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EUROPEAN CLIMATE, INFRASTRUCTURE AND ENVIRONMENT EXECUTIVE AGENCY (CINEA)

CINEA.C – Green research and innovation
**C.3 – Horizon Europe Transport**

# GRANT AGREEMENT

## Project 101103924 — REALLOCATE

## 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':

**UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD)**, PIC 999974359, established in BELFIELD, DUBLIN 4, Ireland,

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

2. **EUROCITIES ASBL (EUROCITIES)**, PIC 999450559, established in SQUARE DE MEEUS 1, BRUXELLES 1000, Belgium,

3. **FACTUAL CONSULTING SL (FACTUAL)**, PIC 906285454, established in JOSEP VALLS 13, 2ON A, SANT CUGAT DEL VALLES 08195, Spain,

4. **ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS (CERTH)**, PIC 998802502, established in CHARILAOU THERMI ROAD 6 KM, THERMI THESSALONIKI 57001, Greece,

5. **ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH) (ICLEI EURO)**, PIC 998341364, established in LEOPOLDRING 3, FREIBURG IM BREISGAU 79098, Germany,

6. **FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV (Fraunhofer)**, PIC 999984059, established in HANSASTRASSE 27C, MUNCHEN 80686, Germany,

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7. **NUDGD AB (Nudgd)**, PIC 895330274, established in FRIGANGSGATAN 4, GOTEBORG 413 01, Sweden,

8. **EUROPEAN ROAD TRANSPORT TELEMATICS IMPLEMENTATION COORDINATION ORGANISATION - INTELLIGENT TRANSPORT SYSTEMS & SERVICES EUROPE (ERTICO ITS EUR)**, PIC 999785112, established in AVENUE LOUISE 326, BRUXELLES 1050, Belgium,

9. **DEMOS RESEARCH INSTITUTE OY (DEMOS)**, PIC 906147035, established in MECHELININKATU 3D, HELSINKI 00100, Finland,

10. **EUROPEAN CYCLISTS FEDERATION ASBL (ECF)**, PIC 965873912, established in RUE DE LA CHARITE 22, BRUXELLES 1210, Belgium,

11. **BARCELONA SUPERCOMPUTING CENTER CENTRO NACIONAL DE SUPERCOMPUTACION (BSC CNS)**, PIC 999655520, established in CALLE JORDI GIRONA 31, BARCELONA 08034, Spain,

12. **CENTRE D ETUDES ET D EXPERTISE SUR LES RISQUES L ENVIRONNEMENT LA MOBILITE ET L AMENAGEMENT (Cerema)**, PIC 948933735, established in 25 AV FRANCOIS MITTERRAND, BRON 69500, France,

13. **TEKNOLOGIAN TUTKIMUSKESKUS VTT OY (VTT)**, PIC 932760440, established in TEKNIIKANTIE 21, ESPOO 02150, Finland,

14. **TAMPEREEN KAUPUNKI (TAMPERE)**, PIC 998829080, established in ALEKSIS KIVEN KATU 14-16, TAMPERE 33101, Finland,

15. **OVE ARUP & PARTNERS IRELAND LIMITED (ARUP)**, PIC 986125669, established in RINGSEND ROAD 50, DUBLIN 4, Ireland,

16. **INTERNATIONAL FEDERATION OF PEDESTRIANS - RESEARCH (IFP-research)**, PIC 885311435, established in SINT LAMBERTUSSTRAAT 133, BRUSSELS 1200, Belgium,

17. **DEKRA AUTOMOBIL GMBH (DEKRA)**, PIC 996461504, established in HANDWERKSTRASSE 15, STUTTGART 70565, Germany,

18. **AJUNTAMENT DE BARCELONA (BARCELONA)**, PIC 997628123, established in PLAÇA DE SANT JAUME SN, BARCELONA 08002, Spain,

19. **INSTITUT MUNICIPAL DE PERSONES AMB DISCAPACITAT (IMPD)**, PIC 904754309, established in CALLE VALENCIA 344 1A, BARCELONA 08009, Spain,

20. **NEMI MOBILITY SOLUTIONS SL (NEMI)**, PIC 891921015, established in CARRER MARIE CURIE KM 0 PARC TECNOLOGIC NORD, BARCELONA 08042, Spain,

21. **COMUNE DI BOLOGNA (COBO)**, PIC 999590239, established in PIAZZA MAGGIORE 6, BOLOGNA 40124, Italy,

22. **FONDAZIONE PER L'INNOVAZIONE URBANA (FIU)**, PIC 930035904, established in PIAZZA MAGGIORE 6, BOLOGNA 40121, Italy,

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23. **BUDAPEST FOVAROS ONKORMANYZATA (BUDAPEST)**, PIC 959102439, established in VAROSHAZ UTCA 9-11, BUDAPEST 1052, Hungary,

24. **BKK BUDAPESTI KOZLEKEDESI KOZPONT ZARTKORUEN MUKODO RESZVENYTARSASAG (BKK)**, PIC 965804460, established in RUMBACH SEBESTYEN UTCA 19-21, BUDAPEST 1075, Hungary,

25. **GOTEBORGS KOMMUN (GOTEBORG)**, PIC 997186676, established in POSTGATAN 4, GOTEBORG 411 13, Sweden,

26. **GEMEENTE UTRECHT (CITY OF UTRECHT)**, PIC 998300818, established in STADSPLATEAU 1, UTRECHT 3521 AZ, Netherlands,

27. **STICHTING SPORT UTRECHT (Sport Utrecht)**, PIC 946757346, established in HERCULESPLEIN 209, UTRECHT 3584 AA, Netherlands,

28. **VEILIG VERKEER NEDERLAND (VVN)**, PIC 883968179, established in STATIONSSTRAAT 79A, AMERSFOORT 3811 MH, Netherlands,

29. **MIASTO STOLECZNE WARSZAWA (CITY OF WARSAW)**, PIC 994575630, established in PLAC BANKOWY 3/5, WARSZAWA 00-950, Poland,

30. **GRAD ZAGREB (CITY OF ZAGREB)**, PIC 989531727, established in TRG STJEPANA RADICA 1, ZAGREB 10 000, Croatia,

31. **SINDIKAT BICIKLISTA UDRUGA (SBC)**, PIC 950733861, established in RIBNJAK 3, ZAGREB 10000, Croatia,

32. **SVEUCILISTE U ZAGREBU FAKULTET PROMETNIH ZNANOSTI (FTTS)**, PIC 989482063, established in VUKELICEVA 4, ZAGREB 10000, Croatia,

33. **METROPOLE DE LYON (METROPOLE LYON)**, PIC 924429401, established in 20 RUE DU LAC, LYON 69003, France,

34. **COMMUNE DE LYON (COMMUNE LYON)**, PIC 997468170, established in PLACE DE LA COMEDIE 1, LYON CEDEX 01 69205, France,

35. **FUNDACJA NA RZECZ WSPOLNOT LOKALNYCH NA MIEJSCU (FNM)**, PIC 920688596, established in BEDNARSKA, NR 13/15, LOK. 12, WARSZAWA 00-321, Poland,

36. **STADT HEIDELBERG (HEIDELBERG)**, PIC 925908457, established in MARKTPLATZ 10, HEIDELBERG 69117, Germany,

37. **HOGSKOLAN I HALMSTAD (HH)**, PIC 998196931, established in KRISTIAN IVS VAG 3, HALMSTAD 301 18, Sweden,

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.

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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 action[1]

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.

