



EUROPEAN CLIMATE, INFRASTRUCTURE AND ENVIRONMENT EXECUTIVE AGENCY (CINEA)

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

GRANT AGREEMENT

Project 101081464 — PLUS Change

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':

USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE), PIC 921149249, established in BELIDLA 986/4A, BRNO 603 00, Czechia,

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

2. **STICHTING ISOCARP INSTITUTE CENTER OF URBAN EXCELLENCE (ISOCARP)**, PIC 905424870, established in WALDORPSTRAAT 17, THE HAGUE 2521 CA, Netherlands,

3. **KONRAD-LORENZ-INSTITUT FUR EVOLUTIONS-UND KOGNITIONSFORSCHUNG (KLI)**, PIC 958352435, established in MARTINSTRASSE 12, KLOSTERNEUBURG 3400, Austria,

4. **INTERNATIONAL CREATIVE PROJECTS B V (Biobased)**, PIC 888044119, established in LEEUWENDALERSWEG 672, AMSTERDAM 1061 BK, Netherlands,

5. **STICHTING VU (STICHTING VU)**, PIC 954530344, established in DE BOELELAAN 1105, AMSTERDAM 1081 HV, Netherlands,

6. **PLAN4ALL ZS (P4All)**, PIC 930230292, established in K RYBNICKU 557, HORNÍ BRIZA 330 12, Czechia,

7. **PERI-URBAN REGIONS PLATFORM EUROPE (PURPLE)**, PIC 921189601, established in KONING ALBERT II LAAN 15, BRUSSEL 1210, Belgium,

8. **NODIBINAJUMS BALTIC STUDIES CENTRE (BSC)**, PIC 988719934, established in KOKNESES PROSPEKTS 26-2, RIGA 1014, Latvia,

9. **UNIVERZA V LJUBLJANI (UL)**, PIC 999923240, established in KONGRESNI TRG 12, LJUBLJANA 1000, Slovenia,
10. **KNOWLEDGE SRL (KNOWLEDGE SRL)**, PIC 952735456, established in VIA SAN GIOVANNI BATTISTA 2, OLGiate OLONA 21057, Italy,
11. **STOWARZYSZENIE CENTRUM ROZWIAZAN SYSTEMOWYCH (CRS)**, PIC 998222539, established in ULICA STEFANA JARACZA 80B LOK 10, WROCLAW 50 305, Poland,
12. **STOCKHOLMS UNIVERSITET (SU)**, PIC 999885022, established in UNIVERSITETSVAGEN 10, STOCKHOLM 10691, Sweden,
13. **UNIVERZITA KONSTANTINA FILOZOFA VNITRE (UKF)**, PIC 997731913, established in TRIEDA ANDREJA HLINKU 1, NITRA 949 01, Slovakia,
14. **LEUPHANA UNIVERSITAT LUNEBURG (LEUPHANA)**, PIC 996544827, established in SCHARNHORSTSTRASSE 1, LUNEBURG 21335, Germany,
15. **PROVINCIA DI LUCCA (Prov Lucca)**, PIC 957340434, established in CORTILE CARRARA 1, LUCCA 55100, Italy,
16. **RRA ZELENi KRAS DOO (RRA ZELENi KRAS)**, PIC 943145454, established in PRECNA ULICA 1, PIVKA 6257, Slovenia,
17. **EUREGIO MAAS RHEIN (EMR)**, PIC 898701315, established in GOSPERTSTRASSE 42, EUPEN 4700, Belgium,
18. **WOJEWODZTWO MAZOWIECKIE (Mazovia Reg.)**, PIC 969928415, established in ul. Jagiellonska 26, Warsaw 03-719, Poland,
19. **VLAAMSE LANDMAATSCHAPPIJ (VLM)**, PIC 954725702, established in KONING ALBERT II-LAAN 15, BRUSSELS 1210, Belgium,
20. **JIHOMORAVSKA AGENTURA PRO VEREJNE INOVACE JINAG SPOLEK (JINAG)**, PIC 911076381, established in ZEROTINOVO NAMESTI 449/3 VEVERI, BRNO 602 00, Czechia,
21. **ILE DE FRANCE (REGION)**, PIC 999706736, established in 2 RUE SIMONE VEIL, SAINT OUEEN SUR SEINE 93400, France,

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

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 [Portal Reference Documents](#).

² Template published on [Portal Reference Documents](#).

³ Template published on [Portal Reference Documents](#).

TERMS AND CONDITIONS

TABLE OF CONTENTS

GRANT AGREEMENT.....	1
PREAMBLE.....	1
TERMS AND CONDITIONS.....	4
DATASHEET.....	9
CHAPTER 1 GENERAL.....	15
ARTICLE 1 — SUBJECT OF THE AGREEMENT	15
ARTICLE 2 — DEFINITIONS.....	15
CHAPTER 2 ACTION.....	16
ARTICLE 3 — ACTION.....	16
ARTICLE 4 — DURATION AND STARTING DATE.....	16
CHAPTER 3 GRANT.....	16
ARTICLE 5 — GRANT.....	16
5.1 Form of grant.....	16
5.2 Maximum grant amount.....	17
5.3 Funding rate.....	17
5.4 Estimated budget, budget categories and forms of funding.....	17
5.5 Budget flexibility.....	17
ARTICLE 6 — ELIGIBLE AND INELIGIBLE COSTS AND CONTRIBUTIONS.....	18
6.1 General eligibility conditions.....	18
6.2 Specific eligibility conditions for each budget category.....	19
6.3 Ineligible costs and contributions.....	23
6.4 Consequences of non-compliance.....	24
CHAPTER 4 GRANT IMPLEMENTATION.....	25
SECTION 1 CONSORTIUM: BENEFICIARIES, AFFILIATED ENTITIES AND OTHER PARTICIPANTS.....	25
ARTICLE 7 — BENEFICIARIES.....	25
ARTICLE 8 — AFFILIATED ENTITIES.....	27
ARTICLE 9 — OTHER PARTICIPANTS INVOLVED IN THE ACTION.....	27
9.1 Associated partners.....	27
9.2 Third parties giving in-kind contributions to the action.....	27
9.3 Subcontractors.....	27

9.4 Recipients of financial support to third parties.....	28
ARTICLE 10 — PARTICIPANTS WITH SPECIAL STATUS.....	28
10.1 Non-EU participants.....	28
10.2 Participants which are international organisations.....	28
10.3 Pillar-assessed participants.....	29
SECTION 2 RULES FOR CARRYING OUT THE ACTION.....	31
ARTICLE 11 — PROPER IMPLEMENTATION OF THE ACTION.....	31
11.1 Obligation to properly implement the action.....	31
11.2 Consequences of non-compliance.....	31
ARTICLE 12 — CONFLICT OF INTERESTS.....	31
12.1 Conflict of interests.....	32
12.2 Consequences of non-compliance.....	32
ARTICLE 13 — CONFIDENTIALITY AND SECURITY.....	32
13.1 Sensitive information.....	32
13.2 Classified information.....	33
13.3 Consequences of non-compliance.....	33
ARTICLE 14 — ETHICS AND VALUES.....	33
14.1 Ethics.....	33
14.2 Values.....	33
14.3 Consequences of non-compliance.....	33
ARTICLE 15 — DATA PROTECTION.....	34
15.1 Data processing by the granting authority.....	34
15.2 Data processing by the beneficiaries.....	34
15.3 Consequences of non-compliance.....	35
ARTICLE 16 — INTELLECTUAL PROPERTY RIGHTS (IPR) — BACKGROUND AND RESULTS — ACCESS RIGHTS AND RIGHTS OF USE.....	35
16.1 Background and access rights to background.....	35
16.2 Ownership of results.....	35
16.3 Rights of use of the granting authority on materials, documents and information received for policy, information, communication, dissemination and publicity purposes.....	35
16.4 Specific rules on IPR, results and background.....	36
16.5 Consequences of non-compliance.....	36
ARTICLE 17 — COMMUNICATION, DISSEMINATION AND VISIBILITY.....	36
17.1 Communication — Dissemination — Promoting the action.....	36
17.2 Visibility — European flag and funding statement.....	37
17.3 Quality of information — Disclaimer.....	37

17.4	Specific communication, dissemination and visibility rules.....	38
17.5	Consequences of non-compliance.....	38
ARTICLE 18 — SPECIFIC RULES FOR CARRYING OUT THE ACTION.....		38
18.1	Specific rules for carrying out the action.....	38
18.2	Consequences of non-compliance.....	38
SECTION 3 GRANT ADMINISTRATION.....		38
ARTICLE 19 — GENERAL INFORMATION OBLIGATIONS.....		38
19.1	Information requests.....	38
19.2	Participant Register data updates.....	38
19.3	Information about events and circumstances which impact the action.....	38
19.4	Consequences of non-compliance.....	39
ARTICLE 20 — RECORD-KEEPING.....		39
20.1	Keeping records and supporting documents.....	39
20.2	Consequences of non-compliance.....	40
ARTICLE 21 — REPORTING.....		40
21.1	Continuous reporting.....	40
21.2	Periodic reporting: Technical reports and financial statements.....	41
21.3	Currency for financial statements and conversion into euros.....	42
21.4	Reporting language.....	42
21.5	Consequences of non-compliance.....	42
ARTICLE 22 — PAYMENTS AND RECOVERIES — CALCULATION OF AMOUNTS DUE.....		42
22.1	Payments and payment arrangements.....	42
22.2	Recoveries.....	43
22.3	Amounts due.....	43
22.4	Enforced recovery.....	49
22.5	Consequences of non-compliance.....	49
ARTICLE 23 — GUARANTEES.....		50
ARTICLE 24 — CERTIFICATES.....		50
24.1	Operational verification report (OVR).....	50
24.2	Certificate on the financial statements (CFS).....	50
24.3	Certificate on the compliance of usual cost accounting practices (CoMUC).....	51
24.4	Systems and process audit (SPA).....	51
24.5	Consequences of non-compliance.....	52
ARTICLE 25 — CHECKS, REVIEWS, AUDITS AND INVESTIGATIONS — EXTENSION OF FINDINGS.....		52

25.1	Granting authority checks, reviews and audits.....	52
25.2	European Commission checks, reviews and audits in grants of other granting authorities.....	53
25.3	Access to records for assessing simplified forms of funding.....	53
25.4	OLAF, EPPO and ECA audits and investigations.....	53
25.5	Consequences of checks, reviews, audits and investigations — Extension of results of reviews, audits or investigations.....	54
25.6	Consequences of non-compliance.....	55
ARTICLE 26 — IMPACT EVALUATIONS.....		55
26.1	Impact evaluation.....	55
26.2	Consequences of non-compliance.....	56
CHAPTER 5 CONSEQUENCES OF NON-COMPLIANCE.....		56
SECTION 1 REJECTIONS AND GRANT REDUCTION.....		56
ARTICLE 27 — REJECTION OF COSTS AND CONTRIBUTIONS.....		56
27.1	Conditions.....	56
27.2	Procedure.....	56
27.3	Effects.....	56
ARTICLE 28 — GRANT REDUCTION.....		56
28.1	Conditions.....	56
28.2	Procedure.....	57
28.3	Effects.....	57
SECTION 2 SUSPENSION AND TERMINATION.....		57
ARTICLE 29 — PAYMENT DEADLINE SUSPENSION.....		57
29.1	Conditions.....	57
29.2	Procedure.....	58
ARTICLE 30 — PAYMENT SUSPENSION.....		58
30.1	Conditions.....	58
30.2	Procedure.....	58
ARTICLE 31 — GRANT AGREEMENT SUSPENSION.....		59
31.1	Consortium-requested GA suspension.....	59
31.2	EU-initiated GA suspension.....	60
ARTICLE 32 — GRANT AGREEMENT OR BENEFICIARY TERMINATION.....		61
32.1	Consortium-requested GA termination.....	61
32.2	Consortium-requested beneficiary termination.....	62
32.3	EU-initiated GA or beneficiary termination.....	63
SECTION 3 OTHER CONSEQUENCES: DAMAGES AND ADMINISTRATIVE SANCTIONS.....		66

ARTICLE 33 — DAMAGES.....	66
33.1 Liability of the granting authority.....	66
33.2 Liability of the beneficiaries.....	67
ARTICLE 34 — ADMINISTRATIVE SANCTIONS AND OTHER MEASURES.....	67
SECTION 4 FORCE MAJEURE.....	67
ARTICLE 35 — FORCE MAJEURE.....	67
CHAPTER 6 FINAL PROVISIONS.....	67
ARTICLE 36 — COMMUNICATION BETWEEN THE PARTIES.....	67
36.1 Forms and means of communication — Electronic management.....	67
36.2 Date of communication.....	68
36.3 Addresses for communication.....	68
ARTICLE 37 — INTERPRETATION OF THE AGREEMENT.....	68
ARTICLE 38 — CALCULATION OF PERIODS AND DEADLINES.....	69
ARTICLE 39 — AMENDMENTS.....	69
39.1 Conditions.....	69
39.2 Procedure.....	69
ARTICLE 40 — ACCESSION AND ADDITION OF NEW BENEFICIARIES.....	70
40.1 Accession of the beneficiaries mentioned in the Preamble.....	70
40.2 Addition of new beneficiaries.....	70
ARTICLE 41 — TRANSFER OF THE AGREEMENT.....	70
ARTICLE 42 — ASSIGNMENTS OF CLAIMS FOR PAYMENT AGAINST THE GRANTING AUTHORITY.....	70
ARTICLE 43 — APPLICABLE LAW AND SETTLEMENT OF DISPUTES.....	71
43.1 Applicable law.....	71
43.2 Dispute settlement.....	71
ARTICLE 44 — ENTRY INTO FORCE.....	71

DATA SHEET

1. General data

Project summary:

Project summary
<p>PLUS Change brings together 23 institutions from across Europe including 5 Universities, 5 research institutes, 3 stakeholder network organisations, 1 performing arts collective, and 9 practice partners representing regional planning and land management authorities and organisations. The objectives directly address the call with an aim to create land use strategies and decision-making processes that meet climate, biodiversity and human well-being objectives of sustainability, and to develop interventions that leverage political, economic, societal, material and cultural contexts to achieve these strategies, by involving actors at multiple decision-making levels (individual, land management, planning, policy). Activities include land use modelling (including historical and future trajectories of change), systems mapping, causal loop diagrams, performing arts approaches, randomized controlled trials of behaviour change, sociological surveys, and policy and governance reviews. All activities brought together in an integrated research design that draws on their different contributions to a holistic approach to understand multi-scale land use systems across a diversity of socioeconomic and biogeographical contexts, and create usable tools for land managers, users, planners and policy makers. The project is anchored in, and integrated through, 11 location-based cases for co-creation, and in a high-level multiplier cluster to identify challenges and impacts at EU and Global levels. Outputs include recommendations of co-designed and tested interventions to unlock behavioural, structural and procedural changes to achieve identified land use strategies; and a toolkit to support land use planners in enacting these interventions, including knowledge training, a planning dashboard and simulation tools, and methods for engaging citizens and land managers in behaviour change.</p>

Keywords:

- Climatic research
- Transformations; Systems Change; Behaviour Change; Governance; Land Use Modelling; Interventions; Planning and Policy

Project number: 101081464

Project name: Planning Land Use Strategies: Meeting biodiversity, climate and social objectives in a Changing world.

Project acronym: PLUS Change

Call: HORIZON-CL5-2022-D1-01-two-stage

Topic: HORIZON-CL5-2022-D1-01-03-two-stage

Type of action: HORIZON Research and 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 June 2023

Project end date: 31 May 2027

Project duration: 48 months

Consortium agreement: Yes

2. Participants

List of participants:

N°	Role	Short name	Legal name	Ctry	PIC	Total eligible costs (BEN and AE)	Max grant amount
1	COO	CZECHGLOBE	USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI	CZ	921149249	598 375.00	598 375.00
2	BEN	ISOCARP	STICHTING ISOCARP INSTITUTE CENTER OF URBAN EXCELLENCE	NL	905424870	280 000.00	280 000.00

N°	Role	Short name	Legal name	Ctry	PIC	Total eligible costs (BEN and AE)	Max grant amount
3	BEN	KLI	KONRAD-LORENZ-INSTITUT FUR EVOLUTIONS-UND KOGNITIONSFORSCHUNG	AT	958352435	372 500.00	372 500.00
4	BEN	Biobased	INTERNATIONAL CREATIVE PROJECTS B V	NL	888044119	627 000.00	627 000.00
5	BEN	STICHTING VU	STICHTING VU	NL	954530344	881 650.00	881 650.00
6	BEN	P4All	PLAN4ALL ZS	CZ	930230292	300 000.00	300 000.00
7	BEN	PURPLE	PERI-URBAN REGIONS PLATFORM EUROPE	BE	921189601	480 000.00	480 000.00
8	BEN	BSC	NODIBINAJUMS BALTIC STUDIES CENTRE	LV	988719934	401 250.00	401 250.00
9	BEN	UL	UNIVERZA V LJUBLJANI	SI	999923240	151 750.00	151 750.00
10	BEN	KNOWLEDGE SRL	KNOWLEDGE SRL	IT	952735456	304 625.00	304 625.00
11	BEN	CRS	STOWARZYSZENIE CENTRUM ROZWIAZAN SYSTEMOWYCH	PL	998222539	324 125.00	324 125.00
12	BEN	SU	STOCKHOLMS UNIVERSITET	SE	999885022	233 551.25	233 551.25
13	BEN	UKF	UNIVERZITA KONSTANTINA FILOZOFA VNITRE	SK	997731913	185 000.00	185 000.00
14	BEN	LEUPHANA	LEUPHANA UNIVERSITAT LUNEBURG	DE	996544827	300 500.00	300 500.00
15	BEN	Prov Lucca	PROVINCIA DI LUCCA	IT	957340434	170 375.00	170 375.00
16	BEN	RRA ZELENÍ KRAS	RRA ZELENÍ KRAS DOO	SI	943145454	126 312.50	126 312.50
17	BEN	EMR	EUREGIO MAAS RHEIN	BE	898701315	258 792.50	258 792.50
18	BEN	Mazovia Reg.	WOJEWODZTWO MAZOWIECKIE	PL	969928415	104 750.00	104 750.00
19	BEN	VLM	VLAAMSE LANDMAATSCHAPPIJ	BE	954725702	270 491.25	270 491.25
20	BEN	JINAG	JIHOMORAVSKA AGENTURA PRO VEREJNE INOVACE JINAG SPOLEK	CZ	911076381	129 250.00	129 250.00
21	BEN	REGION	ILE DE FRANCE	FR	999706736	178 625.00	178 625.00
22	AP	Verein Parc Ela	Verein Parc Ela	CH	888216488	0.00	0.00
23	AP	Surrey CC	SURREY COUNTY COUNCIL	UK	883918321	0.00	0.00
Total						6 678 922.50	6 678 922.50

Coordinator:

- USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE)

3. Grant**Maximum grant amount, total estimated eligible costs and contributions and funding rate:**

Total eligible costs (BEN and AE)	Funding rate (%)	Maximum grant amount (Annex 2)	Maximum grant amount (award decision)
6 678 922.50	100	6 678 922.50	6 678 922.50

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

- 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):

Reporting					Payments	
Reporting periods			Type	Deadline	Type	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	18	Periodic report	60 days after end of reporting period	Interim payment	90 days from receiving periodic report
2	19	36	Periodic report	60 days after end of reporting period	Interim payment	90 days from receiving periodic report
3	37	48	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)	3 561 869.37

Reporting and payment modalities (art 21, 22):

Mutual Insurance Mechanism (MIM): Yes

MIM contribution: 5% of the maximum grant amount (333 946.13), 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 conditions (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:

CZ440710000000061722621

Conversion into euros: Double conversion

Reporting language: Language of the Agreement

4.3 Certificates (art 24):

Certificates on the financial statements (CFS):

Conditions:

Schedule: only at final payment, if threshold is reached

Standard threshold (beneficiary-level):

- financial statement: requested EU contribution to costs \geq 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



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)



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".

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 **101081464 — PLUS Change** ('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".

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 action's eligible costs.

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)⁹ 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
- other changes require an amendment or simplified approval, if specifically provided for in Article 6.2
- flexibility caps: not applicable.

⁹ See Article 125 EU Financial Regulation 2018/1046.

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)
- (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

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-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 enterprises¹⁰ 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 of the costs actually incurred, fulfil the general eligibility conditions and are awarded using the

¹⁰ 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.

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.

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:
 - (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 grant¹¹ 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.

¹¹ 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”.

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.

(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’¹² (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)

¹² 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.”

- 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

The following entities which cooperate with a beneficiary will participate in the action as ‘associated partners’:

- **Verein Parc Ela (Verein Parc Ela)**, PIC 888216488
- **SURREY COUNTY COUNCIL (Surrey CC)**, PIC 883918321

Associated partners must implement the action tasks attributed to them in Annex 1 in accordance with Article 11. They may not charge costs or contributions to the action and the costs for their tasks are not eligible.

The tasks must be set out in Annex 1.

The beneficiaries must ensure that their contractual obligations under Articles 11 (proper implementation), 12 (conflict of interests), 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 associated partners.

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 associated partners.

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 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/EC¹³
- 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

¹³ 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).

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.

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)
- 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
- 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).

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 2015/444¹⁴ and its implementing rules).

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

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

¹⁴ 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).

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 2018/1725¹⁵.

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 2016/679¹⁶).

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 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 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).

¹⁶ 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).

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:

- (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
- (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

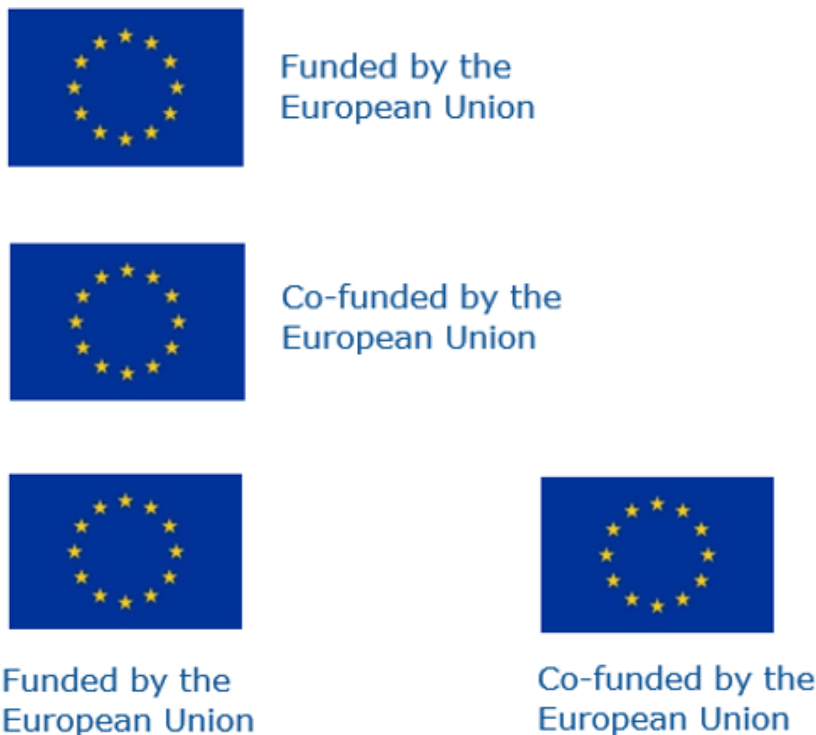
17.1 Communication — Dissemination — Promoting the action

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):



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

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
- (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.

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.

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.

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).

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:

$$\begin{aligned} & \{\text{total accepted EU contribution for the beneficiary} \\ & \text{minus} \\ & \{\text{prefinancing and interim payments received (if any)}\} \}. \end{aligned}$$

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

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).

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:

$$\left. \begin{array}{l} \{\text{final grant amount} \\ \text{minus} \\ \{\text{prefinancing and interim payments made (if any)}\} \end{array} \right\}$$

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
- 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:

$$\left\{ \left\{ \begin{array}{l} \text{total accepted EU contribution for the beneficiary} \\ \text{divided by} \\ \text{total accepted EU contribution for the action} \end{array} \right\} \right. \\ \left. \begin{array}{l} \text{multiplied by} \\ \text{final grant amount for the action} \end{array} \right\}, \\ \text{minus} \\ \left\{ \text{prefinancing and interim payments received by the beneficiary (if any)} \right\}$$

and

(b) dividing the debt:

$$\left\{ \begin{array}{l} \text{amount calculated according to point (a) for the beneficiary concerned} \\ \text{divided by} \\ \text{the sum of the amounts calculated according to point (a) for all the beneficiaries identified according to} \\ \text{point (a)} \end{array} \right\} \\ \text{multiplied by} \\ \left\{ \begin{array}{l} \text{the amount to be recovered} \end{array} \right\}.$$

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.

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:

$$\left\{ \begin{array}{l} \text{\{total accepted EU contribution for the beneficiary} \\ \text{divided by} \\ \text{total accepted EU contribution for the action\}} \\ \text{multiplied by} \\ \text{final grant amount for the action\}}. \end{array} \right.$$

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 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 2015/2366¹⁷ 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

¹⁷ 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).

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).

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 28) 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/EC¹⁸ (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).

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).

¹⁸ 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).

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.

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) 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 883/2013¹⁹ and No 2185/96²⁰
- 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 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

¹⁹ 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).

²⁰ Council Regulation (Euratom, EC) No 2185/96 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).



- (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:
 - (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

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 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.

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.

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, 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

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)
- 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).

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:
 - (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).

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).

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, for instance, Articles 135 to 145 EU Financial Regulation 2018/1046 and Articles 4 and 7 of Regulation 2988/95²¹).

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

²¹ 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).

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).

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 1182/71²², 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

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.

²² 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).



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 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

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).

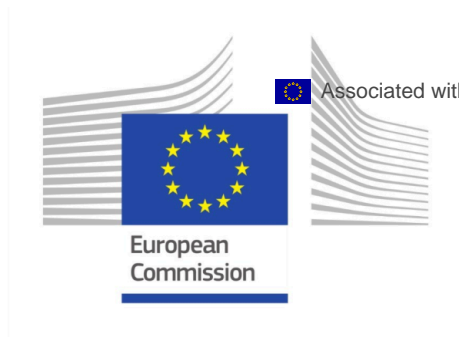
ARTICLE 44 — ENTRY INTO FORCE

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

DESCRIPTION OF THE ACTION (PART A)

COVER PAGE

Part A of the Description of the Action (DoA) must be completed directly on the Portal Grant Preparation screens.

PROJECT	
<i>Grant Preparation (General Information screen) — Enter the info.</i>	
Project number:	101081464
Project name:	Planning Land Use Strategies: Meeting biodiversity, climate and social objectives in a Changing world.
Project acronym:	PLUS Change
Call:	HORIZON-CL5-2022-D1-01-two-stage
Topic:	HORIZON-CL5-2022-D1-01-03-two-stage
Type of action:	HORIZON-RIA
Service:	CINEA/C/01
Project starting date:	fixed date: 1 June 2023
Project duration:	48 months

TABLE OF CONTENTS

Project summary	3
List of participants	3
List of work packages	5
Staff effort	19
List of deliverables	21
List of milestones (outputs/outcomes)	32
List of critical risks	33
Project reviews	36

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.

PLUS Change brings together 23 institutions from across Europe including 5 Universities, 5 research institutes, 3 stakeholder network organisations, 1 performing arts collective, and 9 practice partners representing regional planning and land management authorities and organisations. The objectives directly address the call with an aim to create land use strategies and decision-making processes that meet climate, biodiversity and human well-being objectives of sustainability, and to develop interventions that leverage political, economic, societal, material and cultural contexts to achieve these strategies, by involving actors at multiple decision-making levels (individual, land management, planning, policy). Activities include land use modelling (including historical and future trajectories of change), systems mapping, causal loop diagrams, performing arts approaches, randomized controlled trials of behaviour change, sociological surveys, and policy and governance reviews. All activities brought together in an integrated research design that draws on their different contributions to a holistic approach to understand multi-scale land use systems across a diversity of socioeconomic and biogeographical contexts, and create usable tools for land managers, users, planners and policy makers. The project is anchored in, and integrated through, 11 location-based cases for co-creation, and in a high-level multiplier cluster to identify challenges and impacts at EU and Global levels. Outputs include recommendations of co-designed and tested interventions to unlock behavioural, structural and procedural changes to achieve identified land use strategies; and a toolkit to support land use planners in enacting these interventions, including knowledge training, a planning dashboard and simulation tools, and methods for engaging citizens and land managers in behaviour change.

LIST OF PARTICIPANTS

PARTICIPANTS

Grant Preparation (Beneficiaries screen) — Enter the info.

Number	Role	Short name	Legal name	Country	PIC
1	COO	CZECHGLOBE	USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI	CZ	921149249
2	BEN	ISOCARP	STICHTING ISOCARP INSTITUTE CENTER OF URBAN EXCELLENCE	NL	905424870
3	BEN	KLI	KONRAD-LORENZ-INSTITUT FUR EVOLUTIONS-UND KOGNITIONSFORSCHUNG	AT	958352435
4	BEN	Biobased	INTERNATIONAL CREATIVE PROJECTS B V	NL	888044119
5	BEN	STICHTING VU	STICHTING VU	NL	954530344
6	BEN	P4All	PLAN4ALL ZS	CZ	930230292
7	BEN	PURPLE	PERI-URBAN REGIONS PLATFORM EUROPE	BE	921189601
8	BEN	BSC	NODIBINAJUMS BALTIC STUDIES CENTRE	LV	988719934
9	BEN	UL	UNIVERZA V LJUBLJANI	SI	999923240
10	BEN	KNOWLEDGE SRL	KNOWLEDGE SRL	IT	952735456

PARTICIPANTS					
<i>Grant Preparation (Beneficiaries screen) — Enter the info.</i>					
Number	Role	Short name	Legal name	Country	PIC
11	BEN	CRS	STOWARZYSZENIE CENTRUM ROZWIĄZAN SYSTEMOWYCH	PL	998222539
12	BEN	SU	STOCKHOLMS UNIVERSITET	SE	999885022
13	BEN	UKF	UNIVERZITA KONSTANTINA FILOZOFA VNITRE	SK	997731913
14	BEN	LEUPHANA	LEUPHANA UNIVERSITÄT LUNEBURG	DE	996544827
15	BEN	Prov Lucca	PROVINCIA DI LUCCA	IT	957340434
16	BEN	RRA ZELENİ KRAS	RRA ZELENİ KRAS DOO	SI	943145454
17	BEN	EMR	EUREGIO MAAS RHEIN	BE	898701315
18	BEN	Mazovia Reg.	WOJEWODZTWO MAZOWIECKIE	PL	969928415
19	BEN	VLM	VLAAMSE LANDMAATSCHAPPIJ	BE	954725702
20	BEN	JINAG	JIHOMORAVSKA AGENTURA PRO VEREJNE INOVACE JINAG SPOLEK	CZ	911076381
21	BEN	REGION	ILE DE FRANCE	FR	999706736
22	AP	Verein Parc Ela	Verein Parc Ela	CH	888216488
23	AP	Surrey CC	SURREY COUNTY COUNCIL	UK	883918321

LIST OF WORK PACKAGES

Work packages						
<i>Grant Preparation (Work Packages screen) — Enter the info.</i>						
Work Package No	Work Package name	Lead Beneficiary	Effort (Person-Months)	Start Month	End Month	Deliverables
WP1	Transdisciplinary Integration	3 - KLI	125.50	1	48	D1.1 – Challenges and opportunities for just and equitable land use change in Europe D1.2 – Planning toolkit
WP2	Historical Land Use Change	12 - SU	130.50	1	21	D2.1 – Pan-European synthesis of land use changes over time D2.2 – Narratives of determinants of land use change and their diversity across Europe
WP3	Future Sustainable Land Use Strategies	5 - STICHTING VU	156.50	1	33	D3.1 – 3D representations of Possible Landscapes in the Practice Cases D3.2 – Report on the Policy Drivers of Land Use Change D3.3 – Handbook on developing integrated scenarios to explore sustainable land use strategies D3.4 – Descriptive land use scenarios to 2050 for European regions D3.5 – Land systems maps of spatially explicit land use scenarios D3.6 – Simulated spatial land use strategies for 2050
WP4	Transformation Pathways for Land Use Strategies	11 - CRS	139.00	8	32	D4.1 – Intervention points for creating land use policy and decision-making change D4.2 – Policy simulation tools D4.3 – Report on the impacts of behaviour changes on biodiversity, climate and well-being indicators

Work packages						
<i>Grant Preparation (Work Packages screen) — Enter the info.</i>						
Work Package No	Work Package name	Lead Beneficiary	Effort (Person-Months)	Start Month	End Month	Deliverables
						D4.4 – Pathways for meeting sustainable land use strategies in 2050
WP5	Experimenting and piloting behaviour and decision-making change	8 - BSC	108.50	30	47	D5.1 – Report on decision-making and behaviour change in land use managers for sustainable land use D5.2 – Practical handbook on intervening in land use systems for sustainable futures
WP6	Dissemination, communication and exploitation	2 - ISOCARP	121.50	1	48	D6.1 – CDE Plan, accompanied by launch of online project hub D6.2 – Best of PLUS Change exhibition D6.3 – Roadmap of next steps for sustainable land use strategies
WP7	Management and coordination	1 - CZECHGLOBE	93.50	1	48	D7.1 – Project living handbook D7.2 – Data management plan D7.3 – Final Data Management Plan

Work package WP1 – Transdisciplinary Integration

Work Package Number	WP1	Lead Beneficiary	3. KLI
Work Package Name	Transdisciplinary Integration		
Start Month	1	End Month	48

Objectives

The main objective of WP1 is to provide a space for integrative work within the project team, into the practice cases and across the different WPs, to co-produce transdisciplinary project outputs.

