", Norddjurs Municipality is a local authority situated in the eastern part of Central Denmark Region.

CONTOURS aims at developing novel innovation packages for transformational adaptation of European regions and communities, and rooting their uptake in strong stakeholder engagement and a massive increase of community resilience and capacities to cope with unavoidable effects of climate change.

The CONTOURS project has three wide objectives:

- Establish a systemic approach to resilience and adaptation to climate change in (pilot) regions by bringing together existing local and regional strategies, plans and projects into a coherent framework to accelerate regional resilience and to reach the mission objectives.
- Create an enabling environment that allows quadruple helix collaboration on climate change adaptation ensuring that the (pilot) regions can co-design, co-implement, and co-monitor the adaptation measures and solutions together with their key stakeholders. The collaboration will be supported by digital tools.
- Understanding the potential barriers and drivers that allow replication and upscaling of the (most promising) adaptation solutions. The replication will be supported first among the five replication regions and as a second step within wider community of regions.

Norddjurs Municipality hereby confirm our willingness to participate and provide the best conditions to implement the pilot of Randers Fjord and support the implementation of the CONTOURS project by:

- Sharing experiences and opinions that can be used to improve the actions of the project.
- Supporting the dissemination and communication of the project outcomes.
- Supporting the future inclusion of recommendations from the participation and deliberation pilots in the policymaking process.

Name: Ulrik Christensen
Position: Chief of Byg og Miljø
Place, Date: Grenaa, 11. marts 2022
Signature and Stamp:

Ulrik Christensen
Norddjurs Municipali

This Letter of Intent shall be annexed to the final application.



Randers Kommune



Millio New For Landbrew 6900 Rammers E

EXPRESSION OF SUPPORT

REFERENCE: HORIZON-MISS-2021-CLIMA-02-04

I, the undersigned, hereby express the support of Randers Municipality in the project RESIST coordinated by Inova+ - Innovation Services, S.A., under the Horizon Europe Jorgan And Champion and Commission and Comm Framework Programme (HORIZON), topic "HORIZON-MISS-2021-CLIMA-02-04".

Randers Municipality is a local authority situated in the eastern part of Central Denmark Region.

RESIST aims at developing novel innovation packages for transformational adaptation of European regions and communities, and rooting their uptake in strong stakeholder engagement and a massive increase of community resilience and capacities to cope with unavoidable effects of climate change.

The RESIST project has three wide objectives:

- 1. Establish a systemic approach to resilience and adaptation to climate change in (pilot) regions by bringing together existing local and regional strategies, plans and projects into a coherent framework to accelerate regional resilience and to reach the mission objectives.
- 2. Create an enabling environment that allows quadruple helix collaboration on climate change adaptation ensuring that the (pilot) regions can co-design, coimplement, and co-monitor the adaptation measures and solutions together with their key stakeholders. The collaboration will be supported by digital
- 3. Understanding the potential barriers and drivers that allow replication and upscaling of the (most promising) adaptation solutions. The replication will be supported first among the five replication regions and as a second step within wider community of regions.

Randers Municipality hereby confirm our willingness to participate and provide the best conditions to implement the pilot of Randers City and Fjord, and support the implementation of the RESIST project by:

- Sharing experiences and opinions that can be used to improve the actions of the project.
- Supporting the dissemination and communication of the project outcomes.
- Supporting the future inclusion of recommendations from the participation and deliberation pilots in the policymaking process.

Name: Michael Damm

Position: Head of Environment, Nature and Farming.

Place, Date: Randers, 30 marts. 2022



Telefon +45 6913 1313 Dispute

wyse rannes de





Acció Passing de Grácia, 125. 08009 Barcelona Tel, 934 767 200 Fax 934 76(11co)

To:

European Commission Brussels

Subject: Letter of Intent from ACCIÓ (region of Catalonia) for the project proposal "RESIST - Regions for climate change resilience through Innovation, Science and Technology", to be submitted under the call "Large scale demonstrators of climate resilience creating cross-border value (HORIZON-MISS-2021-CLIMA-02-04)" of the Horizon Europe Programme.

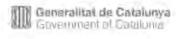
Dear Sirs,

On behalf of The Agency for Business Competitiveness (hereinafter "ACCIÓ"), I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts. In that sense, I am pleased to provide a Letter of Intent for the Innovation Action "RESIST" to be submitted to the call topic HORIZON-MISS-2021-CLIMA-02-04, "Large scale demonstrators of climate resilience creating cross-border value" within the Horizon Europe Programme.

ACCIÓ is the regional agency dedicated to business competitiveness. Belonging to the Ministry of Business and Labour, it specializes in promoting innovation, business growth and business internationalization and has a network of 40 offices around the world.

The fact that our organization is involved as a committed stakeholder in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the regional funding lines from ERDF or NextGenEU, as well as from national and regional sources.

The Agency for Business Competitiveness (hereinafter "ACCIO"), is the data controller of your personal data. Your personal data will be processed in order to manage or to process your request and to participate on our activities. If you have taken part in our activities, we will offer you option of rating your degree of satisfaction with the sole purpose of improving its activities with a view to fulfilling the public mission entrusted to it by law. Itsewise, applicable legislation authorizes our institution to send, by electronic means, information and commercial notifications associated with our activities and promotional action. ACCIO informs you that your personal data may be transferred to suppliers of services that ACCIO has contracted with the sole purpose of being able to comply with your request. ACCIO has entered into the confidentiality and data processing contracts with ACCIO that are required by law, and apply the guarantees and safeguards necessary to preserve your privacy. You may exercise your rights of access, rectification, erasure and portability, limitation and/or apposition to processing by writing to the following postal address: C/ Rosselló, 214, Postcode 08008, Barcelona (Spain) or to its email address dades.accio@gencat.cat. For more information on the treatment of your data, you can go to the following link: http://www.accio.gencat.cat/avis-legal







We are very much interested in the proposal due to the alignment of RESIST with the ACCIÓ programme "ProACCIÓ Green" that fosters environmental and climate sustainability in our region as well as circular economy. In fact, ACCIÓ, in coordination with other regional authorities have launched several initiatives to respond to climate challenges. Our interest in this proposal is also due to the fact that Catalonia is one of the leading regions of the proposal.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to support the project and its implementation, scalability and transfer to other regions regarding:

- Identification and support in the participation in complementary financial resources (at regional, national and European level) through the current services provided from ACCIÓ. These services are included in the ProACCIÓ Green programme and the European R&D and Innovation Programmes area. These European Programmes could be Horizon Europe, LIFE, Innovation Fund or cascade funding, among others.
- Sharing experiences and knowhow that could be used to improve the actions of the project.
- Supporting dissemination and communication of the project results/outcomes.

Yours sincerely,

Sandra Jiménez Executive Secretary

Barcelona, March 29th

Firmado digitalmente por Sandra Jimenez Arteaga - DNI 40559886F (SIG) Fecha; 04-04-7022 09:51-28

The Agency for Business Competitiveness (hereinafter "ACCIÓ"), is the data controller of your personal data. Your personal data will be processed in order to manage or to process your request and to participate on our activities. If you have taken part in our activities, we will offer you option of rating your degree of satisfaction with the sole purpose of improving its activities with a view to fulfilling the public mission entrusted to it by law. Likewise, applicable legislation authorizes our institution to send, by electronic means, information and commercial notifications associated with our activities and promotional action. ACCIÓ informs you that your personal data may be transferred to suppliers of services that ACCIÓ has contracted with the sole purpose of being able to comply with your request. ACCIÓ has entered into the confidentiality and data processing contracts with ACCIÓ that are required by law, and apply the guarantees and safeguards necessary to preserve your privacy. You may exercise your rights of access, rectification, erasure and portability, limitation and/or opposition to processing by writing to the following postal address: C/Rosselló, 214, Postcode 08008, Barcelona (Spain) or to its email address <u>dades.accio@gencat.cat</u>. For more information on the treatment of your data, you can go to the following link: http://www.accio.gencat.cat/avis-legal







To:

European Commission Brussels

Subject:

Application of the Intermunicipal Community of the Region of Coimbra (CIM RC) to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs,

In my role as 1st Executive Secretary of Intermunicipal Community of the Region of Colmbra, I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.