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# TERMS AND CONDITIONS

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# DATA SHEET

## 1. General data

Project summary:

| Project summary |
| --- |
| Drastic decrease in transport emissions of 55% by 2030 and 90% by 2050 is required for European cities to reach climate neutrality. This is hindered by inconvenient mobility infrastructure, inadequate services and insufficient governance for short-distance travel, negatively impacting active modes' safety and security. REALLOCATE's main objective is to pave the way towards climate-neutral, safe, inclusive and smart European cities through integrated and innovative sustainable urban mobility solutions that will address the needs of diverse groups and communities, while rebalancing street space allocation. The project will empower 10 twinned Mission Cities (Gothenburg-Tampere, Heidelberg-Utrecht, Lyon-Warsaw, Budapest-Zagreb, Barcelona-Bologna) by providing horizontal thematic expertise, supporting them to build a local innovation ecosystem to develop and deploy zero-emission, shared, inclusive, active and human-centred mobility interventions. Pilots in 15 urban and peri-urban unsafe areas will demonstrate innovative urban space management and reallocation strategies for sustainable modes (with a specific focus on active modes), having in mind safety, inclusivity, affordability and a just transition to climate neutrality overall. Solutions include innovative urban design, behavioural nudging, smart technological and data-driven solutions to reduce actual and perceived road safety risks, all contributing to achieving climate neutrality by 2030. The pilots will be the learning and testing environments for integrated approaches to foster knowledge transfer and collaborative learning to staff in cities through mentoring and capacity building, knowledge exchange, twinning and work shadowing. The project's impact will be exponentially increased by engaging 10 Cascade Cities in capacity building activities, and providing them with replication packages and guidelines resulting in implementation plans for replicating at least one of the innovative solutions piloted. |

Keywords:

- Climate change mitigation
- Mobility management
- Policy making on sustainable transport
- Sustainable planning
- Sustainable transport
- Transport planning and social aspects of transport
- VRU safety, citizen empowerment, SUMP, SUMI, circularity, road space reallocation, active mobility, AI, decision support tool, capacity building, climate contract, living lab, inclusivity, modal shift

Project number: 101103924

Project name: Rethinking the dEsign of streets And pubLic spaces to Leverage the mOdal shift to Climate-friendly Active Transport Everywhere

Project acronym: REALLOCATE

Call: HORIZON-MISS-2022-CIT-01

Topic: HORIZON-MISS-2022-CIT-01-01

Type of action: HORIZON Innovation Actions

Granting authority: European Climate, Infrastructure and Environment Executive Agency

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

Project starting date: fixed date: 1 May 2023

Project end date: 30 April 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 | UCD | UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN | IE | 999974359 | 849 657.50 | 849 657.50 |
| 2 | BEN | EUROCITIES | EUROCITIES ASBL | BE | 999450559 | 639 062.50 | 639 062.50 |
| 3 | BEN | FACTUAL | FACTUAL CONSULTING SL | ES | 906285454 | 710 312.50 | 497 218.75 |
| 4 | BEN | CERTH | ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS | EL | 998802502 | 390 625.00 | 390 625.00 |
| 5 | BEN | ICLEI EURO | ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH) | DE | 998341364 | 652 687.50 | 652 687.50 |
| 6 | BEN | Fraunhofer | FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV | DE | 999984059 | 373 025.00 | 373 025.00 |
| 7 | BEN | Nudgd | NUDGD AB | SE | 895330274 | 352 187.50 | 246 531.25 |
| 8 | BEN | ERTICO ITS EUR | EUROPEAN ROAD TRANSPORT TELEMATICS IMPLEMENTATION COORDINATION ORGANISATION - INTELLIGENT TRANSPORT SYSTEMS & SERVICES EUROPE | BE | 999785112 | 329 062.50 | 329 062.50 |
| 9 | BEN | DEMOS | DEMOS RESEARCH INSTITUTE OY | FI | 906147035 | 251 320.00 | 251 320.00 |
| 10 | BEN | ECF | EUROPEAN CYCLISTS FEDERATION ASBL | BE | 965873912 | 240 312.50 | 240 312.50 |
| 11 | BEN | BSC CNS | BARCELONA SUPERCOMPUTING CENTER CENTRO NACIONAL DE SUPERCOMPUTACION | ES | 999655520 | 401 250.00 | 401 250.00 |
| 12 | BEN | Cerema | CENTRE D ETUDES ET D EXPERTISE SUR LES RISQUES L ENVIRONNEMENT LA MOBILITE ET L AMENAGEMENT | FR | 948933735 | 409 101.25 | 409 101.25 |
| 13 | BEN | VTT | TEKNOLOGIAN TUTKIMUSKESKUS VTT OY | FI | 932760440 | 164 632.50 | 164 632.50 |
| 14 | BEN | TAMPERE | TAMPEREEN KAUPUNKI | FI | 998829080 | 315 237.50 | 315 237.50 |
| 15 | BEN | ARUP | OVE ARUP & PARTNERS IRELAND LIMITED | IE | 986125669 | 405 375.00 | 283 762.50 |
| 16 | BEN | IFP-research | INTERNATIONAL FEDERATION OF PEDESTRIANS - RESEARCH | BE | 885311435 | 420 521.25 | 420 521.25 |
| 17 | BEN | DEKRA | DEKRA AUTOMOBIL GMBH | DE | 996461504 | 348 125.00 | 243 687.50 |
| 17.1 | AE | DEKRA ASSURANCE | DEKRA ASSURANCE SERVICES GMBH | DE | 900034289 | 100 000.00 | 70 000.00 |
| 18 | BEN | BARCELONA | AJUNTAMENT DE BARCELONA | ES | 997628123 | 328 437.50 | 328 437.50 |
| 19 | BEN | IMPD | INSTITUT MUNICIPAL DE PERSONES AMB DISCAPACITAT | ES | 904754309 | 257 990.00 | 257 990.00 |
| 20 | BEN | NEMI | NEMI MOBILITY SOLUTIONS SL | ES | 891921015 | 171 562.50 | 120 093.75 |
| 21 | BEN | COBO | COMUNE DI BOLOGNA | IT | 999590239 | 308 257.50 | 308 257.50 |
| 22 | BEN | FIU | FONDAZIONE PER L'INNOVAZIONE URBANA | IT | 930035904 | 81 417.50 | 81 417.50 |
| 23 | BEN | BUDAPEST | BUDAPEST FOVAROS ONKORMANYZATA | HU | 959102439 | 497 750.00 | 497 750.00 |
| 24 | BEN | BKK | BKK BUDAPESTI KOZLEKEDESI KOZPONT ZARTKORUEN MUKODO RESZVENYTARSASAG | HU | 965804460 | 217 187.50 | 152 031.25 |
| 25 | BEN | GOTEBORG | GOTEBORGS KOMMUN | SE | 997186676 | 670 937.50 | 670 937.50 |
| 26 | BEN | CITY OF UTRECHT | GEMEENTE UTRECHT | NL | 998300818 | 256 771.25 | 256 771.25 |
| 27 | BEN | Sport Utrecht | STICHTING SPORT UTRECHT | NL | 946757346 | 85 416.25 | 85 416.25 |
| 28 | BEN | VVN | VEILIG VERKEER NEDERLAND | NL | 883968179 | 112 500.00 | 112 500.00 |
| 29 | BEN | CITY OF WARSAW | MIASTO STOLECZNE WARSZAWA | PL | 994575630 | 309 555.00 | 309 555.00 |
| 30 | BEN | CITY OF ZAGREB | GRAD ZAGREB | HR | 989531727 | 208 687.50 | 208 687.50 |
| 31 | BEN | SBC | SINDIKAT BICIKLISTA UDRUGA | HR | 950733861 | 54 312.50 | 54 312.50 |
| 32 | BEN | FTTS | SVEUCILISTE U ZAGREBU FAKULTET PROMETNIH ZNANOSTI | HR | 989482063 | 122 981.25 | 122 981.25 |