Specifically, WP1 will:

- Co-create a reflexive, mutual learning process to foster the connections across the different components of the project, which relies on context sensitivity and shared understanding (T1.1)
- Embed the research enquiry into the 11 practice cases and the multiplier cluster to generate integrated strategies and theories (T1.2)
- Integrate consideration of ethics, equity and justice throughout project activities and outputs (T1.3)
- Bring together project outputs to co-create a toolbox for land use planners (T1.4)

Description

T1.1 Stimulating reflexive learning within the project and across the practice cases. (Lead CZECHGLOBE;KLI Contributing all partners) (M1-M48).

During the inception of the project, CZECHGLOBE will bring together the whole team to develop a strategic transdisciplinary roadmap for the project (crafted in collaboration with the creative and storytelling-based engagement through Possible Landscapes in T6.2 ensuring that T1.1 and T6.2 work in synergy). The roadmap includes: a common terminology, a shared and detailed vision of the project, a set of infographics on key leverages for a successful project, and a detailed planning of linkages between WPs over the duration of the project. T1.1 facilitates and fosters mutual learning deliberations and actions between partners throughout the project lifespan. This will be achieved through half-day workshops, led by CZECHGLOBE and KLI at the general assemblies (T7.1), focussing on developing trust among the project team (years 1 and 2); the formative and developmental evaluation of the project (years 3 and 4); and ensuring the delivery of all objectives (year 5).

T1.2 Integrating INTO and FROM the practice cases (Lead PURPLE. Contributing: CZECHGLOBE, KLI, BSC, all other practice case leads: STICHTUNG VU, UKF, Verein Parc Ela, Prov Lucca, RRA ZELENÍ KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M1-M48).

The practice cases are involved in all stages of research, development and implementation in this project. We use Systems Thinking to highlight how each practice case is connected to the overarching scope of PLUS Change, how it contributes to the project as well as a means to identify and develop potential synergies between practice cases- deepening and enriching the exchange and sharing of knowledge across and between them. Each General Assembly [GA] (T7.1) will include a half-day discussion, led by PURPLE between all project partners to achieve these ends. GAs will take place in practice case locations to facilitate on-site, experiential learning between all partners. PURPLE will offer an ongoing “check-in” service to all practice partners as well as convening a mix of face-to-face meetings and exchange visits across the practice cases, and virtual check-ins across all practice partners every 3 months throughout the project in part to shape GA discussions and site visits/exchanges as above. These peer-to-peer gatherings will also support and share experiences between practice cases in: Evidence gathering; Uniform data reporting; Identifying common approaches to researcher-driven exercises in WPs 2, 3, 4, and 5; Identifying, engaging, motivating relevant stakeholders in workshops and other activities; Supporting bilateral/trilateral deeper dives into topics of shared focus; Discussions around areas of common/shared policy interest; The preparation of practice case interventions in PLUS Change and third-party events at local, national and EU levels

T1.3 Ethics, equity and justice in project activities and results (Lead: KLI; Contributing: CZECHGLOBE, all partners) (M1-M48).

This is a reflexive task that supports action in relation to issues of equity and justice related both to transdisciplinary collaboration (How can we ensure just and inclusive processes?), and to transformation and land-use change explored in PLUS Change (Who benefits from it and who is left out?). Making these issues explicit will inform training needs (T1.1); the way in which we design meetings within the project (T7.1); the way we conduct research and manage data (T7.4) and how we disseminate results (WP6). KLI will deliver a series of three seminars (online) with social and environmental justice experts from academia and civil society, in M3, 9 and 15, that enable project members to: (1)

further develop awareness of the role of equity and justice in sustainability transformations (e.g., inclusion and exclusion; (dis)empowerment); (2) reflect on own challenges and opportunities as well as (3) develop plans about how to deal with equity and justice in their work within Plus Change. Drawing on these seminar discussions, KLI will deliver an ethics handbook (D1.1, M15) which is then used to inform work in the remainder of the project. In M33, 36 and 39, to coincide with WP5 activities, the project will host seminars (online), supported by the handbook on the topic of equity and justice in land use strategies, to pull together project work and to ensure ethical issues encountered in the piloting and trialling work are considered and addressed. This task is formative, such that findings will feed back into Tasks 1.3 and 1.2 to shape the equity and justice outcomes of PLUS Change, such as in relation to empowerment and capacity building of voiceless actors (e.g., from ethnic, age and gender minorities), or considering the ethical implications of behavioural interventions.

T1.4 Compiling a planning toolkit of interventions, trainings and techniques to achieve sustainable land use (Lead: P4All; Contributing: CZECHGLOBE, ISOCARP, all partners) (M1-48).

This task will populate and maintain a digital innovation hub provided by P4All, and intended as a planning toolkit for land use decision- and policy- makers (D1.2). The hub is based on the open Wagtail content management system and open components including metadata system, map portal, tools to create and publish maps and other visuals. Project outputs, such as narrative storylines of land use change through time (WP2), land use strategies and techniques for exploring pathways of change (WP3), policy simulations (WP4), and interventions and trainings for their ethical use (WP5) are brought together, shaped into useable and visually attractive (with Possible Landscapes, T6.2) tools for informing land use planning and management. The toolkit will therefore include integrated assessment models, pulling together the various systems models for steering land use change, and the effective and efficient monitoring of impacts to public goods benefits. It is supplemented by understandings of drivers of change and interventions to incentivise and steer behaviour and decision-making change, including their upscaling. It will be run on the P4A cloud infrastructure and will integrate results from all WPs. The hub will serve as a communication and dissemination platform for PLUS Change results, and will serve as project website with news feeds and other materials coming mainly from T6.1.

Work package WP2 – Historical Land Use Change

Work Package Number	WP2	Lead Beneficiary	12. SU
Work Package Name	Historical Land Use Change		
Start Month	1	End Month	21

Objectives

The overarching objective of WP2 is to produce a historical and geographical analysis to identify how major societal and economic changes has resulted in a diverse set of land use change over Europe.

Specifically, WP2 will:

- Develop data and a modelling tool to assess historical LUC effects on environment and well-being (T2.1).
- Identify how different forms of governance, land tenure and management have caused different trajectories of land use change in a diversity of land use patterns and biogeographic conditions. (T2.2)
- Understand how changes in motivations and values relate to land use change patterns. (T2.3)
- Synthesize 2.1-2.3 by a time-geographical approach to generate a new historical overview of land use change patterns over Europe over short (post-1990) and long (100+ years) timescales (T2.4)

Description

T2.1. Characterizing historical changes to land use across Europe and their consequences (Lead: STICHTING VU; Contributing: P4All, UKF) (M6-18)

This task provides a pan European overview of the land system dynamics since 1990 and its consequences for biodiversity, ecosystem services, and well-being (D2.1). This requires insight in land cover, land use intensity, and its drivers of change. While the task focuses on the pan European extent, interaction with case studies (in synergy with Task 1.2) will help deepening understanding of land system dynamics, through expert involvement or local data. Firstly, T2.1 will characterize recent land system dynamics. As a basis the Open Land Use map owned by P4All will be used. This database will be combined with additional harmonized national-scale spatially explicit land use data for the timeframe 1990-2020, as well as EU-level statistics time series such as FADN. To account for changes in land use intensity, we will combine and downscale sub-national statistics on crop and livestock production, forestry activities, but also demographic

data and data on the structure of the agricultural sector in terms of employment, value chains, and national- and EU-level policies, including agri-environmental and set-aside regulations, nature conservation. STICHTING VU will perform empirical analyses between observed changes in land use and intensity and spatially explicit data on e.g. climate, terrain and soil characteristics, accessibility and other aspects of land suitability, which will allow us to increase the thematic and spatial resolution of available datasets, making it possible to study the environmental (e.g., impacts on water and land quality due to intensification) and societal (increased recreation pressures) impact of human activities in these areas. Moreover, these empirical relationships will shape the spatial distribution of future land use as allocated in WP3.

Secondly T2.1 defines and operationalizes spatially explicit indicators for the impacts of land system change on biodiversity, ecosystem services and well-being. Building on the IPBES conceptual framework and project partner's past work in this field and a broader review, STICHTING VU and UKF will collect indicators that enable quantifying components of Nature, Nature's benefits to people, and Good quality of life, are impacted by land system change, and fit the spatial, temporal, and thematical resolution of the land systems characterization. We will include, for example, indicators for climate mitigation (e.g. net sequestration) and adaptation, biodiversity, diversity of agricultural production, food security, feed, raw materials and air-, water- and soil-quality, opportunities for human-nature interaction, or protection of culturally important natural assets. Using this indicator set and the spatial data on recent land systems dynamics, we will model how the land system change has impacted nature and human well-being.

T2.2 Governance arrangements, tenure and policy change over time (Lead: LEUPHANA. Contributing: CZECHGLOBE, UL, SU, all other practice case leads: PURPLE, BSC, UKF, Verein Parc Ela, Prov Lucca, RRA ZELEN KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M1-18)

To identify the (main) governance-related factors that have shaped historical land use change in Europe, LEUPHANA will conduct a literature-based meta-analysis of case studies (case survey) that describes linkages between governance arrangements, land tenure, past main policies and land-use change in Europe on different spatial levels in the past 50 years. After rigorous coding of qualitative case accounts, the case survey quantitative analytical methods (regression, QCA) to investigate how governance – in the sense of societal “steering” through policies and policy-making, planning and administrative decision-making – has historically impacted land use change. This work aims to identify which governance interventions have worked under what contexts to achieve a more sustainable land-use. Building on these results, T2.2 will test these hypotheses in the 11 practice cases. We will develop a rich understanding of the historical development of land use, contentious land use issues and conflicts, and the role of policy, tenure and governance arrangements in shaping land use change that benefit climate and biodiversity objectives, linking our findings to those of T2.1 and T2.3. To this end, LEUPHANA, UKF and CZECHGLOBE will develop a theoretically informed research protocol to be used by the practice case leads. We will do so by drawing on documents available in the case regions and conducting ~3-5 interviews with key experts per region from government, public administration and other knowledgeable actors' groups, e.g. local NGOs. T2.2 directly feeds into T3.2, T4.1, T4.2, T4.4 and T5.3.

T2.3. Understand how changes in motivations and values relate to land use change patterns (Lead: STICHTING VU, Contributing: SU, UL, all other practice case leads: PURPLE, BSC, UKF, Parc Verein Ela, Prov Lucca, RRA ZELEN KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M3-21)

Task 2.3 will assess how values for land use have changed over time with a focus on the period 1990-2022. The values assessed will focused on the interplay between land use and nature management, and the principles and purposes of different management strategies, building on the recently published IPBES Values assessment. The IPBES Values Assessment identifies broad values (principles and beliefs, social norms, life goals) and specific values (related to specific situations in time and space, categorized into instrumental, relational and intrinsic values), expressed both quantitatively and qualitatively in various units. Working with practice partners, STICHTING VU will facilitate workshops with land use actors (identified in T1.2) in each of the practice cases in M18, following a common workshop protocol template that is adjusted to the practice case context. STICHTING VU and SU will use causal loop diagrams and participatory methods to understand how values affected – and were affected by – historical land use change, and how they compare to/interact with other factors such as market factors (costs, prices, credit, labour); institutions, policies and tenure (T2.2); and productive assets, as well as actor characteristics (gender, age). In addition, for a subset of practice cases (at least cases 1, 2, 4 and 7 – see table 2) selected on the basis of spatial distribution and general narratives emerging from T2.1 and T2.2, UKF, UL, STICHTING VU and BSC will undertake media analysis (e.g. print or social media) to see what type of values media reports on land use change have reflected, whose values dominated, and whether/how those values have changed over time.

T2.4 Time-geographical approach to generate a new historical overview of land use change patterns over Europe (Lead: SU Contributing: LEUPHANA, STICHTING VU, UL, all other practice cases leads: PURPLE, BSC, UKF, Parc Verein Ela, Prov Lucca, RRA ZELEN KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M9-21)

We will do a cross-scale analysis and synthesis of knowledge about land use change based on the outcomes from the T2.1-2.3, using a time-geography framework and looking at the following interconnected dimensions: (1) time as an internal factor to spatial change; and (2) time as a multi-scale factor: size and speed of change vary across different

time intervals/time scales and different geographical spaces. The synthesis will identify differences between identified change trajectories and how they are correlated with the different elements influencing change dynamics (environment, governance, values). This will make possible to understand how change dynamics shape different pasts, affect the present and influence the future. SU, working with LEUPHANA and STICHTING VU will identify preliminary themes and findings to be cross-validated with local experts throughout the practice cases (T1.2, workshop 2) and European scale findings to be validated with the multiplier cluster, then promising themes will be developed further. Results are presented in Deliverable 2.2 and will inform the design of interventions in T4.4.

Work package WP3 – Future Sustainable Land Use Strategies

Work Package Number	WP3	Lead Beneficiary	5. STICHTING VU
Work Package Name	Future Sustainable Land Use Strategies		
Start Month	1	End Month	33

Objectives

The main goal of this WP is to produce spatially explicit land use scenarios for areas of practice cases for the period until 2050, and evaluate their impacts to biodiversity, climate, well-being and other environmental risks across the diversity of land use, biogeographic and socio-economic contexts. Specifically, WP3 will:

- Identify individual actor's development goals, wishes and needs (visions) at practice case level (T3.1)
- Identify high level policy trends, e.g. EU level biodiversity, agriculture and other environmental policies and their implications for land use change (T3.2)
- Integrate individual actor's visions (T3.1) and high-level policy trends (T3.2) into scenarios of practice case development until 2050 with various priority assumptions
- Model future land use change using spatially explicit land use modelling (T3.4.)
- Evaluation of impacts to biodiversity, climate, well-being and environmental risks, including displacement effects (T3.5)

Description

T3.1 Visions with individuals across practice cases (Lead: Biobased. Contributing: STICHTING VU, UL, all other practice case leads: PURPLE, BSC, UKF, Parc Verein Ela, Prov Lucca, RRA ZELENİ KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M6-M18)

Biobased will develop visions at the practice case level using creative approaches (such as art exhibitions, sketching, storytelling), drawing on and establishing the framework of our Possible Landscapes approach (T6.2). First, a workshop with each of the practice partners responsible for case studies will be performed (M6), as a workshop in T1.2). Here we will prepare a blueprint on co-creating future visions with a common creative method and, together with T3.3, define a set of relevant land system change processes - from nature conservation, recreation, agriculture, to forestry and housing development, on the local and regional scale of the cases. Such methods will be applied in the practice cases in the project (M9-18), through events (1 per practice case) that engage with citizens from across the region. Biobased will host these events, in collaboration with practice partners, as part of existing public events (e.g. markets, fairs) that attract a broad range of people. Through these creative processes, we will create at least 1 3D representation of a possible landscape per practice case (D3.1). These representations are a visual depiction of people's visions, and are accompanied by narratives (possibly text or audio, depending on the creation) that articulates the goals, needs and wishes of local people and how these are prioritised in their visions of land use change.

T3.2 Policy drivers of future land use change (Lead: KNOWLEDGE SRL. Contributing: CZECHGLOBE, ISOCARP, Biobased, PURPLE, SU, LEUPHANA, all other practice case leads: STICHTING VU, BSC, UKF, Parc Verein Ela, Prov Lucca, RRA ZELENİ KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M6-M18)

In this task, KE leads a review and analysis of the content, implications, and targets of higher-level policies, such as the EU's European Green Deal (EGD), and Swiss and EU-wide land use (including agriculture, forestry, transport and housing) and environmental instruments (e.g. climate, water, soils, biodiversity) and targets. Drawing on expertise, insight and analysis from CZECHGLOBE, STICHTING VU, PURPLE and UKF, we will consider existing policies, as well as proposals, or initial formulations for upcoming ones, and emerging social innovations (e.g. rewilding, agroecology, 15-minute cities). We will look at particular innovations in policies such as the EGD, CAP, and rewilding trends, and how they could be translated to actual land use impacts. Specifically, we will assess what causal pathways

these new policies (and related goals, milestones, targets) will trigger. Further, a standardised form will be created (by KNOWLEDGE SRL) for all practice partners to provide information on national, regional and local policies that link to these policy trends. The multiplier cluster will address trends in at the European scale, and how these are shaping national responses. Combined, these results will serve to link top-down and bottom-up policy directions, in an assessment of the likely changes such policies will generate at the EU, national and local levels (drawing upon PLUS Change practice cases) (D3.2). The analysis with CLDs will be performed by KNOWLEDGE SRL at two levels: EU and practice case. At the EU level, this will include consideration of potential implications for land use and well-being beyond Europe, as a result of changing EU policy and development goals. The CLD will be built using understandings of drivers of change over time (WP2), combined with identified policy trends to understand how new policy priorities will shift land use over time. On the latter, the CLD for practice cases and the multiplier cluster will be built via workshops in T1.2 (M18) we will map these relationships across social, economic and environmental indicators at both practice case and European scale (T2.1).

T3.3 Integrated land use scenarios in practice case regions (Lead: UL; Contributing: CZECHGLOBE, Biobased, STICHTING VU, UL, KNOWLEDGE SRL, UKF, all other practice case leads: PURPLE, BSC, Parc Verein Ela, Prov Lucca, RRA ZELENÍ KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M11-24)

Task 3.3 integrates the possible landscapes from T3.1 and the policy and systems analysis from T3.2 into a set of realistic scenarios that optimise the contribution of land to climate change mitigation, adaptation, biodiversity and human well-being objectives. These scenarios are specific to EU regions, consistent within and across practice case regions, and quantitative. To start, UL with STICHTING VU and UKF, will create a methodology for creating scenarios across drivers identified in T3.1 and T3.2, and accounting for diversity in practice cases. This methodology brings together identified development goals and analyses them using cross-impact/correlation evaluative matrices to estimate relationships (conflicts/synergies) between goals in a practice case. UL will provide the methodology as a handbook (D3.3) to ensure coverage of similar topics and similar reporting structure in all practice cases. UL will then apply it based on patterns of impacts and relationships across all practice cases, to develop up to three descriptive scenarios of development until 2050 for each EU region (North, West, East, South), inspired by Shared Socioeconomic Pathways and mitigation pathways. To ground this analysis in practice cases, UL will link up with case partners through consultations to synthesize available development plans and future visions. Each scenario will be described with a set of common indicators that will allow us to quantify future demand for land-related resources and services, such as water, food and feed production, forestry, housing, climate change mitigation (D3.4). These indicators will be based on existing ones describing SSPs or related studies. The multiplier cluster will consider these scenarios and their interactions at European scale (workshop 4 in T1.2)

T3.4. Modelling land use change scenarios from different levels (Lead: STICHTING VU; Contributing: KNOWLEDGE SRL, P4All, UL, UKF) (M16-28)

Task 3.4 translates the scenarios developed in previous tasks into spatially explicit representations of future land systems, and explores how these scenarios align with challenges external to the regions. First, STICHTING VU and KNOWLEDGE SRL will downscale existing high-level EU scenarios (including SSPs, SRES mitigation pathways, and EGD) for each practice case. We will build upon already develop EU scale spatially explicit land system models developed by project partners in other EU projects, such as FutureWeb. Downscaling will be based on past trends and empirical relationships between land use and spatially explicit variables identified in WP2 (T2.1) as well as what the scenarios mean for local production systems. Second, STICHTING VU and P4All will upscale the scenarios developed throughout T3.1-3.3 with practice cases and the multiplier cluster, resulting in new regional and EU scale spatially explicit land system scenarios. With UL, the scenarios building on local visions (T3.1) and policies (T3.2) will be translated into regionally specific land system patterns that meet the regional demands for on agricultural and forestry production, housing, climate change mitigation, and other services, and will be spatially simulated using the CLUMondo land system model. The innovative aspect of T3.4 is, that rather than looking solely at what demographic, agricultural and forestry projections mean for areas of land, we will combine these with local and regional preferences that reflect a broader range of landscape demands that support overall well-being through Integrated Assessment Modelling. The task will result in a series of land systems maps that will feed into T3.5 (D3.5).

T3.5. Impacts of land system change on nature, well-being, and other regions (Lead: STICHTING VU, Contributing: UL, KNOWLEDGE SRL, all other practice case leads: PURPLE, BSC, UKF, Parc Verein Ela, Prov Lucca, RRA ZELENÍ KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M26-38)

Building upon the indicators defined in T2.1, STICHTING VU and P4All will study how the projected future land systems result in impacts on biodiversity, ecosystem services, and well-being in the case studies. Second, STICHTING VU with KNOWLEDGE, and UL will compare the maps of land systems and impacts with the visions from T3.1, together with experts from the practice cases and multiplier cluster (T1.2, M30). This will give insight in the feasibility of the local visions at practice case and European scale, feeding into WP4. Third, STICHTING VU will undertake

a systematic quantitative comparison between the land systems scenarios maps to show where there are synergies or conflicts between the preferred scenarios of different regions, as well as between the scenarios resulting from external challenges. This systematic quantitative comparison will also identify displacement risks resulting from local scenarios. Using these inputs KNOWLEDGE SRL and UKF will identify options for sustainable land use strategies (D3.6).

Work package WP4 – Transformation Pathways for Land Use Strategies

Work Package Number	WP4	Lead Beneficiary	11. CRS
Work Package Name	Transformation Pathways for Land Use Strategies		
Start Month	8	End Month	32

Objectives

The main objective of WP4 is to identify transformation pathways for land use and select among them the most promising interventions to upscale required changes for sustainable land use in real-life situations in multiple settings. Specifically, WP4 will:

- Define a set of intervention points within social systems (from individuals to policy) (T4.1);
- Identify pathways of change or transformation, as well as pathways not taken, through the perspective of the stakeholders (T4.2);
- Identify pathways of change or transformation tested or validated through modelling (T4.3); and
- Recommend promising actions or interventions (T4.4) that will be tested with the stakeholders (in WP5)

Description

T4.1 Political economies of land-use change (Lead: UKF, Contributors: CZECHGLOBE, PURPLE, UL, CRS, SU, all other practice case leads: STICHTING VU, BSC, Parc Verein Ela, Prov Lucca, RRA ZELENÍ KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M8-22)

Task 4.1 will reflect on questions such as: What are the (policy, governance, planning and management) structures and what is the agency across decision-making systems? Which factors are driving land use decisions the most and what opportunities are there? By doing so, we will be able to generate a broad understanding of influential actors and factors that have shaped the success of key land management and governance approaches, based on which, we develop a set of intervention points intending to improve land use decision making and governance. UKF will apply text mining tools (e.g., R programming, MAXQDA) to conduct document and literature analysis of national and international law, policies and directives collected in T3.2 and T3.3 (sub-national). With insight from CZECHGLOBE and CRS, UKF will combine results with outcomes from the interviews with practice partners and key stakeholders in T2.2 to produce schematic system descriptions including relationships between the structures and actors. During a workshop in M18 (T1.2), a stakeholder matrix developed by UKF will be used by practice partners and the multiplier cluster to determine the competent and/or influential actors for policy implementation in their case. Analysis will identify, at both practice case and European scales, i) failure factors for land use decision making, ii) success factors for land use decision making, and iii) the key transformative intervention points to change policy and/or practice within and across the policy systems (D4.1).

T4.2 Co-creation of pathways of change (Lead: CRS, Contributors: KLI, Biobased, UL, KNOWLEDGE SRL, all other practice case leads: PURPLE, BSC, UKF, Parc Verein Ela, Prov Lucca, RRA ZELENÍ KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M14-33)

T4.2 develops Policy Simulations to co-create transformation pathways (D4.2). Initially 2 practice cases that are most different in terms of their sustainable land use strategies (T3.5) and intervention points (T4.1) will be selected. CRS will develop a “base” policy simulation drawing on outcomes in WPs2 and 3, and T4.1, and then customize it with ALL other practice cases. A policy simulation will also be developed with the multiplier case. For each customized policy simulation, the narratives, mechanics, rules, graphic materials, and digital applications will be verified, translated, improved and, when needed, re-designed together with the respective practice case and multiplier cluster partners via an online workshop M24. All practice partners will translate their simulation to local language. Following, the practice partners use their Policy Simulation in a series of multi-stakeholder workshops, called Pathways of Change (in short, Pathways), with stakeholders to co-create trajectories toward the visions identified in WP3. The policy simulation becomes the platform that sets the context and environment for discussion and negotiations of policy interventions and strategies among the participating stakeholders. Workshops will be held in M30, in T1.2. CRS will design the workshop,

which will be professionally facilitated in local language, and all practice partners will be trained by CRS on how to moderate a Pathways workshop (5 online training workshops in English for partners, including workshop materials). The discussions supported by the simulations will create policy options and land-use strategies embedded in time and space and tied to specific actors. To support this task, CRS and KNOWLEDGE SRL will use the practice partners' and multiplier cluster CLDs (T3.2) to guide the co-creation of policies and strategies by the participants through a back-casting approach. Outputs (reports and diagrams) feed into T4.3 and T4.4.

Task 4.3: Modelling impacts of behaviour changes (Lead: STICHTING VU, Contributors: UL, KNOWLEDGE SRL, UKF) (M12-M33)

T4.3 explores how a combined set of variations of behavioural changes among stakeholders interacts and impacts the output indicators on land use and management, biodiversity and well-being using agent-based models (ABM). For this study, in agreement across the consortium, STICHTING VU select 2 of the most contrasting cases among the 11 practice cases based on the variations in actors, pathways of change, behavioural change and the importance of the different indicators. Early in year 2 of the Project, STICHTING VU will parameterise the ABM as to how other actors from different sectors and parts of society, local and external policies on agriculture, nature conservation, climate and sustainability, as well as external factors that influence land owners' decisions. This is done through spatial data inventory (by P4All), drawing on policy knowledge generated in WP3 and T4.1 (by UKF), and refined through workshops in each practice case and the multiplier cluster (T1.2, M12). Based on the scenarios from WP3, the pathways identified in T4.2 STICHTING VU and CRS will use the ABM to gain insights into how landowners' decision-making responds to these settings. STICHTING VU and P4All will quantify the results using spatially-explicit indicators based on land use and management. Furthermore, the emerging patterns, impacts on biodiversity and well-being indicators will be measured and analysed (D4.3).

Task 4.4: Identifying measures that can create multi-scale behaviour change throughout land use systems (Lead: CZECHGLOBE, Contributors: STICHTING VU, SU, LEUPHANA, BSC) (27-32)

This task identifies the most powerful interventions and social innovations that can change the how policy, planning, governance systems, organizations and individuals (as consumers and citizens with indirect impact on land use) operate and behave and how to make these more pro-environmental and sustainable. The task will draw on outputs from T4.2 and 4.3 to identify which points in the system (e.g. citizens, land owners, planners, etc.) need to be targeted; and insights from T2.2-2.4 to generate insights on the kinds of values and governance approaches that can be utilised to create sustainable land use change. CZECHGLOBE, LEUPHANA and BSC will perform meta-analytical approaches (e.g. Bayesian meta-analysis) to synthesise evidence from existing meta-analyses, primary published and "grey" studies, and experts' opinions about the effect sizes of prospective behavioural interventions at individual levels (led by CZECHGLOBE), land use innovations with land managers (led by BSC) and governance and decision-making interventions (led by LEU). Where possible (e.g. for interventions targeting individuals), CZECHGLOBE and LEUPHANA will summarise the expected effect sizes of prospective interventions and identify moderating conditions that amplify or attenuate these effects, with particular focus on cultural and structural factors. These inputs will be brought together via a whole project workshop in M24, and via practice case and multiplier cluster workshops (M30) to select measures, relevant for both practice case regions and for upscaling to European level, and targeting the relevant intervention points (T4.3) for testing in WP5 (D4.4). CZECHGLOBE, LEUPHANA and BSC will complete further research on each selected measure to outline parameters and methodological considerations for WP5.

Work package WP5 – Experimenting and piloting behaviour and decision-making change

Work Package Number	WP5	Lead Beneficiary	8. BSC
Work Package Name	Experimenting and piloting behaviour and decision-making change		
Start Month	30	End Month	47

Objectives

The aim of WP5 is to identify evidence-based instruments and incentives for behaviour and decision-making change in land-use related decisions in order to achieve sustainable land use strategies. The specific objectives of WP5 are:

- To carry out and learn from cross-country experimental studies of the most promising individual-level interventions identified in T4.4, and in case studies, and in pertinent literature. (T5.1)
- To improve understanding of the transition to sustainable land-use practices among land-users and land-managers in the diverse regional contexts of the practice cases. (T5.2)
- To build on ongoing developments and interests in land use policy and practice in the practice case regions, test/

pilot meso-level policy interventions and governance practices that leverage political, economic, societal, material and cultural contexts in achieving desirable land use strategies and practices. (T5.3)

- To pull together the findings from various WPs and provide recommendations for changes in policy and governance that can enable desirable land use strategies and practices. (T5.4)

Description

T5.1 Behavioural and economic interventions targeting sustainable consumer behaviour (Lead: CZECHGLOBE; Contributing: STICHTING VU) (M33-45)

In this task, we conduct cross-country experimental tests of the most promising individual-level interventions identified in T4.4, case studies, and pertinent literature at increase the intention of people to buy products that will have a sustainable land use implication (e.g. sustainable agricultural products) and support sustainable land use policies. Specifically, CZECHGLOBE and STICHTING VU will conduct at least four laboratory experiments in at least two practice case countries (N = min. 400 each) that will estimate and compare the effects of these interventions on the intention to buy sustainable agricultural products and thereby support sustainable agricultural policies. We will use consequential decision tasks (i.e., tasks that will have real-life implications for participants, such as selecting products that they will receive or signing a petition that is sent to lawmakers) as externally valid measures of outcome behaviours. Further, we will conduct a large-scale cross-cultural web-based experiment (in at least five of the participating countries to represent a diversity of land use strategies, N = 400 per country) in which we will look at how the effects of promising interventions on product choice and policy support generalize across countries. We will use measures of policy support and product choice with probabilistic consequentiality (e.g., selected participants can win selected products). Data will be used to identify different consumer/citizen segments that would need to be targeted differently to realise behavioural change. Findings will be presented to practice cases in T1.2 workshop in M42.