Yours sincerely,

Jorge Miguel Marques de Brito

1st Executive Secretary of Intermunicipal Community of the Region of Coimbra





Application of the CIM Medio Tejo to the topic

"HORIZON-MISS-2021-CLIMA-02-04"

To: European Commission, Brussels Tomar, april 2022

Subject: Application of the CIM Médio Tejo to the topic "HORIZON-MISS-2021-CLIMA-02-04"

Dear Sirs,

In my role as executive secretary of the Intermunicipal Community of the Middle Tagus (CIM do Médio Tejo – Comunidade Intermucicipal do Médio Tejo), I would like to stress the strategic impact of this proposal for the increase of the resilience and adaptation capacity of our region to climate change impacts.

The fact that our organization is involved as a partner in this proposal, in consortium with other regional partners and European institutions of research & innovation excellence, reveals the importance that we concede it and the role that it can play, in articulation with the Smart Specialization Strategy for the region and in conjunction with the regional funding lines from ERDF ad NextGenEU, as well as from national and regional sources.

We envisage that the results that will stem out of this proposal will play a future key role in the regional, and also national and European, innovation pathways for climate change adaptation and in order to concretize this vision we will endeavour our best effort to ensure that it will have access to the complementary financial resources available at regional level and necessary for its implementation, scalability and transfer to other regions, in particular regarding investment in infrastructure and equipment for aiming at increasing resilience and adaptation to climate change.

Yours sincerely,

Assinado por: VÍCTOR MIGUEL MARTINS ARNAUT POMBEIRO Num. de Identificação: 08446449 Data: 2022.04.04 | 2:45:29+01'00'



(Victor Miguel Martins Arnaut Pombeiro) Executive Secretary

ABBAGEF ALCAMENTA CONSTANCIA ENTRODICAMENTO PERMEDIA DO DEZEN MAÇÃO OBREA SERTA TOMÁS VIMADE PEL VI

No.101093968 RESIST 78

Page 1 of 2

ANNEX 2

ESTIMATED BUDGET FOR THE ACTION

				Es	Estimated eligible costs (per budget category)	(per budget categor	73)					Estimated EU contribution ²	contribution ²	
				Direct costs	costs				Indirect costs		EU co	EU contribution to eligible costs	costs	Maximum
		A. Personnel costs		B. Subcontracting costs		C. Purchase costs		D. Other cost categories	E. Indirect costs ³	Total costs	Funding rate % ⁴	Maximum EU contribution ⁵	Requested EU contribution	grant amount
	A.1 Employees (or equivalent) A.2 Natural persons under direct contract A.3 Seconded persons	uivalent) nder direct contract	A.4 SME owners and natural person beneficiaries	B. Subcontracting	C.1 Travel and subsistence	C.2 Equipment	C.3 Other goods, works and services	D.2 Internally invoiced goods and services	E. Indirect costs					
Forms of funding	Actual costs	Unit costs (usual accounting practices)	Unit costs7	Actual costs	Actual costs	Actual costs	Actual costs	Unit costs (usual accounting practices)	Flat-rate costs*					
	la l	a2	a3	ф	cl	c2	S	d2	e = 0.25 * (a1 + a2 + a3 + c1 + c2 + c3)	f = a + b + c + d + e	Þ	g = f * U%	ч	E
1-SINTEF	00:00	1 050 000.00	00:00	00'0	44 000:00	35 000:00	00'0	00'0	282 250.00	1 411 250.00	100	1 411 250.00	1 411 250.00	1 411 250.00
2-INOVA+	1 335 000:00	00:00	00:0	70 000 00	84 000:00	22 500.00	80 000:00	00:0	380 375.00	1 971 875.00	0/2	1 380 312.50	1 380 312.50	1 380 312.50
3-ESF	361 200:00	00:00	00:00	00:0	39 000:00	00:00	00:0	00:00	100 050:00	500 250.00	100	500 250.00	500 250.00	500 250.00
4 - ADELPHI	469 500.00	0.00	00:00	0.00	33 200.00	2 000:00	8 000:00	0.00	128 175.00	640 875.00	100	640 875.00	640 875.00	640 875.00
5-AUGMENTCITY	1 635 900.00	00'0	00'0	00'0	36 000.00	16 000.00	25 000.00	0000	428 225.00	2 141 125.00	0%	1 498 787.50	1 498 787.50	1 498 787.50
6 - KU Leuven	315 000:00	00:00	00:00	0.00	35 000.00	2 500.00	5 000.00	0.00	89 375.00	446 875.00	100	446 875.00	446 875.00	446 875.00
1-ZSI	370 000:00	0.00	00:00	00.00	35 200.00	0.00	00:0	00:0	101 300.00	206 500.00	100	206 500.00	206 500.00	206 500.00
8 - ERRIN	403 000:00	00:00	00:00	00.00	48 000:00	00:00	25 000.00	0.00	119 000:00	595 000.00	100	595 000.00	595 000:00	595 000.00
9 - REVOLVE	308 000:00	00:00	00'0	00'0	30 000:00	00:00	80 200:00	00:0	104 550.00	522 750.00	100	522 750.00	522 750.00	522 750.00
10 - SERN	372 500.00	00:0	0.00	00.0	20 000:00	4 000:00	00:00	0.00	99 125.00	495 625.00	100	495 625.00	495 625.00	495 625.00
11 - RCSF	281 000:00	0.00	00:00	00.000 99	17 500.00	0.00	7 000.00	00:0	76 375.00	447 875.00	100	447 875.00	447 875.00	447 875.00
12 - CITY OF TURKU	414 325.00	00:00	00:00	125 000.00	20 000:00	00:00	25 000:00	00:00	114 831.25	699 156.25	100	699 156.25	699 156.25	699 156.25
13 - TUAS	384 800:00	00'0	00'0	25 000.00	20 000:00	2 000:00	25 000.00	0000	107 950.00	564 750.00	100	564 750.00	564 750.00	564 750.00
14 - UTU	00:00	301 173.00	00:00	00.00	5 000.00	0.00	00:0	00:0	76 543.25	382 716.25	100	382 716.25	382 716.25	382 716.25
15 - LUKE	241 300:00	00:00	00:00	30 000 00	15 000:00	00:00	32 000:00	00:00	72 075.00	390 375.00	100	390 375.00	390 375.00	390 375.00
16 - REGION EMT	26 000.00	0.00		0.00	15 000.00	00:000 9	19 000:00	0.00	24 000.00	120 000.00	100	120 000.00	120 000.00	120 000.00
17 - DUTH	357 000:00	00'0	00'0	00'0	10 000:00	00:00	48 000:00	0000	103 750.00	518 750.00	100	518 750.00	518 750.00	518 750.00
18 - ENORA	206 400.00	00:00	00:00	0.00	10 000:00	00:00	7 000.00	0.00	55 850.00	279 250.00	0/2	195 475.00	195 475.00	195 475.00
19 - NORMANDIE	340 000:00	00:00	00:00	50 000.00	24 000:00	00:00	00:00	0.00	91 000:00	505 000.00	100	505 000.00	505 000.00	505 000.00
20 - CEREMA	224 000:00	00:00	00:00	00.00	5 000.00	00:00	00:0	0.00	57 250.00	286 250.00	100	286 250.00	286 250.00	286 250.00
21 - OFB	162 000.00	0.00	00:00	00'0	5 000.00	00:00	00:00	0.00	41 750.00	208 750.00	100	208 750.00	208 750.00	208 750.00
22 - RM	511 000:00	00:00	00:00	400 000 000	20 000:00	00:00	00:00	0.00	132 750.00	1 063 750.00	100	1 063 750.00	1 063 750.00	1 063 750.00
23 - AU	237 600.00	00:00	00:00	0.00	20 000:00	00:00	00:00	0.00	64 400.00	322 000.00	100	322 000.00	322 000.00	322 000.00
24 - NATURSTYRELSEN	00:000:00	00:00	00:00	00.00	20 000:00	15 000.00	15 000.00	0.00	27 500.00	137 500.00	100	137 500.00	137 500.00	137 500.00
25 - VIA UC	573 600.00	00:00	00'0	100 000 000	20 000:00	0.00	270 000:00	00:0	215 900.00	1 179 500.00	100	1 179 500.00	1 179 500.00	1 179 500.00
26 - NIRAS	187 200:00	00:00	00:00	0.00	15 000.00	00:00	5 000.00	0.00	51 800.00	259 000.00	0/2	181 300.00	181 300.00	181 300.00
27 - BLEKINGE	181 818:00	00:00	00:00	94 697.00	24 000:00	00:00	00:00	0.00	51 454.50	351 969.50	100	351 969.50	351 969.50	351 969.50
28 - BTH	257 575.60	00:00		0.00	23 000:00	00:00	00:00	0.00	70 143.90	350 719.50	100	350 719.50	350 719.50	350 719.50
29 - ZPR	200 000:00	0.00	00:00	00'0	30 000:00	40 000:00	50 000.00	0.00	80 000.00	400 000.00	100	400 000.00	400 000.00	400 000.00
30 - INT	180 000:00	00:00	00:00	0.00	8 500.00	00:00	44 000.00	0.00	58 125.00	290 625.00	100	290 625.00	290 625.00	290 625.00
31 - UPC	624 000:00	00:00	00:00	0.00	17 000:00	16 000:00	58 500.00	0.00	178 875.00	894 375.00	100	894 375.00	894 375.00	894 375.00
32 - UOC	227 377.00	0.00	00:0	00:00	17 000.00	00:00	00:000 6	00:00	63 344.25	316 721.25	100	316 721.25	316 721.25	316 721.25