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| N° | Role | Short name | Legal name | Ctry | PIC | Total eligible costs (BEN and AE) | Max grant amount |
|---|---|---|---|---|---|---|---|
| 33 | BEN | METROPOLE LYON | METROPOLE DE LYON | FR | 924429401 | 392 162.50 | 392 162.50 |
| 34 | BEN | COMMUNE LYON | COMMUNE DE LYON | FR | 997468170 | 382 038.75 | 382 038.75 |
| 35 | BEN | FNM | FUNDACJA NA RZECZ WSPOLNOT LOKALNYCH NA MIEJSCU | PL | 920688596 | 69 312.50 | 69 312.50 |
| 36 | BEN | HEIDELBERG | STADT HEIDELBERG | DE | 925908457 | 726 250.00 | 726 250.00 |
| 37 | BEN | HH | HOGSKOLAN I HALMSTAD | SE | 998196931 | 84 002.50 | 84 002.50 |
| **Total** | | | | | | 12 690 025.00 | 11 998 600.00 |

**Coordinator:**

– UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD)

## 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) |
|---|---|---|---|
| 12 690 025.00 | 70, 100 | 11 998 600.00 | 11 998 600.00 |

**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) | 6 399 418.68 |

**Reporting and payment modalities** (art 21, 22):

Mutual Insurance Mechanism (MIM): Yes

MIM contribution: 5% of the maximum grant amount (599 930.00), retained from the initial prefinancing

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

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

Exception for revenues: Yes

No-profit rule: Yes

Late payment interest: ECB + 3.5%

Bank account for payments:

IE08BOFI90139442093021

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 ≥ EUR 430 000.00

Special threshold for beneficiaries with a systems and process audit(see Article 24): financial statement: requested EU contribution to costs ≥ 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):

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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)

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# CHAPTER 1 GENERAL

## ARTICLE 1 — SUBJECT OF THE AGREEMENT

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

## ARTICLE 2 — DEFINITIONS

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

Actions — The project which is being funded in the context of this Agreement.

Grant — The grant awarded in the context of this Agreement.

EU grants — Grants awarded by EU institutions, bodies, offices or agencies (including EU executive agencies, EU regulatory agencies, EDA, joint undertakings, etc.).

Participants — Entities participating in the action as beneficiaries, affiliated entities, associated partners, third parties giving in-kind contributions, subcontractors or recipients of financial support to third parties.

Beneficiaries (BEN) — The signatories of this Agreement (either directly or through an accession form).

Affiliated entities (AE) — Entities affiliated to a beneficiary within the meaning of Article 187 of EU Financial Regulation 2018/1046[4] which participate in the action with similar rights and obligations as the beneficiaries (obligation to implement action tasks and right to charge costs and claim contributions).

Associated partners (AP) — Entities which participate in the action, but without the right to charge costs or claim contributions.

Purchases — Contracts for goods, works or services needed to carry out the action (e.g. equipment, consumables and supplies) but which are not part of the action tasks (see Annex 1).

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

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

[4] For the definition, see Article 187 Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012 ('EU Financial Regulation') (OJ L 193, 30.7.2018, p. 1): "**affiliated entities** [are]:
(a) entities that form a sole beneficiary [(i.e. where an entity is formed of several entities that satisfy the criteria for being awarded a grant, including where the entity is specifically established for the purpose of implementing an action to be financed by a grant)];
(b) entities that satisfy the eligibility criteria and that do not fall within one of the situations referred to in Article 136(1) and 141(1) and that have a link with the beneficiary, in particular a legal or capital link, which is neither limited to the action nor established for the sole purpose of its implementation".

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

Fraud — Fraud within the meaning of Article 3 of EU Directive 2017/1371[5] and Article 1 of the Convention on the protection of the European Communities' financial interests, drawn up by the Council Act of 26 July 1995[6], 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 2988/95[7].

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 **101103924 — REALLOCATE** ('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

[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).

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The grant is an action grant[8] which takes the form of a budget-based mixed actual cost grant (i.e. a grant based on actual costs incurred, but which may also include other forms of funding, such as unit costs or contributions, flat-rate costs or contributions, lump sum costs or contributions or financing not linked to costs).

### 5.2 Maximum grant amount

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

### 5.3 Funding rate

The funding rate for costs is 100% of the eligible costs for beneficiaries that are non-profit legal entities[9] and 70% of the eligible costs for beneficiaries that are profit legal entities.

Contributions are not subject to any funding rate.

### 5.4 Estimated budget, budget categories and forms of funding

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

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

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

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

### 5.5 Budget flexibility

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

However:

- changes to the budget category for volunteers (if used) always require an amendment
- changes to budget categories with lump sums costs or contributions (if used; including financing not linked to costs) always require an amendment
- changes to budget categories with higher funding rates or budget ceilings (if used) always require an amendment

[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".

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

[10] See Article 125 EU Financial Regulation 2018/1046.

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- 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.

## 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

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(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

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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

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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 enterprises[11] 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.

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

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

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

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## 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 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.

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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.

**<u>Indirect costs</u>**

## 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).

**<u>Contributions</u>**

Not applicable

## 6.3 Ineligible costs and contributions

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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 grant[12] 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

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

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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.

# 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)

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- 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'[13] (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

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

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- 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)
- 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

The following entities which are linked to a beneficiary will participate in the action as 'affiliated entities':

- **DEKRA ASSURANCE SERVICES GMBH (DEKRA ASSURANCE)**, PIC 900034289, linked to DEKRA AUTOMOBIL GMBH (DEKRA)

Affiliated entities can charge costs and contributions to the action under the same conditions as the beneficiaries and must implement the action tasks attributed to them in Annex 1 in accordance with Article 11.

Their costs and contributions will be included in Annex 2 and will be taken into account for the calculation of the grant.

The beneficiaries must ensure that all their obligations under this Agreement also apply to their affiliated entities.

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 affiliated entities.

Breaches by affiliated entities will be handled in the same manner as breaches by beneficiaries. Recovery of undue amounts will be handled through the beneficiaries.

If the granting authority requires joint and several liability of affiliated entities (see Data Sheet, Point 4.4), they must sign the declaration set out in Annex 3a and may be held liable in case of enforced recoveries against their beneficiaries (see Article 22.2 and 22.4).

## ARTICLE 9 — OTHER PARTICIPANTS INVOLVED IN THE ACTION

### 9.1 Associated partners

Not applicable

### 9.2 Third parties giving in-kind contributions to the action

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

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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

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are independent and comply with comparable standards as those set out in EU Directive 2006/43/EC[14]

- for the controls under Article 25: to allow for checks, reviews, audits and investigations (including on-the-spot checks, visits and inspections) by the bodies mentioned in that Article (e.g. granting authority, OLAF, Court of Auditors (ECA), etc.).

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

### 10.2 Participants which are international organisations

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

- to respect general principles (including fundamental rights, values and ethical principles, environmental and labour standards, rules on classified information, intellectual property rights, visibility of funding and protection of personal data)

- for the submission of certificates under Article 24: to use either independent public officers or external auditors which comply with comparable standards as those set out in EU Directive 2006/43/EC

- for the controls under Article 25: to allow for the checks, reviews, audits and investigations by the bodies mentioned in that Article, taking into account the specific agreements concluded by them and the EU (if any).

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

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

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

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- 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).