T5.2 Exploring interventions for behavioural and decision-making change in land managers (Lead: BSC; Contributing: KNOWLEDGE SRL, all other practice case leads: STICHTING VU, PURPLE, BSC, UKF, Parc Verein Ela, Prov Lucca, RRA ZELENİ KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M 33-45)

This task focuses on land-users and land-managers (land owners, farmers, foresters, companies, nature conservation groups, NGOs etc) in their regional contexts in the practice cases. With a focus on innovation frontrunners - adopters and potential followers of selected sustainable land-use strategies that address specific climate related land-use challenges in the regions - BSC use semi-structured in-depth interviews (approx. 5-10 per practice case) to explore how changes in behaviour and individual and organizational decision-making take place. Selection of interviewees is guided by practice partners, who also manage interviews in local language. Drawing on lessons from WP2 and WP4, BSC and KNOWLEDGE SRL analyse the data to explore the role of different context drivers (economic, regulatory, legal, cultural, environmental, etc.) and individual characteristics (like socio-demographics, awareness, motivation, knowledge) in adopting sustainable land-use strategies. We analyse triggers in behaviour change and social mechanisms supporting change, and identify what are land-users' and land-managers' needs, challenges and drivers to adopt sustainable land use strategies. BSC take findings for discussion with practice cases and the multiplier cluster in T1.2 (M42) to create propositions on how to better address challenges and support sustainable land-use innovations at land-user level in the regional contexts (practice cases), and how this can be supported at European scale (multiplier cluster). BSC and KNOWLEDGE SRL will synthesize practice case reports into a report on decision-making and behaviour change for sustainable land-use (D5.1). These findings will feed into T5.3 as inputs for land-use policy and governance innovation pilots and T5.4 policy and practice recommendations.

T5.3 Piloting promising social innovations in land use policy and governance with practice cases (Lead: CZECHGLOBE; Contributing: KLI, LEUPHANA, all other practice case leads: PURPLE, BSC, UKF, Parc Verein Ela, Prov Lucca, RRA ZELENİ KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M 35-44)

In Task 5.3 practice partners will pilot promising social innovations in land use policy, planning and governance. Innovations will be selected in workshops in T1.2 (M30), designed and facilitated by CZECHGLOBE and LEUPHANA, drawing on those identified in T4.4, and selected based on the wishes of the practice partners and their expert opinions on feasibility. Focus is on innovations that leverage political, economic, societal, material and cultural contexts in achieving desirable land use strategies and practices. During the workshop, each practice case and the multiplier cluster will elaborate a road map for exploring the implementation of the innovation in their own context. Following, CZECHGLOBE will steer a reflexive process, working with practice cases and the multiplier cluster to pilot and report on experiences, with a focus on barriers and opportunities. Practice partners will host workshops in M36 (T1.2), supported by CZECHGLOBE, for intermediate check-in and discussion of common findings and refining roadmaps. Reports and workshop outputs submitted by practice partners and the multiplier cluster will be analysed by CZECHGLOBE and LEUPHANA, and results will be verified and refined with practice partners in a workshop (T1.2) in M42. Findings will

outline points of behaviour and decision-making inertia, opportunities for creating change in decision-making, and the factors that facilitate and hinder these changes. They feed into T5.4.

T5.4 Creating lessons to deliver sustainable land use strategies – recommendations for policy and practice (Lead: KNOWLEDGE SRL; Contributing: all) (M 43-47)

T5.4 identifies potential synergies and bottlenecks emerging from the implementation of land use strategies at individual, practice case and European level, both among each other and in relation to societal goals (e.g. emission reduction, nutrition and food security, extreme heat in urban areas and air quality). Based on this identification, it provides recommendations for the creation of effective and resilient policies and governance arrangements, based on the systemic understanding of the interplay existing between individual, practice case and European-levels of the analysis. It thus pulls together findings to create interventions that engage with and shift the socio-economic dynamics, behavioural patterns, and inertia relating to land policies and decision-making. KE will deliver a multi-stakeholder and co-creation approach based on Systems Thinking, and building on the work carried out in T5.1-T5.3 and previous WPs. It will take place during a day-long all-partner workshop after the consortium meeting in M44, and will result in 5 policy briefs (KNOWLEDGE) and 5 practice briefs (BSC, CZECHGLOBE) on interventions and social innovations to achieve sustainable land use strategies, which BSC will compile in a detailed practical handbook on effective interventions and social innovations, their purpose and how to use them and upscale them (D5.2). The handbook contributes to the toolkit in T1.4.

Work package WP6 – Dissemination, communication and exploitation

Work Package Number	WP6	Lead Beneficiary	2. ISOCARP
Work Package Name	Dissemination, communication and exploitation		
Start Month	1	End Month	48

Objectives

The overarching aim of WP6 is to communicate project deliverables and link them to appropriate audiences in usable forms, and support their use, including via executing a clear and comprehensive plan for dissemination and exploitation of PLUS Change project results. Specific objectives are:

- To actively brand and communicate the project at national, regional and local levels in cooperation with partners, stakeholders, the research community, and community leaders (T6.1)
- To widely share and promote project results through targeted dissemination activities using appropriate and creative media platforms and artistic tools (T6.2)
- To foster knowledge exchange and uptake of the project results among the project partners, the research community, policymakers, relevant practitioners, and the public. (T6.3)
- To enable exploitation of project results beyond the project’s lifetime, maximizing the impact of the research (T6.4)

Description

T6.1 Multi-media communication and dissemination (Lead: ISOCARP; contributing: CZECHGLOBE, Biobased, P4All, all partners) (M1-48)

The multimedia dissemination of project results will be aggregated in a central hub for activities within this work package, and acts as the anchor for disseminating project deliverables and fostering their exploitation. ISOCARP, in collaboration with CZECHGLOBE and PURPLE, and input from all partners via the kick-off meeting, creates a communication plan that builds on the plan outlined in Section 2, to implement the mechanisms described CDE (D6.1). The plan will include: a) Target groups and strategies to address them; b) key messages; c) workflows; d) communication mix (which channels will be used); e) outline of the basic channels materials to be established in WP6; and f) strategies to maximise impact. The overall plan will be supported with yearly (created through consortium meetings) communication, dissemination and exploitation plans to target topics, actions, messages and timings in accordance with the progress of the project. It therefore ensures that the tasks in WP6 are strategically tied into opportunities to maximise the uptake of project results.

This is a multi-format strategy, centred on the project website and online hub (T1.4), in which we will build a community of knowledge by showcasing practice cases, disseminating artistic output and interactive modules (T6.2), and sharing public project deliverables through news articles, infographics and/or policy briefs. PLUS Change will have a social media identity (e.g. Twitter, Instagram), supported by those of the institutions and individuals engaged in the project. Consortium members will ensure that core information is available in their own national language. All consortium

members, with a particular emphasis on ISOCARP, PURPLE, and our practice partners and the multiplier cluster, will link activities into their own communication strategies for wider dissemination. To facilitate this process, ISOCARP and Biobased develops visual identity (logo, colours, style elements) and guidelines for visual communication, including default templates for Word, PowerPoint, and a set of template texts. This subtask includes the establishment of social media pages and a project website by ISOCARP (translated into local languages by consortium members). ISOCARP also provide a brief for partners from the various WPs on how to provide content for the communication channels, based on a series of internal storytelling workshops and brainstorming sessions that work to align partners and establish methods and protocols for communicating their outcomes within the Possible Landscapes framework for artistic outreach (T6.2).

T6.2 Creative planning and engagement programme, Possible Landscapes (Lead: Biobased Contributing: ISOCARP, P4All, CRS, all other practice case leads: PURPLE, BSC, UKF, Parc Verein Ela, Prov Lucca, RRA ZELENÍ KRAS, Mazovia Reg, EMR, VLM, JINAG, REGION, Surrey CC) (M1-48).

The creative outreach programme, Possible Landscapes, runs parallel with the project and engages in storytelling with participants to co-create interactive, multi-media modules that engage a broad audience in PLUS Change. Biobased will run this creative process to imagine a future of land use and the pathways to achieve this future, disseminating ideas to an array of audiences, from land users to policy makers to the public. Biobased interact with activities throughout all WPs, producing creative modules that support data collection, communicate emerging findings, and allow further discussion. Biobased work closely with WP1 (integration) to ensure that creative processes are employed at appropriate points throughout the project, as an integration mechanism. Biobased will produce creative modules, including a modular exhibit and visualisations of future land use, and adapt these to need and practice case context through the project. ISOCARP will ensure this content links to T6.1 to provide multi-media content based on results and conclusions from the project, and P4All will ensure it links to the toolkit in T1.4. Creative engagement will conclude with a Best of PLUS Change showcase, delivered by Biobased, in the project's final event (T6.4, D6.2).

T6.3 Policy uptake and capacity building (Lead: PURPLE; Contributing: CZECHGLOBE, ISOCARP, KLI) (M15-48)

Task 6.3 works to ensure that policy-relevant findings and tools are taken up by policy and decision makers, expanding from our existing practice partners, into a broader range of planning and policy communities (e.g. biodiversity, climate, infrastructure), and at levels from local to European. In addition to utilising partners' own networks (see T6.1) CZECHGLOBE will recruit and train 15 project ambassadors (M12). Ambassadors are responsible for building bridges between the project and their home communities, including representing the project at local events, and are provided with an honorarium to cover expenses and time for 3 years. Further, and in addition to having a project presence at key policy events (see section 2.2.2), and ensuring EU-level engagement throughout the project via the multiplier cluster, PURPLE will organise:

1. One EU level workshop (in-person, half day), supported by a preparatory online webinar, targeting policy development practitioners from EU, national and regional and local/municipal authorities. It builds on representatives of the Committee of the Regions (CoR) and Economic and Environmental committee (EESC), to inform them about the outcomes of the projects, and reflect on the routes of uptake of recommendations, and upscaling of social innovations, in ongoing policy developments. The preparatory webinar will select the most promising policy examples to work with during the workshop.
2. Capacity building events for the Civil Society Organisations, regional and local authorities and philanthropic partners at EU level (in English, half-day, 40-50 participants). These will involve primarily PURPLE, ISOCARP, P4All networks, supplemented with our advisory board member networks (e.g. ESPON, adelphi) and will promote the uptake of project tools (dashboard, interventions) and access to training materials. Further capacity building sessions will be integrated to existing PURPLE working group activities targeting more specifically their respective constituencies.

T6.4 Post-project exploitation (Lead: ISOCARP; Contributing: CZECHGLOBE, STICHTING VU, P4All, PURPLE) (M43-48).

The exploitation plan (T6.1) is designed to ensure the longevity of the project's results and platforms, creating a legacy for the project. The post-project phase will be launched with a final project conference (M48) organised by ISOCARP, and supported by the Possible Landscapes process (T6.2) that brings together all impact audiences, showcases results, and puts them in the context of the broader research and practice contexts. As part of this conference, PURPLE and CZECHGLOBE will host workshop on future knowledge pathways, to plan further research and practice collaborations. PURPLE will use inputs and discussions from the policy workshops (T6.3) to produce a series of recommendations as to how PLUS Change work and findings can be used to shape interventions into emerging policy debates and initiatives and planning horizons post-project, noting that the 2021-27 EU programming and financial period will be drawing to an end, and we will be in the middle of both the European Commission and European Parliament's '24-'29 mandates. PURPLE and CZECHGLOBE will use these inputs to create a roadmap for ongoing research, practice and policy interventions (D6.3) that feeds into strategic opportunities for exploitation and further R&I.

To support this ongoing exploitation, the online presence of the project (T6.1) will be maintained by CZECHGLOBE for five years following the project end, providing also a central contact for enquiries and help related to content. During

this time, ISOCARP and P4All will ensure that public deliverables, tools and training materials are passed on to longer term communities of practice and open-data repositories, including those that they host. Articles and publications will be published on CORDIS, data will be available in the Horizon Dashboard, and results will be shared on the Horizon Results Platform. Policy-related materials in particular will be added to, and maintained on the PURPLE website and used to inform continuing interventions post project end-date. Biobased will ensure that visual materials continue to be displayed in on/offline exhibitions to make public discussion more inclusive and open.

Work package WP7 – Management and coordination

Work Package Number	WP7	Lead Beneficiary	1. CZECHGLOBE
Work Package Name	Management and coordination		
Start Month	1	End Month	48

Objectives

WP 7 aims to provide overall scientific vision, and to steer the project processes and outcomes. Specific objectives are:

- To arrange meetings, workshops and conferences to facilitate organisational and management tasks. (T7.1)
- To ensure that the project internal and external practices follow best practice for ethics and inclusivity (including gender, race, and disability) and accessibility (T7.1)
- To manage and coordinate all financial and administrative issues within the consortium and with the European Commission (T7.2)
- To implement, maintain and optimise the organisational structure of the project, and ensure information flow, transparent decision-making, and clear communication between partners. (T7.3)
- To ensure data documentation, sharing and publication in accordance with EU data management frameworks (T7.4)

Description

T7.1 Implement project management structures. (Lead: CZECHGLOBE; Contributing: PURPLE, all partners) (M1-48)
The project management structure of PLUS Change comprises a general assembly (all PIs and engaged researchers), a project coordination committee (PCC, all work package leaders and a practice partner lead (PURPLE)), and an international advisory board (external advisors), to provide input to the overall project direction and practice (see section 3). These are coordinated by the project coordinator (CZECHGLOBE) and the project office (PO, T7.2). These structures are run to ensure that the project completes its ambition, efficiently, within time and budget constraints, managing risks and conforming to project processes, including the data management plan. CZECHGLOBE maintains a project handbook of processes (D7.1) including a gender management strategy (informed by T1.3), data management plan (T7.4) and CDE plan (T6.1). The general assembly meets in person once per year (M1 – kick off, 13, 25, 37, 44 – the final consortium meeting is held early to facilitate organisation of final conference, T6.4). CZECHGLOBE will ensure that it is an opportunity to meet the integration and capacity building tasks in WP1, and can host workshops necessary under WPs 2-5. Therefore, WP updates will be conducted online and as videos ahead of the face-to-face meeting, in a ‘flipped classroom’ format. The kick off meeting will be held in Prague, and subsequent meetings will be hosted in the locations of our practice cases, to coincide with EU Presidencies (BE, PL) and the FR Biennale d’Architecture and de Paysage (see section 2) to allow learning between the cases throughout the team, and engagement with Presidency activities in those countries.

T7.2 Financial, administrative and data management (Lead: CZECHGLOBE; Contributing: all partners) (M1-48)
CZECHGLOBE will establish a project office (PO) to provide continual support through the project. The PO ensures professional administration of the project, including budget control and review, assisting consortium members in fulfilling all objectives, and providing advice and guidance to ensure that costs, deliverables and milestones are met in line with the work plan. In addition, the PO creates and supports partners to implement systems for technical and financial reporting, and maintains the data management plan (T7.4). The PO supports partners in financial administration, and deals with the legal issues such as the Consortium Agreement and other regulations. The PO prepares the periodic and final scientific reports, as well as financial reporting to the European Commission, with the support of work package leaders (T7.3). The PO assists the consortium in their scientific endeavours by creating a reporting system to assemble the relevant information for scientific progress reporting and related costs (interacting with T 7.3). It is responsible for maintaining infrastructure for project-internal communication (connecting to T 7.5 and WP1). It assists the Coordinator in organising general assemblies, advisory board meetings and other coordination meetings (T7.1).

T7.3 Scientific leadership. (Lead: CZECHGLOBE; Support: PURPLE, KLI, ISOCARP, STICHTING VU, SU, BSC, CRS) (M1-48)

PLUS Change is a complex transdisciplinary project with multiple disciplines interacting across a number of experimentation and case formats. This task provides leadership and direction to steer these components towards the project's objectives. It works closely with WP1, in creating the conditions for collaboration and mutual learning across the project; and with WP6 in fostering lessons and contributions from this process. This task builds on these work packages, and explicitly takes stock of the direction the project is heading in, and makes adjustments or provides direction as necessary. This will be achieved by regular stock-takes with the PCC (M6, 12, 18, 24, 30, 36, 42). These meetings will be coordinated with the annual general assembly meetings (see task 7.1), and meetings in between will be held online. Additional ad-hoc meetings will be held (online) whenever required.

T7.4 Data management plan (Lead: CZECHGLOBE; Contributing: KLI, all partners) (M1-6, 13, 25, 37)


In T7.4 CZECHGLOBE ensure that data is managed in line with GDPR and open science principles. As a consortium, we embed data management within the broader context of considering how data is generated and its use, biases and ethics. Therefore, as a particular focus in data management, the topics of inclusion and accessibility are core to the outcomes and process of PLUS Change both internally, and in terms of how we interact with our cases and the research we do. CZECHGLOBE will draw on the management processes and needs of the project, including GDPR and open science practices, and KLI will draw on processes in T1.3 to incorporate ethics, inclusion and accessibility (including gender) into our DMP (D7.2). The plan will iterate with T1.3 and will be updated in every consortium meeting to reflect evolving understandings and project needs (D7.3).

STAFF EFFORT

Staff effort per participant								
<i>Grant Preparation (Work packages - Effort screen) — Enter the info.</i>								
Participant	WP1	WP2	WP3	WP4	WP5	WP6	WP7	Total Person-Months
1 - CZECHGLOBE	9.00	6.00	3.00	12.00	22.00	11.00	28.00	91.00
2 - ISOCARP	3.50		2.00			31.00	3.50	40.00
3 - KLI	18.00			1.00	6.00	4.00	7.00	36.00
4 - Biobased	2.50		17.00	3.00		16.00	2.50	41.00
5 - STICHTING VU	2.50	32.00	39.50	23.00	7.50	2.00	3.50	110.00
6 - P4All	13.50	12.00	6.00			6.00	2.50	40.00
7 - PURPLE	10.50	3.00	6.50	2.50	2.00	14.00	3.50	42.00
8 - BSC	5.50	6.00	3.50	3.50	19.00	2.00	3.50	43.00
9 - UL	1.50	6.00	14.00	4.00		1.00	2.50	29.00
10 - KNOWLEDGE SRL	5.00		15.00	6.00	9.00	1.00	2.50	38.50
11 - CRS	2.50			37.00		2.00	3.50	45.00
12 - SU	2.50	14.00	1.00	2.50		1.00	3.50	24.50
13 - UKF	5.00	6.00	13.00	18.00	5.00	3.00	2.50	52.50
14 - LEUPHANA	1.50	19.50	5.00	5.00	1.50	1.00	2.50	36.00
15 - Prov Lucca	5.00	3.00	3.50	2.50	4.00	3.00	2.50	23.50
16 - RRA ZELENÍ KRAS	5.00	3.00	3.50	2.50	4.00	3.00	2.50	23.50
17 - EMR	5.00	3.50	3.50	2.50	4.00	3.50	2.50	24.50
18 - Mazovia Reg.	5.00	4.00	3.50	2.50	5.50	3.00	2.50	26.00
19 - VLM	5.00	3.50	4.00	2.50	4.00	3.00	2.50	24.50

Staff effort per participant								
<i>Grant Preparation (Work packages - Effort screen) — Enter the info.</i>								
Participant	WP1	WP2	WP3	WP4	WP5	WP6	WP7	Total Person-Months
20 - JINAG	5.00	3.00	3.50	2.50	4.00	3.00	2.50	23.50
21 - REGION	3.50	2.00	2.50	1.50	3.00	2.00	2.50	17.00
22 - Verein Parc Ela	5.00	1.50	3.50	2.50	4.00	3.00	2.50	22.00
23 - Surrey CC	4.00	2.50	3.50	2.50	4.00	3.00	2.50	22.00
Total Person-Months	125.50	130.50	156.50	139.00	108.50	121.50	93.50	875.00

LIST OF DELIVERABLES

Deliverables						
<i>Grant Preparation (Deliverables screen) — Enter the info.</i>						
<i>The labels used mean:</i>						
<i>Public — fully open () automatically posted online)</i>						
<i>Sensitive — limited under the conditions of the Grant Agreement</i>						
<i>EU classified —RESTREINT-UE/EU-RESTRICTED, CONFIDENTIEL-UE/EU-CONFIDENTIAL, SECRET-UE/EU-SECRET under Decision 2015/444</i>						
Deliverable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D1.1	Challenges and opportunities for just and equitable land use change in Europe	WP1	3 - KLI	R — Document, report	PU - Public	15
D1.2	Planning toolkit	WP1	6 - P4All	OTHER	PU - Public	48
D2.1	Pan-European synthesis of land use changes over time	WP2	5 - STICHTING VU	R — Document, report	PU - Public	18
D2.2	Narratives of determinants of land use change and their diversity across Europe	WP2	12 - SU	R — Document, report	PU - Public	21
D3.1	3D representations of Possible Landscapes in the Practice Cases	WP3	4 - Biobased	DEM — Demonstrator, pilot, prototype	PU - Public	18
D3.2	Report on the Policy Drivers of Land Use Change	WP3	10 - KNOWLEDGE SRL	R — Document, report	PU - Public	20
D3.3	Handbook on developing integrated scenarios to explore sustainable land use strategies	WP3	9 - UL	R — Document, report	PU - Public	13
D3.4	Descriptive land use scenarios to 2050 for European regions	WP3	9 - UL	R — Document, report	PU - Public	23
D3.5	Land systems maps of spatially explicit land use scenarios	WP3	5 - STICHTING VU	R — Document, report	PU - Public	27

Deliverables						
<i>Grant Preparation (Deliverables screen) — Enter the info.</i>						
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Deliverable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D3.6	Simulated spatial land use strategies for 2050	WP3	5 - STICHTING VU	DEM — Demonstrator, pilot, prototype	PU - Public	33
D4.1	Intervention points for creating land use policy and decision-making change	WP4	13 - UKF	R — Document, report	PU - Public	22
D4.2	Policy simulation tools	WP4	11 - CRS	DEM — Demonstrator, pilot, prototype	PU - Public	22
D4.3	Report on the impacts of behaviour changes on biodiversity, climate and well-being indicators	WP4	5 - STICHTING VU	R — Document, report	PU - Public	30
D4.4	Pathways for meeting sustainable land use strategies in 2050	WP4	1 - CZECHGLOBE	R — Document, report	PU - Public	30
D5.1	Report on decision-making and behaviour change in land use managers for sustainable land use	WP5	8 - BSC	R — Document, report	PU - Public	45
D5.2	Practical handbook on intervening in land use systems for sustainable futures	WP5	8 - BSC	R — Document, report	PU - Public	47
D6.1	CDE Plan, accompanied by launch of online project hub	WP6	2 - ISOCARP	DEC —Websites, patent filings, videos, etc	PU - Public	3
D6.2	Best of PLUS Change exhibition	WP6	4 - Biobased	DEC —Websites, patent filings, videos, etc	PU - Public	48

Deliverables

Grant Preparation (Deliverables screen) — Enter the info.

The labels used mean:

Public — fully open (⚠ automatically posted online)

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EU classified — RESTREINT-UE/EU-RESTRICTED, CONFIDENTIEL-UE/EU-CONFIDENTIAL, SECRET-UE/EU-SECRET under Decision [2015/444](#)

Deliverable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D6.3	Roadmap of next steps for sustainable land use strategies	WP6	7 - PURPLE	R — Document, report	PU - Public	48
D7.1	Project living handbook	WP7	1 - CZECHGLOBE	R — Document, report	SEN - Sensitive	3
D7.2	Data management plan	WP7	1 - CZECHGLOBE	DMP — Data Management Plan	PU - Public	6
D7.3	Final Data Management Plan	WP7	1 - CZECHGLOBE	DMP — Data Management Plan	PU - Public	48

Deliverable D1.1 – Challenges and opportunities for just and equitable land use change in Europe

Deliverable Number	D1.1	Lead Beneficiary	3. KLI
Deliverable Name	Challenges and opportunities for just and equitable land use change in Europe		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	15	Work Package No	WP1

Description
<p>This is a practical handbook for navigating ethics, equity and justice issues in land use research and practice in Europe (EU + CH and GB). It is based on discussions in three seminars in T1.3 (M3, 9, 15), and ongoing reflexive work in the project consortium across T1.1, T1.2 and T1.3. The handbook includes generalisable guidance on ethics concerns and how to address them, as well as detailed, specific examples of issues and their management from across the 11 PLUS Change cases and multiplier cluster (see Part B, Table 2, page 8). Concrete ethics plans developed by PLUS Change researchers in T1.3 are included as annexes. Internally in the project, the handbook guides PLUS Change researchers and practice cases in completing their work across empirical WPs 2, 3, 4 and 5 and will be used in WP5 seminars (M33, 36, 39) when piloting and trialing land use interventions. Externally, the handbook guides researchers and land use managers and practitioners in identify and addressing the ethics, equity and justice issues in their own land use interventions.</p>

Deliverable D1.2 – Planning toolkit

Deliverable Number	D1.2	Lead Beneficiary	6. P4All
Deliverable Name	Planning toolkit		
Type	OTHER	Dissemination Level	PU - Public
Due Date (month)	48	Work Package No	WP1

Description
<p>This online toolkit for land use planners and policy makers is based on project outputs from all WPs, including storylines of land use change over time (WP2), Land use strategies and techniques for exploring pathways of change (WP3), policy simulations (WP4), and interventions and trainings for their ethical use (WP5). Planners and policy makers in the EU, GB and CH will be able to use the tools to explore storylines of land use change over time (outputs from WP2) and explore future desirable land use strategies (from WP3). They can use the toolkit to identify the impacts of decisions on biodiversity, climate and social well-being objectives (from WP3), identify intervention points in policy and practice to create change (from WP4), and find evidence-based tools to support the creation of that change (from WP5). Such tools will include information tools for changing citizen behaviour, strategies for engaging with land managers, and guidance on creating roadmaps for decision making change and including citizens in land use decision making. Training materials for using these tools in ethically informed ways are provided in the form of methods guides and short training videos. The toolkit will be visually attractive, drawing on the Possible Landscape approach. The toolkit is based on the open Wagtail content management system, and will be run on the Plan4All cloud infrastructure.</p>

Deliverable D2.1 – Pan-European synthesis of land use changes over time

Deliverable Number	D2.1	Lead Beneficiary	5. STICHTING VU
Deliverable Name	Pan-European synthesis of land use changes over time		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	18	Work Package No	WP2

Description			
Report with modelling outputs showing how land use has changed since 1990, and its impact to climate, biodiversity and well-being. The report draws on work from across all tasks in WP2, and validated with the practice cases and multiplier cluster (listed in Part B, Table 2, page 8). It will present understandings of land use change for each of the 11 practice cases, and across Europe. By comparing across the cases, the report will identify differences in change trajectories, and how these have been influenced by change dynamics (e.g. environment, governance, values).			

Deliverable D2.2 – Narratives of determinants of land use change and their diversity across Europe

Deliverable Number	D2.2	Lead Beneficiary	12. SU
Deliverable Name	Narratives of determinants of land use change and their diversity across Europe		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	21	Work Package No	WP2

Description			
Illustrated narrative report, demonstrating how land use change has been shaped across Europe (EU+GB and CH), and in each of the 11 practice cases (see Part B, Table 2, page 8). The report presents a rich understanding of the historical development (50-100 years) of land use in each of the 11 practice cases, including contentious land use issues and conflicts, and the role of policy, tenure and governance arrangements in shaping land use. These land use change factors are compared across the practice cases; similarities and differences are explored in terms of the broad social and political changes across Europe in this timeframe to gain an overall European (EU + GB and CH) narrative.			

Deliverable D3.1 – 3D representations of Possible Landscapes in the Practice Cases

Deliverable Number	D3.1	Lead Beneficiary	4. Biobased
Deliverable Name	3D representations of Possible Landscapes in the Practice Cases		
Type	DEM — Demonstrator, pilot, prototype	Dissemination Level	PU - Public
Due Date (month)	18	Work Package No	WP3

Description			
A set of 11 3D representations of possible future landscapes in the practice cases (see Part B, Table 2, page 8), created with citizens at public engagement events. A virtual gallery with accompanying text and/or audio description will be created on the PLUS Change website.			

Deliverable D3.2 – Report on the Policy Drivers of Land Use Change

Deliverable Number	D3.2	Lead Beneficiary	10. KNOWLEDGE SRL
Deliverable Name	Report on the Policy Drivers of Land Use Change		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	20	Work Package No	WP3

Description			
The report is an assessment of the likely impact of EU, national and local policies on land use change. It will cover high			

level EU policy and strategy, the policies and strategies of the nations of the 11 practice cases (listed in Part B, Table 2, page 8) and local policies and plans at the 11 practice case levels. It summarises results of T3.2 created through policy document review and causal loop diagrams with practice cases and the multiplier cluster (workshop in M18).

Deliverable D3.3 – Handbook on developing integrated scenarios to explore sustainable land use strategies

Deliverable Number	D3.3	Lead Beneficiary	9. UL
Deliverable Name	Handbook on developing integrated scenarios to explore sustainable land use strategies		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	13	Work Package No	WP3

Description

A methodology handbook for bringing together plural perspectives (e.g. citizens, policy drivers and planning actors) and disciplinary approaches to create scenarios of future land use. The handbook is to be used by PLUS Change researchers and practice partners within the project when creating integrated land use scenarios (T3.3). The handbook will also include reflections and generalised lessons and tips so that it can be used externally as a good practice guide for planners and land use decision-makers who wish to explore future land use scenarios. It will be integrated into the planning toolkit (D1.2).

Deliverable D3.4 – Descriptive land use scenarios to 2050 for European regions

Deliverable Number	D3.4	Lead Beneficiary	9. UL
Deliverable Name	Descriptive land use scenarios to 2050 for European regions		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	23	Work Package No	WP3

Description

The report provides up to 3 descriptive scenarios for regions of Europe (EU + GB and CH). The regions are defined as North, South, East and West. The scenarios are created according to the methodology outlined in D3.3 and will draw on the Shared Socioeconomic pathways, grounded in discussions with the 11 practice cases (listed in Part B, Table 2, page 8). The scenarios will be described with a set of common indicators for quantifying future demand for land related services and resources.

Deliverable D3.5 – Land systems maps of spatially explicit land use scenarios

Deliverable Number	D3.5	Lead Beneficiary	5. STICHTING VU
Deliverable Name	Land systems maps of spatially explicit land use scenarios		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	27	Work Package No	WP3

Description

A set of at least 5 land systems maps that are spatially explicit representations of the scenarios in D3.4. The maps will be at European (EU + GB and CH) and regional (North, South, East and West) scales. They will combine demographic, agricultural and forestry projections of land use change, with the local preferences for land use developed throughout scenario creation in WP3. The maps will be created using the CLUMondo land system model.