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					Estimated engine costs (per nuaget category)	of ther punger caregor	(6)					Estimated Sec	Estimated EU contribution	
				Direct costs	costs				Indirect costs		EU co	EU contribution to eligible costs	costs	Marinum
		A. Personnel costs		B. Subcontracting costs		C. Purchase costs		D. Other cost categories	E. Indirect costs ³	Total costs	Funding rate %4	Maximum EU contribution ⁵	Requested EU contribution	grant amount
	A.1 Employees (or equivalent) A.2 Natural persons under direct contract	uivalent) nder direct contract	A.4 SME owners and natural person beneficiaries	B. Subcontracting	C.1 Travel and subsistence	C.2 Equipment	C.3 Other goods, works and services	D.2 Internally invoiced goods and services	E. Indirect costs					
	A.3 Seconded persons													
Forms of funding	Actual costs	Unit costs (usual accounting practices)	Unit costs7	Actual costs	Actual costs	Actual costs	Actual costs	Unit costs (usual accounting practices)	Flat-rate costs					
	- R	a2	83	Р	c1	c2	8	d2	e = 0.25 * (a1 + a2 + a3 + c1 + c2 + c3)	f = a + b + c + d + e	ם	g=f*U%	ч	E
33 - HYDS	495 000:00	00:0	0000	00:0	18 700.00	00:00	0.00	0.00	128 425.00	642 125.00	0/	449 487.50	449 487.50	449 487.50
34 - TERRASSA CC	198 000:00	00:00	0000	00'0	8 500.00	18 000:00	3 000:00	00'0	56 875.00	284 375.00	100	284 375.00	284 375.00	284 375.00
35 - BLANES	198 000:00	00:00	0000	00'0	8 500.00	00:00	5 000.00	0.00	52 875.00	264 375.00	100	264 375.00	264 375.00	264 375.00
36 - REGIONE PUGLIA	190 000:00	00:0	0000	00'0	20 000:00	\$ 000.00	10 000:00	00:0	56 250.00	281 250.00	100	281 250.00	281 250.00	281 250.00
37 - TECNOPOLIS PST	312 000:00	0000	0.00	00'0	20 000:00	3 000:00	40 000:00	0.00	93 750.00	468 750.00	100	468 750.00	468 750.00	468 750.00
38 - CIMBAL	297 870.00	00:00	0000	133 850.00	18 840.00	00:056 96	74 760.00	000	122 105.00	744 375.00	100	744 375.00	744 375.00	744 375.00
39 - ITECONS	70 000:00	00:00	0000	00'0	12 000:00	00:00	10 000:00	00:0	23 000.00	115 000.00	100	115 000.00	115 000.00	115 000.00
40 - CCDRC	42 000:00	0000	0.00	00'0	10 000:00	00:00	0.00	0.00	13 000.00	65 000.00	100	65 000.00	65 000.00	65 000.00
41 - CIM-RC	240 000:00	0000	0.00	225 000.00	25 000:00	50 000:00	75 000.00	0.00	97 500.00	712 500.00	100	712 500.00	712 500.00	712 500.00
42 - CIMT	240 000:00	00'0	00'0	225 000.00	25 000.00	50 000.00	75 000.00	0.00	97 500.00	712 500.00	100	712 500.00	712 500.00	712 500.00
43 - BLC3	160 000:00	00:00	0.00	00'0	10 000:00	2 500.00	00:00	0.00	43 125.00	215 625.00	100	215 625.00	215 625.00	215 625.00
44 - FORESTWISE	116 351.00	00:00	0.00	40 000 00	10 000:00	2 500.00	00:00	0.00	32 212.75	201 063.75	100	201 063.75	201 063.75	201 063.75
45 - IPP	115 000:00	0000	0.00	50 000.00	10 000:00	00:00	00:00	0.00	31 250.00	206 250.00	100	206 250.00	206 250.00	206 250.00
46 - FUNDECYT PCTEX	70 000:00	00:00	0000	00'0	8 000:00	00:00	6 550.00	000	21 137.50	105 687.50	100	105 687.50	105 687.50	105 687.50
47 - UEX	413 260.00	00:00	0.00	142 500.00	10 000:00	00:00	5 800.00	0.00	107 265.00	678 825.00	100	678 825.00	678 825.00	678 825.00
48 - VESTERALEN	00:002 29	00:00	0.00	00'0	10 000:00	00:00	0.00	0.00	19 375.00	96 875.00	100	96 875.00	96 875.00	96.875.00
49 - ANDFJORD	80 000:00	00:00	0.00	00'0	10 000:00	00:00	00:00	0.00	22 500.00	112 500.00	0/2	78 750.00	78 750.00	78 750.00
50 - MEDIOTEJO21	113 800.00	0000	0.00	42 250.00	12 400.00	00:00	00'0	0.00	31 550.00	200 000.00	100	200 000.00	200 000:00	200 000.00
51 - CEDES	00:000 89	00:00	0.00	00'0	12 000:00	1 000:00	00:00	0.00	20 250.00	101 250.00	100	101 250.00	101 250.00	101 250.00
52 - ACCENT SUD	73 625.00	00:00	0000	00'0	8 500.00	00:00	00:00	0.00	20 531.25	102 656.25	100	102 656.25	102 656.25	102 656.25
53 - ONU	54 000:00	0000	0.00	00'0	12 500.00	00:00	3 000.00	0.00	17 375.00	86 875.00	100	86 875.00	86 875.00	86 875.00
54 - DGPF EXTREMADUR	136 500.00	00:00	0000	00'0	00:000 6	2 000:00	00'0	000	37 625.00	188 125.00	100	188 125.00	188 125.00	188 125.00
55 - FASTTRACK	291 200:00	0000	0.00	00'0	\$ 000.00	00:00	0.00	0.00	74 050.00	370 250.00	0%	259 175.00	259 175.00	259 175.00
56 - MUSEUM NORD	386 750.00	00:00	0.00	20 000 00	11 000:00	00:009 9	0.00	0.00	101 087.50	525 437.50	100	525 437.50	525 437.50	525 437.50
Σ consortium	n 15 905 951.60	1 351 173.00	0.00	1 839 297.00	1 070 340.00	401 550.00	1 145 810.00	000	4 968 706.15	26 682 827.75		24 949 990.25	24 949 990.25	24 949 990.25

1 See Article 6 for the eligibility conditions. All amounts must be expressed in EUR (see Article 7).

2 The consortium remains free to decide on a different internal distribution of the EU funding (via the consortium agreement; see Article 7).

3 Information and the eligibility conditions. All amounts free to decide on a different internal distribution of the EU funding (via the consortium agreement; see Article 7).

4 Information and the eventual part (excised in a consortium agreement are in a consortium agreement and in a consortium agreement are in a part (e.g., and the excised on a different internal distribution of the EU funding (a.g., and the excised on a consortium agreement are in a part (e.g., and the excised on a different internal distribution of the EU contribution to costs, if the reimbursement rate is applied to all the budgeed costs. This theoretical amount of the EU contribution to costs, if the reimbursement rate is applied to all the budgeed costs. This theoretical amount of the EU contribution on the estimated budget for the details (units, cost per unit).

5 See Dan Steel the fundament on the estimated budget for the details (units, cost per unit).

ANNEX 2a

ADDITIONAL INFORMATION ON UNIT COSTS AND CONTRIBUTIONS

SME owners/natural person beneficiaries without salary (Decision C(2020) 71151)

Type: unit costs

Units: days spent working on the action (rounded up or down to the nearest half-day)

Amount per unit (daily rate): calculated according to the following formula:

```
{EUR 5 080 / 18 days = 282,22}
multiplied by
{country-specific correction coefficient of the country where the beneficiary is established}
```

The country-specific correction coefficients used are those set out in the Horizon Europe Work Programme (section Marie Skłodowska-Curie actions) in force at the time of the call (see Portal Reference Documents).