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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

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### 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:

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(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 2015/444[15] 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

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

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

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

### 14.2 Values

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

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

### 14.3 Consequences of non-compliance

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

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

## ARTICLE 15 — DATA PROTECTION

### 15.1 Data processing by the granting authority

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

For grants where the granting authority is the European Commission, an EU regulatory or executive agency, joint undertaking or other EU body, the processing will be subject to Regulation 2018/1725[16].

### 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 2016/679[17]).

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

[16] Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39).

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

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- adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed
- accurate and, where necessary, kept up to date
- kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the data is processed and
- processed in a manner that ensures appropriate security of the data.

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

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

### 15.3 Consequences of non-compliance

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

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

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

### 16.1 Background and access rights to background

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

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

(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

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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.

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### 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):

Funded by the
European Union

Co-funded by the
European Union

Funded by the
European Union

Co-funded by the
European Union

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

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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

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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

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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

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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:

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- 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)

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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.

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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:

**{**total accepted EU contribution for the beneficiary

minus

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

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

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

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

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

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

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

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

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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:

{final grant amount

minus

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

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

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

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

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

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

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

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

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

{{{total accepted EU contribution for the beneficiary

divided by

total accepted EU contribution for the action}

multiplied by

final grant amount for the action},

minus

{prefinancing and interim payments received by the beneficiary (if any)}}

and

(b) dividing the debt:

{{amount calculated according to point (a) for the beneficiary concerned

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divided by

the sum of the amounts calculated according to point (a) for all the beneficiaries identified according to point (a)}

multiplied by

the amount to be recovered}.

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

<u>Step 1 — Calculation of the revised total accepted EU contribution</u>

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

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

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

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

{{total accepted EU contribution for the beneficiary

divided by

total accepted EU contribution for the action}

multiplied by

final grant amount for the action}.

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

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

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

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

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

### 22.4 Enforced recovery

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

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

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

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

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Bank charges incurred in the recovery process will be borne by the beneficiary, unless Directive 2015/2366[18] applies.

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

### 22.5 Consequences of non-compliance

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

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

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

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

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

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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/EC[19] (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

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

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audit, complemented by an audit of transactions (on a sample of the beneficiary's Horizon Europe or the Euratom Research and Training Programme financial statements).

Step 3 – The audit result will take the form of a risk assessment classification for the beneficiary: low, medium or high.

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

### 24.5 Consequences of non-compliance

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

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

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

### 25.1 Granting authority checks, reviews and audits

#### 25.1.1 Internal checks

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

#### 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.

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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.

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### 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 883/2013[20] and No 2185/96[21]
- 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').

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

[21] Council Regulation (Euratom, EC) No 2185/96 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).

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

### 25.5.2 Extension from other grants

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

(a) the beneficiary concerned is found, in other EU grants awarded under similar conditions, to have committed systemic or recurrent errors, irregularities, fraud or breach of obligations that have a material impact on this grant and

(b) those findings are formally notified to the beneficiary concerned — together with the list of grants affected by the findings — within the time-limit for audits set out in the Data Sheet (see Point 6).

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

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

(a) an invitation to submit observations on the list of grants affected by the findings

(b) the request to submit revised financial statements for all grants affected

(c) the correction rate for extrapolation, established on the basis of the systemic or recurrent errors, to calculate the amounts to be rejected, if the beneficiary concerned:

  (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.

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## 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

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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.

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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

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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

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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**:

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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

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### 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 2988/95[22]).

## 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.

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

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

# CHAPTER 6 FINAL PROVISIONS

## ARTICLE 36 — COMMUNICATION BETWEEN THE PARTIES

### 36.1 Forms and means of communication — Electronic management

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

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

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

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

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.

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## 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 1182/71[23], 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.

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

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

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

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

## ARTICLE 40 — ACCESSION AND ADDITION OF NEW BENEFICIARIES

### 40.1 Accession of the beneficiaries mentioned in the Preamble

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

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

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

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- 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

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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

Richael Leahy with ECAS id n007cxnw signed in the Participant Portal on 18/04/2023 at 16:55:20 (transaction id SigId-45013-Pl9Hg9SIArTPwL4NJWWGPzI9Ucjge0qnICzaB6ywIfd1Skr0c3EJ1SUzWrbgqhoaSCEsMrdIMj1spzYYoEBzKfI-rS0vSrmBGYCdxRy5uIgXle-EicqwXixVbInzjuX7ul3HxFnZbv9rxPgehjVQcGD0szeHNL0cCMM4LKsZAjKGzyT1KIY1r7XvbWU8qkhHU3ITwG). Timestamp by third party at 2023.04.18 16:55:26 CEST

For the granting authority

Signed by Marcel ROMMERTS with ECAS id rommeml as an authorised representative on 18-04-2023 18:02:55 (transaction id SigId-46101-lpCAkNPsO1a9EOWXkEbhwDzaEyIVU6AbdvQLrDeBzqKeNvIyBqQUvv9EAB0QeznLy0HG53i1t2JCw99ojdzrpqC-rS0vSrmBGYCdxRy5uIgXle-aidZeDk5LSKoi3zPcQqGTVIRmh7Qqn9mFYFa8iHooQ9hZfXP9LL5J3zujLx0JEJAqZgTqU6T3JGnYosq6ZeHuA) 2023.04.18 18:02:59 CEST

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**ANNEX 1**

# Horizon Europe (HORIZON)

# Description of the action (DoA)

**Part A**

**Part B**

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

# 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**<br>*Grant Preparation (General Information screen) — Enter the info.* | |
|---|---|
| **Project number:** | 101103924 |
| **Project name:** | Rethinking the dEsign of streets And pubLic spaces to Leverage the mOdal shift to Climate-friendly Active Transport Everywhere |
| **Project acronym:** | REALLOCATE |
| **Call:** | HORIZON-MISS-2022-CIT-01 |
| **Topic:** | HORIZON-MISS-2022-CIT-01-01 |
| **Type of action:** | HORIZON-IA |
| **Service:** | CINEA/C/03 |
| **Project starting date:** | fixed date: 1 May 2023 |
| **Project duration:** | 48 months |

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# PROJECT SUMMARY

**Project summary**

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

*Use the project summary from your proposal.*

Drastic decrease in transport emissions of 55% by 2030 and 90% by 2050 is required for European cities to reach climate neutrality. This is hindered by inconvenient mobility infrastructure, inadequate services and insufficient governance for short-distance travel, negatively impacting active modes' safety and security. REALLOCATE's main objective is to pave the way towards climate-neutral, safe, inclusive and smart European cities through integrated and innovative sustainable urban mobility solutions that will address the needs of diverse groups and communities, while rebalancing street space allocation. The project will empower 10 twinned Mission Cities (Gothenburg-Tampere, Heidelberg-Utrecht, Lyon-Warsaw, Budapest-Zagreb, Barcelona-Bologna) by providing horizontal thematic expertise, supporting them to build a local innovation ecosystem to develop and deploy zero-emission, shared, inclusive, active and human-centred mobility interventions. Pilots in 15 urban and peri-urban unsafe areas will demonstrate innovative urban space management and reallocation strategies for sustainable modes (with a specific focus on active modes), having in mind safety, inclusivity, affordability and a just transition to climate neutrality overall. Solutions include innovative urban design, behavioural nudging, smart technological and data-driven solutions to reduce actual and perceived road safety risks, all contributing to achieving climate neutrality by 2030. The pilots will be the learning and testing environments for integrated approaches to foster knowledge transfer and collaborative learning to staff in cities through mentoring and capacity building, knowledge exchange, twinning and work shadowing. The project's impact will be exponentially increased by engaging 10 Cascade Cities in capacity building activities, and providing them with replication packages and guidelines resulting in implementation plans for replicating at least one of the innovative solutions piloted.