Deliverable D3.6 – Simulated spatial land use strategies for 2050

Deliverable Number	D3.6	Lead Beneficiary	5. STICHTING VU
Deliverable Name	Simulated spatial land use strategies for 2050		
Type	DEM — Demonstrator, pilot, prototype	Dissemination Level	PU - Public
Due Date (month)	33	Work Package No	WP3

Description
A set of simulated spatial distributions of future land use for the year 2050, with identified conflicts and synergies between scenarios developed on different scales (practice case, regional and EU+GB and CH), highlighting the discrepancy between high-level restoration, agriculture and climate change mitigation goals, and local needs and values. The set will include 11 simulations at the scale of the practice cases (see Part B, Table 2, page 8), and 1 scaled up simulation for a European (EU + GB and CH) scale. Collectively, the set will be used to identify options for sustainable land use strategies at practice case and European scales.

Deliverable D4.1 – Intervention points for creating land use policy and decision-making change

Deliverable Number	D4.1	Lead Beneficiary	13. UKF
Deliverable Name	Intervention points for creating land use policy and decision-making change		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	22	Work Package No	WP4

Description
A report on the success and failure factors for land use decision-making for climate, biodiversity and human well-being outcomes. The report draws on document analysis, interviews with practice partners in the 11 practice cases (listed in Part B, Table 2, page 8), and workshops in M18. It explores the 11 practice cases, and compares and contrasts between them. It identifies the key intervention points for transforming land use decision making at practice case, national (for the practice case countries) and EU levels.

Deliverable D4.2 – Policy simulation tools

Deliverable Number	D4.2	Lead Beneficiary	11. CRS
Deliverable Name	Policy simulation tools		
Type	DEM — Demonstrator, pilot, prototype	Dissemination Level	PU - Public
Due Date (month)	22	Work Package No	WP4

Description
12 policy simulation tools. The tools are based on 2 base simulations, developed with the two most-different practice cases (determined in WP3), and are customised for each practice case and the multiplier cluster. The policy simulations tools will allow exploration, by the practice cases, of the impact of policy interventions and decisions.

Deliverable D4.3 – Report on the impacts of behaviour changes on biodiversity, climate and well-being indicators

Deliverable Number	D4.3	Lead Beneficiary	5. STICHTING VU
Deliverable Name	Report on the impacts of behaviour changes on biodiversity, climate and well-being indicators		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	30	Work Package No	WP4

Description
Report on the quantified impact of a range of behaviour changes of stakeholders on land use management, biodiversity, climate and well being indicators, assessed using agent-based models. The analysis is based on the 2 most contrasting practice cases (in terms of their historical land use trajectories and future scenarios). The report will outline how land owner's decision-making responds to social, political and external factors, and quantifies the impact of decisions on biodiversity, climate and well being. The report focusses on these two contrasting cases, but considers the applicability and generalizability to other locations and at broader scales.

Deliverable D4.4 – Pathways for meeting sustainable land use strategies in 2050

Deliverable Number	D4.4	Lead Beneficiary	1. CZECHGLOBE
Deliverable Name	Pathways for meeting sustainable land use strategies in 2050		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	30	Work Package No	WP4

Description
Report summarising key intervention points in land use systems (including with citizens, land managers, planners and policy) to unlock change towards achieving sustainable land use. The report will highlight which behaviours and decisions could be changed, in what way, accounting for the political economy of land use at European, national (in practice case countries), sub-national, and practice case levels. Measures that target these intervention points and their expected impact, parameters and methodological considerations are described.

Deliverable D5.1 – Report on decision-making and behaviour change in land use managers for sustainable land use

Deliverable Number	D5.1	Lead Beneficiary	8. BSC
Deliverable Name	Report on decision-making and behaviour change in land use managers for sustainable land use		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	45	Work Package No	WP5

Description
A synthesis of reports from the 11 practice cases (listed in Part B, Table 2, page 8) and multiplier cluster. The reports explore the role of different context drivers and individual characteristics in motivating or blocking land use behaviour and decision-making in land use managers. The report includes propositions synthesised from across the practice cases, on how to facilitate land use change at the land manager and user level (for the practice cases), and how to support this at the EU level.

Deliverable D5.2 – Practical handbook on intervening in land use systems for sustainable futures

Deliverable Number	D5.2	Lead Beneficiary	8. BSC
Deliverable Name	Practical handbook on intervening in land use systems for sustainable futures		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	47	Work Package No	WP5

Description
Collection of 5 practice briefs and 5 policy briefs for designing and delivering interventions with citizens, land managers, planners and policy makers for creating behaviour and decision-making change for sustainable land use. Briefs are based on evidence of trialing behaviour and decision-making change in T5.1, T5.2, T5.3, and will include details of effective interventions and innovations, their purposes, and how to use and upscale them.

Deliverable D6.1 – CDE Plan, accompanied by launch of online project hub

Deliverable Number	D6.1	Lead Beneficiary	2. ISOCARP
Deliverable Name	CDE Plan, accompanied by launch of online project hub		
Type	DEC — Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	3	Work Package No	WP6

Description
This deliverable is the CDE plan, supported by the launch of the project's online identity and website. The online identity will include social media (Twitter and Instagram) including logo, colours and style elements, and guidelines for visual communication. The project website will include pages translated into the local languages of the 11 practice cases. It will be a hub for creating a community of knowledge, showcase of practice cases, and sharing of project outputs. The CDE plan includes briefs for partners on how to provide communication content.

Deliverable D6.2 – Best of PLUS Change exhibition

Deliverable Number	D6.2	Lead Beneficiary	4. Biobased
Deliverable Name	Best of PLUS Change exhibition		
Type	DEC — Websites, patent filings, videos, etc	Dissemination Level	PU - Public
Due Date (month)	48	Work Package No	WP6

Description
Visual, creative exhibition, highlighting the key processes and findings of the project in an accessible format. Will include a modular exhibit and visualisations of future land use for each of the 11 practice cases.

Deliverable D6.3 – Roadmap of next steps for sustainable land use strategies

Deliverable Number	D6.3	Lead Beneficiary	7. PURPLE
Deliverable Name	Roadmap of next steps for sustainable land use strategies		

Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	48	Work Package No	WP6

Description
Report outlining research and practice priorities for further progress towards sustainable land use, including exploitation of PLUS Change outputs and discussions from across trainings and workshops held in WP6.

Deliverable D7.1 – Project living handbook

Deliverable Number	D7.1	Lead Beneficiary	1. CZECHGLOBE
Deliverable Name	Project living handbook		
Type	R — Document, report	Dissemination Level	SEN - Sensitive
Due Date (month)	3	Work Package No	WP7

Description
Handbook for consortium including the 21 EU beneficiaries, and 2 associated beneficiaries (Switzerland and the UK). The handbook includes details of processes, responsibilities, and as a framework for deliverable 7.2. It will be based on the consortium agreement, and tailored into specific practical, how-to guides, including on project management, communications, meetings, monitoring and evaluation, reporting and deliverables. The handbook includes core project strategies including the gender management strategy, data management plan and CDE plan. The handbook will be updated and confirmed at every consortium meeting.

Deliverable D7.2 – Data management plan

Deliverable Number	D7.2	Lead Beneficiary	1. CZECHGLOBE
Deliverable Name	Data management plan		
Type	DMP — Data Management Plan	Dissemination Level	PU - Public
Due Date (month)	6	Work Package No	WP7

Description
Plan for managing data in PLUS Change, conforming to GDPR, ethics considerations, and questions of epistemic justice and accessibility (in T1.3). The DMP will include FAIR data management criteria and EU's open science practices. It will account for the variation in data types, licences and formats, and the data practices applied in the PLUS Change project.

Deliverable D7.3 – Final Data Management Plan

Deliverable Number	D7.3	Lead Beneficiary	1. CZECHGLOBE
Deliverable Name	Final Data Management Plan		
Type	DMP — Data Management Plan	Dissemination Level	PU - Public
Due Date (month)	48	Work Package No	WP7

Description

Final version of the data management plan, incorporating changes and iterations made as the project progressed and data management needs changed.

LIST OF MILESTONES

Milestones					
<i>Grant Preparation (Milestones screen) — Enter the info.</i>					
Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Means of Verification	Due Date (month)
1	Transdisciplinary roadmap of the project	WP1	3-KLI	Written report agreed by all partners	3
2	Indicator selection (for monitoring impact to biodiversity, climate and well-being)	WP2	5-STICHTING VU	Written list of indicators agreed by all partners.	8
3	Ambassador recruitment	WP6	1-CZECHGLOBE	15 ambassador profiles published on the PLUS Change hub	15
4	Integrated scenarios created with all practice cases	WP3	9-UL	11 internal scenario briefings circulated to all partners	23
5	Land systems maps	WP3	5-STICHTING VU	11 land systems maps circulated to all partners	27
6	Promising interventions for change identified	WP4	1-CZECHGLOBE	Internal briefing report	35
7	Proven interventions identified	WP5	10-KNOWLEDGE SRL	Internal briefing report	46
8	Theoretically informed research protocol for use by practice cases	WP2	14-LEUPHANA	Protocol circulated to all practice cases	9
9	EU Level workshop (T6.3)	WP6	7-PURPLE	Workshop notes circulated to all project partners.	46
10	Capacity Building Event 1	WP6	7-PURPLE	Event report sent to all project members.	24
11	Capacity Building Event 2	WP6	7-PURPLE	Event report circulated to project members	36
12	Final Project Conference	WP6	2-ISOCARP	Book of conference abstracts uploaded to PLUS Change website.	48
13	Project Kick off meeting	WP7	1-CZECHGLOBE	Minutes of meeting circulated to all partners	1
14	General assembly 1	WP7	1-CZECHGLOBE	Minutes of meeting circulated to all project members.	13

Milestones					
<i>Grant Preparation (Milestones screen) — Enter the info.</i>					
Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Means of Verification	Due Date (month)
15	General assembly 2	WP7	1-CZECHGLOBE	Minutes of meeting circulated to all project members.	25
16	General assembly 3	WP7	1-CZECHGLOBE	Minutes of meeting circulated to all project members.	37
17	General assembly 4	WP7	1-CZECHGLOBE	Minutes of meeting circulated to all project members.	44

LIST OF CRITICAL RISKS

Critical risks & risk management strategy			
<i>Grant Preparation (Critical Risks screen) — Enter the info.</i>			
Risk number	Description	Work Package No(s)	Proposed Mitigation Measures
1	Practice case Three Countries Park (TCP) functions as a part of partner EMR, and EMR can review its existence if it is not viable. The next review is December 2023. If EMR did not sign off on continuance, one of our 11 practice cases would not exist. Likelihood: very low. Severity: low	WP1	If TCP is no longer supported by EMR, EMR would withdraw from the project, and we would have a thorough debriefing and handover to ensure knowledge collected to date was kept within the project.
2	Actors are disengaged from the transdisciplinary process, and do not attend the workshops or participate in knowledge co-creation. Likelihood: Low. Severity: high	WP4, WP1	As a consortium, we are experienced in knowledge co-production. We have designed meaningful engagement into the project through the creative processes, coherent workshop program, and by engaging practice partners in the consortium. In the unlikely event that a Practice Case is struggling to keep engagement, we will create a tailored strategy for new

Critical risks & risk management strategy			
<i>Grant Preparation (Critical Risks screen) — Enter the info.</i>			
Risk number	Description	Work Package No(s)	Proposed Mitigation Measures
			approaches to data collection, and will explore the drivers of disengagement as part of the research.
3	Reoccurrence of pandemic prevents workshops, meetings, interviews and other experimental activities proceeding as planned. Likelihood: Medium. Severity: Low	WP6, WP4, WP7, WP5, WP1	We are all now well practiced at online approaches to data gathering, co-creation and project management. Our decentralised workshop design, where practice partners host their own, means that if one country is locked down, others can continue regardless. Moreover, we have the necessary online tools to support our participatory workshops.
4	Inaccessibility or low spatial and temporal detail of data on land use, land cover, agricultural production, fertilizer application, demographics and other socio-economic and agricultural characteristics for some case studies. Likelihood: medium. Severity: low.	WP2, WP3	In case of insufficient or unavailable data, we will use EU and national data (which is available). This would still enable an analysis of past changes to land cover and land use intensity (although not at the most detailed level), and would also make future modelling possible. Pre-screening revealed that in most case studies such data is already available.
5	The practice cases share too few similarities making them difficult to cluster into representative cases for creating policy simulations for T4.2. Likelihood: Low. Severity: medium	WP4	Practice cases have been selected to represent a diversity of socioeconomic and biogeographical contexts, but also so they share interests and issues. IF it is not possible to cluster them, we will choose those that are most different to create the initial policy simulations, and design the pathways workshops to stimulate discussion on why they are different in each case.
6	Under-representation of some population segments in experimental studies and high dropout rates in empirical studies. Likelihood: moderate. Severity: high.	WP4, WP5	Consortium is aware of the pervasiveness of high non-participation and dropout rates and their implications for generalisability and causal inference. Throughout the project, we minimize these problems by using strategies and procedures that minimize these problems (e.g., appropriate remuneration of participants, monitoring of data collection quality, maintaining high ethical and other standards of collaboration with participants). We will also look to draw upon the considerable experience and expertise in citizen engagement of practice partners.
7	Language barriers for stakeholder engagement in participatory and outreach activities. Likelihood: low; severity: high.	WP6, WP4, WP3	Research and activities conducted in the locations of the practice cases will be conducted in local languages, and all associated materials will be translated as necessary. For Possible Landscapes, translators will be on site to facilitate communication.
8	Associated partners running practice cases in the UK and Switzerland do not receive funding from	WP6, WP2, WP4, WP3, WP5	Funding has been pledged by national governments and the scheme is open for applications once the grant agreement has been signed. In the unlikely event that the requests are rejected we will replace the UK case in the project with a comparable practice case. No budget was

Critical risks & risk management strategy			
<i>Grant Preparation (Critical Risks screen) — Enter the info.</i>			
Risk number	Description	Work Package No(s)	Proposed Mitigation Measures
	their national research programmes. Likelihood: low; severity: medium		originally requested for the Swiss case, so this is not an option. Rather they will leave the project. Insights from a comparable location will be sought through links to other cases in the multiplier cluster.

PROJECT REVIEWS

Project Reviews			
<i>Grant Preparation (Reviews screen) — Enter the info.</i>			
Review No	Timing (month)	Location	Comments
RV1	20	to be agreed	1st intermediate project review
RV2	38	to be agreed	2nd intermediate project review
RV3	48	to be agreed	final project review

PLUS CHANGE: PARTICIPATORY LAND USE STRATEGIES: MEETING BIODIVERSITY, CLIMATE AND SOCIAL OBJECTIVES IN A CHANGING WORLD

Version	Date	Changes
1	9/1/23	Initial draft for Horizon Europe
2	31/1/23	Partner short names have been updated throughout to maintain consistency. Gantt is edited to reflect MS4 due date in M23 and new MSs. Tables 3.1h updated.
3	7/2/23	Table 3.1h for partner UKF has been edited to reflect the correct total of 22000 Euro
4	15/3/23	GANTT chart updated to reflect revised deliverables and milestones.

Contents

1. EXCELLENCE	1
1.1. STATE OF THE ART	2
1.1.1. Objectives and Ambition.....	2
1.1.2. R&I Maturity.....	5
1.2. METHODOLOGY	6
1.2.1. Overall Conceptual Framework.....	6
1.2.2. Research Design.....	7
1.2.3. Over-arching Methods.....	9
1.2.4. Targeted Methods for Exploring Systems Change.....	10
1.2.5. Related R&I Activities: Synergies with Topics in Cluster 5 and Beyond.....	11
1.2.6. Expertise and Methods from Different Disciplines.....	14
1.2.7. Gender Dimension.....	14
1.2.8. Open Science Practices, Research Data Management, and IPR.....	15
2. IMPACT	16
2.1. PROJECT’S PATHWAYS TOWARDS IMPACT	16
2.1.1. Project Outcomes	16
2.1.2. Practice Partner Outcomes.....	18
2.1.3. Long Term Impacts (Destination).....	19
2.1.4. Barriers and Mitigation.....	20
2.2. MEASURES TO MAXIMISE IMPACT – COMMUNICATION, DISSEMINATION, AND EXPLOITATION (CDE)	21
2.2.1. Foundations of CDE.....	21
2.2.2. Communication and Dissemination.....	21
2.2.3. Exploitation.....	23
2.3. SUMMARY	24
3. QUALITY AND EFFICIENCY OF THE IMPLEMENTATION	25
3.1. WORK PLAN AND RESOURCES.....	25
3.2. CAPACITY OF PARTICIPANTS AND CONSORTIUM AS A WHOLE	29
3. ETHICS SELF ASSESSMENT	31
A. ETHICAL DIMENSIONS OF THE OBJECTIVES, METHODOLOGY AND LIKELY IMPACTS.....	31
B. COMPLIANCE WITH ETHICAL PRINCIPLES AND RELEVANT LEGISLATIONS	32

1. Excellence

Land use strategies must juggle multiple competing social-economic priorities around production, recreation, infrastructure, and housing, whilst also mitigating for and adapting to climate change and biodiversity loss. All this

must be achieved under changing global environments and local conditions. **PLUS Change** pulls together expertise from across the social sciences, humanities, and arts, with land use modelling, all integrated by the use of systems thinking frameworks in a dedicated WP. It identifies, analyses, and enhances sustainable land use strategies that address complexities, and pinpoints the tangible policy, governance and behaviour interventions to achieve them. The resulting toolkit is developed directly with land use decision makers in practice cases from 11 countries, and 220+ land use actors. It connects with other Cluster 5 and 6 projects (including those held by consortium members) and Horizon Missions through an online hub, and contributes to ongoing planning and land use change initiatives in each practice case. **PLUS Change** reflects much of the 2021 *EU Strategy on Adaptation to Climate Change* and its calls for a smarter, faster and more systematic approach - adapting to inevitable climate change impacts and doing so quickly at all levels of governance. In particular it looks to advance our understanding of how land use planning and related decision-making can play an optimal role in “building a more resilient tomorrow” The toolkit reaches 500+ planning authorities and associations through our multiplier cluster (including ESPON, ISOCARP, PURPLE), via extensive policy workshops, and 15 **PLUS Change** Ambassadors. Transformational knowledge reaches 1000+ users, drawing on our strong links to IPBES, IPCC and extensive research communities, and shapes understandings of multi-level societal transformations.

1.1. State of the Art

1.1.1. Objectives and Ambition

In **PLUS Change** we recognise that achieving land use changes that deliver climate-neutral, resilient, biodiverse and just futures, while helping to achieve food and non-food production goals, and supporting socio-economic development, require changes in behaviour and decision making^{1,2}. These changes are required at a range of levels: a) all citizens in meeting their wants and needs (e.g. healthy dietary changes); b) individual land owners and land users (e.g. farmers, foresters) to improve the way they manage land and the goods and services they produce; c) planners at decision-making levels from local to transnational to develop strategies and plans that meet the needs of people and planet; and d) the broader group of climate, biodiversity and social policy makers to shape targets, tools, incentives and initiatives to support land-use and behaviour change in view of achieving the UN SDGs³. For leveraging the transformative change required towards land use strategies that meet climate, biodiversity and human well-being goals (including food security and renewable energy), it is of critical importance to understand the factors, including knowledge, culture, motivation, and power, that shape behaviours and decision making across these groups of people. Behaviour changes must be underpinned by evidence on climate, biodiversity and human well-being impacts (including social and economic outcomes), and trade-offs among them.

PLUS Change’s aim is to create land use strategies and decision-making processes that meet climate, biodiversity and human well-being objectives of sustainability, and to develop interventions that leverage political, economic, societal, material and cultural contexts to achieve these strategies, by involving actors at multiple decision-making levels (individual, planning, policy). We will achieve this by understanding past trajectories of land use change, elaborating transformative visions of future land use at a range of spatial and temporal scales, deriving effective, and equitable transformation pathways towards these visions, and identifying socioeconomic factors that shape decision making and behaviours to create interventions that overcome behavioural patterns and inertia related to land ownership, management and policies.

To reach our aim, we have gathered a transdisciplinary team including planners, policy makers, social and natural scientists, and scholars from the humanities and arts communities to cover different determinants of human behaviour, policy and governance, and land use. This is underpinned throughout by systems thinking, and land use modelling, both of which are combined with inter- and trans- disciplinary methods, and are inextricably linked with 11 in-depth practice cases, and 1 broad scale multiplier cluster. The cases and cluster are sites of multi-actor knowledge co-creation dissemination and impact. They cover key land use challenges at a range of scales across Europe including urban, rural and peri-urban areas. We take a long-term and context-based view to understanding factors that have shaped, and been shaped by, land use change.

Our aim and research approach are both embedded within a **multi-sectoral and changing policy context**. Our work will include explicit consideration of existing policy drivers and instruments including, (but also extending beyond) the European Green Deal (EGD) itself and its associated instruments and milestones (the 2021 Adaptation Strategy, the forthcoming European Climate Law and within Fit for 55 elements such as LULUCF etc.), climate change, biodiversity and other targets for 2030, 2050 and other prescribed points in time – and what needs to be done in the interim to ensure these goals are reached. We will also be linking to the ongoing work of Horizon Missions such as Climate Change Adaptation, Soil and Climate Smart Cities. Three of our practice partners (Mazovia Reg, VLM, REGION) are first-wave signatories to the climate change Mission, and CZECHGLOBE is directly working

¹ UNEP/IRP, 2016. Food systems and natural resources ISBN: 978-92-807-3560-4

² EEA, 2021. Air Quality in Europe. DOI: 10.2800/73735

³ IPCC, 2019. Climate Change and Land: Special Report

with all three Missions through the funded Horizon Europe Cluster 9 CSA SSH Centre. We will examine, unpack, seek to inform debates, and make recommendations around, various of these policy instruments and their future evolution and trajectories towards broader aspirations such as climate neutrality, the green, digital and social transitions, net zero land take orientations, urban and rural development etc.

PLUS Change's 5 specific objectives are:

1. Provide characterisations of expected future land use patterns at different timescales (e.g. 10-50 years) at local, sub-national (regional), national and European scales, based on historical trajectories (previous 100+ years), and contrast them with current situations and future trends, accounting for policy targets (including on net sequestration and biomass flows), projected global environmental change e.g. under various mitigation pathways, and normative future scenarios (WP2, WP3). **KPIs (Key Performance Indicators):** In depth work with 220+ actors through 11 practice cases to identify: 11 narratives of land use change over time, 36 recommendations on the roles of values, governance and social-cultural contexts in shaping land use trends; 1 artistic engagement process on elaborating normative future visions, enacted across 11 practice cases; 12 integrated scenarios of future land use (practice cases + European scale); 1 methodology handbook, translated into 10+ languages, on combining plural perspectives for scenarios of land use.
2. Produce land use strategies at multiple spatial scales (practice case, regional, national, European) to achieve long term policy and normative objectives on food security, the need for feed and raw materials, climate mitigation and adaptation, conserving and restoring biodiversity, renewable energy and human well-being (WP3). **KPIs:** 12 workshops with 220+ land use actors; Set of land use strategies for 11 practice case regions, and their overall fit to European scale; 12 summary briefings on policy systems and implications for land use strategies. Quantification of contribution of land use strategies to key policy targets (under Green Deal, biodiversity and climate strategies).
3. Identify pathways to implement sustainable land use strategies (Obj.2), including key intervention points and actors (Obj.2), accounting for the roles, powers, structures, motivations and cultures that shape the multi-level governance system of land use policy and planning, including individual behaviour, land management, land ownership and policies (WP4). **KPIs:** in-depth work with 11 practice cases and 1 multiplier cluster to map political ecologies of land use systems; 33+ interviews with key policy stakeholders; Customisable policy simulation and Agent Based Model; 200+ actors using policy simulation to identify the impact of policy and behaviour change on land use; Identification of 10+ leverage points to unlock systems change across broad (European and global) scales.
4. Create integrated recommendations of co-designed, tried and tested interventions to target intervention points and support actors and change agents (Obj.3) in shifting land use governance systems to unlock behavioural (including demand-side measures), structural and procedural changes and the use of land use innovations to meet sustainable land use strategies (WP5; WP1). **KPIs:** Four laboratory experiments (N=400+ each) and 1 large web-based experiment in 5+ countries (N=400+ per country) to test promising behaviour change interventions. 55+ interviews with land managers on innovative interventions. 11 road maps on implementing governance innovations. 10+ evidence-based policy and practice briefings on proven interventions with citizens, land managers, and decision makers. 3 training handbooks, translated into 10+ languages, on implementing interventions with citizens, land managers and decision makers.
5. Co-develop a toolbox to support land use planners in enacting interventions (Obj.4). The toolbox will include support to changing planning practices (including knowledge training, simulation tools for understanding the impacts of land use decisions), and tools to support engaging citizens and land managers in creating change (including creative outreach and education approaches, and guidelines on interventions and their use) (WP6, WP1). **KPIs:** 6 online seminars (50+ participants each) on ethical challenges of land use change practice and research; 1 artistic outreach strategy and materials; 1 online planning toolkit; 1 intervention handbook; 10 online training 'modules' to support the interventions; 15 **PLUS Change** ambassadors trained, and taking toolbox to their home communities. 3 policy outreach events in locations of the presidency of the council of the European Union, with 30+ participants at each; 50+ policy actors and 50+ Civil Society Organisations (CSOs), engaged in training workshops. 5000+ unique users on **PLUS Change** online hub.

PLUS Change has 7 major **ambitions** (Table 1) that go beyond the state-of-the-art in the fields of land use planning and modelling, equitable transformations, governance of biodiversity and climate mitigation and adaptation.

Table 1: 7 Ambitions in **PLUS Change**

<p>1. Respond to the interrelations between urban, rural and peri-urban regions, including the synergies and trade-offs therein</p>
<p>Existing approaches to understanding land-use change tend to be split between urban, rural, and nature, with</p>

specialisms emerging in each area⁴. However, shifts in demand for goods and services, movement of populations and the impact to housing and transport infrastructures mean that the dynamics between urban and rural areas have large implications on land-use, particularly in peri-urban regions⁵. In *PLUS Change*, our multi-scale research design explores diversity in land use patterns, approaches and biogeographic conditions, to assess the trade-offs, synergies and dynamics between areas, including the use of nature-based solutions in urban and peri-urban areas to reduce the need for intervention in rural areas. We address rebound and detrimental displacement effects.

2. Address plurality across Europe of land use change drivers, needs and values, and the implications for meaningful interventions and governance.

Land use systems across Europe are variable in their social norms, political and social histories, land tenure systems and cultures. In response, distinct planning cultures have emerged across Europe⁶, creating plurality in opportunities of where to intervene, how and to what ends⁷. However, research to date tends to be dominated by western/northern European examples, without due consideration of their applicability to other contexts. The cases in *PLUS Change* represent North, South, East and West Europe (see Table 2) to consider how policy mixes can meet plurality while achieving European-wide objectives.

3. Bridging understandings of individual change with collective and structural change towards sustainability, including demand-side and supply-side measures.

In sustainability and climate change research, there is a (false) dichotomy between a focus on individual behaviour change, and broader political and structural change⁸. In land use change, individual change is important for: a) citizens and the products/services they consume; b) land managers/owners and the services they provide; and c) planners and policy-makers and the strategies they create. These behaviours are embedded within broader political economies of the powers, agency, structures and cultures that shape them. In *PLUS Change* we use a systems approach to linking individual behaviour change to changes in political economy⁹, considering both demand for, and supply of, goods and services.

4. Taking an explicitly social perspective to understanding how values, knowledge, governance, powers and roles of different actors interact to shape land use decisions and actions.

People's values with regards to nature, established land use practices, social norms, perceived and actual costs, governance arrangements (including regulatory/legal frameworks), knowledge of climate change, biodiversity and land use innovations (e.g. rewilding, agroecology) and land tenure all shape land use¹⁰, and create opportunities to intervene for change. However, they are often considered separately, resulting in a lack of understanding of leverages for change as well as potential rebounds between different values. In *PLUS Change* we holistically explore how these factors shape each other, and what this means for the kinds of tools and interventions needed to support land use change, as well as what contributions they offer to reaching stated goals (e.g. climate mitigation). Based on this understanding we create interventions that target change in individuals and decision-making systems at local (practice case), landscape and European scales, including collective learning and negotiation processes

5. A long-term, dynamic perspective that incorporates social and physical changes over time, their trade-offs and synergies in time and space, and expected, and desired climate and biodiversity trends to create future projections and inform decision making.

Land use planning tends towards a technocratic approach that mobilises technical knowledge and depoliticises decision making, often failing to plan for changing future social and environmental conditions under climate change and its projected impacts (e.g. population change, needs and values). In *PLUS Change*, we link spatially explicit land use models on multiple spatial and temporal scales, with systems thinking, while drawing on, expanding and improving expected climate and biodiversity trends (including the IPCC's Shared Socioeconomic Pathways). We bridge the gap between various data and analytical tools and modelling for identifying and comparing land use patterns, and considering synergies trade-offs and displacement effects in time and space.

6. Engaging with challenges of democracy, participation and justice in navigating trade-offs in time and space.

In land use planning and management, decisions taken in one place and time affect the outcomes and scope of

⁴ Harrison, J. (2010). Networks of connectivity, territorial fragmentation, uneven development: The new politics of city-regionalism. *Pol. Geog.*, 29(1), 17-27.

⁵ Knickel, K., et al. (2021). Transitioning towards a sustainable wellbeing economy—implications for rural–urban relations. *Land*, 10(5), 512.

⁶ Knieling, J., & Othengrafen, F. (2015). Planning culture—a concept to explain the evolution of planning policies and processes in Europe?. *European Planning Studies*, 23(11), 2133-2147.

⁷ Malek, Ž., & Verburg, P. H. (2020). Mapping global patterns of land use decision-making. *Global Environmental Change*, 65, 102170.

⁸ Newell, P., Twena, M., & Daley, F. (2021). Scaling behaviour change for a 1.5-degree world: challenges and opportunities. *Global Sustainability*, 4.

⁹ Leventon, J. (2021). Scaling behaviour change for a 1.5 degree world: transformations and systems thinking. *Global Sustainability*, 4.

¹⁰ Minato, W., Curtis, A., & Allan, C. (2010). Social norms and natural resource management in a changing rural community. *Journal of Environmental Policy & Planning*, 12(4), 381-403.

decisions taken elsewhere. This poses a challenge to democracy, in that there is a mismatch between the people with a voice, and the people who are impacted. Yet, engaging people in meaningful participation in decision-making and action is problematic, often because of a mismatch between the bottom-up participation and the scope that is set by administrative units, sectoral fragmentation and clashing expectations. There is a need to identify better, culturally sensitive approaches to negotiation and collective learning for land use decision-making and planning. In *PLUS Change*, we combine understandings of land use change and its impacts with nuanced understandings of the winners and losers of decisions and actions, and the structural drivers of inequities. We weave considerations of ethics, equity and justice through the project to inform how we engage, with whom and for what purpose. We draw on these understandings to shape our interventions to and outcomes in land use systems.

7. Multi-level, multi-actor approaches, that engage science, social science, humanities and arts to enable transformations at individual, community, and policy/structural levels.

Achieving sustainability transformations, as envisioned in the Green Deal requires engaging multiple actors, from policy-makers to communities and individuals. Frequently, multi-actor and transdisciplinary approaches in sustainability research are only place-based and are created separately to other parts of the project. Integration and scaling up of co-created findings are therefore hindered¹¹. In *PLUS Change*, our multi-actor approach is multi-level, engaging with citizens across Europe, location cases for place-based knowledge co-creation, and a multiplier cluster for exploring broader scale dynamics. At all levels, we work with performing arts approaches to provide a toolkit for enlarging discussion and exploration between the transdisciplinary consortium and participants.