HE and Euratom Research Infrastructure actions²

Type: unit costs

<u>Units</u>³: see (for each access provider and installation) the unit cost table in Annex 2b

Amount per unit*: see (for each access provider and installation) the unit cost table in Annex 2b

* Amount calculated as follows:

For trans-national access:

average annual total trans-national access costs to the installation (over past two years⁴) average annual total quantity of trans-national access to the installation (over past two years⁵)

For virtual access:

total virtual access costs to the installation (over the last year⁶) total quantity of virtual access to the installation (over the last year⁷)

Euratom staff mobility costs⁸

Monthly living allowance

Type: unit costs

Commission Decision of 20 October 2020 authorising the use of unit costs for the personnel costs of the owners of small and mediumsized enterprises and beneficiaries that are natural persons not receiving a salary for the work carried out by themselves under an action or work programme (C(2020)7715).

Decision of 19 April 2021 authorising the use of unit costs for the costs of providing trans-national and virtual access in Research Infrastructure actions under the Horizon Europe Programme (2021-2027) and the Research and Training Programme of the European Atomic Energy Community (2021-2025).

Unit of access (e.g. beam hours, weeks of access, sample analysis) fixed by the access provider in proposal

In exceptional and duly justified cases, the granting authority may agree to a different reference period. In exceptional and duly justified cases, the granting authority may agree to a different reference period.

In exceptional and duly justified cases, the granting authority may agree to a different reference period.

In exceptional and duly justified cases, the granting authority may agree to a different reference period.

<u>Decision</u> of 15 March 2021 authorising the use of unit costs for mobility in co-fund actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025).

<u>Units</u>: months spent by the seconded staff member(s) on research and training in fission and fusion activities (person-month)

Amount per unit*: see (for each beneficiary/affiliated entity and secondment) the unit cost table in Annex 2b

 $\boldsymbol{*}$ Amount calculated as follows from 1 January 2021:

{EUR 4 300 multiplied by

country-specific correction coefficient** of the country where the staff member is seconded}9

**Country-specific correction coefficients as from 1 January 2021¹⁰

EU-Member States¹¹

Country / Place	Coefficient (%)
Bulgaria	59,1
Czech Rep.	85,2
Denmark	131,3
Germany	101,9
Bonn	95,8
Karlsruhe	98
Munich	113,9
Estonia	82,3
Ireland	129
Greece	81,4
Spain	94,2
France	120,5
Croatia	75,8
Italy	95
Varese	90,7
Cyprus	78,2
Latvia	77,5
Lithuania	76,6
Hungary	71,9
Malta	94,7
Netherlands	113,9
Austria	107,9
Poland	70,9
Portugal	91,1
Romania	66,6
Slovenia	86,1

⁹ Unit costs for living allowances are calculated by using a method of calculation similar to that applied for the secondment to the European Commission of seconded national experts (SNEs).

Description For the financial statements, the amount must be adjusted according to the actual place of secondment. The revised coefficients were adopted in the Decision authorising the use of unit costs for the Fusion Programme co-fund action under the Research and training Programme of the European Atomic Energy Community 2021-2025. They are based on the 2020 Annual update of the remuneration and pensions of the officials and other servants of the European Union and the correction coefficients applied thereto (OJ C 428, 11.12.2020) to ensure purchasing power parity. The revised coefficient are applied as from 1 January 2021 through an amendment to the grant agreement.

through an amendment to the grant agreement.

No correction coefficient shall be applicable in Belgium and Luxembourg.

Slovakia	80,6
Finland	118,4
Sweden	124,3

Third countries

Country/place	Coefficient (%)
China	82,2
India	72,3
Japan	111,8
Russia	92,7
South Korea	92,3
Switzerland	129.2
Ukraine	82.3
United Kingdom	97.6
United States	101,4 (New-York) 90,5 (Washington)

Mobility allowance

Type: Unit costs

<u>Units</u>: months spent by the seconded staff member(s) on research and training in fission and fusion activities (person-month)

Amount per unit: EUR 600 per person-month; see (for each beneficiary/affiliated entity and secondment) the unit cost table in Annex 2b

Family allowance

Type: unit costs

<u>Units:</u> months spent by the seconded staff member(s) on research and training in fission and fusion activities (person-month)

Amount per unit: EUR 660 per person-month; see (for each beneficiary/affiliated entity and secondment) the unit cost table in Annex 2b

Education allowance

Type: Unit costs

<u>Units</u>: months spent by the seconded staff member(s) on research and training in fission and fusion activities (person-month)

Amount per unit*: see (for each beneficiary/affiliated entity and secondment) the unit cost table in Annex 2b

*Amount calculated as follows from 1 January 2021: {EUR 283.82 x number of dependent children 12}

For the estimated budget (Annex 2): an average should be used. (For the financial statements, the number of children (and months) must be adjusted according to the actual family status at the moment the secondment starts.)

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

INOVA+ - INNOVATION SERVICES, SA (INOVA+), PIC 999928478, established in RUA DR AFONSO CORDEIRO 567, MATOSINHOS 4450-309, Portugal,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

FONDATION EUROPEENNE DE LA SCIENCE (ESF), PIC 999987939, established in QUAI LEZAY MARNESIA 1, STRASBOURG CEDEX 67080, France,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ADELPHI RESEARCH GEMEINNUTZIGE GMBH (ADELPHI), PIC 999693350, established in ALT-MOABIT 91, BERLIN 10559, Germany,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

AUGMENTCITY AS (AUGMENTCITY), PIC 889667511, established in BORGUNDVEGEN 340, ALESUND 6009, Norway,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

KATHOLIEKE UNIVERSITEIT LEUVEN (KU Leuven), PIC 999991334, established in OUDE MARKT 13, LEUVEN 3000, Belgium,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ZENTRUM FUR SOZIALE INNOVATION GMBH (ZSI), PIC 940719872, established in LINKE WIENZEILE 246, WIEN 1150, Austria,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

EUROPEAN REGIONS RESEARCH AND INNOVATION NETWORK (ERRIN), PIC 997382713, established in RUE DE LUXEMBOURG 3, BRUXELLES 1000, Belgium,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

REVOLVE (REVOLVE), PIC 907047195, established in CALLE SANT ANTONI MARIA CLARET 167, BARCELONA 08025, Spain,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

STARTUP EUROPE REGIONS NETWORK (SERN), PIC 913040049, established in AVENUE DES ARTS 24, BRUXELLES 1000, Belgium,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

VARSINAIS-SUOMEN LIITTO (RCSF), PIC 950866460, established in LINNANKATU 52 B, TURKU 20100, Finland,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

CITY OF TURKU (CITY OF TURKU), PIC 993966082, established in YLIOPISTONKATU 27 A, TURKU 20100, Finland,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

TURUN AMMATTIKORKEAKOULU OY (TUAS), PIC 948193431, established in JOUKAHAISENKATU 3A, TURKU 20520, Finland,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

TURUN YLIOPISTO (UTU), PIC 999903064, established in YLIOPISTONMAKI, Turku 20014, Finland,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

LUONNONVARAKESKUS (LUKE), PIC 934887262, established in LATOKARTANONKAARI 9, HELSINKI 00790, Finland,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

PERIFEREIA ANATOLIKIS MAKEDONIAS KAI THRAKIS (REGION EMT), PIC 930725089, established in G. KAKOULIDOU 1, KOMOTINI 691 32, Greece,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

DIMOKRITIO PANEPISTIMIO THRAKIS (DUTH), PIC 999659109, established in PANEPISTIMIOUPOLI RECTORATE BUILDING, KOMOTINI 691 00, Greece,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ENORA INNOVATION ETAIREIA PSIFIAKON TEXNOLOGION KAI ERGON KAINOTOMIAS IDIOTIKI KEFALAIOUXIKI ETAIREIA (ENORA), PIC 894788238, established in TROIAS 86, VRILISSIA 15235, Greece,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

REGION NORMANDIE (NORMANDIE), PIC 891458131, established in ABBAYE AUX DAMES PLACE REINE MATHILDE, CAEN 14035, France,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

 ${\it Grant Agreement number: 101093968--RESIST--HORIZON-MISS-2021-CLIMA-02}$

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

CENTRE D ETUDES ET D EXPERTISE SUR LES RISQUES L ENVIRONNEMENT LA MOBILITE ET L AMENAGEMENT (CEREMA), PIC 948933735, established in 25 AV FRANCOIS MITTERRAND, BRON 69500, France,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