# LIST OF PARTICIPANTS

**PARTICIPANTS**

*Grant Preparation (Beneficiaries screen) — Enter the info.*

| Number | Role | Short name | Legal name | Country | PIC |
|---|---|---|---|---|---|
| 1 | COO | UCD | UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN | IE | 999974359 |
| 2 | BEN | EUROCITIES | EUROCITIES ASBL | BE | 999450559 |
| 3 | BEN | FACTUAL | FACTUAL CONSULTING SL | ES | 906285454 |
| 4 | BEN | CERTH | ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS | EL | 998802502 |
| 5 | BEN | ICLEI EURO | ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH) | DE | 998341364 |
| 6 | BEN | Fraunhofer | FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV | DE | 999984059 |
| 7 | BEN | Nudgd | NUDGD AB | SE | 895330274 |
| 8 | BEN | ERTICO ITS EUR | EUROPEAN ROAD TRANSPORT TELEMATICS IMPLEMENTATION COORDINATION ORGANISATION - INTELLIGENT TRANSPORT SYSTEMS & SERVICES EUROPE | BE | 999785112 |

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**PARTICIPANTS**

*Grant Preparation (Beneficiaries screen) — Enter the info.*

| Number | Role | Short name | Legal name | Country | PIC |
|---|---|---|---|---|---|
| 9 | BEN | DEMOS | DEMOS RESEARCH INSTITUTE OY | FI | 906147035 |
| 10 | BEN | ECF | EUROPEAN CYCLISTS FEDERATION ASBL | BE | 965873912 |
| 11 | BEN | BSC CNS | BARCELONA SUPERCOMPUTING CENTER CENTRO NACIONAL DE SUPERCOMPUTACION | ES | 999655520 |
| 12 | BEN | Cerema | CENTRE D ETUDES ET D EXPERTISE SUR LES RISQUES L ENVIRONNEMENT LA MOBILITE ET L AMENAGEMENT | FR | 948933735 |
| 13 | BEN | VTT | TEKNOLOGIAN TUTKIMUSKESKUS VTT OY | FI | 932760440 |
| 14 | BEN | TAMPERE | TAMPEREEN KAUPUNKI | FI | 998829080 |
| 15 | BEN | ARUP | OVE ARUP & PARTNERS IRELAND LIMITED | IE | 986125669 |
| 16 | BEN | IFP-research | INTERNATIONAL FEDERATION OF PEDESTRIANS - RESEARCH | BE | 885311435 |
| 17 | BEN | DEKRA | DEKRA AUTOMOBIL GMBH | DE | 996461504 |
| 17.1 | AE | DEKRA ASSURANCE | DEKRA ASSURANCE SERVICES GMBH | DE | 900034289 |
| 18 | BEN | BARCELONA | AJUNTAMENT DE BARCELONA | ES | 997628123 |
| 19 | BEN | IMPD | INSTITUT MUNICIPAL DE PERSONES AMB DISCAPACITAT | ES | 904754309 |
| 20 | BEN | NEMI | NEMI MOBILITY SOLUTIONS SL | ES | 891921015 |
| 21 | BEN | COBO | COMUNE DI BOLOGNA | IT | 999590239 |
| 22 | BEN | FIU | FONDAZIONE PER L'INNOVAZIONE URBANA | IT | 930035904 |
| 23 | BEN | BUDAPEST | BUDAPEST FOVAROS ONKORMANYZATA | HU | 959102439 |
| 24 | BEN | BKK | BKK BUDAPESTI KOZLEKEDESI KOZPONT ZARTKORUEN MUKODO RESZVENYTARSASAG | HU | 965804460 |
| 25 | BEN | GOTEBORG | GOTEBORGS KOMMUN | SE | 997186676 |
| 26 | BEN | CITY OF UTRECHT | GEMEENTE UTRECHT | NL | 998300818 |
| 27 | BEN | Sport Utrecht | STICHTING SPORT UTRECHT | NL | 946757346 |
| 28 | BEN | VVN | VEILIG VERKEER NEDERLAND | NL | 883968179 |
| 29 | BEN | CITY OF WARSAW | MIASTO STOLECZNE WARSZAWA | PL | 994575630 |
| 30 | BEN | CITY OF ZAGREB | GRAD ZAGREB | HR | 989531727 |
| 31 | BEN | SBC | SINDIKAT BICIKLISTA UDRUGA | HR | 950733861 |
| 32 | BEN | FTTS | SVEUCILISTE U ZAGREBU FAKULTET PROMETNIH ZNANOSTI | HR | 989482063 |
| 33 | BEN | METROPOLE LYON | METROPOLE DE LYON | FR | 924429401 |

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**PARTICIPANTS**

*Grant Preparation (Beneficiaries screen) — Enter the info.*

| Number | Role | Short name | Legal name | Country | PIC |
|---|---|---|---|---|---|
| 34 | BEN | COMMUNE LYON | COMMUNE DE LYON | FR | 997468170 |
| 35 | BEN | FNM | FUNDACJA NA RZECZ WSPOLNOT LOKALNYCH NA MIEJSCU | PL | 920688596 |
| 36 | BEN | HEIDELBERG | STADT HEIDELBERG | DE | 925908457 |
| 37 | BEN | HH | HOGSKOLAN I HALMSTAD | SE | 998196931 |

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# LIST OF WORK PACKAGES

**Work packages**

*Grant Preparation (Work Packages screen) — Enter the info.*

| Work Package No | Work Package name | Lead Beneficiary | Effort (Person-Months) | Start Month | End Month | Deliverables |
|---|---|---|---|---|---|---|
| WP1 | Project coordination | 1 - UCD | 66.00 | 1 | 48 | D1.1 – D1.1<br>D1.2 – D1.2<br>D1.3 – D1.3<br>D1.4 – D1.4<br>D1.5 – D1.5 |
| WP2 | Safe & Sustainable Mobility Labs | 3 - FACTUAL | 530.71 | 1 | 42 | D2.1 – D2.1<br>D2.2 – D2.2<br>D2.3 – D2.3<br>D2.4 – D2.4 |
| WP3 | Urban design, behavioural, and technological solutions | 1 - UCD | 180.00 | 1 | 48 | D3.1 – D3.1<br>D3.2 – D3.2<br>D3.3 – D3.3 |
| WP4 | Peer learning, capacity building, and twinning | 2 - EUROCITIES | 401.00 | 1 | 48 | D4.1 – D4.1<br>D4.2 – D4.2<br>D4.3 – D4.3<br>D4.4 – D4.4 |
| WP5 | Proactive continuous assessment | 4 - CERTH | 225.00 | 1 | 48 | D5.1 – D5.1<br>D5.2 – D5.2<br>D5.3 – D5.3<br>D5.4 – D5.4 |
| WP6 | Maximising impact & take-up: communication & dissemination, exploitation, transferability | 5 - ICLEI EURO | 136.00 | 1 | 48 | D6.1 – D6.1<br>D6.2 – D6.2<br>D6.3 – D6.3<br>D6.4 – D6.4<br>D6.5 – D6.5 |