1.1.2. R&I Maturity

PLUS Change includes research and innovation at TRLs (Technology Readiness Levels)¹² between idea and application. There are three core ‘technologies’ that *PLUS Change* will contribute to during the course of the project. It should be noted that in this social-science-led project, some of the innovations being created are not under the traditional definition of a technology; rather they are **social innovations** that lead to social and behavioural change and new social practices, with broader application. For these we refer to SRLs (Societal Readiness Levels):

Technology 1: Integrated Land Use Models (Partners: STICHTING VU, P4All). TRL 6 to 7 during the project.

Current state: TRL 6. Integrated Land Use Models demonstrate how drivers of land use change result in land use patterns. They can be used to evaluate different responses decision-makers have to future socio-economic and environmental challenges, for example most suitable options for adaptation to climate change, or different nature conservation strategies. Setting up a model requires GIS skills and deep system understanding. Land use models are run by scientific experts and we have codesigned models together with (primarily EU scale) policy makers. Model results have been used as a decision / discussion support tool. However, they are currently not able to respond to pluralities of stakeholder inputs at multiple decision-making scales.

PLUS Change contribution: TRL 7. Through developments in *PLUS Change*, we will be able to better target models to different scales of decision making and streamlining inclusion of different stakeholder driven scenarios.

Technology 2: Policy Simulations (Partners: CRS). TRL 6 to 7 during the project.

Current state: TRL 6. Policy simulations are being used in online and hybrid workshops for various topics and contexts to explore specific real-life policy issues involving experts and practitioners concerned about the future of a region or an organisation. They are widely used, for example an online simulation session on critical raw materials was held during the COP26 in November 2021 and a hybrid simulation session about the future of food during the “Science Advice Under Pressure” conference organised by the Science Advice for Policy by European Academies in April 2022. A general application of policy simulations, called Social Simulations, is being used with a broader audience, including in academic settings and informing the general public. Topics of the Social Simulations include, but are not limited to, climate-induced migration, disaster risk management, deep-sea mining and rural heritage and regeneration. While such simulations have clear applications to systems thinking and land use change, it is not currently used as a tool for land use planning.

PLUS Change contribution: TRL 7. The contribution of policy simulations to the project's overall goals will enable the technology to establish itself in the process of land-use planning and deliver real-world impacts. We will refine the process of conducting policy simulation sessions and the technical aspects of the tool, including the online software.

Social Innovation 1: Behaviour and decision-making interventions. (Partners: CZECHGLOBE, STICHTING VU, BSC). SRL 3 to SRL 5 during the project.

¹¹ Salomaa, A., & Juhola, S. (2020). How to assess sustainability transformations: a review. *Global Sustainability*, 3.

¹² TRLs refer to the maturity of the technology. We follow the definitions from the Horizon Europe work programme of TRLs 1-9, where TRL1: basic principles are observed to TRL9: actual system proven in operational environment.

Current state: SRL3. Different behavioural interventions aiming at pro-environmental and sustainable change in the behaviour of individual citizens have been tested across different contexts. The effects of these interventions have been described in individual experimental studies and, to some degree, summarized in specialized reviews and meta-analyses. Most of these studies are limited to a single country, most are not representative of any given population, and most use measures of behaviour with limited consequentiality and external validity. Compared to individual behaviour, interventions in the functioning of organizations are less researched and their effects less known, with very few existing reviews and meta-analyses summarizing these effects qualitatively or quantitatively. Evidence regarding the effectiveness of these interventions is typically limited to only one country or region, and there is very limited evidence regarding how the effects of these interventions generalize across regions and cultural conditions.

PLUS Change contribution: SRL 5 (proposed solutions validated by relevant stakeholders in the area). In **PLUS Change**, we will identify individual-level and organization-level interventions that create multi-scale change through land use systems (T4.4), and we will validate these interventions in the cross-national context of the current project using cross-national experimental studies (T5.1). Further, we will provide guidelines on how these interventions can be introduced, together with practical and ethical aspects of their use. These guidelines will be co-created with and validated by relevant stakeholders in the area.

1.2. Methodology

1.2.1. Overall Conceptual Framework

In **PLUS Change** we understand land use as a set of interacting, linked systems (Figure 1). Systems are defined as actors and entities connected via flows of goods, materials and information¹³. In this project, we consider the land use policy and planning system as a focal system. This includes decision-makers and planning actors at multiple levels (local, regional, national, European) creating land use policies and plans. These planning frameworks *must* draw on policy targets and instruments from across other sectors (e.g. climate, biodiversity, energy, food) and levels. This broader political economy shapes the decisions that can be made by any given actor, in combination with the actor’s own motivations, values, and knowledge. Further, the policy and planning system sits at the intersection of the social system and the biophysical system. Social systems shape how people interact with each other and use land, including land managers and broader citizens who place demands on land through the goods and services they consume. Biophysical systems include how land use is shaped by changing climate and biodiversity dynamics, and how land use can contribute to mitigating global change through e.g. net carbon sequestration, biodiversity restoration. It includes how these interactions shape biomass flows, and impacts to land-related resources such as clean water and air, and healthy soils. It includes how land use changes in interaction with the social systems. In **PLUS Change**, we achieve our objectives by using systems thinking as framework to bring together a diversity of

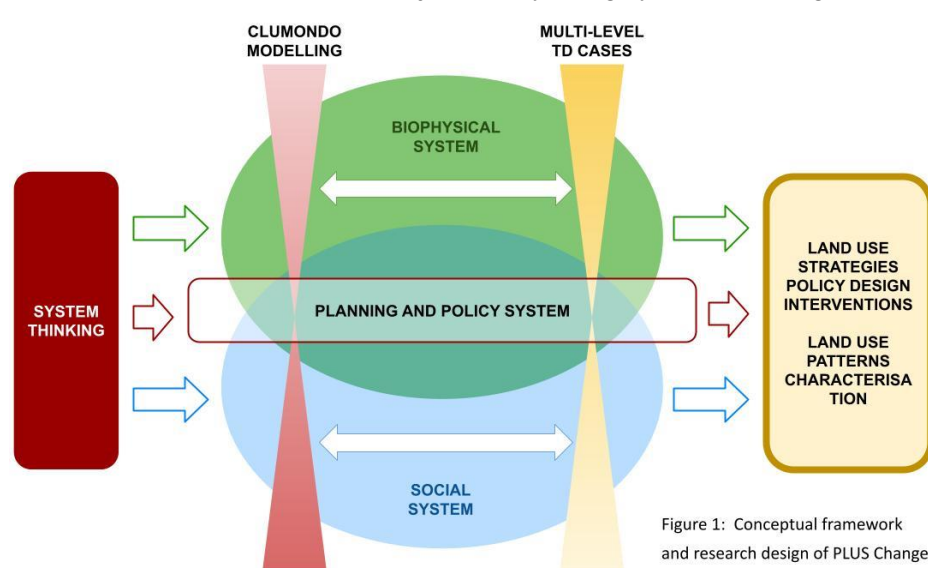


Figure 1: Conceptual framework and research design of PLUS Change

ways of knowing, through four broad conceptual principles (CPs).

CP 1: Leverage Points to Intervene in Systems.

Systems can be characterised by their properties of materials, processes, design and paradigms, and the underlying drivers (or feedback loops) that determine change. Such properties can be considered as leverage points – or places to intervene in the system to create change. Intervening with paradigm and design properties has greater transformation potential (i.e. certain feedback loops are strengthened, others

weakened) than the shallower leverage points of materials and processes¹⁴. In **PLUS Change**, we look across systems to identify leverage points and create tools to support interventions, including identifying whose decisions or behaviours can change, in which system, how, and with what outcomes (WP2,3)¹⁵.

CP 2: Vertical Integration Across System Scales from Individual, through cases, to planning, social, and

¹³ Abson, D. J., et al. (2017). Leverage points for sustainability transformation. *Ambio*, 46(1), 30-39.

¹⁴ Meadows, 1999. Leverage Points: Places to Intervene in a System.

¹⁵ Leventon, J., et al. (2021). Leverage points for sustainability transformations: nine guiding questions for sustainability science and practice. *Sust. Sci.* 16(3), 721-726.

economic systems. Systems are multi-level, working from individuals and place-bound social-ecological systems, to regional, national, international levels. A (false) dichotomy has emerged in current transformations research between individual and systems change⁸, and between local and international scales¹¹. In *PLUS Change* we integrate across scales, to create understandings of how they shape, and are shaped by, each other. This is achieved through our multilevel research design. We engage with **citizens** from across Europe, including land managers, and looking further to broader people whose consumption patterns, needs, wants and values place demands on land use. We engage to understand relationships with land, envisioned futures and interventions that shape pathways for land use change. We also work directly with **practice cases** as real-world examples of decision making, planning and action within a geographic area (see Table 2); and a **multiplier cluster** of planning associations (e.g. PURPLE, ISOCARP, ESPON), land user organisations, and policy-makers that represent land use stakeholders at a European (and beyond) scale. We analyse their practices, broader scale systems processes including transboundary issues and displacement effects, their needs and interventions.

CP3: Dynamic Understandings of Land Use Change. Land use change is simulated based on the interaction between demand for different private and public goods, their delivery by different land systems, a range of biophysical and societal drivers for change, and conservation policies. In *PLUS Change* we identify the way different components of a system and different systems interact over different timeframes, and unpin these understandings with Integrated Assessment Models, drawing on policy simulations, land use modelling, ecosystem service impact assessments and participatory scenario planning. Systems Thinking is useful to inform decisions on (policy) interventions because it allows for identification and visualization of the extent to which different indicators and sectors are interconnected with one another. A thorough understanding of system dynamics, impacts to climate and biodiversity objectives, and of underlying drivers of change represents the foundation for forward-looking policy analysis¹⁶. Practically, the use of dynamic systems thinking reduces uncertainty, allows decision makers to be better prepared, and ultimately increases effectiveness and value for money for public policy and investments, and higher effectiveness of behavioural change.

CP4: A Focus on Key Factors that shape people's relationships with Land Use: Governance, Land Tenure and Values. Land use change, and the underlying drivers of climate change and biodiversity loss are closely linked to values and ethics of land and nature, and how such values are integrated into political and economic decisions¹⁷. Enactment of sustainability-aligned values can be strengthened by governance arrangements that support such values. *PLUS Change* is designed to create spaces for co-creation, negotiation and collective learning to generate shared values and ethics, and to build Possible Landscapes upon principles of sustainable and just futures.

1.2.2. Research Design

In order to deliver these conceptual principles, we have created a deeply **transdisciplinary** project design. We draw on strong disciplinary approaches, include interdisciplinary work that bridges 2 or more disciplines, co-create solution-oriented research with stakeholders, and integrate all of these components for overall learning and policy/solution-oriented outcomes. In practice, this means that we follow a Transdisciplinary research process in partnership with our 11 **practice cases** (see below) whereby the research team and multiple societal actors collaborate to 1) frame the problem; 2) conduct solution-oriented research and highlight social innovations; and 3) jointly create impact in science and society¹⁸. We achieve this transdisciplinarity by working through a process of collective learning that is supported with creative arts approaches, and embedded in practice cases and a multiplier cluster. Embedding in cases for multi-actor co-creation means that our questions, approaches and solutions are sensitive to the needs and contexts of the end users and stakeholders of the research.

Our **practice cases** are real-world examples of land use decision making and action within a geographic area (see Table 2, and Figure 4). They represent a territorial unit (e.g. protected area, planning region, county). The practice cases act as a multi-actor hub, where we engage with planning authorities, land managers and citizens on topics of land use change and interventions. Seven are led by **authorities** with responsibilities for land use management in the territory, **guaranteeing direct access** to these cases and their land use planning and management processes. Three are led by research partners with a **long history of engagement** on land use within the area, who will ensure that the planning authorities are engaged as participants in co-creation workshops (see Table 3) through the course of the project. Our cases cover a diversity of countries and a variety of social-cultural-political contexts across Europe, and a range of physical geographies and dominant land uses (see Figure 2). Further, they sit across a spectrum of urban, peri-urban and rural areas. We therefore explore diversity, trade-offs and synergies both between and within the practice cases, and at multiple spatial and temporal scales.

To ensure a sufficient scope to explore synergies, trade-offs and overarching policy frameworks, these practice

¹⁶ Martin, E. G. *et al.* (2020). Using a system thinking approach to assess the contribution of nature based solutions to sustainable development goals. *Science of the Total Environment*, 738, 139693.

¹⁷ Pascual, U., *et al.* (2017). Valuing nature's contributions to people: the IPBES approach. *Current opinion in environmental sustainability*, 26, 7-16.

¹⁸ Lang, D. J., *et al.* (2012). Transdisciplinary research in sustainability science: practice, principles, and challenges. *Sustainability science*, 7(1), 25-43.

cases are supported by the **multiplier cluster** at the European scale (see CP2, section 1.2.1). By executing all work also within the multiplier cluster, we explicitly consider processes and delivery mechanisms for upscaling required changes and innovations.

Table 2: Practice Cases in the **PLUS Change** project

Practice Case	Led	Size (pop.)	Type	Designation	Core land use challenges
1. Amsterdam, NL	STICHTING VU	2580 km ² (2.5 million)	Urban	Metropol-region: 32 municipalities, 2 provinces	Meeting housing demand while maintaining sufficient green spaces for recreation, nature and climate change mitigation; managing traffic pressures, tourism and agriculture.
2. Nitra City, SK*	UKF	122 km ² (100000)	Urban	Municipality for the city area	Intensive sub-urbanization and industrialization (housing, transport, recreation) and related environmental issues to soil, air and water quality, ecological stability.
3. Flanders, BE	VLM	13500 km ² (65 mil)	Peri-Urban	Region, with 300 municipalities, 5 provinces	Delivering environmental goals around soil sealing, restoration of habitats, extension of forest area, development of national and landscape parks, managing flood and drought.
4. Kaigu wetland, LV	BSC	19,55 km ² (3878)	Rural	Two municipalities sharing a peatland	Implementation of climate policies, renewable energy development, EU taxonomy of environmentally sustainable economic activities in a peat extraction area.
5. Parc Ela, CH	Par Verein Ela	659k m ² (5700)	Rural	Nature Park inc., 6 municipalities.	Impact of changing rainfall (storms and droughts) on grasslands, landslides. Managing new pest species. Matching livestock density with local biological capacity
6. Lucca, IT	Prov Lucca	1773 Km ² (387876)	Rural	Province with 33 communes	Managing production under changing climate and increasing land abandonment. Increased heavy rain frequency; energy production and landscape
7. Green Karst, SI	RRA ZELENI KRAS	1456k m ² (53092)	Rural	Region, with 6 municipalities	Addressing impacts of climate change on land use (drought, heat waves, fire hazard), renewable energy, agriculture transformation and sustainability, sustainable tourism
8. Three Countries Park, DE, BE, NL	EMR	3500k m ² (under 4 million)	Peri Urban	Cross-border partnership: 3 countries, 5 regions, 104 municipalities	Land and landscape management across multiple governance, legal and policy systems. Addressing land fragmentation, devastating weather impacts, post-industrial restoration and agricultural transition.
9. South Moravia, CZ	JINAG	7188k m ² (1.3 million)	Peri Urban	Region with 7 districts and ~700 municipalities	Brownfield regeneration. Drought and flash flooding, ongoing processes of land consolidation, and conflicts between agricultural and environmental interests.
10. Surrey, UK	Surrey CC	1663k m ² (1.2 million)	Peri Urban	County, incorporating 11 districts	Land fragmentation and multi ownership, green belt preservation, flood risk and flood plain management, water management. Habitat protection and species management
11. Ile de France	REGION N	12000 km ² (12.3 million)	Peri Urban	Region, with 8 departements and 1270 municipalities	Managing urban and demographic growth while guaranteeing the region's international influence, and balancing strategic goals for net zero land take, emissions, and waste.

Practice Case	Led	Size (pop.)	Type	Designation	Core land use challenges
		n)			

*Nitra is undergoing municipal elections during the process of this proposal evaluation. In the event that incoming personnel do not support the project, UKF will work with another urban area with similar challenges in Slovakia (see also critical risks).

1.2.3. Over-arching Methods

Transdisciplinarity through Participatory Workshops

To ensure a continuous process of transdisciplinary co-creation through our practice cases, we will run a series of 8 multi-actor workshops through the course of the project (see WP1, T1.2), that engage with a broad range of participatory methods. The workshops have been planned to interact with the ongoing workplan of the project (see Table 3), such that they communicate and refine results with direct research users (column: input tasks), and shape the ongoing research by informing questions, methods and providing data (output tasks). In each workshop, the practice case leads can participate in training in specific methods (led by task leads), then run the workshop in a context-sensitive way, that meets the needs and interests of actors within the case. The workshops are designed to be participatory, drawing on diagramming and dialogic methodologies, as an approach to design research questions, create data, share knowledge and experience, and validate and discuss findings. In each practice case, there is a core set of stakeholders (~20) who engage across all workshops, with additional actors engaging in topics specific to them.

Table 3: 8 anticipated multi-actor, participatory workshops in *PLUS Change*.

No	Month	Length	Topics	Input tasks	Output tasks
1	6	1 day	Introduction to the project	1.1, 1.2	
			Stakeholder identification		1.2, 3.3, 4.1
			Blueprint for co-creating visions		3.1
2	9-11	0.5 days	Narratives of land use change	2.1, 2.2, 2.3	2.4
3	18	1 day	CLD (Causal Loop Diagram) on how values are affected by historical land use change	2.1	2.3
			CLD on policy drivers of future land use	2.1, 3.1	3.2
4	20-23	0.5 days	Creating integrated scenarios	3.1, 3.2	3.3
5	30	1 day	Feedback on land use strategies modelling	3.1, 3.2, 3.3	3.4
			Running policy simulations	3.2, 4.1, 4.2	4.2
6	33	1 day	Identify measures for testing	4.4	5.1
			Create plans for piloting planning interventions		5.3
7	36	0.5s day	Intermediate discussions on progress and refining planning intervention roadmaps	5.1, 5.2, 5.3	5.3
8	42	1 day	Pulling together findings on tested interventions to create policy and practice recommendations	2.4, 3.3, 3.4, 3.5, 4.2, 4.3, 5.4, 6.2	5.3, 5.4
			Refine Toolkit		1.4

Understanding Land Use Change over Time using CLUMondo Modelling

The land-use model CLUMondo is a spatially explicit land use model that can allocate future demands for societal goals while considering local geographic characteristics. Unlike other land use models, CLUMondo goes beyond allocating scenario defined areas for e.g. cropland, forestry, or urban areas. It optimizes the landscapes based on different goals set by stakeholders, development plans, or high-level policies: demand for crop and livestock production, forestry, and housing for population. We also use it to consider novel demands, such as biodiversity, carbon sequestration, recreation or soil quality. CLUMondo is capable to simulate future climate change adaptation and mitigation options in the land use sector (e.g. improvements in efficiency, irrigation, changed forest management). The model considers local biophysical, and socio-economic characteristics, and can include future changes to climate using high resolution climate simulations. It is among the most widely used land use models with over 180 applications in case studies worldwide, including continental or global studies. The model is freely accessible online, and *PLUS Change* will build upon a recently developed application for the European Union that considers both the IPCC Shared Socioeconomic Pathways (SSPs) for the region, as well as EU high-level policies (e.g. European Green Deal). In *PLUS Change* we integrate CLUMondo through WPs 2, 3 & 4 to identify land use change trajectories through time, understand drivers and impacts, and identify the impacts of interventions and

Biophysical Modelling of Ecosystem Services to Quantify Impacts to Climate, Biodiversity and Human Well-Being

There are numerous GIS-based models or tools used for ES modelling¹⁹, generally based on production functions that define how changes in an (agro)ecosystem's structure and function are likely to affect the flows and values of ecosystem services across a landscape. Such models accompany and support WP2 and WP3 in terms of changes in ecosystem services provision, demand and flows in the given area and over the time series. These off-the-shelf methods, and 3rd party toolboxes like InVEST or Aries will be supplemented, if needed, with intermediate complexity novel GIS based models²⁰. In *PLUS Change*, we use these models in WP2 and 3 to create **Integrated Assessment Models** (in combination with CLUMondo Modelling) to analyse the impact of land use change to a range of ecosystem services as a suite of indicators for quantifying impact to climate, biodiversity and human well-being goals. These indicators will be selected during WP2 as a key integration point in the project (MS1).

Imaginative Co-Creation supported by Possible Landscapes arts approaches

Our Possible Landscapes approach is a facilitated, performative approach that inspires project participants (researchers, practice partners and research respondents) to visualise and materialise their visions on possible future landscapes. The approach runs through the duration of *PLUS Change* to stimulate conversations and sharing of ideas, as well as to disseminate these more broadly. The approach interacts with WP3 to create visually attractive 3D model landscapes across practice cases. These then underpin understandings of what and who might change, and how this can be facilitated in WP4 and 5 by providing boundary objects for exploration, and explore approaches for collaborative learning. In later phases of the project, Possible Landscapes shifts to a story-telling approach by creating installations and a live event in practice case areas, where the storyteller performs a journey of their Possible Landscape. Thus, the overall process starts with collected wishes, imagines impacts, explores obstacles for change, and then ends with formulating a shared exhibition. Creative communications and engagement approaches feed into dissemination, communication and exploitation activities (WP6) to share results with a wider audience and to support new processes of negotiation and stakeholder engagement in land use decision making processes.

1.2.4. Targeted Methods for Exploring Systems Change

Drawing on a Rich Toolkit of Social Science Methods for Exploratory Research

As a social-science led approach to land use strategies, we draw on a broad range of methods from across social science traditions. These include data collection approaches such as semi-structured interviews (e.g. T4.1, T5.2), participant observation (T5.3), stakeholder analysis (T1.2), policy review (T2.2, T4.1), case surveys (T2.2), media analysis (T2.3), causal loop diagrams (T3.2, T4.2) and meta-reviews of literature (T4.4). By working agilely with multiple methods we can answer targeted questions and with mixed methods research designs. How we put these methods together is also indicated in Table 5, section 1.2.6 (expertise and methods from different disciplines).

Policy Simulations to Identify Systems Changes

Policy simulations are interactive and experiential participatory tools that combine group scenario-building, role-playing, and game-like mechanisms as an Integrated Assessment Model. They provide a realistic yet safe environment for both better understanding of what is needed and what is possible as well as for “trying things out”. Policy simulations enable participants to explore real policy issues and possible scenarios and find more innovative and adequate responses to their real-life challenges, such as land-use planning and management. In *PLUS Change*, we construct policy simulations that provide participants at practice case workshops with a task of exploring possible pathways for their specific groups of actors/stakeholders embedded in a range of external scenarios (from WP3). Participants use their knowledge and available data in a deliberative manner to develop policies or strategies that can lead them to desirable futures, identify challenges, seek solutions, and negotiate trade-offs. In *PLUS Change*, our use of policy simulations fosters collaboration between stakeholders and scientists in analysing how problems emerge in complex systems and where points of policy intervention and social innovation might apply.

Agent-based modelling to link decision-making to land use change

The basis of an agent-based land use model are individual agents who can take decisions about the characteristics / management of the land within their agency. ABMs allow distinguishing and parameterizing the heterogeneity among decision makers, with that simulating individual decision making and its effects. This enables us to explore interactions between different actors, both by assessing trade-offs between land use decisions and underlying preferences, as well as the spread of information and other social interactions. Land use ABMs link actors and their interactions. They are increasingly used as a tool for participatory modelling and decision-making. We work

¹⁹ Schulp, C. J., *et al.*, (2016). A quantitative assessment of policy options for no net loss of biodiversity and ecosystem services in the European Union. *Land Use Policy*, 57, 151-163.

²⁰ Lavorel, S., *et al.* (2017). Pathways to bridge the biophysical realism gap in ecosystem services mapping approaches. *Ecological Indicators*, 74, 241-260.

to construct an agent based model in **PLUS Change** to allow simulation of how the decision-making changes link to land use change in an Integrated Assessment Model. We can thus understand how behaviour changes at our intervention points can shape land use and its impacts to climate, biodiversity and human well-being.

Randomised Controlled Trials to Identify Behaviour Change Interventions

Randomised controlled trials are used to test the efficacy of interventions intended to prompt a change in behaviour and decision making. These can include, e.g. social normative interventions that frame target behaviours as actions that are widely shared and supported in populations, thereby heightening perceived social pressure to adopt target behaviours²¹. Cognitive dissonance interventions²² aim to lead people to reflect on the discrepancy between their goals of environmental protection and their environmentally harmful behaviour, thus heightening unpleasant feelings associated with cognitive dissonance that people try to avoid by making their behaviour more pro-environmental. Goal setting approaches make people set environmentally protective goals and plan their fulfilment, which both increase motivation of people to behave environmentally friendly and thus target demand-side measures. We test the effects of these interventions in large population studies, with control populations and those that undertake, or receive, the intervention through four laboratory-based experiments and web-based surveys.

1.2.5. Related R&I Activities: Synergies with Topics in Cluster 5 and Beyond

PLUS Change will build on a broad range of research and innovation activities relating to systems thinking, land use modelling, informing planning and policy, climate change adaptation and mitigation, biodiversity conservation, sustainability transformation and transition, and transdisciplinary research approaches. They span **more than 30** completed research projects, newly launching projects (particularly under Horizon Europe, across clusters), and intergovernmental panels including **IPBES (CZECHGLOBE, STICHTING VU), IPCC (CZECHGLOBE) and UN GEO report (KNOWLEDGE SRL)**. Further, 3 practice cases are first-wave signatories to the **Climate Mission (Mazovia Reg, VLM, REGION)**, facilitating links into these platforms. A selection of key research projects, and their relevance to **PLUS Change** is shown in Table 4, further projects are detailed in Part A. In order to ensure that this evolving knowledge is built upon, and feeds into, **PLUS Change**, WP1 includes a stock-take of current understandings, tools and techniques (T1.1). This stock-take is used as input while designing interventions and mapping systems.

Two-way exchanges occur with both the ESPON programme, and with destination-funded Horizon projects. These include tools and databases produced by ESPON projects; understandings of climate change, biodiversity and well-being challenges under Horizon projects; and the role of land use innovations being explored in Horizon projects. To ensure that bridges are built, and complementarities exploited, the **advisory board** includes representatives of key destination Horizon projects, and ESPON have agreed to engage in the **multiplier cluster**. Throughout the project we will operate an **online hub** for representatives from other projects to engage with our activities and outcomes, and we will seek to harmonise hub activities with those coming from other projects. Further, as part of our CDE activities, in WP6 CZECHGLOBE recruit and train **15 PLUS Change Ambassadors**, from a range of research and practice communities, with a focus on hard to reach (under represented) audiences. The ambassadors act as vital links between the project and these audiences, facilitating collaborations and two-way exchanges of information.

Table 4: Selected key R&I Activities that demonstrate **PLUS Change** synergies to topics related to land-use, biodiversity, ecosystems, climate and societal transformations.

R&I Activity (partners involved)	Primary Relation to PLUS Change
<i>Systems Thinking</i>	
FoSTA Health: Food Systems Transformations in Southern Africa for One Health (Horizon Europe, Cl.6) (CZECHGLOBE)	Approaches to mapping plural problem framings and linking geographically-distant systems
EU Green New Deal, a systems analysis (KNOWLEDGE SRL)	Creation of a qualitative model, and collaboration on the formulation and use of a quantitative model and analysis of results, for the EU Green New Deal.
<i>Land use modelling</i>	
Future Web - Climate and land use change threat to the vertebrate European food web structure and functioning (ERA-net Biodiversa) (STICHTING VU)	Building upon developed land use models for the wider EU, downscaling already developed future land use scenarios considering future European socio-economic development and climate change (including the green new deal)

²¹ Bergquist, P., & Warshaw, C. (2019). Does global warming increase public concern about climate change?. *The Journal of Politics*, 81(2), 686-691.

²² Osbaldiston, R., & Schott, J. P. (2012). Environmental sustainability and behavioral science: Meta-analysis of proenvironmental behavior experiments. *Environment and behavior*, 44(2), 257-299.

ROBUST: Rural-Urban Outlooks: Unlocking Synergies (H2020 RUR) (PURPLE, Prov Lucca, BSC)	Models for understanding interactions and dependencies between rural, peri-urban and urban areas. Created policy recommendations on “land use planning dimensions”, and “ESS and spatial planning”
CROSSLAND: A new cross-disciplinary framework for studying the landscape over the long term (Erasmus+ KA2) (SU)	Develops and tests a pedagogical framework for teaching geospatial analysis to researchers from the humanities and social sciences.
SIEUSOIL: Sino-EU Soil Observatory for intelligent Land Use Management (P4All)	China-EU Web Observatory platform that provides Open Linked Data to monitor status and threats of soil and assist in decision making for sustainable support of agroecosystem functions.
<i>Informing Planning and Policy</i>	
OpenNESS: Operationalisation of natural capital and ecosystem services: from concepts to real-world applications (UKF)	Ecosystem services and natural capital as operational frameworks that provide tested, practical and tailored solutions for informing sustainable land, water and urban management at different scales.
URBAN EMPATHY: Empowering Policies on Urban Sustainability (Interreg MED) (Prov Lucca)	A Sustainable Urban MOdel (SUMO) as an interactive knowledge centre for improving the efficiency of sustainable urban policies in the Mediterranean.
EUXDAT: European e-Infrastructure for Extreme Data Analytics in Sustainable Development (P4All)	Creates an e-Infrastructure to address agriculture, land monitoring and energy efficiency for a sustainable development, as a way to support planning policies.
<i>Climate Change Adaptation and Mitigation</i>	
BrightSpotsCSA (Dutch Research Council) (STICHTING VU)	Building upon identified bright and dark spots of climate smart agriculture and indicators for climate-smart and agroecological farming.
CASCADES: Cascading Climate Risks Towards Adaptive Pathway (H2020) (CRS)	Identifies how the risks of climate change to countries, economies and peoples beyond Europe cascade into Europe.
<i>Biodiversity Conservation</i>	
PLANET4B: Understanding plural values, intersectionality, leverage points, attitudes, norms, behaviour and social learning in transformation for biodiversity decision making (Horizon Europe Cl 6) (CZECHGLOBE)	Understandings of the political economy and institutional factors that shape biodiversity decision-making
BISON: Biodiversity and infrastructure synergies and opportunities for European transport networks (UKF)	Exploration of the patterns of new transport infrastructure development and of the decision-making related to the actions across Europe, with a particular attention to the local biodiversity.
<i>Sustainability Transformation and Transition</i>	
Leverage Points for Sustainability Transformation (VW Stiftung) (LEUPHANA)	Frameworks for identifying intervention points and integration approaches in food and energy systems.
Agrilink: Agricultural knowledge: linking farmers, advisors and researchers to boost innovation (H2020 project) (BSC)	Stimulating the transition towards more sustainable agriculture by improving understanding of the role played by agricultural advisors in strengthening knowledge flows, enhancing learning and boosting of innovation (including environmental) on a range of farm types.
trAILS: Transformations of Alpine Industrial Landscapes (Interreg Alpine Space) (UL)	The trAILS project generated knowledge of alpine industrial landscapes (AIL) and developed sustainable transformation strategies. The project combined multidisciplinary expertise, directly cooperating with local communities in four pilot sites.
+CityxChange (positive city exchange) (H2020) (ISOCARP)	Transition management, co-creation of sustainable futures, communication and knowledge exchange between case studies, including two Lighthouse Cities and five Follower Cities in their ambition to achieve sustainable urban ecosystems and a 100% renewable energy city-region by 2050.
<i>Transdisciplinary Research</i>	
SSH Centre: Social Sciences and Humanities Research for Climate, Energy and Transport Research (Horizon Europe,	Increasing visibility and uptake of social-science and humanities research in destination-relevant policy, bridging fragmentation in SSH contributions to Cluster 5 research and impacts. Engages

C15) (CZECHGLOBE)	directly with Horizon Missions: Climate, Soils and Cities.
ClimArtLab (SmartClim, MoE AT) (KLI)	The ClimArtLab is a creative, open space fostering interactions between arts and science on topics of sustainability and climate change. It uses creative and open-ended mutual learning and co-creation processes interweaving theories and practices from many scientific and artistic fields related to complexity and systems thinking

In addition to being active in research projects, the practice partners will be tying their activities in **PLUS Change** into ongoing process of planning and innovation in their own regions (Table 5).