OFFICE FRANCAIS DE LA BIODIVERSITE (OFB), PIC 894000307, established in 12 COURS LOUIS LUMIERE, VINCENNES 94300, France,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

REGION MIDTJYLLAND (RM), PIC 997381452, established in Skottenborg 26, VIBORG 8800, Denmark,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

AARHUS UNIVERSITET (AU), PIC 999997736, established in NORDRE RINGGADE 1, AARHUS C 8000, Denmark,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

NATURSTYRELSEN (**NATURSTYRELSEN**), PIC 890772438, established in Gjøddinggård, Førstballevej 2, Randbøl 7183, Denmark,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

VIA UNIVERSITY COLLEGE (VIA UC), PIC 987834033, established in HEDEAGER 2, AARHUS N 8200, Denmark,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

NIRAS AS (NIRAS), PIC 998006229, established in SORTEMOSEVEJ 19, ALLEROED 3450, Denmark,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

BLEKINGE LANS LANDSTING (BLEKINGE), PIC 995943233, established in Friskvägen Byggn 2, KARLSKRONA 37185, Sweden,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

BLEKINGE TEKNISKA HOGSKOLA (BTH), PIC 999589172, established in CAMPUS GRASVIK, KARLSKRONA 371 79, Sweden,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ZEMGALES PLANOSANAS REGIONS (ZPR), PIC 950629877, established in KATOLU IELA 2B, JELGAVA 3001, Latvia,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

Departament d'Interior - Generalitat de Catalunya (INT), PIC 999703438, established in Carrer Diputació 355, Barcelona 08009, Spain,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

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SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSITAT POLITECNICA DE CATALUNYA (UPC), PIC 999976202, established in CALLE JORDI GIRONA 31, BARCELONA 08034, Spain,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

FUNDACIO PER A LA UNIVERSITAT OBERTA DE CATALUNYA (UOC), PIC 995992024, established in AVENIDA TIBIDABO 39, BARCELONA 08035, Spain,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

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SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

Hydrometeorological Innovative Solutions (HYDS), PIC 998268905, established in CALLE JORDI GIRONA 1-3, Edif ParcUC K2M S204B, Barcelona 08034, Spain,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

AJUNTAMENT DE TERRASSA (TERRASSA CC), PIC 997474572, established in RAVAL DE MONTSERRAT 12, TERRASSA 08221, Spain,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

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SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

AJUNTAMENT DE BLANES (BLANES), PIC 886632090, established in PASSEIG DE DINTRE 29, BLANES 17300, Spain,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

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SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

REGIONE PUGLIA (REGIONE PUGLIA), PIC 999523503, established in VIA GENTILE 52, BARI 70126, Italy,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

 ${\it Grant Agreement number: 101093968--RESIST--HORIZON-MISS-2021-CLIMA-02}$

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

TECNOPOLIS PARCO SCIENTIFICO E TECNOLOGICO SCARL (TECNOPOLIS PST), PIC 950162434, established in STRADA PROV LE PER CASAMASSIMA KM 3 PARCO TECNOPOLIS, VALENZANO 70010, Italy,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

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SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

Comunidade Intermunicipal do Baixo Alentejo (CIMBAL), PIC 891931006, established in Praceta Rainha D. Leonor, n.º 1, Beja 7801-953, Portugal,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

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SIGNATURE

 ${\it Grant Agreement number: 101093968--RESIST--HORIZON-MISS-2021-CLIMA-02}$

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ITECONS INSTITUTO DE INVESTIGACAO E DESENVOLVIMENTO TECNOLOGICO PARA A CONSTRUCAO ENERGIA AMBIENTE E SUSTENTABILIDADE (ITECONS), PIC 953461695, established in RUA PEDRO HISPANO, COIMBRA 3030 289, Portugal,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

 ${\it Grant Agreement number: 101093968--RESIST--HORIZON-MISS-2021-CLIMA-02}$

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

COMISSAO DE COORDENACAO E DESENVOLVIMENTO REGIONAL DO CENTRO (CCDRC), PIC 955664468, established in RUA BERNADIM RIBEIRO 80, COIMBRA 3000-069, Portugal,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

COMUNIDADE INTERMUNICIPAL DA REGIAO DE COIMBRA (CIM-RC), PIC 929602993, established in RUA DO BRASIL 131, COIMBRA 3030 175, Portugal,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

 ${\it Grant Agreement number: 101093968--RESIST--HORIZON-MISS-2021-CLIMA-02}$

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

COMUNIDADE INTERMUNICIPAL DO MEDIO TEJO (CIMT), PIC 886540231, established in CONVENTO DE SAO FRANCISCO RUA GENERAL BERNARDO FARIA, TOMAR 2300-535, Portugal,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

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SIGNATURE

 ${\it Grant Agreement number: 101093968--RESIST--HORIZON-MISS-2021-CLIMA-02}$

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ASSOCIACAO BLC3-CAMPUS DE TECNOLOGIA E INOVACAO (BLC3), PIC 951433134, established in RUA NOSSA SENHORA DA CONCEICAO 2 LAGARES DA BEIRA, OLIVEIRA DO HOSPITAL 3405 155, Portugal,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

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ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

FORESTWISE ASSOCIACAO PARA O LABORATORIO COLABORATIVO PARA A GESTAO INTEGRADA DA FLORESTA E DO FOGO (FORESTWISE), PIC 896590692, established in UNIVERSIDADE DE TRAS OS MONTES E AL PRADOS FOLHADELA, VILA REAL 5000-103, Portugal,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

INSTITUTO POLITÉCNICO DE PORTALEGRE (IPP), PIC 949379741, established in Praça do Municipio, PORTALEGRE 7300-901, Portugal,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

FUNDACION FUNDECYT - PARQUE CIENTIFICO Y TECNOLOGICO DE EXTREMADURA (FUNDECYT PCTEX), PIC 951026025, established in AVENIDA DE ELVAS CAMPUS UNIVERSITARIO EDIFICIO PARQUE CIENTIFICO TECNOLOGICO, BADAJOZ 06071, Spain,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERSIDAD DE EXTREMADURA (UEX), PIC 999858832, established in AVENIDA DE ELVAS SN, BADAJOZ 06006, Spain,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

VESTERALEN REGIONRAD (VESTERALEN), PIC 885391557, established in RADHUSGATA 11, SORTLAND 8401, Norway,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ANDFJORD SALMON AS (ANDFJORD), PIC 886553617, established in KVALNESVEIEN 69, DVERBERG 8485, Norway,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

the coordinator to submit and sign in its name and on its behalf any **amendments** to the Agreement, in accordance with Article 39.

By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

 ${\it Grant Agreement number: 101093968--RESIST--HORIZON-MISS-2021-CLIMA-02}$

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

MEDIOTEJO 21 - AGENCIA REGIONAL DEENERGIA E AMBIENTE DA REGIAO DO MEDIO TEJO E PINHAL INTERIOR SUL (MEDIOTEJO21), PIC 983970426, established in R D ANTONIO PRIOR DO CRATO N 115, ABRANTES 2200-086, Portugal,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

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SIGNATURE

 ${\it Grant Agreement number: 101093968--RESIST--HORIZON-MISS-2021-CLIMA-02}$

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ASSOCIACAO PARA UM CENTRO DE ESTUDOS EM DESENVOLVIMENTO SUSTENTAVEL (CEDES), PIC 953501562, established in RUA DR AFONSO CORDEIRO 877 SALA 201, MATOSINHOS 4450 007, Portugal,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ACCENT SUD - ASSOCIATION POUR LA COOPERATION CULTURELLE ET L'ECONOMIE NUMERIQUE TRANSREGIONALE AVEC L'EUROPE DU SUD (ACCENT SUD), PIC 889350709, established in COURS DU MARECHAL GALLIENI 166, TALENCE 33400, France,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ODESKIY NACIONALNIY UNIVERSITET IMENI I.I. MECHNIKOVA (ONU), PIC 998376284, established in DVORYANSKAYA STR 2, ODESSA 65026, Ukraine,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

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 ${\it Grant Agreement number: 101093968--RESIST--HORIZON-MISS-2021-CLIMA-02}$

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

CONSEJERÍA DE AGRICULTURA, DESARROLLO RURAL, POBLACIÓN Y TERRITORIO - JUNTA DE EXTREMADURA (DGPF EXTREMADUR), PIC 920867270, established in AVENIDA DE PORTUGAL S/N, MERIDA 06800, Spain,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

FASTTRACK ACTION, LDA (FASTTRACK), PIC 898469679, established in RUA DO CAIS DAS NAUS 1B E 1C PARQUE DAS NACOES, LISBOA 1990-305, Portugal,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

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SIGNATURE

Associated with document Ref. Ares(2022)8439002 - 06/12/2022

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

STIFTELSEN MUSEUM NORD (MUSEUM NORD), PIC 936214707, established in SKOLEGATA 1, MELBU 8445, Norway,

hereby agrees

to become beneficiary

in Agreement No 101093968 — RESIST ('the Agreement')

between SINTEF AS (SINTEF) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and mandates

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By signing this accession form, the beneficiary accepts the grant and agrees to implement it in accordance with the Agreement, with all the obligations and terms and conditions it sets out.