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

## Work package WP1 – Project coordination

| Work Package Number | WP1 | Lead Beneficiary | 1. UCD |
|---|---|---|---|
| Work Package Name | Project coordination | | |
| Start Month | 1 | End Month | 48 |

| Objectives |
|---|
| The overarching objective of the coordination and management WP is the smooth realization of the project, and consists, in achieving the following specific objectives: 1) coordinate and supervise project's research and innovation activities while ensuring qualitative and timely deliverables through continuous monitoring; 2) carry out the administrative and financial management and reporting of the project; 3) manage contacts with the EU Commission and establish effective internal and external communication; 4) resolve any conflicts that may arise. |

| Description |
|---|
| Task 1.1: Coordination, project meetings and reporting [Leader: UCD; Participants: WP Leaders] [M1-M48]. The leader of WP1 is the Project Coordinator, and will coordinate activities and periodic reporting, by working closely with other WP Leaders. The Coordinator in cooperation with WP Leaders will monitor the activities foreseen in the work plan and discussed in the periodic meetings. The progress and results achieved will be reported in the periodic reports required by the funding agency. It includes: i) the research and technical activities and their results; ii) management activities; iii) deviation from the work plan, if any. The Coordinator will organise the kick-off (M1) and periodic meetings. The General Assembly (GA) will regularly bring project members together to provide guidance on the project implementation. The Coordinator will be the only intermediary between the Consortium and the EC and liaise in relation to any opportunity, risk and problem which may arise during the project. The Coordinator will be supported by the Risk Manager (appointed at the project's start) who will assist the Executive Board (EB integrating all WP leaders) in monitoring and managing the project related risk. The Coordinator will chair and contribute to the implementation of the activities of the EB and GA.<br>Task 1.2: External and internal advisory boards [Leader: UCD; Participants: All Partners][M1-M6]: At the kickoff meeting, the consortium will finalise the list of external experts to be part of additional 4 Boards, namely: One internal Board - the SSML Board (with the 10 SSML leaders); the Regulatory and Ethics Advisory Board (REAB) and one external the Advisory Board (AB) described in Section 3.2. At M6, an online meeting will introduce members of the AB, REAB to the GA and EB; the calendar of online meetings and the planning of interexchange activities will be set up in detail.<br>Task 1.3: Overall legal and contractual management [Leader: UCD][M1-M48]. The Coordinator, assisted by the Project Manager (PM), will supervise and guarantee the coherence between REALLOCATE activities and the procedures described in the Grant Agreement (GA) and the Consortium Agreement (CA). The Coordinator will lead discussion on amendments and revisions of these Agreements if necessary. Intellectual Property Rights (IPR) will be covered in detail under the GA and the CA and monitored by the coordinator.<br>Task 1.4: Financial and administrative management [Leader: UCD][M1-M48]. The Coordinator, assisted by the Project Manager, will manage the EC contribution and distribute funds to the partners according to the rules established in the Grant Agreement and the Consortium Agreement. The Project Manager will guarantee assistance to the consortium on administrative and financial issues.<br>Task 1.5: Ethical compliance [Leader: UCD][M1-M48]. The Coordinator, in close collaboration with the relevant partners, will ensure compliance of research activity with the fundamental principles of research integrity. This task will ensure the overall ethical and legal monitoring of REALLOCATE. UCD, as project coordinator, supported by the EB members, will ensure a proper monitoring of these activities within the overall project, in close connection to their operational implications in Road Safety Labs. This task will interface and interact with the REAB, thus ensuring that their advice, inputs, feedbacks and revisions are duly taken into account.<br>Task 1.6: Data management [Leader: CERTH][M1-M48]. A Data Management Plan (DMP) will be developed by M6 and will be regularly reviewed in M18 and M36 and updated as necessary. It will outline how the project will respond to FAIR principles (see also section 1.2). DMP will cover a number of distinct aspects of the data: (a) data sources, (b) data flows with a specific view on security and privacy, (c) data features, (d) data availability, his data correctness, (f) data applicability for the target areas, (g) data openness or availability to external entities, (h) data storage, (i) format and standards, and (j) retention requirements, also after the end of the project. |

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## Work package WP2 – Safe & Sustainable Mobility Labs

| **Work Package Number** | WP2 | **Lead Beneficiary** | 3. FACTUAL |
|---|---|---|---|
| **Work Package Name** | Safe & Sustainable Mobility Labs | | |
| **Start Month** | 1 | **End Month** | 42 |

| **Objectives** |
|---|
| The primary aim of this WP is to identify the needs of the living labs and define their deployment and implementation. More specifically WP2 aims to: 1) Identify the baseline local KPIs for the cities, define the level of compliance with the SUMPs. 2) Define the conditions and requirements for the implementations of the pilots and connect bilaterally with the impact assessment activities in WP5. 3) Set up and manage the implementation of the SSMLs by i) guiding the cities on the design, implementation and management and ii) coordinating the consistency of the results as well as the alignment between the cities. 4) Integrate the urban design and tech solutions developed in WP3, showcase them in the lead and twin SSMLs as well as collaborate continuously with peer learning, replicability and capacity building activities in WP4 and WP6 through implementation reports/playbooks. |

| **Description** |
|---|
| Task 2.1 - Stakeholder mapping, engagement, and needs assessment [M01-M10]; [Leader: Factual - Participants: Demos, UCD, Eurocities, CERTH, BSC CNS, ICLEI EUR, SSML cities and local partners]: The task will finalise the identification of the needs for the lead & twin cities started in proposal phase and update any risks that may arise in the SSMLs.The following subtasks apply:<br>Subtask 2.1.1 User group identification Advanced research will be carried out to map out the user groups, their mobility needs and patterns, demands and requirements, levels of satisfaction with the mobility offer and perceived levels of safety, taking into account age, gender, cultural diversity, economic status, etc.<br>Subtask 2.1.2 Co-creation processes Project partners, end users and relevant stakeholders (policy makers and local authorities, industry, academia and local communities) of the mobility ecosystem, both local and international, will be involved in co-creation processes and workshops, in order to identify the requirements for the pilots.<br>Subtask 2.1.3 Workshops Workshop activities will be organised with stakeholders for the definition and development of the vision for each living lab as well as the requirements gathering for each SSML for data analysis tools to be used in WP5 (intervention-level dashboards). D2.1 will detail needs, gaps and opportunities of SSLMs.<br>Task 2.2 - SSMLs deployment plans [M03-M12]; [Leader: Factual - Participants: UCD, Eurocities, Demos, CERTH, ICLEI EUR, Fraunhofer, Nudgd, Ertico ITS EUR,ECF, BSC CNS, IFP-research, Cerema, DEKRA, SSML cities and local partners]: The task will define the management process for the Lead SSMLs consisting of 15 pilots (2 for each of the lead cities and 1 for each of the twin cities) and support monitoring activities. The following subtasks apply to all pilots:<br>Subtask 2.2.1 Cities set up. Set up the governance model for each pilot. Once stakeholders are identified and the SSMLs are set up, the specification of the action plans and allocation of the responsibilities will take place. This will include the monitoring of the necessary public tenders to ensure the success of the measures and timelines.<br>Subtask 2.2.2 KPIs. Data will be collected for all cities to be used for the baseline evaluation as part of Task 5.1. Questionnaires and surveys will be designed keeping in mind the KPIs both at local and project level. This will allow updating the list of KPIs defined in the proposal phase (Table 2.1a).<br>Subtask 2.2.3 Pilot deployment. Once the risks are identified, stakeholders are involved and the baseline is defined, the deployment of the measures can take place. The REALLOCATE measures rely on road design, infrastructure management and citizen engagement. This subtask will focus on defining all the technical and operational needs as well as requirements and any other necessary aspect that will ensure the successful implementation of the innovative solutions developed in REALLOCATE.<br>Task 2.3 - SSMLs implementation [M08-M42]; [Leader: Factual - Participants: UCD, Eurocities, Demos, CERTH, ICLEI EUR, Fraunhofer, Nudgd, Ertico, ECF, BSC CNS, IFP-research, Cerema, DEKRA, SSML cities and local partners]: The roadmap for the pilot implementation in the lead (Barcelona, Budapest, Gothenburg, Heidelberg, Lyon) and twin cities (Bologna, Utrecht, Tampere, Warsaw, Zagreb) will be defined, the solutions developed in WP3 integrated to the vision of the cities and executed.<br>Subtask 2.3.1 Activity plans For each pilot a detailed plan of activities, methods and solutions will be developed. The plans will describe how the REALLOCATE measures will be implemented, keeping in mind the alignment with the SUMPs objectives of the cities (linked in section 1.2.2 of the proposal, table 1.2a) and the challenges to reaching the 2030 Climate-Neutral and Smart Cities mission goals (see Table 1.1a). The replicability of the activities/solutions will be evaluated, further details will be taken into account in WP4. |