Table 5: Selected key R&I Activities that demonstrate how **PLUS Change** links to ongoing land management processes of the practice partners

Practice partner	Fit of PLUS Change to ongoing land use processes
Prov Lucca	Provinces have recently (re)gained the function of local development planning at the regional level, coordinating across municipalities. PLUS Change contributes to (re)constructing planning processes and priorities in the province, including: the definition of a Strategic Plan to 2030; the identification of measures to understand the impact of measures on the environment; the strengthening of collective learning and decision-making with the municipalities; the management of urban-rural displacement effects.
RRA ZELENI KRAS	RRA ZELENI KRAS should advise and coordinate the municipalities in the region, and should, for the first time, create a regional management plan. RRA ZELENI KRAS has previously created participatory land use scenarios towards this goal. In PLUS Change they will build further on this work towards creating a development plan and implementing it.
EMR	EMR will use the work and tools to deepen multi-actor engagement in specific landscape areas within the park area in ways that can be directly replicated post-project. During the project timeframe they will be developing an action plan for nature-based solutions to improve cross-border connectivity for biodiversity (TEN-N) and climate adaptation (floods and droughts)
Mazovia Reg	Mazovia Reg will draw on PLUS Change in their work responding to the Polish Recovery and Resilience Plan (RRP). This includes a new spatial planning act which would require a legally binding regional general plan concerning spatial structure, territorial functions, etc. There are also plans to introduce a single document at the regional level combining the current regional [socio-economic] development strategy and regional spatial development plan.
VLM	VLM will use PLUS Change to gain insights into different strategic land use planning practices of other practice partners, using these to improve its own approach to landscape and habitat restoration, and to make impactful changes to governance models as regards holistic land use planning. The tools and models will pinpoint how we can meet environmental objectives through land use decisions
Parc Verein Ela	Parc Verein Ela will use PLUS Change to find new ways of collaborative learning with land managers and citizens in the Nature Park. This is particularly important in considering how to implement the environmental priorities and existing strategies of the park. In doing so, Parc Verein Ela will link PLUS Change into ongoing work, such as the project “Climate Neutral Agriculture Grisons”.
JINAG	PLUS Change will contribute to reshaping relationships between regional government, regional development agencies and policy-makers at both regional and national levels. Tools and negotiation processes explored in PLUS Change will inform regional level climate-change adaptation measures and will feed information upwards for the national policy with regard to brownfield regeneration and implications to climate and biodiversity.
REGION	REGION will focus on the «Schéma directeur de la Région Ile-de-France Environnement». (SDRIF-E, Environmental Master Plan). This should be approved in 2024 and will be the regional reference document for strategic planning in order to control urban growth and the use of space, and to guarantee a quality living environment for the period to 2040. PLUS Change work and findings being directly fed into its implementation plan.
Surrey CC	Surrey CC will look to develop links between work within PLUS Change and the ongoing Surrey Infrastructure Plan and related projects. It will connect also with the “Greener Futures Climate Change Delivery Plan 2021/25 which explicitly sets out to “design with climate in mind ...”. It will also be drawing upon and expanding the work undertaken in two nationally funded pilot projects on digital engagement – using digital as a means to connect under-represented groups with the planning process.

PURPLE	PURPLE has a particular role to play here in developing a multiplier cluster of practitioners at a level beyond the project Practice Partners themselves. This secondary tier of planners and planning related policy actors will be supported to make direct use of PLUS Change findings and materials. Cluster members will adopt and implement these materials and align with their own plans/policies.
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1.2.6. Expertise and Methods from Different Disciplines

The **PLUS Change** team brings together methods and expertise from a broad range of disciplines (Table 6). WP1 is specifically designed to structure and mainstream integration within the interdisciplinary project team, between the components of the project, and between the team and the cases for transdisciplinarity.

Table 6: Work packages, disciplines engaged and methods used (excluding WP7 Project Coordination)

WP Title	Disciplines	Example Methods
1. Transdisciplinary Integration	Philosophy, science and technology studies, sustainability science	Co-creation workshops, reflexive diaries, place-based cases
2. Historical Land Use Change	Historical geography, political science, physical geography, environmental economics, geomatics	Land use modelling, case survey, document review, data harmonisation, media analysis, interviews, causal loop diagrams
3. Future Sustainable Land Use Strategies	Performing arts, sustainability science, natural and agricultural sciences, physical geography, geomatics, landscape architecture, landscape planning, environmental science	Normative, policy and exploratory scenarios, artistic performances and exhibitions, land capability assessment, trajectory modelling, stakeholder analysis.
4. Transformation Pathways for Sustainable Land Use Strategies	Sustainability science, policy studies, sociology, systems thinking, economics, natural and agricultural sciences, social psychology, landscape architecture, landscape planning, environmental science	Backcasting, participatory systems mapping, causal loop diagrams, multi-criteria assessment, ESS assessment, social- ecological assessment, agent-based modelling, policy review, Bayesian meta-analysis, interviews, stakeholder analysis.
5. Experimenting and Piloting Behaviour and Decision-Making Change	Social psychology, behavioural and environmental economics, political sciences, sustainability science, political science, planning, sociology	Randomized controlled trials, panel study, interventions in participating cases (mini living labs), interviews, policy simulations/serious games.
6. Dissemination, Communication and Exploitation	Communication studies, education, science and technology studies, performing arts	Workshops, serious games, art exhibitions and performances, online interactive apps, training courses.

1.2.7. Gender Dimension

PLUS Change recognises gender as an important factor in considering how land is used, desirable land strategies, and in shaping opportunities for creating sustainability transformations. We put this into practice by explicitly incorporating SDG5 'Gender equality' and SDG10 'Reduced inequalities' into our goals and outcomes frameworks. We see gender and equality goals as crucial to both respecting and valuing the roles played by all genders, and to potential gendered power and equity aspects. All analytical frameworks are gender-proofed. To support our gender-sensitive approach to research, we have a **gender lead (KLI)** in the consortium, and we explicitly create a gender and access plan as part of our project handbook (D7.1). We further mainstream the actions and questions of equity, justice and ethics (with a key component referring to gender and intersectionalities) through the whole of the project. This mainstreaming is achieved through a focus task (T1.3) as part of our integration work.

Our gender-inclusive research practice is informed by documents published by the European Institute for Gender Equality (EIGE), which promotes gender equality, including gender mainstreaming in all EU policies and the resulting national policies, and the fight against discrimination based on sex; and aims to raise EU citizens' awareness of gender equality. There are 3 dimensions to gender mainstreaming that underpin our internal practices: 1) Research about women; 2) Research for women; 3) Research by women. Our gender and access plan will also reflect these three dimensions.

Research about women: Gender inequities are well documented in sectors that relate to land use across Europe. For example, in the agri-food sector across Europe, males dominate land ownership, farm business owner/leadership,

and decision-making roles. On average, only 22% of farms across the EU are managed by a woman. Data reveal considerable differences between countries in female ownership, varying from 5% to 45% per country²³. Gender identities, norms and relations shape and are shaped by other social attributes. Other intersecting factors to consider are e.g. ethnicity, age, socioeconomic status, lifestyle, and geographic location. Differences between all genders need to be considered in terms of impacts, vulnerabilities, responses, and capacity to adapt to systemic changes depending on individuals' access to resources, assets, information, services and gender balance in decision-making structures²⁴.

Currently, data on land cover and land use, and on production activities and land-related resources do not explicitly capture how gender shapes decision-making and action for land use. Similarly, due to the lack of data that is collected and organized in a similar and coherent format, simulation models do not integrate the gender dimension in the generation of forecasts and targeting of interventions. The implication is that policy analysis also does not include, in a fully integrated manner, the gender dimension.

In *PLUS Change* we have conceived a methodology to ensure that gender considerations are made throughout the project in every work package and can support each step of the decision-making cycle (e.g. learning from history, enriching data, methods and models with new data and then using it to formulate future scenarios and paths towards sustainability). This is achieved by merging qualitative (e.g. Causal Loop Diagrams) and quantitative methods (e.g. land cover change model, ecosystem service valuation models), so that we can first identify how gender affects change over time, and how land cover change affects gender dynamics. With this understanding we can then offer an improved parametrization and calibration of models, and better interpret their results.

Research for women: We integrate gender dynamics into our explorations of future land use strategies. Our approaches to exploring visions, values, needs and wants and their implications for land use will be sensitive to gender-driven differences. For example we consider the implication of having (or not having) green spaces in urban areas, and its different desirability across genders (and the reasons why), as opposed to using the same space for e.g. expanding infrastructure or commercial activities. Furthermore, our interventions for behaviour and decision-making change will consider if there are forms of decision-making and change that allow for meaningful participation of women, and reflection of their wishes and working styles. Collectively therefore, we create land use strategies that are for all people, and identify gender inclusive pathways to achieve these strategies.

We ensure this explicit inclusion of women's priorities through our transdisciplinary participatory approach, focused on in WP1. We will design methods for participatory work that respects needs and views of different genders. They will be chosen in such a way to counterbalance the existing domination of men in many decision-making roles and land management businesses. An extra effort will be taken and catalysed by innovative interventions through the Possible Landscapes artistic approach to involve all decision makers in a family in visioning and experimenting with new land use practices.

Research by women: In *PLUS Change* we recognise that delivering research of and for women is done best by a gender-inclusive research team. Our consortium is woman-led, and 4 of our 7 WPs are women-led. Our consortium is gender-balanced, and all partners have a commitment to gender equity.

1.2.8. Open Science Practices, Research Data Management, and IPR

Data management and open science practices in *PLUS Change* must reflect both our use of secondary data, and our generation of primary data and tools.

We use secondary data in *PLUS Change* in our CLUMondo modelling, quantification of impacts to ecosystem services, Agent Based Modelling, and our policy simulations. For this, we draw on earth observation (mainly Copernicus), socio-economic, soil and terrain characteristics and climate data. We use results of open data and tools from previous projects (e.g. a multilevel Open Land Use database managed by Plan4all containing Earth observation data from Copernicus, land use and land cover from Urban Atlas, CORINE, LPIS and cadastral data, socio-economic, soil and terrain characteristics and climate data), the open CLUMondo model and open tools (HS-Layers map client, Micka metadata catalogue and JupyterHub). For the ABM, we will use the most commonly used tool, NetLogo.

Research data and outputs will be managed in line with the FAIR principles as laid out in the European Commission's Open Access to Scientific Publications and Research Data scheme. A detailed Data Management Plan (DMP) will be designed and updated throughout the project as a living document. The types of data and research outputs include spatial data, climate and biodiversity indicators, social observational and experimental data. Standards, formats and interfaces for the data and metadata generated in *PLUS Change* will ensure interoperability by paying particular attention to the exchange of information within the project (i.e. between WPs and Tasks), and with other projects, researchers and users. Intellectual property rights (IPR) are managed in line with EU requirements

²³ Eurostat (2016). Farm indicators by agricultural area, type of farm, standard output, sex and age of the manager and NUTS 2 regions.

²⁴ Buolamwini and Gebru (2018). Gender shades: Intersectional accuracy disparities in commercial gender classifications. <http://proceedings.mlr.press/v81/buolamwini18a/buolamwini18a.pdf>

Example types of data and tools include:

- Modified land use models for the EU and the practice cases (T2.1, T3.1). These will be publicly available, in the form of a model that is ready to run by any researcher.
- Land use scenarios in the form of spatially explicit data (T3.4). These will be made available in standard file formats that can be opened by any geographic information systems software (geotiff)
- ABM code and documentation (T4.3). These will be made publicly available according to the Overview, Design Concepts, Details + Decisions (ODD+D) Protocol.
- Policy simulations. Code for the simulations, and the simulations and supporting documentation will be available to use by any researcher, via the *PLUS Change* online hub.
- Causal loop diagrams and systems maps (T2.2). These will be created using an open access software, and will be accompanied by a written documentation of the main content developed and represented in the CLDs. Each system map will be saved as an independent file (with .mdl extension). The literature used to provide input to the CLD, and the participants in workshops or providing a review in writing will be noted, to ensure that due credit is given to those that have supported the creation and validation of the diagram.
- Policy and literature review documentation (T2.2, 3.2 and 4.1). Datasets of policy and literature, and coding schemes will be shared on open science repositories (for example OSF).
- Workshop transcripts (T1.2, T5.2, 5.3) will be shared on open science repositories where possible (see notes below on qualitative data) (OSF).
- Randomised controlled trials will be pre-registered, with data sets made open access, and papers published as pre-prints.

PLUS Change will manage the data and tools generated based on the core principles of the open science movement aiming towards openness and transparency of research and its results. *PLUS Change* will (i) preregister all empirical studies, such as randomised controlled trials; (ii) produce open data, open materials, and open analytical tools, including meta data, spatial data, modelling scripts, anonymised trial data, and interview transcripts (where in accordance with ethics and confidentiality policies) (iii) make all outputs available as open (open source, open access); (v) involve all relevant knowledge actors (citizen engagement) in the co-creation of R&I agendas, through the 11 practice cases and multiplier cluster; (vi) educate team members, collaborators, and stakeholders about open science as a key task in WP1. *PLUS Change* make sure all stages are met by using open science platforms such as OSF, Zenodo and the ORE.

PLUS Change makes a commitment to also make qualitative data open access, acknowledging that open access in qualitative social science is less established than in quantitative practices. We will follow the principle of ‘as open as possible, as closed as necessary’. Our DMP will include scope to consider the specific ethics and confidentiality challenges in sharing transcripts from interviews and workshops. In particular, we will establish guidelines to consider removing some passages of data, and to use processes of pseudonymisation – removing the identifiers of people, organisations and locations, and replacing them with e.g. “location 1” to allow for secondary analysis. We will follow the four principles of pseudonymisation²⁵: (1) keeping the table isolated from the dataset, that is, in separate files and/or folders; (2) deleting the table from any insecure media such as memory storage and systems; (3) enforcing strong access control policies to prevent unauthorised entities to access the table and (4) if the table is stored on a computer, encrypting it and implementing a tight key management and storage policy for the encryption.

2. Impact

2.1. Project’s Pathways Towards Impact

2.1.1. Project Outcomes

In the short to medium term (project + 3 years: 2030), *PLUS Change* results and outputs make a significant contribution to the outcomes specified in the call text (Table 7), relevant to three key target groups: 1) Citizens, civil society and land managers. These directly and indirectly influence land use through their consumption and land management behaviours 2) Planners, planning associations and policy makers. These create conditions that shape how land is used 3) Academic researchers. These are shaping and applying knowledge generated in the project for extending understandings and creating tools for monitoring land use change. Table 4 demonstrates the contribution of *PLUS Change* to the call outcomes, and highlights the specific audience and their use of these results.

Throughout this impact section, we refer to KPIs as measures of the scale and significance of the outcomes and impact. We outline the number of actors in different target groups that are directly affected by project activities as a proxy for scale. Scale is also indicated in our CDE plan in section 2.2 in terms of the direct and indirect users targeted

²⁵ Class, B., *et al.*, (2021). Towards Open Science for the Qualitative Researcher: From a Positivist to an Open Interpretation. *International Journal of Qualitative Methods*, 20, 16094069211034641.

Table 7: Expected short/medium term impacts of the **PLUS Change** project including target groups and Key Performance Indicators (KPIs)

<p>Outcome 1: Characterization of future expected land use patterns consistent with long-term objectives and its comparison with the current situation and trends</p>
<p>PLUS Change models land use change for a range of scenarios (participatory-normative, IPCC SSPs, policy-review-based, and based on meeting citizen’s material needs and wants). Impacts to climate, biodiversity and renewable energy, and human well-being, are quantified at a range of scales. PLUS Change characterizes land use needs and expectations of citizens and core stakeholder groups through participatory scenario planning, systems mapping, and performing arts. We develop modelling techniques to better understand and connect historical and future land use change and impacts. We quantify the impacts of integrated scenarios on a range of biodiversity, climate and well-being indicators to create sustainable land use strategies at a range of scales. Further, our Possible Landscapes engagement approach makes these characterizations accessible to non-research audiences.</p>
<p>Specific PLUS Change outputs: Identification of core physical, social, political and economic drivers of land use change at 11 practice case, and European scales. Set of land use strategies for 11 practice case regions, and their fit to European scale, drawing on trends and normative visions; Modelling and quantification of contribution of land use strategies to key policy targets at EU, national and sub-national levels (inc. climate, biodiversity and land use resources).</p>
<p>Target audience: Planning authorities across Europe and their associations (e.g. ISOCARP, PURPLE) and communities (e.g. ESPON, EU Committee of the Regions): to understand the range of possible land use futures and their impacts to climate, biodiversity and well-being, and to guide decision making. Regional, national and European policy makers creating strategies and instruments to implement Green Deal, and the Biodiversity and Climate strategies: to inform the land uses they support, facilitate, incentivize and regulate in meeting sustainability targets. Citizens and core stakeholder groups (e.g. construction, agriculture, forestry, transport sectors) to shape expectations, behaviours and business practices. Scientific community, particularly geographers, modelers, historians and sociologists: to shape our understanding of land use trajectories and their role in sustainable futures.</p>
<p>KPIs: >100 researchers learning our integrated modelling approaches and using them in future studies. 8 practice partners using strategies in their own land use decision-making (see table 5). 500+ downloads of integrated scenarios handbook (D3.1); 100+ further planning authorities using scenarios approaches in own strategies for land use to 2050 and beyond.</p>
<p>Outcome 2: Comprehensive understanding of the key motivations and drivers behind land-use related decisions in Europe at levels ranging from land owners to public authorities at local, regional and national level</p>
<p>Through randomized experiments with broad populations complemented with meta-analyses of previous intervention studies on individual- and collective-level interventions, we generate understanding of economic, social and psychological drivers (including the role of law and regulation) in shaping the behaviours of citizens and their interactions with land and land use change. Through systems mapping, policy review, interviews and 11 practice cases, we create an understanding of the broad social and political-economic factors that shape behaviour of land managers and decision makers, at a range of policy levels. Further, we apply arts-based approaches in the case studies to stimulate discussions on drivers of land-use related decisions at local level.</p>
<p>Specific PLUS Change outputs: in-depth work with 11 practice cases and 1 multiplier case to map political ecologies of land use systems; customisable policy simulation and ABM to identify the impact of policy and behaviour change on land use; Applied framework linking behaviour change across scales (individual to system).</p>
<p>Target Audience: Academics in behavioural change, systems thinking and political economic research communities linking multiple aspects and scales of behaviour change for climate change and biodiversity EU Committee of the Regions, ESPON, PURPLE, ISOCARP, and broader planning and spatial data associations to provide guidance on interventions and policy measures that can leverage behaviour and decision-making change through land use planning Policy makers and planning authorities at EU, national, local and regional levels.</p>
<p>KPIs: PLUS Change integrated frameworks of transformative change cited in 20+ papers within 2 years of project end. 5 Policy briefings circulated to >1000 land owner associations, interest/stakeholder organisations, public authorities, and policy makers across climate, biodiversity and land use planning sectors. 8 Practice partners and 5+ multiplier case participants initiating discussions in their own jurisdictions about creating or revising strategies to address multi-level motivations and drivers.</p>
<p>Outcome 3: Better understanding of the awareness of key actors about climate change and biodiversity</p>

challenges and of their willingness to contribute to addressing them, including the adoption of new practices

In-depth work with the case studies will identify awareness levels and the willingness/motivation to act on the part of key actors/stakeholders. Understandings of the role of knowledge and identified blind spots and similar will be tested at a broader scale through sociological interviews and randomized controlled trials. Further, our piloting and exploration of innovations will address knowledge levels and willingness to change behaviours, and explore how new practices are motivated or blocked. Further, we create arts-based approaches to unlock engagement and discussions with citizens across Europe, and stakeholders in our location, as regards willingness to change and awareness of core issues.

Specific PLUS Change outputs: Identification of key actors and their motivations (including knowledge and willingness) to contribute to change. Handbook on pathways for achieving sustainable land use strategies. Possible Landscapes creative engagement approach to explore willingness to change. Identification of innovations and interventions that serve to change the behaviour of these key actors by engaging with knowledge, willingness and broader barriers and opportunities.

Target Audience: Land use planners, to increase knowledge of climate change, biodiversity and the role of land use in contributing to policy targets, and options to manage change through land use planning. Public Authority networks/Planning associations (PURPLE, ISOCARP, etc.) to support their members and contacts in adopting new practices through capacity building and knowledge exchange. Citizens, civil society and land owners/managers (e.g. farmers, foresters), to change practices in accordance with understandings of their actions and impacts on climate change and biodiversity. EU policy makers across biodiversity, climate and regional strategy (including DGs CLIMA, ENV, AGRI, REGIO), to create incentives to support behaviours that meet policy objectives.

KPIs: Handbook accessed by >500 policy and decision makers via PLUS Change online hub. Practice briefs on interventions in planning and policy systems distributed to >1000 policy and planning associations. 4 policy implications workshops attended by >60 representatives of EU policy actors.

Outcome 4: Support to climate and biodiversity policy design and implementation through economic and behavioural insights allowing efficient targeting of incentives and engagement of stakeholders

Our randomized laboratory and web-based experiments with general populations and across countries improve understanding, and develop insights, of economic, social and psychological drivers (including the role of law and regulation), as well as their internal tensions, conflicting goals and synergies. We look at how these economic and behavioural drivers shape actions at individual and organisational levels which impact upon climate and biodiversity outcomes through land use. We also highlight potential emerging policy conflicts or side effects - externalities, unintended consequences etc. These insights are complemented with evidence from existing studies and meta-analyses of behavioural interventions at individual and collective levels. Our artistic engagement strategies include working with a broad range of stakeholders to elicit their wishes, needs and priorities, and how these can be met with in environmentally sustainable ways, including understanding of their perceived barriers and opportunities for action. Immersing the stakeholders in policy analysis and policy simulations allows us to co-create policy and planning interventions and pathways towards meeting land use strategy goals and targets. The modelling approaches of PLUS Change demonstrate the impact of behavioural changes at a range of scales, and across time and space (displacement effects).

Specific PLUS Change Outputs: meta-analyses of existing studies on individual- and collective-level interventions, four laboratory experiments in at least two European countries ($N = \text{min. } 400$ each; a large-scale cross-cultural web-based experiment (in at least five countries to represent a diversity of land use strategies, $N = 400$ per country). Set of at least 10 proven interventions to support behaviour change of stakeholders and citizens. Training materials for working with the interventions. Comprehensive online toolkit

Target Audience: EU, regional and national policy makers as well as planners across climate, biodiversity and regional development strategy areas, to create policies to support behaviours that meet policy objectives.

KPIs: 2 workshops on policy implications each attended by >60 representatives from across policy sectors (climate, biodiversity, land use planning). Training materials accessed by >500 users. Policy-focused events attached to 3 consortium meetings in European Union presidency locations in 2024 and 2025 and at the BAP Biennale* in 2026 (30+ participants each). 8 practice partners and 10+ multiplier cluster participants each incorporating 3+ PLUS Change interventions and innovations in their own land use strategies and action plans. Roadmap of next steps for sustainable land use strategies triggers discussion in DGs AGRI, CLIMA, ENV, REGIO.

*Biennale d'architecture et de paysage, Versailles, is an event to share knowledge and best practices in architecture, landscaping and urban planning, in Ile de France and the world.

2.1.2. Practice Partner Outcomes

In addition to the outcomes specified in the call text, we have identified specific outcomes proposed by the practice

partners themselves. These outcomes will support practice partners to address their challenges in integrating climate and biodiversity into land use strategies at regional and local levels, at the same time acting as transferable exemplars for others. The full and equal involvement of practice partners in the proposal design has been a deliberate step in order to optimise the practical impact of the project. In particular, meeting these outcomes will strengthen our ability to meet Expected Impact 4.

PP outcome 1: Better manage land at landscape scale, taking into account trade-offs and synergies between locations and sectoral decisions; AND

PP outcome 2: Inform land use planning as a tool to combat climate change and biodiversity loss, and thus demonstrate the positive role of land use decision making and implementation in sustainability.

The modelling approaches in *PLUS Change* are designed to account for teleconnections, and therefore trade-offs and synergies between decisions across time and space. Further, we explicitly consider impacts to climate change and biodiversity, allowing the creation of holistic land use strategies. The toolkit that we develop in the project will enable planners and decision makers to use these modelling approaches to explore the impact of their decisions and steer land use towards sustainable outcomes.

KPIs: all practice partners using the tools we develop. >50 additional users of the toolkit by project end.

PP outcome 3: Achieve greater public involvement in the planning process, particularly harder to reach groups, and building on growing sustainability concerns.

Our creative Possible Landscapes approach, and participatory multi-actor workshops run throughout the project. Both provide forums and techniques for engaging in new ways with a range of actors and citizens on the topic of land use. The Possible Landscapes in particular engages with groups that are normally less involved in planning processes (e.g. youth). Our integrated scenarios creation pioneer new ways to bring together diverse viewpoints into future strategies.

KPIs: 1 creative engagement process in each practice case. Multi-actor workshops in each practice case attended by >20 actors. Handbook to integrated scenarios is accessed by >200 users. >10,000 citizens engaged in creative approaches across the project lifetime.

PP outcome 4: Explore shifts in roles and approaches for managing land and taking land use decisions.

Throughout *PLUS Change*, we identify models of governance, decision-making and behaviour change that are likely to create change towards achieving sustainable land use strategies. We test and explore innovations towards implementing such changes. In particular, in WP5 we explore, with practice partners, opportunities to change the way decisions are made in planning processes and in land management. We create lessons from this experience as to what works, and what the barriers and drivers for such changes are.

KPIs: Handbook of pathways to achieve land use strategies is accessed by >200 users. Policy briefs of interventions are circulated to >1000 policy and planning actors and associations.

2.1.3. Long Term Impacts (Destination)

By delivering these outcomes, **In the long term, *PLUS Change* creates significant impact towards** creating a climate neutral and climate resilient society by 2050, and more ambitious greenhouse gas reduction targets by 2030, in alignment with the EU Green Deal and its 2050 carbon neutrality target. In particular, it contributes towards the “Transition to a climate-neutral and resilient society and economy enabled through advanced climate science, pathways and responses to climate change (mitigation and adaptation) and behavioural transformations”.

Expected Impact 1: Advancing knowledge and providing solutions in social science for climate action, and better understanding of climate-ecosystems interactions.

PLUS Change draws together researchers from across a broad range of social science disciplines. We draw on cutting edge knowledge of behavioural change from psychology, sociology and economics and systems transformations, placing them at the centre of the project to generate understandings of land use change and solutions towards sustainability. In particular, we are bridging the divide between individual and systemic understandings of solutions for climate change. Our approach centres on systems thinking, enabling us to bridge between people and the physical world, and between climate and ecosystems. Our approaches for combining these understandings will be applicable to a broad range of climate-relevant challenges across the HEU programme.

Post-project KPIs: Research and action roadmap accessed by >200 users. Key approaches and concepts published in 10 papers with >10 citations each. *PLUS Change* Social Innovations and Integrated Assessment Models applied and developed in 10+ RIAs in a range of topics (water, soils, cities) across Clusters 5 and 6. Recommendations on behaviour and decision-making change adopted by 5+ countries in achieving national climate adaptation and mitigation plans.

Expected Impact 2: Contributing substantially to key international assessments such as those of the IPCC and

Our modelling and scenario planning techniques will inform modelling approaches in IPCC and IPBES and future joint reports. Understandings of the social-biophysical dynamics will shape conceptual framings in the transformations and nexus reports of IPBES, the mitigation and adaptation reports of IPCC, and the UN Global Environment Outlook. This impact will be supported by consortium members taking co-ordinating lead author, lead author and contributing authors roles in IPCC, IPBES, and UN GEO. The networks of practice partners at regional, national and European level will be used to feed the project's results into the wider societal and policy debate.

Post-project KPIs: 10 *PLUS Change* papers cited in IPCC, EEA, IPBES reports, facilitated through 3 *PLUS Change* members as existing authors, and >4 consortium members engaged as authors in future IPCC, EEA, IPBES assessments.

Expected Impact 3: Strengthening the European Research Area on climate change.

We have a strong focus on capturing the diversity of land use systems, and understanding pathways of change across these pluralities. Our research outcomes will demonstrate the need to engage with plural pathways of change across Europe. It pulls together a diversity of institutes and disciplines to achieve this, with a strong presence from countries traditionally under-represented in European research funding.

Post-project KPIs: 30+ future HEU proposals contain pairs or groups of *PLUS Change* researchers, based on collaboration developed during the project. ALL researchers implement lessons from their experience of reflexive integration (WP1) to shape research practices in their home institution. 4+ recommendations from roadmap of next steps for sustainable land use strategies (D6.3) are reflected in calls in the post-Horizon Europe funding period.

Expected Impact 4: Increasing the transparency, robustness, trustworthiness and practical usability of the knowledge base on climate change for use by policy makers, practitioners, other stakeholders and citizens.

This will be achieved by closing knowledge gaps on developing tools that support policy coherence and the implementation of effective mitigation and adaptation solutions. Our toolkit and knowledge training will lead to wide-scale, significant awareness raising and capacity building. It is a key planning approach across authorities in Europe, supported by planning associations (e.g. ISOCARP, PURPLE – consortium members, as well as national associations). It will be used extensively to facilitate decision making informed by improved understandings of social science for climate action (including transformational change), and of climate-ecosystems interactions that are generated by the project. This impact already occurs during the lifetime of *PLUS Change* as a result of the co-development with practice partners, who will already use the tools and techniques we develop. It extends beyond the lifetime of the project through our long-term, post-project CDE (see section 2.2).

Post-project KPIs: Toolkit routinely used by >1500 planning authorities (municipalities and regions) across Europe.

2.1.4. Barriers and Mitigation

The *key potential barrier* to achieving impacts lies in the planners, planning associations and policy makers pathway to impact. Policy-making, strategic plans and land use planning happen according to set timeframes and cycles. **The timeframe and plan of the project is unlikely to coincide** perfectly with these cycles, particularly across the plethora of municipal and regional planning authorities in Europe. These actors may struggle to respond to the tools and information we generate, *when* we generate them. To mitigate this barrier, we will generate a comprehensive map of policy and planning timelines (particularly as relevant to our practice partners) as part of our impact plan, and in collaboration with our location and multiplier case participants. We will ensure that *PLUS Change* anticipates and responds to this timeline and have built flexibility into our research design to allow for this. Further, our recommendations and tools will include guidance on when they are applicable within planning cycles, so that planning authorities can work with tools and trainings tailored to their own point in the planning process.

Timeframes of science-policy platforms are similarly a potential barrier to impact – key assessments (e.g. IPBES transformational change and nexus assessments) are very relevant, but already underway. Potentially, the outcomes from *PLUS Change* will not be published in time for inclusion in these reports. This risk is somewhat mitigated through the involvement of consortium members in these assessments, meaning that there can be two-way interactions between understandings. On the plus side, IPCC AR7 should launch within 1 year of *PLUS Change* launch, and will therefore time well with project processes.