SIGNATURE

		Revenues		Income generated by the action			С					
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ANNEX 5

SPECIFIC RULES

CONFIDENTIALITY AND SECURITY (— ARTICLE 13)

Sensitive information with security recommendation

Sensitive information with a security recommendation must comply with the additional requirements imposed by the granting authority.

Before starting the action tasks concerned, the beneficiaries must have obtained all approvals or other mandatory documents needed for implementing the task. The documents must be kept on file and be submitted upon request by the coordinator to the granting authority. If they are not in English, they must be submitted together with an English summary.

For requirements restricting disclosure or dissemination, the information must be handled in accordance with the recommendation and may be disclosed or disseminated only after written approval from the granting authority.

EU classified information

If EU classified information is used or generated by the action, it must be treated in accordance with the security classification guide (SCG) and security aspect letter (SAL) set out in Annex 1 and Decision 2015/444¹ and its implementing rules — until it is declassified.

Deliverables which contain EU classified information must be submitted according to special procedures agreed with the granting authority.

Action tasks involving EU classified information may be subcontracted only with prior explicit written approval from the granting authority and only to entities established in an EU Member State or in a non-EU country with a security of information agreement with the EU (or an administrative arrangement with the Commission).

EU classified information may not be disclosed to any third party (including participants involved in the action implementation) without prior explicit written approval from the granting authority.

ETHICS (— ARTICLE 14)

Ethics and research integrity

The beneficiaries must carry out the action in compliance with:

- ethical principles (including the highest standards of research integrity)

Commission Decision 2015/444/EC, Euratom of 13 March 2015 on the security rules for protecting EU classified information (OJ L 72, 17.3.2015, p. 53).

and

- applicable EU, international and national law, including the EU Charter of Fundamental Rights and the European Convention for the Protection of Human Rights and Fundamental Freedoms and its Supplementary Protocols.

No funding can be granted, within or outside the EU, for activities that are prohibited in all Member States. No funding can be granted in a Member State for an activity which is forbidden in that Member State.

The beneficiaries must pay particular attention to the principle of proportionality, the right to privacy, the right to the protection of personal data, the right to the physical and mental integrity of persons, the right to non-discrimination, the need to ensure protection of the environment and high levels of human health protection.

The beneficiaries must ensure that the activities under the action have an exclusive focus on civil applications.

The beneficiaries must ensure that the activities under the action do not:

- aim at human cloning for reproductive purposes
- intend to modify the genetic heritage of human beings which could make such modifications heritable (with the exception of research relating to cancer treatment of the gonads, which may be financed)
- intend to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer, or
- lead to the destruction of human embryos (for example, for obtaining stem cells).

Activities involving research on human embryos or human embryonic stem cells may be carried out only if:

- they are set out in Annex 1 or
- the coordinator has obtained explicit approval (in writing) from the granting authority.

In addition, the beneficiaries must respect the fundamental principle of research integrity — as set out in the European Code of Conduct for Research Integrity².

This implies compliance with the following principles:

- reliability in ensuring the quality of research reflected in the design, the methodology, the analysis and the use of resources
- honesty in developing, undertaking, reviewing, reporting and communicating research in a transparent, fair and unbiased way

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European Code of Conduct for Research Integrity of ALLEA (All European Academies).

- respect for colleagues, research participants, society, ecosystems, cultural heritage and the environment
- accountability for the research from idea to publication, for its management and organisation, for training, supervision and mentoring, and for its wider impacts

and means that beneficiaries must ensure that persons carrying out research tasks follow the good research practices including ensuring, where possible, openness, reproducibility and traceability and refrain from the research integrity violations described in the Code.

Activities raising ethical issues must comply with the additional requirements formulated by the ethics panels (including after checks, reviews or audits; see Article 25).

Before starting an action task raising ethical issues, the beneficiaries must have obtained all approvals or other mandatory documents needed for implementing the task, notably from any (national or local) ethics committee or other bodies such as data protection authorities.

The documents must be kept on file and be submitted upon request by the coordinator to the granting authority. If they are not in English, they must be submitted together with an English summary, which shows that the documents cover the action tasks in question and includes the conclusions of the committee or authority concerned (if any).

VALUES (— ARTICLE 14)

Gender mainstreaming

The beneficiaries must take all measures to promote equal opportunities between men and women in the implementation of the action and, where applicable, in line with the gender equality plan. They must aim, to the extent possible, for a gender balance at all levels of personnel assigned to the action, including at supervisory and managerial level.

INTELLECTUAL PROPERTY RIGHTS (IPR) — BACKGROUND AND RESULTS — ACCESS RIGHTS AND RIGHTS OF USE (— ARTICLE 16)

Definitions

Access rights — Rights to use results or background.

Dissemination — The public disclosure of the results by appropriate means, other than resulting from protecting or exploiting the results, including by scientific publications in any medium.

Exploit(ation) — The use of results in further research and innovation activities other than those covered by the action concerned, including among other things, commercial exploitation such as developing, creating, manufacturing and marketing a product or process, creating and providing a service, or in standardisation activities.

Fair and reasonable conditions — Appropriate conditions, including possible financial terms or royalty-free conditions, taking into account the specific circumstances of the request for access, for example the actual or potential value of the results or background to which access is requested and/or the scope, duration or other characteristics of the exploitation envisaged.

FAIR principles — 'findability', 'accessibility', 'interoperability' and 'reusability'.

Open access — Online access to research outputs provided free of charge to the end-user.

Open science — An approach to the scientific process based on open cooperative work, tools and diffusing knowledge.

Research data management — The process within the research lifecycle that includes the organisation, storage, preservation, security, quality assurance, allocation of persistent identifiers (PIDs) and rules and procedures for sharing of data including licensing.

Research outputs — Results to which access can be given in the form of scientific publications, data or other engineered results and processes such as software, algorithms, protocols, models, workflows and electronic notebooks.

Scope of the obligations

For this section, references to 'beneficiary' or 'beneficiaries' do not include affiliated entities (if any).

Agreement on background

The beneficiaries must identify in a written agreement the background as needed for implementing the action or for exploiting its results.

Where the call conditions restrict control due to strategic interests reasons, background that is subject to control or other restrictions by a country (or entity from a country) which is not one of the eligible countries or target countries set out in the call conditions and that impact the exploitation of the results (i.e. would make the exploitation of the results subject to control or restrictions) must not be used and must be explicitly excluded from it in the agreement on background — unless otherwise agreed with the granting authority.

Ownership of results

Results are owned by the beneficiaries that generate them.

However, two or more beneficiaries own results jointly if:

- they have jointly generated them and
- it is not possible to:
 - establish the respective contribution of each beneficiary, or
 - separate them for the purpose of applying for, obtaining or maintaining their protection.

The joint owners must agree — in writing — on the allocation and terms of exercise of their joint ownership ('joint ownership agreement'), to ensure compliance with their obligations under this Agreement.

Unless otherwise agreed in the joint ownership agreement or consortium agreement, each joint owner may grant non-exclusive licences to third parties to exploit the jointly-owned results (without any right to sub-license), if the other joint owners are given:

- at least 45 days advance notice and
- fair and reasonable compensation.

The joint owners may agree — in writing — to apply another regime than joint ownership.

If third parties (including employees and other personnel) may claim rights to the results, the beneficiary concerned must ensure that those rights can be exercised in a manner compatible with its obligations under the Agreement.

The beneficiaries must indicate the owner(s) of the results (results ownership list) in the final periodic report.

Protection of results

Beneficiaries which have received funding under the grant must adequately protect their results — for an appropriate period and with appropriate territorial coverage — if protection is possible and justified, taking into account all relevant considerations, including the prospects for commercial exploitation, the legitimate interests of the other beneficiaries and any other legitimate interests.

Exploitation of results

Beneficiaries which have received funding under the grant must — up to four years after the end of the action (see Data Sheet, Point 1) — use their best efforts to exploit their results directly or to have them exploited indirectly by another entity, in particular through transfer or licensing.