Subtask 2.3.2 Pilot execution The implementation (execution of the activities) will be led by Factual and the Lead Living Lab leaders, with the support of the expert partners involved in the project.
The execution of the pilots will be done in a 24-month period (M8-M32). The actions to be carried out for each pilot are specified in table 1.2b of the proposal.
Subtask 2.3.3 Corrective actions implementation The implementation of the corrective actions identified and outlined in Task 5.3 will take place for each pilot (lead and twin cities) in M32-M42.
Task 2.4: Transformative governance for urban mobility [M03-M42]; [Leader: Demos - Participants: Eurocities, Factual, ICLEI EUR, UCD]: This task develops transformative governance on two levels: 1) within SSMLs as city-level ecosystems in the context of this project, and 2) within the project's consortium as an EU-level ecosystem in the context of the EU Mission for 100 climate-neutral cities. This will be achieved as follows:
Subtask 2.4.1 focuses on the co-creation of an actionable Transformative Governance Framework. Existing governance practices, their gaps and development needs will be analysed. This will serve as the foundation to co-create an actionable Transformative Governance Framework. This will be done in collaboration with the 10 SSML cities and facilitate horizontal and vertical integration as prescribed by the EU Guidelines on decarbonisation planning of urban mobility (draft, currently in consultation); technical consortium partners will participate in expert roles. Operating on the level of the SSMLs, this subtask fosters the adaptiveness and transformation of urban mobility systems by identifying ways to orchestrate the deployment and implementation of SSMLs (WP2) along with technical expertise for the individual interventions (WP3), peer learning practices (WP4), and assessment tools (WP5). Workshops with local communities will be organised to translate city-level development strategies and visions (including the SUMP), and community needs, into guidance for pilot projects.
Subtask 2.4.2 leverages the experience from piloting the framework in the 10 cities to 1) create a replicable methodology for engaging local communities in the co-creation of SSMLs aimed at the piloting of innovative mobility experiments, and 2) to advance and upscale the success and impact of the project. This subtask targets the level of European policy implementation: it aims to upscale the impact potential of the project by identifying how to help the project's consortium and the whole EU Mission platform disseminate lessons learnt about mobility well beyond the project boundaries. Online meetings with representatives of the NetZeroCities project and other projects contributing to this platform will be organised to disseminate the Transformative Governance Framework.
Role of partners: Factual will lead the WP, Tasks 2.1, 2.2, 2.3; Demos Task 2.4; SSML partners will lead the actions to be implemented in each pilot; Project partners will provide expertise to the cities.

## Work package WP3 – Urban design, behavioural, and technological solutions

| | | | |
|---|---|---|---|
| **Work Package Number** | WP3 | **Lead Beneficiary** | 1. UCD |
| **Work Package Name** | Urban design, behavioural, and technological solutions | | |
| **Start Month** | 1 | **End Month** | 48 |

| **Objectives** |
|---|
| The aim of this WP is to provide horizontal expertise (following the prescriptions set by stakeholders in Tasks 2.2 and 2.3) to the 10 SSMLs to deploy the innovative safe, affordable & sustainable mobility solutions with best practice and replicable approaches. Horizontal thematic expertises are detailed in Section 3.2. |

| **Description** |
|---|
| Task 3.1 - Public space inclusive & circular design [M03-M36]; [Leader: UCD - Participants:DEKRA, DEKRA ASSURANCE, Demos]. This task will provide expertise in the following areas: nature-based street interventions (UCD), circularity and lifecycle and carbon footprint assessment (DEKRA, DEKRA ASSURANCE), and regenerative infrastructures (Demos). This task considers sustainability criteria such as the environmental impact of interventions over a whole life cycle approach and the recyclability, reusability, and ease-of-recovery of materials used. Not only trees, recreational areas and parks will be protected in the redesign process, but the new nature-based street interventions will incorporate more green patches, bioswales, green walls, planters with systems of rainwater recycling to limit maintenance and increase greenery by the street. These will have a regenerative function as a net-positive impact on climate and biodiversity (environment), and community wellbeing (society). To offer truly inclusive spaces with a fair space allocation to all modes, the circularity interventions will consider all users, and analyse their impact including on those with disabilities. To achieve this, in line with the specific needs identified, a plan will be prepared for each of the 15 pilots in 10 cities including: i) recommendation on design and material choice based on a life cycle analysis; |

ii) recommendations on circularity potential based on: natural resources used, recycling, dismantling, etc.; iii) climate resilience & adaptation analysis (hazard screening, water stress, biodiversity,etc.); iv) screening analysis for emissions at the site (air and noise traffic pollution, light pollution); v) impact analysis on citizen wellbeing.

Task 3.2 - Road space modelling with AI and 3D space design [M01-M36]; [Leader: CERTH - Participants: BSC CNS, Arup, IFP-research]. This task will provide expertise in the following areas: modelling and artificial intelligence (BSC CNS, CERTH); urban design and traffic calming (Arup, Cerema), and pedestrians and inclusive design (IFP-research). The horizontal support will involve the development of AI/generative algorithms from actual collected data in SSMLs and multi-source data visualisation and correlation in Digital Twins. This will give an overview of actual street users interactions and the relationship with the surrounding environment. With this comprehensive overview of data, street profiles and traffic calming solutions will be generated to model their potential impacts. This macroscale overview of data in SSMLs will be supplemented by microscale data, e.g. surface scanning (with the Sidewalk LiDAR scanner, particularly relevant for pedestrians, disabled but also cyclists/e-scooters to prevent falls and self-injuries). Building on this data-rich traffic-modeling base, the actual re-design of roads and adjacent public spaces will be procedurally reshaped in design-specific software, with a focus on reallocating and creating inviting, inclusive and green streets and public spaces. The generation of 2D & 3D simulations of interventions in AR/VR before realisation/implementation, provide a base for engaging diverse groups of citizens and stakeholders in co-designing solutions. Integrated and customizable solutions with relevant explanations will be encapsulated in 2D & 3D Street Design Guidelines informed by integrated traffic and infrastructure data, activity patterns, etc..

Task 3.3 - Mobility planning for climate neutrality [M01-M48]; [Leader: Fraunhofer - Participants: UCD, Cerema, Eurocities, ECF, ICLEI EUR, Arup, IFP-research]: This task will provide expertise in the following areas: sustainable urban mobility planning (SUMP) and space reallocation (Cerema, Fraunhofer, ICLEI EUR, Eurocities, Arup), cycling policy (ECF), and pedestrians and inclusive design (IFP-research). The horizontal support will involve promoting and improving the SUMP methodology to frame the pilots in each SSML within a wider and longer-term strategy to ensure the development of measures that are necessary to achieve the EU climate goals and significantly lower transport emissions. The methodology will be developed in close contact with local practitioners and use a functional urban area planning approach to include commuter traffic into SUMP, integrate urban land-use and transport planning, and impacts on climate mitigation. It will include a series of tailored strategies for each SSML focusing on: i) radical modal shift from private car use to walking, cycling, public transport and shared mobility services (including e-scooters); ii) increased use of cargo bicycles and electric light vehicles for future goods distribution; iii) reducing the space occupied by moving and parked private vehicles through, e.g. parking pricing tools; iv) optimal infrastructure for active modes and inclusive design incorporating the needs of all societal groups independent of gender, social status, physical and cognitive capabilities and accommodating all ages and abilities.