A further barrier arises from the potential **increasing polarisation of society** with regards to climate and sustainability issues. While climate movements have been growing globally, there remains vocal climate scepticism and a growing focus in society on meeting human needs (e.g. energy security, food security and conflict in Ukraine). There is potential for these issues to be reasons for people to de-prioritise thinking about climate, biodiversity and land use. Particularly where they are used as justification for pushing through non-climate compatible land uses (e.g.

the need for more affordable housing). In these cases, there is a barrier to citizens in engaging with the project, and to policy makers and planners engaging and using project outputs. To mitigate this barrier, we are drawing on extensive experience of multi-actor engagement, including through creative approaches. Further, we have placed questions of ethics, justice and equity central to the project (T1.3), meaning that we can consider such priorities as part of the bigger picture of the systemic change required to mitigate and adapt to climate change. We can thus engage in the pursuit of solutions that address climate AND these other societal challenges.

2.2. Measures to Maximise Impact – Communication, Dissemination, and Exploitation (CDE)

2.2.1. Foundations of CDE

PLUS Change makes the distinction that **communication** is one way, to build audience; **dissemination** is two-way to exchange knowledge; and **exploitation** delivers impact by ensuring that project results are used by external stakeholders. The project's Communication, Dissemination and Exploitation (CDE) Strategy ensures coordinated action to achieve impact and reach the target audiences through a set of measures. It interacts with the data management plan, particularly for open access dissemination. The final version of an operational CDE Strategy is elaborated in consultation with consortium members in Task 7.3. It is fully operational by M6 (see Figure 3). During the project, the Strategy is updated regularly, to connect activities with evolving relevant discussions, debates, policy processes and priorities. The following draft of this strategy is therefore indicative. It is built upon three CDE foundations. Underscoring all three is an intention to develop a series of clear messaging materials using methods and language adapted to suit multiple audiences, across multiple sectors, in different places and operating in varying national/regional/local circumstances.

Communication Foundation: Creative, accessible outreach. Communication and outreach throughout the project rely on creative engagement, with a clear visual identity. Partners Biobased will guide a creative outreach programme (Possible Landscapes, see WP6, T6.2) that will shape and connect all CDE activities. In doing so, they ensure that the outputs are a cohesive and comprehensive whole that increase visibility and impact. This creativity is manifest throughout the project communications, including in newsletters, leaflets, posters, and social media. Our social media presence includes Twitter, and the more visual, creative formats of Instagram, and Tik Tok. Further, making our communication accessible means making it understandable in local languages across Europe, and particularly in our practice cases. This also means assisting the practice partners with tailoring the CDE strategy to their specific locations, to enable local communities and governing bodies to play an active role in developing new land use strategies that are integrated into the local spatial, political, economic, technical, environmental, and social contexts.

Dissemination Foundation: Interaction on multiple levels. Two-way exchanges with stakeholders are built into the core of **PLUS Change**. Knowledge exchange occurs through and with the practice cases at regional and local scales, and through and with the multiplier cluster at the European scale. Across all practice case locations, the Possible Landscapes approach, coupled with existing practice partner local knowledge and expertise, ensures exchange across a broad range of citizens and stakeholders. Further, throughout the project, knowledge exchange is ensured with land use stakeholders beyond our practice case locations in part by our work at EU level and through the **multiplier cluster**. These opportunities are also delivered through policy events at consortium meetings, to coincide with big policy-relevant events, and seminars on ethical land use strategies and interventions. Further, broad dissemination is delivered through our online project hub (website). The website connects the project with relevant decision-makers, stakeholders. Combined with the multimedia communications, it forms an interactive communication hub. The role of the interactive platform is two-fold: to act as a centralised knowledge hub for stakeholders interested in the project's work; and to facilitate the discussions between such stakeholders.

Exploitation Foundation: Long-term impact emerging from the heart of the project. Practice partners, and association actors within the consortium (PURPLE, ISOCARP) will use existing networks and mechanisms to shape effective dialogue and fine-tune the sharing of relevant analyses to maximise take up of project work and outputs. Practice partners also have multiple resources to deploy in order to disseminate project results in local languages and meaningful formats throughout their areas at project end and beyond. Our association actors further link the findings into broader networks of practice organisations, through the **multiplier cluster**. These activities are further supported by the project's 15 Ambassadors of Change, and our online hub (T6.1). Post-project, the hub will be designed as a community of practice, and handed over to ISOCARP to maintain for at least 5 years following the end of the project. The hub will include access to all the training materials, videos, tools and outputs from the project.

2.2.2. Communication and Dissemination

Our target audiences for CDE are detailed in Table 7, and can be categorised into: 1) Academia and **research** organisations; 2) citizens, **civil society** and land managers; and 3) **planners**, planning associations and **policy** makers. In addition, we aim to reach as wide an audience as possible, including the broader group of climate, biodiversity

and social policy makers. Land use impacts all facets of society, making awareness of our findings relevant and important beyond the direct scope of the project. For communication and dissemination, we plan a range of activities and events, as detailed in Table 8.

Table 8. Summary of **PLUS Change** Communication and Dissemination activities

C&D activities	Description, Timing (key responsible partner)	Target group	Performance measures
PLUS Change Website & Online Hub	Primary & core project communication channel. Includes information, updates, and events of PLUS Change , and shares public project results and deliverables. M6-M48 (ISOCARP)	All	Fully operational website with >5000 unique users per year of the project
Planners' Toolbox	Featured on the PLUS Change website, the toolbox will show case practice cases and disseminate artistic output. It further consists of interactive modules/simulation tools and training materials, as well as a serious game. All aimed at capacity building. M6-48 (ISOCARP, P4All, with all partners)	Planners, & policy; Research	Accessed by >1000 people A further indicator will be time spent on the different activities
Intervention Handbook	Featured on the PLUS Change website, the handbook contains project results that assist planners in staging land use interventions. M48 (CZECHGLOBE)	Planners, & policy; Research	>500 downloads
Ambassador Programme	15 ambassadors from diverse interests related to land use change will be recruited and trained to represent PLUS Change activities and increase engagement M15-M48 (CZECHGLOBE)	All, with a focus on civil society	15 Ambassadors attending 2+ events in home communities years 2, 3 and 4 of project, creating discussions with 3000+ stakeholders
Newsletter	Every 6 months the project will send a digital newsletter summarising the achievements and activities, past and upcoming. M6-48 (ISOCARP)	Planners & policy; Research	>1000 subscribers. Further attention paid to click rate analytics
Social media	Regular communication through social media websites, including Twitter, Instagram and Tik Tok. Content includes news M1-48 (ISOCARP)	All	At least 3000 followers on each platform, each post on all platforms with 500+ unique interactions, more than 40% of posts shared
Press releases & media communications	Regular press releases, most being on the local level in collaboration with practice cases. Blog posts featured on other sites when possible. Includes a press kit to standardise the message. M1-M48 (ISOCARP)	Planners, & policy; Civil society	At least 2 per practice case in local news sources 3+ general press releases targeting international audiences
Practice briefs	Briefs on interventions in planning and policy systems, concisely communicating results to targeted groups M36-M48 (CZECHGLOBE)	Planners, & policy	Distributed to >1000 policy and planning associations
Scientific papers	Academic publications to foster specific outreach and dissemination. * M24-M48 (All)	Research	20 papers, each paper cited >10 times
Scientific conferences	Scientific presentations to present methodologies and emerging results to foster outreach to key academic communities. ** M1-M48 (All)	Research	Each partner 1 conference, plus 3 conference topic sessions convened
Possible Landscapes	New Heroes develops a facilitated performative Possible Landscape Co-creation workshop that inspires participants to visualize and materialize their ideas on possible future landscapes in large 3D models. This culminates in final 3-D model installations and storytelling events shared in each practice location. M1-48 (Biobased)	All	>2000 direct participants Continued use of the art exhibits beyond the conclusion of the project.
Practice Case Workshops	8 multi-actor workshops within practice cases M1-48 (PURPLE)	All	8 workshops each attended by approx. 20 land use stakeholders in each practice case
Multiplier Cluster Workshops	Planning associations (e.g., PURPLE, ISOCARP), land user organisations, and policy-makers that represent land use stakeholders at a European (and beyond) scale. We analyse their practices, broader scale systems processes including transboundary issues, their needs and interventions M1-M48 (PURPLE)	Planners & policy	8 workshops, each attended by approx. 20 land use policy makers and associations

Policy outreach events at consortium meetings	Targeting policy-makers and government representatives on topics of land use and the environment at a European (and beyond) scale. Events will showcase the project to this audience, and elicit their inputs, and ensure links to the priorities of the current presidency M1-M48, Mazovia Reg, VLM, REGION	Planners & policy	Events at consortium meetings, each attended by 30+ high-level policy representatives. 1 EU level workshop with approx. 60 participants; 4 capacity building events for the CSOs, regional and local authorities and philanthropic partners at EU level attended by 60 participants
Amplification of results through intermediaries and presentations / events	Dissemination to the different professional audiences will be further supported by both internal (e.g., ISOCARP and PURPLE) and external to the consortium (e.g., other Horizon projects)	Planners, & policy; Research	Participation in at least 4 international conferences as speakers 15 Ambassadors representing project at 2 events each per year.
Final conference	Conclusion of the project and sharing of key outcomes.	All	>500 participants from across all 3 audiences in the final conference

*potential journals include *Land Use Policy, Journal of Land Use Science, Landscape Research, Land, Environment & Planning, International Journal of Urban and Regional Research, Journal of Rural Studies, Papers in Regional Science, Cities: The International Journal of Urban Policy and Planning*

**expected conferences include *Earth System Governance, Global Land Programme, Ecosystem Services Partnership, Royal Geographical Society, INSPIRE conference, Transformations, International Conference on Environmental Psychology, International Ecological Economics, ISOCARP Congress*

2.2.3. Exploitation

The dissemination and communication activities support and drive exploitation of outputs that will reach beyond the conclusion of the project. The exploitation strategy includes the following items that will ensure impact beyond the lifetime of the project:

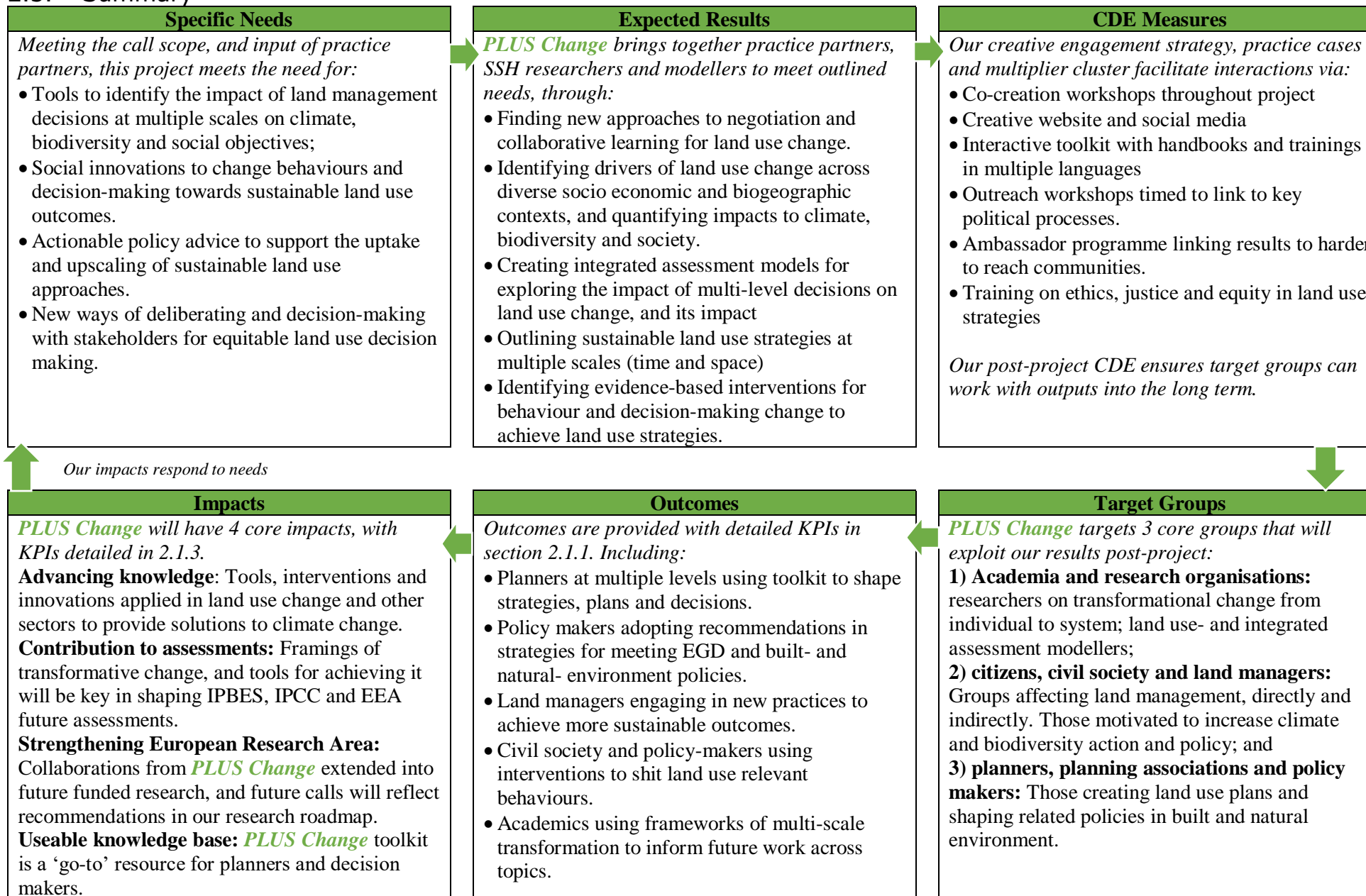
Practice cases and the Multiplier Cluster: Practice cases are a core route to direct impact in the practice case regions and to their direct peers with whom they already cooperate. The multiplier cluster is a primary route to immediate impact with planning associations and EU-level policy makers across land use (and associated sectors), climate and biodiversity. The cases and cluster are initially a form of dissemination, engaging case-scale and European stakeholders in project activities around land use strategies and actions to achieve them. Thereafter they serve as trigger points for further/future take-up. The practice case partners and participants in both the cases and the multiplier cluster will directly adopt and implement *PLUS Change* outcomes, building into their ongoing activities, outlined in Table 5. Further, participants in the ongoing workshops will take the results of *PLUS Change* back to their own communities, ensuring a further indirect pathway of exploitation. Beyond the lifetime of the project, those who were engaged through the cases will act as voices for further CDE, spreading the project outcomes through their own communities.

Possible Landscapes art installation. Possible Landscapes is a creative outreach programme that runs parallel with the project and engages in multimedia storytelling to co-create interactive modules and artistic output. After extensive collaboration with researchers and the practice case partners, a final art exhibition will be displayed in each practice location, containing 3-D model installations and storytelling. The purpose is to share the various pathways to achieving desired future land use practices, and then disseminate these findings through artistic output to an array of audiences, from land users to policy makers to the public. The final exhibits will remain on display beyond the completion of the project and curated as appropriate.

Planners' Toolkit including the serious game, interactive modules, intervention handbook and training materials. The toolkit will support land use planners in enacting interventions, providing a set of instructive and interactive resources based on the tested interventions and policy and practice recommendations from the case studies. The toolkit contains simulation tools for understanding the impacts of land use decisions and tools to support engaging citizens and land managers in creating change, including creative outreach and education approaches, and guidelines on interventions and their uses (intervention handbook). The handbook will highlight practical, ethical, and other limitations of these interventions and will guide introduction of these interventions by listing suitable target groups, timing, and durability of the expected behavioural change. The Toolkit ensures that the understandings generated in *PLUS Change* are accessible to planners, policy-makers and land users, and can be used by them to inform their strategies, plans and actions and create better land use decisions for climate, biodiversity and human well-being.

Roadmap of next steps for sustainable land use strategies. The roadmap demonstrates concrete priorities for policy and research, and pathways for achieving them, including which actors (across sectors and policy levels) need to take them. It outlines recommendations for future research activities. The road map will be disseminated extensively during the project and be available on the *PLUS Change* website.

2.3. Summary



3. Quality and Efficiency of the Implementation

3.1. Work Plan and Resources

The overarching aim of *PLUS Change* is to create land use strategies and decision-making processes that meet climate, biodiversity and human well-being objectives of sustainability, and to develop interventions that leverage political, economic, societal, material and cultural contexts to achieve these strategies, by involving actors at multiple decision-making levels (individual, planning, policy). We will achieve this by understanding past trajectories of land use change, elaborating transformative visions of future land use at a range of spatial scales, deriving effective, and equitable transformation pathways towards these visions, and identifying socioeconomic factors that shape decision making and behaviours to create interventions that overcome behavioural patterns and inertia related to land ownership, management and policies. Working in partnership with practice cases ensures that we are co-creating and testing social innovations that are useful for practice cases, and that are applicable in a broader range of contexts. In order to harness this co-creation, the project has been designed according to best practice in transdisciplinary, transformative research, to ensure that all components can learn from and with each other.

To foster the conditions necessary to deliver the project, the practice cases are engaged in all work packages throughout the project, and intersect with tasks throughout all other tasks. To support this process of co-creation and exploration, and to facilitate data creation and results communication, there is also a strand of performing arts that runs through the entire project, intersecting with multiple tasks. This is our Possible Landscapes approach. Thus the practice cases, and the Possible Landscapes, are threads that are woven through all work packages (see Figure 2).

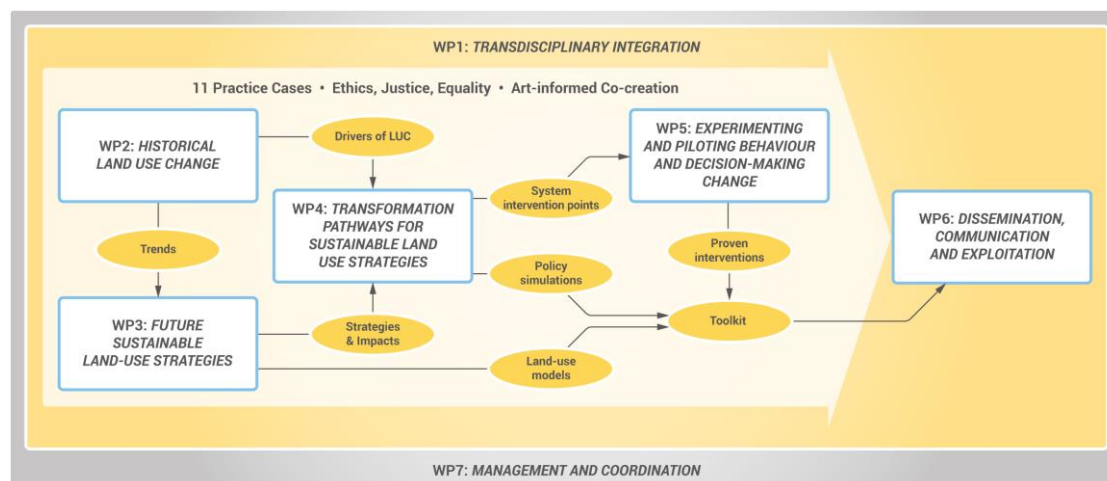


Figure 2: Work Package PERT diagram: Boxes show work packages, while circles show outputs and their flow into other work packages.

WP1 is the anchor point of the *PLUS Change* project. It fosters an equitable, multi stakeholder approach by steering a participatory and transdisciplinary, co-creating process. It will foster cohesion among project partners and avoid fragmentation and inefficiency that are major challenges in a multi-disciplinary, multi-partner, multi-country and multi-year project. WP1 weaves integration through the project team, and into and with the practice cases, to produce our overall planning toolkit, building on outputs from across the other WPs.

WP2 is our first data-generating work package. It looks back into history to understand trajectories and drivers of land use change, and thus explain where we are now and why; it therefore asks “how did we get here?”. The focus of WP2 is primarily on the period 1990-2022 which reflects a major political shift in many EU countries, with an extension into >100 years ago in selected cases. We focus specifically on factors such as **values**, motivations, culture, tenure and **governance** regimes, determining how people interacted with land through time. WP2 produces key knowledge about past change processes and past decision making that help understand current situations and shape future land use strategies. We thus feed these understanding forwards into WP3, which starts from current day, and looks forward at future land use trajectories; it asks “where do we want to be?”.

WP3 works with artistic approaches, and trends from WP2 to identify the needs and wishes of citizens, land managers, decision makers and planners across our practice cases and beyond, to create normative scenarios of future land use. Drawing on our spatially explicit CLUMondo models of these scenarios we explore how these scenarios impact upon climate, biodiversity and social objectives, including their impact on land use resources and services, such as carbon sequestration, air and water quality and soil health. This is done at case and European scales across different timescales, and considers the impacts of displacement effects, and the influence of the IPCC SSPs and mitigation pathways. **Here, we identify land use strategies that meet stated policy goals.**

WPs 4 and 5 identify how we can achieve these land use strategies – they ask “how do we get there?”. In

WP4, we understand the broader systems dynamics that are shaping behaviour and decision-making, and leading down current land use trajectories. We identify leverage points in these systems, to highlight which people, behaviours, decisions, policies and governance arrangements and values can be changed to unlock progress towards our identified strategies. Further, we identify interventions that potentially could help to create these changes.

We take these forwards into WP5 to test these interventions. We run randomised controlled trials of behaviour change interventions (with citizens), explore drivers and barriers to innovations in land use management (with land managers), and pilot alternative decision-making systems with planners and decision makers across our practice cases, including new approaches to negotiation and collaborative learning. We generate evidence to then identify interventions that work. In collaboration with WP1, we consider the ethical and justice implications of such interventions, and create training materials for their responsible use as social innovations for sustainable land use.

WP6 is our communication, dissemination and exploitation work package. WP6 picks up deliverables and outputs from across the project, and ensures that they are accessible for, and used by, our target audiences (see section 2). It works closely with the Possible Landscapes approach to ensure that outputs are understandable and attractive. The entire project is embedded within WP7, project coordination. This work package provides a solid foundation for the smooth operation of such a complex project. WP7 will be delivered through a management team comprising the coordinator (Leventon, CZECHGLOBE), a deputy coordinator (O'Connell, PURPLE), and a project office (hosted by CZECHGLOBE), and supported by management structures across the project team, and an international advisory board. To further facilitate integration of the project and knowledge, CZECHGLOBE have chosen to lead the coordination WP (7), and spread their scientific efforts across other WPs; leading 4 tasks (1.1, 4.4, 5.1 and 5.3) and contributing to others across all WPs.

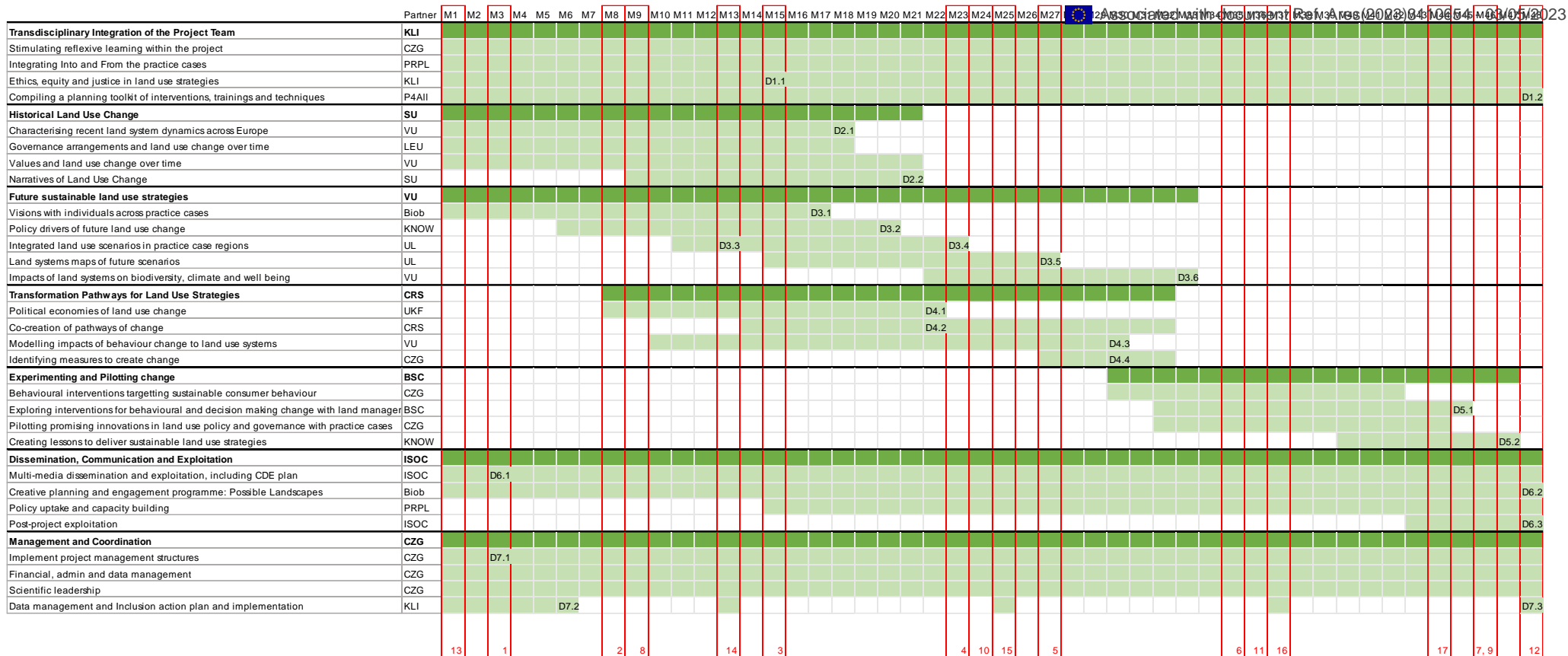


Figure 3: GANTT Chart showing timeline of WPs and Tasks, milestones and deliverables.

1, CZECHGLOBE		
	Cost (€)	Justification
Travel and subsistence	18,000	14,400 E for 4 people to 4 consortium meetings @ 900 E unit cost. 18,000 E for 20 visits to practice cases (T5.3 and T1.2) @ 900 E unit cost.
Equipment		
Other goods, works and services	49,000	45,000 E for 15 ambassador honorariums @3000 E each (T6.3), 1 audit @4000 E.
Remaining purchase costs (<15% of pers. Costs)	45,700	
Total	114,700	

4, Biobased		
	Cost (€)	Justification
Travel and subsistence	39,600	39,600 E for visits to practice cases (2 people x 2 trips to each practice case @900 E unit cost).
Equipment		
Other goods, works and services	150,000	88,000 Euro for 11 3D Possible Landscape installations materials, including wood, construction, motors, lights, and packaging for transport. 33,000 E for 11 interactive tactile arts sets; 25,000 E for Transportation of art exhibitions and materials to final conference and practice cases; 4000 E for audit;
Remaining purchase costs (<15% of pers. Costs)	25,000	
Total	214,600	

9, UL		
	Cost (€)	Justification
Travel and subsistence	9,900	9,900 E for practice case visits (1 person visit to 11 practice cases @900 E unit cost)
Equipment		
Other goods, works and services		
Remaining purchase costs (<15% of pers. Costs)	10,000	
Total	19,900	

13, UKF		
	Cost (€)	Justification
Travel and subsistence		
Equipment		
Other goods, works and services	10,000	10,000 E for 8 x workshops @ 1250E each (T1.2), including room hire, catering, facilitators and materials.
Remaining purchase costs (<15% of pers. Costs)	12,000	
Total	22,000	

15, Prov Lucca		
	Cost (€)	Justification
Travel and subsistence		
Equipment		
Other goods, works and services	10,000	10,000 E for 8 x workshops @ 1250E each (T1.2), including room hire, catering, facilitators and materials.
Remaining purchase costs (<15% of pers. Costs)	8,800	
Total	18,800	

16, RRA ZELENI KRAS		
	Cost (€)	Justification

Travel and subsistence		
Equipment		
Other goods, works and services	10,000	10,000 E for 8 x workshops @ 1250E each (T1.2), including room hire, catering, facilitators and materials
Remaining purchase costs (<15% of pers. Costs)	8,800	
Total	18,800	

18, Mazovia Reg		
	Cost (€)	Justification
Travel and subsistence		
Equipment		
Other goods, works and services	10,000	10,000 E for 8 x workshops @ 1250E each (T1.2), including room hire, catering, facilitators and materials.
Remaining purchase costs (<15% of pers. Costs)	8,800	
Total	18,800	

20, JINAG		
	Cost (€)	Justification
Travel and subsistence		
Equipment		
Other goods, works and services	10,000	10,000 E for 8 x workshops @ 1250E each (T1.2), including room hire, catering, facilitators and materials.
Remaining purchase costs (<15% of pers. Costs)	8,800	
Total	18,800	

21, REGION		
	Cost (€)	Justification
Travel and subsistence		
Equipment		
Other goods, works and services	10,000	10,000 E for 8 x workshops @ 1250E each (T1.2), including room hire, catering, facilitators and materials.
Remaining purchase costs (<15% of pers. Costs)	8,800	
Total	18,800	

3.2. Capacity of Participants and Consortium as a Whole

The project consortium brings together diverse partners to deliver the project. These include research partners, and practice partners. Our practice partners represent organisations that have direct influence over land use decision making in a territorial unit. This can be, for example, a regional authority, a regional development agency (e.g. Green Karst), or a protected landscape area (e.g. Parc Ela). By incorporating these practice partners as full members of the consortium, we are able to co-create knowledge that is of direct practical use, and that tackles the key priority questions in land use change across Europe. The expertise of practice partners is fully designed into the project through the integration WP1, and a designated practice partner representative in the scientific management structures of *PLUS Change* (PURPLE). Further, PURPLE is the deputy coordinator of *PLUS Change*, ensuring that practice partners have equal standing with research partners in the decision-making and direction of the project.

Our research partners bring expertise across a broad range of topics and disciplines (see Table 9). Broadly, all research partners have familiarity with the challenges of land use and land use change, with a focus on sustainability. For example, explorations of forest and peatland land use (CZECHGLOBE, BSC), or agricultural management (LEUPHANA, SU), rural development (UL,STICHTING VU) urban development and regions (UKF, P4All) etc. However, all partners have approached these questions with focusses on a range of topics relevant to this call and to *PLUS Change*. We are therefore combining our expertise in climate, biodiversity, societal well-being, land use planning and systems thinking (Table 9), and drawing on our connections into these communities of which we are already part in many instances. We combine these approaches to create a pluralistic and holistic understanding

of land use strategies. These disciplinary perspectives are primarily social science led, but with extensive experience engaging in STEM-related, interdisciplinary, and transdisciplinary research (see Table 4 and Part A forms for key project examples).