If, despite a beneficiary's best efforts, the results are not exploited within one year after the end of the action, the beneficiaries must (unless otherwise agreed in writing with the granting authority) use the Horizon Results Platform to find interested parties to exploit the results.

If results are incorporated in a standard, the beneficiaries must (unless otherwise agreed with the granting authority or unless it is impossible) ask the standardisation body to include the funding statement (see Article 17) in (information related to) the standard.

Additional exploitation obligations

Where the call conditions impose additional exploitation obligations (including obligations linked to the restriction of participation or control due to strategic assets, interests, autonomy or security reasons), the beneficiaries must comply with them — up to four years after the end of the action (see Data Sheet, Point 1).

Where the call conditions impose additional exploitation obligations in case of a public emergency, the beneficiaries must (if requested by the granting authority) grant for a limited period of time specified in the request, non-exclusive licences — under fair and reasonable conditions — to their results to legal entities that need the results to address the public emergency and commit to rapidly and broadly exploit the resulting products and services at fair and reasonable conditions. This provision applies up to four years after the end of the action (see Data Sheet, Point 1).

Additional information obligation relating to standards

Where the call conditions impose additional information obligations relating to possible standardisation, the beneficiaries must — up to four years after the end of the action (see Data Sheet, Point 1) — inform the granting authority, if the results could reasonably be expected to contribute to European or international standards.

Transfer and licensing of results

Transfer of ownership

The beneficiaries may transfer ownership of their results, provided this does not affect compliance with their obligations under the Agreement.

The beneficiaries must ensure that their obligations under the Agreement regarding their results are passed on to the new owner and that this new owner has the obligation to pass them on in any subsequent transfer.

Moreover, they must inform the other beneficiaries with access rights of the transfer at least 45 days in advance (or less if agreed in writing), unless agreed otherwise in writing for specifically identified third parties including affiliated entities or unless impossible under the applicable law. This notification must include sufficient information on the new owner to enable the beneficiaries concerned to assess the effects on their access rights. The beneficiaries may object within 30 days of receiving notification (or less if agreed in writing), if they can show that the transfer would adversely affect their access rights. In this case, the transfer may not take place until agreement has been reached between the beneficiaries concerned.

Granting licences

The beneficiaries may grant licences to their results (or otherwise give the right to exploit them), including on an exclusive basis, provided this does not affect compliance with their obligations.

Exclusive licences for results may be granted only if all the other beneficiaries concerned have waived their access rights.

Granting authority right to object to transfers or licensing — Horizon Europe actions

Where the call conditions in Horizon Europe actions provide for the right to object to transfers or licensing, the granting authority may — up to four years after the end of the action (see Data Sheet, Point 1) — object to a transfer of ownership or the exclusive licensing of results, if:

- the beneficiaries which generated the results have received funding under the grant
- it is to a legal entity established in a non-EU country not associated with Horizon Europe, and
- the granting authority considers that the transfer or licence is not in line with EU interests.

Beneficiaries that intend to transfer ownership or grant an exclusive licence must formally notify the granting authority before the intended transfer or licensing takes place and:

- identify the specific results concerned
- describe in detail the new owner or licensee and the planned or potential exploitation of the results, and
- include a reasoned assessment of the likely impact of the transfer or licence on EU interests, in particular regarding competitiveness as well as consistency with ethical principles and security considerations.

The granting authority may request additional information.

If the granting authority decides to object to a transfer or exclusive licence, it must formally notify the beneficiary concerned within 60 days of receiving notification (or any additional information it has requested).

No transfer or licensing may take place in the following cases:

- pending the granting authority decision, within the period set out above
- if the granting authority objects
- until the conditions are complied with, if the granting authority objection comes with conditions.

A beneficiary may formally notify a request to waive the right to object regarding intended transfers or grants to a specifically identified third party, if measures safeguarding EU interests are in place. If the granting authority agrees, it will formally notify the beneficiary concerned within 60 days of receiving notification (or any additional information requested).

Granting authority right to object to transfers or licensing — Euratom actions

Where the call conditions in Euratom actions provide for the right to object to transfers or licensing, the granting authority may — up to four years after the end of the action (see Data Sheet, Point 1) — object to a transfer of ownership or the exclusive or non-exclusive licensing of results, if:

- the beneficiaries which generated the results have received funding under the grant
- it is to a legal entity established in a non-EU country not associated to the Euratom Research and Training Programme 2021-2025 and
- the granting authority considers that the transfer or licence is not in line with the EU interests.

Beneficiaries that intend to transfer ownership or grant a licence must formally notify the granting authority before the intended transfer or licensing takes place and:

- identify the specific results concerned
- describe in detail the results, the new owner or licensee and the planned or potential exploitation of the results, and
- include a reasoned assessment of the likely impact of the transfer or licence on EU interests, in particular regarding competitiveness as well as consistency with

ethical principles and security considerations (including the defence interests of the EU Member States under Article 24 of the Euratom Treaty).

The granting authority may request additional information.

If the granting authority decides to object to a transfer or licence, it will formally notify the beneficiary concerned within 60 days of receiving notification (or any additional information requested).

No transfer or licensing may take place in the following cases:

- pending the granting authority decision, within the period set out above
- if the granting authority objects
- until the conditions are complied with, if the granting authority objection comes with conditions.

A beneficiary may formally notify a request to waive the right to object regarding intended transfers or grants to a specifically identified third party, if measures safeguarding EU interests are in place. If the granting authority agrees, it will formally notify the beneficiary concerned within 60 days of receiving notification (or any additional information requested).

Limitations to transfers and licensing due to strategic assets, interests, autonomy or security reasons of the EU and its Member States

Where the call conditions restrict participation or control due to strategic assets, interests, autonomy or security reasons, the beneficiaries may not transfer ownership of their results or grant licences to third parties which are established in countries which are not eligible countries or target countries set out in the call conditions (or, if applicable, are controlled by such countries or entities from such countries) — unless they have requested and received prior approval by the granting authority.

The request must:

- identify the specific results concerned
- describe in detail the new owner and the planned or potential exploitation of the results, and
- include a reasoned assessment of the likely impact of the transfer or license on the strategic assets, interests, autonomy or security of the EU and its Member States.

The granting authority may request additional information.

Access rights to results and background

Exercise of access rights — Waiving of access rights — No sub-licensing

Requests to exercise access rights and the waiver of access rights must be in writing.

Unless agreed otherwise in writing with the beneficiary granting access, access rights do not include the right to sub-license.

If a beneficiary is no longer involved in the action, this does not affect its obligations to grant access.

If a beneficiary defaults on its obligations, the beneficiaries may agree that that beneficiary no longer has access rights.

Access rights for implementing the action

The beneficiaries must grant each other access — on a royalty-free basis — to background needed to implement their own tasks under the action, unless the beneficiary that holds the background has — before acceding to the Agreement —:

- informed the other beneficiaries that access to its background is subject to restrictions, or
- agreed with the other beneficiaries that access would not be on a royalty-free basis.

The beneficiaries must grant each other access — on a royalty-free basis — to results needed for implementing their own tasks under the action.

Access rights for exploiting the results

The beneficiaries must grant each other access — under fair and reasonable conditions — to results needed for exploiting their results.

The beneficiaries must grant each other access — under fair and reasonable conditions — to background needed for exploiting their results, unless the beneficiary that holds the background has — before acceding to the Agreement — informed the other beneficiaries that access to its background is subject to restrictions.

Requests for access must be made — unless agreed otherwise in writing — up to one year after the end of the action (see Data Sheet, Point 1).

Access rights for entities under the same control

Unless agreed otherwise in writing by the beneficiaries, access to results and, subject to the restrictions referred to above (if any), background must also be granted — under fair and reasonable conditions — to entities that:

- are established in an EU Member State or Horizon Europe associated country
- are under the direct or indirect control of another beneficiary, or under the same direct or indirect control as that beneficiary, or directly or indirectly controlling that beneficiary and
- need the access to exploit the results of that beneficiary.

Unless agreed otherwise in writing, such requests for access must be made by the entity directly to the beneficiary concerned.

Requests for access must be made — unless agreed otherwise in writing — up to one year after the end of the action (see Data Sheet, Point 1).

Access rights for the granting authority, EU institutions, bodies, offices or agencies and national authorities to results for policy purposes — Horizon Europe actions

In Horizon Europe actions, the beneficiaries which have received funding under the grant must grant access to their results — on a royalty-free basis — to the granting authority, EU institutions, bodies, offices or agencies for developing, implementing and monitoring EU policies or programmes. Such access rights do not extend to beneficiaries' background.