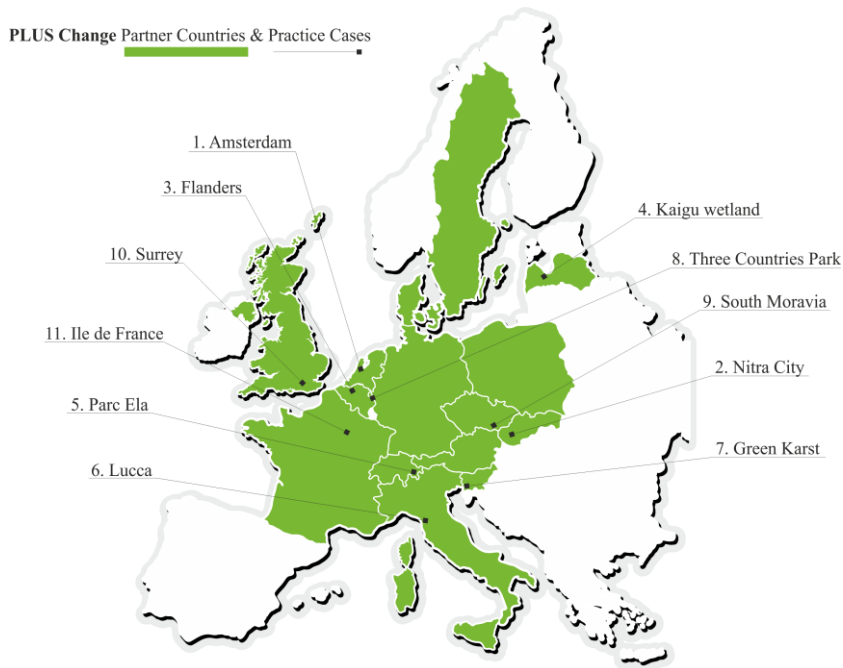


Figure 4: The geographic diversity of PLUS Change consortium members and practice cases.

he research projects (e.g. as WP lead in ROBUST). The consortium as a whole, (both research and practice partners) have a broad range of collaborative project experience (see A forms) including in H2020 and FP7 (P4All, Prov Lucca, BSC, UKF, STICHTING VU, Mazovia Reg), ERC (LEUPHANA), Interreg (UL, RRA ZELENÍ KRAS, EMR, Mazovia Reg, JINAG, REGION, Surrey CC) and nationally-funded projects (all partners).

The geographic diversity of our team, and the practice cases, is a key component of our capacity to deliver PLUS Change (see Figure 4). Sustainable land use strategies must respond to diversity in land use needs, drivers of change, and the social-cultural contexts that drive them. Our consortium has a strong representation of partners from central and eastern Europe, and a balance across older and newer member states. This selection ensures a strong representation of countries with different political histories in Europe, and in-depth understanding of plural social-cultural contexts. Our balance across physical geographies further ensures that we consider a broad range of physical drivers of land use change, and variety in options for land use strategies. We thus ensure consideration of the diversity of land use patterns, approaches and biogeographic conditions in Europe.

Our consortium is well positioned to ensure direct links into a range of communities of knowledge and user organisations. Partners PURPLE and ISOCARP are drawing on their broader networks of planners and planning associations. Consortium members are actively engaged in networks such as the Ecosystems Services Partnership (STICHTING VU, UKF); Transformations Community (KLI, CZECHGLOBE); Global Land Programme (STICHTING VU, LEUPHANA); International Association for Applied Psychology (CZECHGLOBE); Earth Systems Governance network (LEUPHANA, CZECHGLOBE); Group on Earth Observations, Research Data Alliance, Global Open Data for Agriculture and Nutrition, Open Geospatial Consortium (all P4All); Green Infrastructure Partnership (UKF); Dutch Design Week (Biobased); Global Environmental Facility (KNOWLEDGE SRL); Green Climate Fund (KNOWLEDGE SRL); International Public Policy Association (LEUPHANA); International Association of Landscape Ecology (BSC); SDG Knowledge Hub (CRS); European Network for Rural Development (PURPLE); Association of European Schools of Planning (UL) and many more. Additionally, consortium members are linked into the IPCC (CZECHGLOBE), IPBES (CZECHGLOBE, STICHTING VU), UN Geo (KNOWLEDGE SRL), and MedECC (Mediterranean Experts on Climate and Env. Change) (STICHTING VU) communities.

To ensure that our research is of relevance to these audiences, and to support the expertise of our consortium,

Across the team, there is significant capacity and experience for delivering a large, European-wide collaborative research project. As project leaders, CZECHGLOBE are supported by a project office that handles international large data infrastructures (e.g. ICOS) and a significant number of Horizon Europe and H2020 projects (see part A). The coordinator of the consortium (Leventon) is an experienced leader of an interdisciplinary department (20+ people) and research section (3 departments). She has held WP leadership in European-funded projects (e.g. SSH Centre, FoSTA Health), and prior to joining CZECHGLOBE she led a Euro 3 million project (Leverage Points). Deputy coordinator, (O’Connell) is Secretary General of PURPLE, and therefore highly experienced in representing the needs of practitioners in policy discussions. Further, has represented their interests in European

we form an international advisory board (IAB) as part of T7. The IAB gives scientific guidance and expertise to the overall project direction, and decisions within the project. This will include on topics of interest, methodologies and conceptual framings, as well as on relevant audiences. The IAB comprises a number of leading scientists and practitioners from across fields relating to land use change, behaviour-, systems- and policy change. Confirmed members include representatives from ESPON, and adelphi (think tank).

Table 9: The Diversity of the PLUS Change consortium.

Partner	Topic					Discipline												
	Biodiversity	Climate	Society	Planning	Systems	Sust. Sci	Economics	Psychology	Sociology	Geography	History	Philosophy	Arts	Geodetics	Political Sci	Ecology	Env. Sci	Modelling
1. CZECHGLOBE																		
2. ISOCARP																		
3. KLI																		
4. Biobased																		
5. STICHTING VU																		
6. P4All																		
7. PURPLE																		
8. BSC																		
9. UL																		
10. KNOWLEDGE SRL																		
11. CRS																		
12. SU																		
13. UKF																		
14. LEUPHANA																		
15. Prov Lucca																		
16. RRA ZELENI KRAS																		
17. EMR																		
18. Mazovia Reg																		
19. VLM																		
20. JINAG																		
21. REGION																		
22. Parc Verein Ela																		
23. Surrey CC																		

3. Ethics Self Assessment

a. Ethical Dimensions of the Objectives, Methodology and Likely Impacts

The research proposed in PLUS Change has 3 ethical issues for consideration:

1. It involves human participants for social science research,
2. The research involves collecting personal data collection and/or processing
3. The research involves tracking or observation of participants.

The activities planned in PLUS Change are of low risk, and are not planned to place any participants in risk. The main source of negative impact could be through time and costs incurred in participation. This could also be a source of bias in the results by influencing who can participate. This is therefore addressed in the project design. Human participants for social science research There are 5 ways in which PLUS Change engages with human participants for social research:

1. The use of historical data (WP2): Case study analysis will require engagement with several sources of data, both primary and secondary which has been generated by third parties as well as the project team. Data may include that collected from key interview respondents (transcripts), records from databases and

reports.

2. Participatory activities within the practice case workshops (WP1, all WPs): These activities engage with a broad range of stakeholders and broader public in order to learn with participants, drawing largely on participatory and deliberative methods. These activities are diverse and tailored to the specific tasks across WPs. Therefore more detailed ethics consideration will be held throughout the project, with institutional IRB processes, and via project level ethical review with the international advisory board. Data will be in the form of meeting minutes, interview transcripts and workshop outputs.
3. Engagement with the public via creative engagement (Possible Landscapes) (WP3, WP6): We will undertake public engagement to elicit values, wishes and needs for future land use via co-creative, artistic events. These will be open to the public to interact, and recruitment will be based on voluntary participation from the public. Data includes artistic outputs and notes from discussions.
4. Surveys and semi-structured interviews (WP4, WP5). These activities engage with targeted land users and decision makers to understand decision-making processes, policies and behaviours. Participants will be recruited because of key characteristics, such as their role as a stakeholder in land use in a given location. Data will be transcriptions and quantitative data. Personal data will not be collected, beyond information relating to selection criteria (e.g. location, type of organisation).
5. Randomised controlled trials (WP5): These activities sample a broad range of the population. Experimentation can be both online and in a laboratory setting. We will seek to influence people's motivation and behaviour through social-psychological interventions. These interventions pose minimal risks to participants comparable to risks of Internet browsing or office work, participants will be informed about potential risks and benefits of their participation. Participation will be voluntary. Data collected includes completed surveys and observation.

Personal data collection and/or processing

Personal data will only be used for the identification and selection of participants. We will intentionally avoid collecting personal and confidential information during the course of the research, by using age-ranges and job groups etc. to identify suitable participants. Other personal data necessary to engage with participants will be confidential and only used by the immediate project team for as long as necessary to recruit participants.

Tracking or observation of participants

Participant observation is a key component of research in some of the participatory activities in WP1. The purpose is to stimulate discussions and learn from the outcomes and process of these. Data will be in the form of workshop notes and produced maps, drawings, etc.

In addition, we draw attention to the ethical dimensions of the outputs of the PLUS Change project. In particular, we note the need to carefully identify ethical concerns associated with behaviour change interventions and the intended creation of systems transformations. Behaviour change interventions need to be considered in terms of their impacts to personal autonomy and manipulation. Systems transformations must also be considered in terms of how they interact with justice and inequity, with the risk of exacerbating these.

b. Compliance with Ethical Principles and Relevant Legislations

PLUS Change will ensure that all the research and innovation activities for this Horizon 2020 project comply with ethics principles and relevant national, EU and international legislation. PLUS Change has a specific task to consider the ethics, equity and justice dimensions of both our research processes, and the implications of our results and outputs. This task is continuous through the project, and feeds into our project handbook (D7.1). This handbook will ensure that all consortium members are aware of, and complying with these ethics principles, and incorporating ethical considerations into their practice. All consortium members will subject their activities to scrutiny according to their home institution's Ethics and Internal Review Boards, prior to beginning the sampling of participants and collection of data. CZECHGLOBE will further create an umbrella ethical clearance to consider the overarching processes in PLUS Change (e.g. the workshops in T1.2).

Ethical clearance forms will be retained centrally by the project. As a part of the ethics considerations, all consortium members will adhere to GDPR and national legislation regarding data protection. All consortium members will sign a declaration of adherence to both, and these will be retained centrally by the project. The outline ethics measures that we will adhere to throughout PLUS Change are outlined here.

Participants in all activities will receive information about research (e.g., objectives, content, risks, benefits) prior to their participation and will be able to make an informed decision whether or not to participate in studies. A consent form and information sheet will be prepared for this purpose, relevant to the activity, and in the appropriate language for participants. The consent form will include information about the project, how the data will be used (only for research purposes), and a checklist indicating the types and/or uses of consented material: This applies to:

- data retrieval
- data processing
- data storage
- data sharing

For all activities, we will adhere to principles data protection.

In all activities, data will be stored and managed in accordance with GDPR and taking additional account of any case-specific requirements. PLUS Change and consortium partners will ensure that the following requirements are met:

- Confirmation that data will be collected on a need to know basis only
- The guarantee of withdrawal rights and oblivion rights as made compulsory by the European court of justice in 2014
- Avoidance of merging data sets in order to prevent any unforeseen personal information disclosure
- Provision of detailed information on the procedures that will be implemented for data collection, processing, storage, protection, retention and destruction and confirmation that they comply with national and EU legislation.

In relation to participant observation, on request, participants will be able to see data collected that relates to their participation, with the information and data of other participants removed. Participants will be consulted before direct quotes are used in project outputs.

All recordings made in the project will be transcribed and the associated word document will be stored on a secure university server. Audio recordings will be stored for six months after the end of the project on a secure institution-level servers. Written outputs will be scanned in and stored on a secure institution-level servers and the original output will be destroyed.

Non-EU participants in PLUS Change are Surrey CC from the United Kingdom and Parc Verein Ela in Switzerland. Regarding the ethical issues in PLUS Change, especially data protection, it will be made sure that these partners comply with ethics principles and relevant national, EU and international legislation, in line with all consortium members. An export of personal data is not foreseen.

ANNEX 2

ESTIMATED BUDGET FOR THE ACTION

Estimated eligible ¹ costs (per budget category)										Estimated EU contribution ²				
Forms of funding	Direct costs								Indirect costs	Total costs	EU contribution to eligible costs			Maximum grant amount ⁶
	A. Personnel costs		B. Subcontracting costs	C. Purchase costs			D. Other cost categories	E. Indirect costs ³	Funding rate % ⁴		Maximum EU contribution ⁵	Requested EU contribution		
	Actual costs	Unit costs (usual accounting practices)	Unit costs ⁷	Actual costs	Actual costs	Actual costs	Actual costs	Unit costs (usual accounting practices)	Flat-rate costs ⁸		U	g = f * U%	h	m
	a1	a2	a3	b	c1	c2	c3	d2	e = 0,25 * (a1 + a2 + a3 + c1 + c2 + c3)	f = a + b + c + d + e				
1 - CZECHGLOBE	364 000.00	0.00	0.00	0.00	37 200.00	0.00	77 500.00	0.00	119 675.00	598 375.00	100	598 375.00	598 375.00	598 375.00
2 - ISOCARP	208 000.00	0.00	0.00	0.00	6 000.00	0.00	10 000.00	0.00	56 000.00	280 000.00	100	280 000.00	280 000.00	280 000.00
3 - KLI	288 000.00	0.00	0.00	0.00	6 000.00	0.00	4 000.00	0.00	74 500.00	372 500.00	100	372 500.00	372 500.00	372 500.00
4 - Biobased	287 000.00	0.00	0.00	0.00	45 600.00	0.00	169 000.00	0.00	125 400.00	627 000.00	100	627 000.00	627 000.00	627 000.00
5 - STICHTING VU	670 120.00	0.00	0.00	0.00	19 200.00	0.00	16 000.00	0.00	176 330.00	881 650.00	100	881 650.00	881 650.00	881 650.00
6 - P4All	220 000.00	0.00	0.00	0.00	6 000.00	10 000.00	4 000.00	0.00	60 000.00	300 000.00	100	300 000.00	300 000.00	300 000.00
7 - PURPLE	361 200.00	0.00	0.00	0.00	8 800.00	0.00	14 000.00	0.00	96 000.00	480 000.00	100	480 000.00	480 000.00	480 000.00
8 - BSC	301 000.00	0.00	0.00	0.00	6 000.00	0.00	14 000.00	0.00	80 250.00	401 250.00	100	401 250.00	401 250.00	401 250.00
9 - UL	101 500.00	0.00	0.00	0.00	15 900.00	0.00	4 000.00	0.00	30 350.00	151 750.00	100	151 750.00	151 750.00	151 750.00
10 - KNOWLEDGE SRL	106 258.72	64 267.68	60 473.60	0.00	8 700.00	0.00	4 000.00	0.00	60 925.00	304 625.00	100	304 625.00	304 625.00	304 625.00
11 - CRS	247 500.00	0.00	0.00	0.00	7 800.00	0.00	4 000.00	0.00	64 825.00	324 125.00	100	324 125.00	324 125.00	324 125.00
12 - SU	176 841.00	0.00	0.00	0.00	6 000.00	0.00	4 000.00	0.00	46 710.25	233 551.25	100	233 551.25	233 551.25	233 551.25
13 - UKF	126 000.00	0.00	0.00	0.00	8 000.00	0.00	14 000.00	0.00	37 000.00	185 000.00	100	185 000.00	185 000.00	185 000.00
14 - LEUPHANA	230 400.00	0.00	0.00	0.00	6 000.00	0.00	4 000.00	0.00	60 100.00	300 500.00	100	300 500.00	300 500.00	300 500.00
15 - Prov Lucca	117 500.00	0.00	0.00	0.00	8 800.00	0.00	10 000.00	0.00	34 075.00	170 375.00	100	170 375.00	170 375.00	170 375.00
16 - RRA ZELENÍ KRAS	82 250.00	0.00	0.00	0.00	8 800.00	0.00	10 000.00	0.00	25 262.50	126 312.50	100	126 312.50	126 312.50	126 312.50
17 - EMR	188 234.00	0.00	0.00	0.00	8 800.00	0.00	10 000.00	0.00	51 758.50	258 792.50	100	258 792.50	258 792.50	258 792.50
18 - Mazovia Reg.	65 000.00	0.00	0.00	0.00	8 800.00	0.00	10 000.00	0.00	20 950.00	104 750.00	100	104 750.00	104 750.00	104 750.00
19 - VLM	197 593.00	0.00	0.00	0.00	8 800.00	0.00	10 000.00	0.00	54 098.25	270 491.25	100	270 491.25	270 491.25	270 491.25
20 - JINAG	84 600.00	0.00	0.00	0.00	8 800.00	0.00	10 000.00	0.00	25 850.00	129 250.00	100	129 250.00	129 250.00	129 250.00
21 - REGION	124 100.00	0.00	0.00	0.00	8 800.00	0.00	10 000.00	0.00	35 725.00	178 625.00	100	178 625.00	178 625.00	178 625.00
22 - Verein Parc Ela														
23 - Surrey CC														
Σ consortium	4 547 096.72	64 267.68	60 473.60	0.00	248 800.00	10 000.00	412 500.00	0.00	1 335 784.50	6 678 922.50		6 678 922.50	6 678 922.50	6 678 922.50

¹ See Article 6 for the eligibility conditions. All amounts must be expressed in EUR (see Article 21 for the conversion rules).² The consortium remains free to decide on a different internal distribution of the EU funding (via the consortium agreement; see Article 7).³ Indirect costs already covered by an operating grant (received under any EU funding programme) are ineligible (see Article 6.3). Therefore, a beneficiary/affiliated entity that receives an operating grant during the action duration cannot declare indirect costs for the year(s)/reporting period(s) covered by the operating grant, unless they can demonstrate that the operating grant does not cover any costs of the action. This requires specific accounting tools. Please immediately contact us via the EU Funding & Tenders Portal for details.⁴ See Data Sheet for the funding rate(s).⁵ This is the theoretical amount of the EU contribution to costs, if the reimbursement rate is applied to all the budgeted costs. This theoretical amount is then capped by the 'maximum grant amount'.⁶ The 'maximum grant amount' is the maximum grant amount decided by the EU. It normally corresponds to the requested grant, but may be lower.⁷ See Annex 2a 'Additional information on the estimated budget' for the details (units, cost per unit).⁸ See Data Sheet for the flat-rate.

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

Units³: 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:

$$\frac{\text{average annual total trans-national access costs to the installation (over past two years}^4\text{)}}{\text{average annual total quantity of trans-national access to the installation (over past two years}^5\text{)}}$$

For virtual access:

$$\frac{\text{total virtual access costs to the installation (over the last year}^6\text{)}}{\text{total quantity of virtual access to the installation (over the last year}^7\text{)}}$$

Euratom staff mobility costs⁸

Monthly living allowance

Type: unit costs

¹ Commission [Decision](#) of 20 October 2020 authorising the use of unit costs for the personnel costs of the owners of small and medium-sized 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).

² [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).

³ Unit of access (e.g. beam hours, weeks of access, sample analysis) fixed by the access provider in proposal.

⁴ In exceptional and duly justified cases, the granting authority may agree to a different reference period.

⁵ In exceptional and duly justified cases, the granting authority may agree to a different reference period.

⁶ In exceptional and duly justified cases, the granting authority may agree to a different reference period.

⁷ In exceptional and duly justified cases, the granting authority may agree to a different reference period.

⁸ [Decision](#) 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).

Units: 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 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).

¹⁰ ⚠ 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.

¹¹ 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

Units: 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

Units: 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

Units: 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 children¹²}

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.)

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

STICHTING ISOCARP INSTITUTE CENTER OF URBAN EXCELLENCE (ISOCARP), PIC 905424870, established in WALDORPSTRAAT 17, THE HAGUE 2521 CA, Netherlands,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

KONRAD-LORENZ-INSTITUT FUR EVOLUTIONS-UND KOGNITIONSFORSCHUNG (KLI), PIC 958352435, established in MARTINSTRASSE 12, KLOSTERNEUBURG 3400, Austria,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

INTERNATIONAL CREATIVE PROJECTS B V (Biobased), PIC 888044119, established in LEEUWENDALERSWEG 672, AMSTERDAM 1061 BK, Netherlands,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHEGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

STICHTING VU (STICHTING VU), PIC 954530344, established in DE BOELELAAN 1105, AMSTERDAM 1081 HV, Netherlands,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

PLAN4ALL ZS (P4All), PIC 930230292, established in K RYBNICKU 557, HORNÍ BRIZA 330 12, Czechia,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

PERI-URBAN REGIONS PLATFORM EUROPE (PURPLE), PIC 921189601, established in KONING ALBERT II LAAN 15, BRUSSEL 1210, Belgium,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

NODIBINAJUMS BALTIC STUDIES CENTRE (BSC), PIC 988719934, established in KOKNESES PROSPEKTS 26-2, RIGA 1014, Latvia,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZEEH GLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERZA V LJUBLJANI (UL), PIC 999923240, established in KONGRESNI TRG 12, LJUBLJANA 1000, Slovenia,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

KNOWLEDGE SRL (KNOWLEDGE SRL), PIC 952735456, established in VIA SAN GIOVANNI BATTISTA 2, OLGiate OLONA 21057, Italy,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

STOWARZYSZENIE CENTRUM ROZWIAZAN SYSTEMOWYCH (CRS), PIC 998222539,
established in ULICA STEFANA JARACZA 80B LOK 10, WROCLAW 50 305, Poland,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

STOCKHOLMS UNIVERSITET (SU), PIC 999885022, established in UNIVERSITETSVAGEN 10, STOCKHOLM 10691, Sweden,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

UNIVERZITA KONSTANTINA FILOZOFA VNITRE (UKF), PIC 997731913, established in TRIEDA ANDREJA HLINKU 1, NITRA 949 01, Slovakia,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

LEUPHANA UNIVERSITÄT LUNEBURG (LEUPHANA), PIC 996544827, established in SCHARNHORSTSTRASSE 1, LUNEBURG 21335, Germany,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

PROVINCIA DI LUCCA (Prov Lucca), PIC 957340434, established in CORTILE CARRARA 1, LUCCA 55100, Italy,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

RRA ZELENI KRAS DOO (RRA ZELENI KRAS), PIC 943145454, established in PRECNA ULICA 1, PIVKA 6257, Slovenia,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

EUREGIO MAAS RHEIN (EMR), PIC 898701315, established in GOSPERTSTRASSE 42, EUPEN 4700, Belgium,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

WOJEWODZTWO MAZOWIECKIE (Mazovia Reg.), PIC 969928415, established in ul. Jagiellonska 26, Warsaw 03-719, Poland,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZEEHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

VLAAMSE LANDMAATSCHAPPIJ (VLM), PIC 954725702, established in KONING ALBERT II-LAAN 15, BRUSSELS 1210, Belgium,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

JIHOMORAVSKA AGENTURA PRO VEREJNE INOVACE JINAG SPOLEK (JINAG), PIC 911076381, established in ZEROTINOVO NAMESTI 449/3 VEVERI, BRNO 602 00, Czechia,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZECHGLOBE) 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

For the beneficiary

ANNEX 3

ACCESSION FORM FOR BENEFICIARIES

ILE DE FRANCE (REGION), PIC 999706736, established in 2 RUE SIMONE VEIL, SAINT OUEN SUR SEINE 93400, France,

hereby agrees

to become beneficiary

in Agreement No 101081464 — PLUS Change ('the Agreement')

between USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI (CZEEH GLOBE) 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

For the beneficiary

ANNEX 4 HORIZON EUROPE MGA — MULTI + MONO

FINANCIAL STATEMENT FOR [PARTICIPANT NAME] FOR REPORTING PERIOD [NUMBER]

Eligible ¹ costs (per budget category)																	EU contribution ²				Revenues
Direct costs															Indirect costs	Total costs	EU contribution to eligible costs			Total requested EU contribution	Income generated by the action
A. Personnel costs			B. Subcontracting costs	C. Purchase costs			D. Other cost categories						E. Indirect costs ²	Funding rate % ³	Maximum EU contribution ⁴		Requested EU contribution				
Forms of funding	Actual costs	Unit costs (usual accounting practices)	Unit costs ⁵	Actual costs	Actual costs	Actual costs	Actual costs	/ Actual costs	Unit costs (usual accounting practices)	/ Unit costs ⁵	/ Unit costs ⁵	/ Actual costs	/ Unit costs ⁵	/ Actual costs	/ Actual costs	Flat-rate costs ⁶	U	g = f*U%	h	m	n
	a1	a2	a3	b	c1	c2	c3	[d1a]	d2	[d3]	[d4]	[d5]	[d6]	[d7]	[d8]	e = 0,25 * (a1 + a2 + a3 + b + c1 + c2 + c3 + d1a + d2 + d3 + d4 + d5 + d6 + d7 + d8)					
XX - [short name beneficiary/affiliated entity]																					

The beneficiary/affiliated entity hereby confirms 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 documentation that will be produced upon request or in the context of checks, reviews, audits and investigations (see Articles 19, 20 and 25).
 For the last reporting period: that all the revenues have been declared (see Article 22).

¹ Please declare all eligible costs and contributions, even if they exceed the amounts indicated in the estimated budget (see Annex 2). Only amounts that were declared in your individual financial statements can be taken into account later on, in order to replace costs/contributions that are found to be ineligible.

² See Article 6 for the eligibility conditions. All amounts must be expressed in EUR (see Article 21 for the conversion rules).
³ If you have also received an EU operating grant during this reporting period, you cannot claim indirect costs - unless you can demonstrate that the operating grant does not cover any costs of the action. This requires specific accounting tools. Please contact us immediately via the Funding & Tenders Portal for details.
⁴ See Data Sheet for the reimbursement rate(s).
⁵ This is the *theoretical* amount of EU contribution to costs that the system calculates automatically (by multiplying the reimbursement rates by the costs declared). The amount you request (in the column 'requested EU contribution') may be less.
⁶ See Annex 2a 'Additional information on the estimated budget' for the details (units, cost per unit).
⁷ See Data Sheet for the flat-rate.

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)

¹ 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

² 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.

COMMUNICATION, DISSEMINATION, OPEN SCIENCE AND VISIBILITY (— 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 Commons 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.

Specific rules for access to research infrastructure activities

Definitions

Research Infrastructures — Facilities that provide resources and services for the research communities to conduct research and foster innovation in their fields. This definition includes the associated human resources, and it covers major equipment or sets of instruments; knowledge-related facilities such as collections, archives or scientific data infrastructures; computing systems, communication networks, and any other infrastructure, of a unique nature and open to external users, essential to achieve excellence in research and innovation. Where relevant, they may be used beyond research, for example

³ 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).

for education or public services, and they may be ‘single-sited’, ‘virtual’ or ‘distributed’⁴:

When implementing access to research infrastructure activities, the beneficiaries must respect the following conditions:

- for transnational access:

- access which must be provided:

The access must be free of charge, transnational access to research infrastructure or installations for selected user-groups.

The access must include the logistical, technological and scientific support and the specific training that is usually provided to external researchers using the infrastructure. Transnational access can be either in person (hands-on), provided to selected users that visit the installation to make use of it, or remote, through the provision to selected user-groups of remote scientific services (e.g. provision of reference materials or samples, remote access to a high-performance computing facility).

- categories of users that may have access:

Transnational access must be provided to selected user-groups, i.e. teams of one or more researchers (users).

The majority of the users must work in a country other than the country(ies) where the installation is located (unless access is provided by an international organisation, the Joint Research Centre (JRC), an ERIC or similar legal entity).

Only user groups that are allowed to disseminate the results they have generated under the action may benefit from the access (unless the users are working for SMEs).

Access for user groups with a majority of users not working in a EU Member State or Horizon Europe associated country is limited to 20% of the total amount of units of access provided under the grant (unless a higher percentage is foreseen in Annex 1).

- procedure and criteria for selecting user groups:

The user groups must request access by submitting (in writing) a description of the work that they wish to carry out and the names, nationalities and home institutions of the users.

The user groups must be selected by (one or more) selection panels set up by the consortium.

⁴ See Article 2(1) of the Horizon Europe Framework Programme Regulation 2021/695.

The selection panels must be composed of international experts in the field, at least half of them independent from the consortium (unless otherwise specified in Annex 1).

The selection panels must assess all proposals received and recommend a short-list of the user groups that should benefit from access.

The selection panels must base their selection on scientific merit, taking into account that priority should be given to user groups composed of users who:

- have not previously used the installation and
- are working in countries where no equivalent research infrastructure exist.

It will apply the principles of transparency, fairness and impartiality.

Where the call conditions impose additional rules for the selection of user groups, the beneficiaries must also comply with those.

- other conditions:

The beneficiaries must request written approval from the granting authority for the selection of user groups requiring visits to the installations exceeding 3 months (unless such visits are foreseen in Annex 1).

In addition, the beneficiaries must:

- advertise widely, including on a their websites, the access offered under the Agreement
- promote equal opportunities in advertising the access and take into account the gender dimension when defining the support provided to users
- ensure that users comply with the terms and conditions of the Agreement
- ensure that its obligations under Articles 12, 13, 17 and 33 also apply to the users
- keep records of the names, nationalities, and home institutions of users, as well as the nature and quantity of access provided to them

- for virtual access:

- access which must be provided:

The access must be free of charge, virtual access to research infrastructure or installations.

‘Virtual access’ means open and free access through communication networks to digital resources and services needed for research, without selecting the users to whom access is provided.

The access must include the support that is usually provided to external users.

Where allowed by the call conditions, beneficiaries may in justified cases define objective eligibility criteria (e.g. affiliation to a research or academic institution) for specific users.

- other conditions:

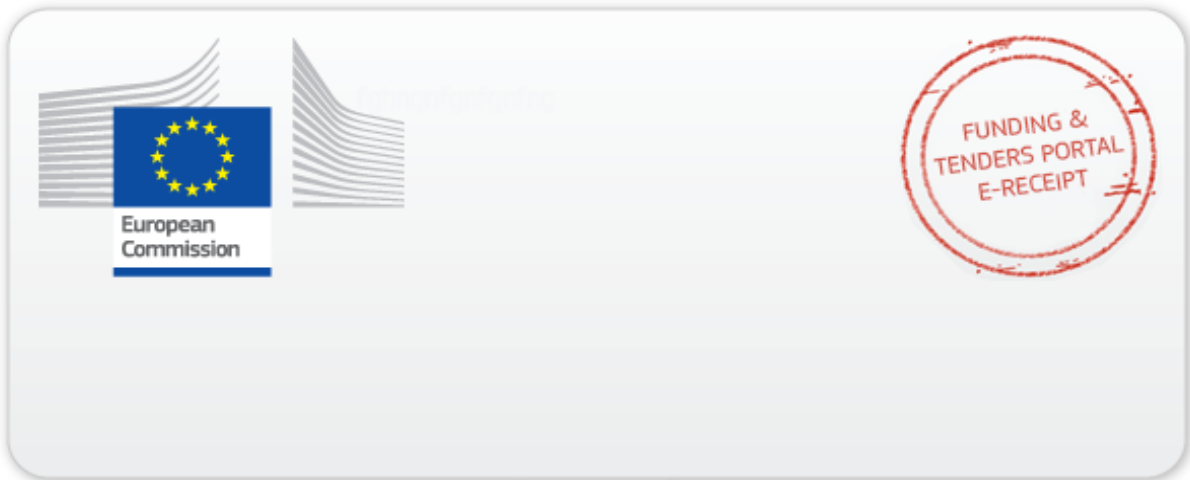
The beneficiaries must have the virtual access services assessed periodically by a board composed of international experts in the field, at least half of whom must be independent from the consortium (unless otherwise specified in Annex 1). For this purpose, information and statistics on the users and the nature and quantity of the access provided, must be made available to the board.

The beneficiaries must advertise widely, including on a dedicated website, the access offered under the grant and the eligibility criteria, if any.

Where the call conditions impose additional traceability⁵ obligations, information on the traceability of the users and the nature and quantity of access must be provided by the beneficiaries.

These obligations apply regardless of the form of funding or budget categories used to declare the costs (unit costs or actual costs or a combination of the two).

⁵ According to the definition given in ISO 9000, i.e.: “Traceability is the ability to trace the history, application, use and location of an item or its characteristics through recorded identification data.” The users can be traced, for example, by authentication and/or by authorization or by other means that allows for analysis of the type of users and the nature and quantity of access provided.



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