Such access rights are limited to non-commercial and non-competitive use.

For actions under the cluster 'Civil Security for Society', such access rights also extend to national authorities of EU Member States for developing, implementing and monitoring their policies or programmes in this area. In this case, access is subject to a bilateral agreement to define specific conditions ensuring that:

- the access rights will be used only for the intended purpose and
- appropriate confidentiality obligations are in place.

Moreover, the requesting national authority or EU institution, body, office or agency (including the granting authority) must inform all other national authorities of such a request.

Access rights for the granting authority, Euratom institutions, funding bodies or the Joint Undertaking Fusion for Energy — Euratom actions

In Euratom actions, the beneficiaries which have received funding under the grant must grant access to their results — on a royalty-free basis — to the granting authority, Euratom institutions, funding bodies or the Joint Undertaking Fusion for Energy for developing, implementing and monitoring Euratom policies and programmes or for compliance with obligations assumed through international cooperation with non-EU countries and international organisations.

Such access rights include the right to authorise third parties to use the results in public procurement and the right to sub-license and are limited to non-commercial and non-competitive use.

Additional access rights

Where the call conditions impose additional access rights, the beneficiaries must comply with them.

<u>COMMUNICATION, DISSEMINATION, OPEN SCIENCE AND VISIBILITY (—</u> ARTICLE 17)

Dissemination

Dissemination of results

The beneficiaries must disseminate their results as soon as feasible, in a publicly available format, subject to any restrictions due to the protection of intellectual property, security rules or legitimate interests.

A beneficiary that intends to disseminate its results must give at least 15 days advance notice to the other beneficiaries (unless agreed otherwise), together with sufficient information on the results it will disseminate.

Any other beneficiary may object within (unless agreed otherwise) 15 days of receiving notification, if it can show that its legitimate interests in relation to the results or background would be significantly harmed. In such cases, the results may not be disseminated unless appropriate steps are taken to safeguard those interests.

Additional dissemination obligations

Where the call conditions impose additional dissemination obligations, the beneficiaries must also comply with those.

Open Science

Open science: open access to scientific publications

The beneficiaries must ensure open access to peer-reviewed scientific publications relating to their results. In particular, they must ensure that:

- at the latest at the time of publication, a machine-readable electronic copy of the published version or the final peer-reviewed manuscript accepted for publication, is deposited in a trusted repository for scientific publications
- immediate open access is provided to the deposited publication via the repository, under the latest available version of the Creative Commons Attribution International Public Licence (CC BY) or a licence with equivalent rights; for monographs and other long-text formats, the licence may exclude commercial uses and derivative works (e.g. CC BY-NC, CC BY-ND) and
- information is given via the repository about any research output or any other tools and instruments needed to validate the conclusions of the scientific publication.

Beneficiaries (or authors) must retain sufficient intellectual property rights to comply with the open access requirements.

Metadata of deposited publications must be open under a Creative Common Public Domain Dedication (CC 0) or equivalent, in line with the FAIR principles (in particular machine-actionable) and provide information at least about the following: publication (author(s), title, date of publication, publication venue); Horizon Europe or Euratom funding; grant project name, acronym and number; licensing terms; persistent identifiers for the publication, the authors involved in the action and, if possible, for their organisations and the grant. Where applicable, the metadata must include persistent identifiers for any research output or any other tools and instruments needed to validate the conclusions of the publication.

Only publication fees in full open access venues for peer-reviewed scientific publications are eligible for reimbursement.

Open science: research data management

The beneficiaries must manage the digital research data generated in the action ('data') responsibly, in line with the FAIR principles and by taking all of the following actions:

- establish a data management plan ('DMP') (and regularly update it)

- as soon as possible and within the deadlines set out in the DMP, deposit the data in a trusted repository; if required in the call conditions, this repository must be federated in the EOSC in compliance with EOSC requirements
- as soon as possible and within the deadlines set out in the DMP, ensure open access via the repository to the deposited data, under the latest available version of the Creative Commons Attribution International Public License (CC BY) or Creative Commons Public Domain Dedication (CC 0) or a licence with equivalent rights, following the principle 'as open as possible as closed as necessary', unless providing open access would in particular:
 - be against the beneficiary's legitimate interests, including regarding commercial exploitation, or
 - be contrary to any other constraints, in particular the EU competitive interests or the beneficiary's obligations under this Agreement; if open access is not provided (to some or all data), this must be justified in the DMP
- provide information via the repository about any research output or any other tools and instruments needed to re-use or validate the data.

Metadata of deposited data must be open under a Creative Common Public Domain Dedication (CC 0) or equivalent (to the extent legitimate interests or constraints are safeguarded), in line with the FAIR principles (in particular machine-actionable) and provide information at least about the following: datasets (description, date of deposit, author(s), venue and embargo); Horizon Europe or Euratom funding; grant project name, acronym and number; licensing terms; persistent identifiers for the dataset, the authors involved in the action, and, if possible, for their organisations and the grant. Where applicable, the metadata must include persistent identifiers for related publications and other research outputs.

Open science: additional practices

Where the call conditions impose additional obligations regarding open science practices, the beneficiaries must also comply with those.

Where the call conditions impose additional obligations regarding the validation of scientific publications, the beneficiaries must provide (digital or physical) access to data or other results needed for validation of the conclusions of scientific publications, to the extent that their legitimate interests or constraints are safeguarded (and unless they already provided the (open) access at publication).

Where the call conditions impose additional open science obligations in case of a public emergency, the beneficiaries must (if requested by the granting authority) immediately deposit any research output in a repository and provide open access to it under a CC BY licence, a Public Domain Dedication (CC 0) or equivalent. As an exception, if the access would be against the beneficiaries' legitimate interests, the beneficiaries must grant non-exclusive licenses — under fair and reasonable conditions — to legal entities that need the research output to address the public emergency and commit to rapidly and broadly exploit the resulting products and services at fair and reasonable conditions. This provision applies up to four years after the end of the action (see Data Sheet, Point 1).

Plan for the exploitation and dissemination of results including communication activities

Unless excluded by the call conditions, the beneficiaries must provide and regularly update a plan for the exploitation and dissemination of results including communication activities.

SPECIFIC RULES FOR CARRYING OUT THE ACTION (— ARTICLE 18)

Implementation in case of restrictions due to strategic assets, interests, autonomy or security of the EU and its Member States

Where the call conditions restrict participation or control due to strategic assets, interests, autonomy or security, the beneficiaries must ensure that none of the entities that participate as affiliated entities, associated partners, subcontractors or recipients of financial support to third parties are established in countries which are not eligible countries or target countries set out in the call conditions (or, if applicable, are controlled by such countries or entities from such countries) — unless otherwise agreed with the granting authority.

The beneficiaries must moreover ensure that any cooperation with entities established in countries which are not eligible countries or target countries set out in the call conditions (or, if applicable, are controlled by such countries or entities from such countries) does not affect the strategic assets, interests, autonomy or security of the EU and its Member States.

Recruitment and working conditions for researchers

The beneficiaries must take all measures to implement the principles set out in the Commission Recommendation on the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers³, in particular regarding:

- working conditions
- transparent recruitment processes based on merit, and
- career development.

The beneficiaries must ensure that researchers and all participants involved in the action are aware of them.

Commission Recommendation 2005/251/EC of 11 March 2005 on the European Charter for Researchers and on a Code of Conduct for the Recruitment of Researchers (OJ L 75, 22.3.2005, p. 67).



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TIMBRO E FIRMA DELL'ENTE Responsabile del Servizio Finanziario / Dirigente responsabile della spesa



REGIONE PUGLIA SEZIONE BILANCIO RAGIONERIA PARERE DI REGOLARITA' CONTABILE (D. Lgs. n. 118/11 e s.m.i.)

UFFICIO	TIPO	ANNO	NUMERO	DATA
A04	DEL	2023	22	17.04.2023

PROGRAMMA HORIZON EUROPE 2021-2027. APPROVAZIONE PROGETTO "RESIST" (REGIONS FOR CLIMATE CHANGE RESILIENCE THROUGH INNOVATION, SCIENCE AND TECHNOLOGY). PRESA D'ATTO. VARIAZIONE DI BILANCIO DI PREVISIONE 2023 E PLURIENNALE 2023-2025, AI SENSI DELL'ART. 51 DEL D.LGS. N. 118/2011 E SS.MM.II.

Si esprime: PARERE DI REGOLARITA'CONTABILE POSITIVO LR 28/2001 art. 79 Comma 5