Task 3.4 - Safe System and Vision Zero for safety and security [M01-M48]; [Leader: CEREMA - Participants: UCD, DEKRA ASSURANCE, IFP-research, ECF]. This task will provide expertise in the following areas: urban road safety & safe system approach (Cerema, UCD, IFP-research, ECF) and safety auditing (DEKRA ASSURANCE). The horizontal support will be operational and focus on locally improving safety to increase the benefits of local solutions by integrating them within a larger plan for safety. This task will focus on raising awareness on Safe System and Vision Zero for safety and their relation with the local mobility policy set at the scale of the city. The task will provide support to pilot cities to use the data and insights from WP5 to complete the Safe System table, i.e. defining the implementation stage for each pair of (five) key component and (six) road-safety pillars (ITF and World Bank working group 'Implementing the Safe System'), at the beginning (baseline) and at the end of the project. This will ensure that solutions piloted in SSMLs will contribute to the overall objective of improving safety to support pilot cities to develop the vision zero responding to the objective of the Call and it will broaden the scope of Vision Zero for safety by including also security for active modes. The final outcome will be safety policies at the city scale based on the concepts of Safe System and Vision Zero, embedded in the framework of national laws.

Task 3.5 - Digital tools and new mobility services [M12-M36]; [Leader: Ertico ITS EUR - Participants: Factual, UCD, BSC CNS]. This task will provide expertise in the following areas: digital tools & new mobility services (Ertico ITS EUR, Factual, UCD) and mobility & innovation management (Factual). The horizontal support will focus on providing advice on potential new mobility services and their management, including their potential impacts. The task will begin with the development of a match-making digital tool that will help to cluster and translate the data, collected under one platform in WP5 (T5.2) into strategic recommendations for the SSMLs. The digital tool will, through simulation and forecasting, serve as a basis for REALLOCATE to produce targeted recommendations to the SSMLs in line with their RoadMaps and deployment plans. It will access data from the dynamic dashboard (T5.3) with a special focus on data related to road safety, air and noise pollution, space allocation and active mobility. The mapping of pilots and their progress assessment (based on the data collected in WP5) will contribute to the cities' understanding of possible pathways to be taken in terms of strategic long term decisions and actions in their local plans, for instance altering the shared PwD-dedicated services or virtual mobility hubs to be better adapted to the needs of the entire population including particularly disabled, women, children, elderly, etc. The outcome will be a set of tailored recommendations on new zero-emission, shared,

active and human-centred new mobility services, their potential impacts and how to put them in place and manage them addressed to each of the SSMLs.
Task 3.6 - User-centric mobility [M1-M48]; [Leader: Nudgd - Participants: UCD, IFP-research, ECF, Cerema]. This task will provide expertise in: behaviour & choice design (Nudgd) and citizen empowering planning (UCD). The horizontal support provided as part of this task will be focused on citizens and in specific on how to develop and implement actions to nudge their behaviours and mobility choices. Drawing upon the findings in the needs assessment for each SSLM (Task 2.1), this task will perform context-specific behavioural analyses (COM-B model, behavioural/intervention mapping) for each SSML entailing data collection through observational tools tailored to the needs of the SSMLs: interviews, focus groups and questionnaires on views and perspectives of key stakeholders and affected inhabitants from different groups, crowdsourced web-maps for VRUs' safety perceptions, gamified participatory planning, etc. The techniques will be chosen to address the identified barriers standing in the way of the targeted behaviors and will consider different inhabitants segments paying special attention to diversity and inclusivity. Nudging techniques such as visualizations, cleverly designed signs with smart textual framing, social norms messaging, immediate feedback, etc. to encourage behaviour change towards more safe and sustainable mobility; for safer areas around schools, nudging (along with safe public space) to get more parents to walk/ cycle their kids to school. This Smart Nudges digital toolset will be deployed on the REALLOCATE Dashboard.
Task 3.7 - Transport economics, new governance and business models [M24-M48]; [Leader: Fraunhofer - Participants: Demos]. This task will provide expertise in the following areas: Transport economics & business models (Fraunhofer) and Transformative governance (Demos). It will provide horizontal support to design transition alternative pathways for the 10 pilot cities. Relevant issues are economic and organisational feasibility, acceptability and alignment of pathways with medium to long term urban and national goals. Findings from an in-depth literature review on community and institutional change management, business and governance models will be used to develop relevant economic and regulation schemes, governance models. These will address deep mitigations in traffic incidents and climate emissions and will consider different regional and cultural backgrounds and starting points in Europe. These will be discussed through deep dive interviews (2 for each SSML) with the 10 SSMLs to compile tailor-made pathways for economic and governance schemes for each pilot.These will address different city departments,e.g. road network management and urban planning.The outcome will be dedicated proposals to adopt economic, governance and business environments in the 10 SSMLs/cities.
Role of partners: The horizontal role of each partner is included in each task description.

## Work package WP4 – Peer learning, capacity building, and twinning

| **Work Package Number** | WP4 | **Lead Beneficiary** | 2. EUROCITIES |
|---|---|---|---|
| **Work Package Name** | Peer learning, capacity building, and twinning | | |
| **Start Month** | 1 | **End Month** | 48 |

| **Objectives** |
|---|
| WP4 streams all knowledge resources available across the consortium and other WPs into an ambitious/structured peer-learning & capacity building programme. WP4 will foster collaboration between cities on common challenges, barriers, good practices, successful innovative approaches and policies, and support them with technical expertise. WP4 objectives: 1) Establish a baseline plan and integrated programme for peer learning & capacity building; 2) Facilitate intense knowledge exchange and peer learning among REALLOCATE cities through regular webinars, study visits, and twining activities; 3) Facilitate capacity building among horizontal technical partners and cities through mentoring and technical webinars; 4) Engage the 10 Cascade cities into peer learning and capacity building programme to support transferability and replication of solutions / policies. |

| **Description** |
|---|
| Task 4.1 - Baseline for peer learning and capacity building [M1-M12] [Leader: Eurocities - Participants: All]. Planning coherent peer learning and capacity building to support partner cities with their REALLOCATE activities.<br>Subtask 4.1.1 - Community of practice and online exchange hub [M1-M6] [Leader: Eurocities - Participants: All]: A Community of Practice (CoP) established to facilitate peer learning and capacity building. Developed personalised and secure online exchange hub for the CoP, featuring discussion forums, collaboration & co-editing space, a calendar of activities, personalised notifications, a newsfeed. Subtask 4.1.2 - Benchmark for integrated learning [M1-M6] [Leader: Demos - Participants: Eurocities, ICLEI EUR, UCD, Factual, Cerema, Fraunhofer]: Identifies and aggregates common |

challenges and learning needs, sharing them across cities, based on multiple assessment tools - surveys, focus groups, peer discussions, etc. The benchmark serves as a basis for further peer-learning and capacity building activities and feeds into the Transformative Governance Framework development in Task 2.4. Subtask 4.1.3 - Cities' self-assessment [M7-M10] [Leader: Demos - Participants: SSML cities and local partners, Eurocities, Factual, ICLEI EUR, UCD]: The 10 cities each prepare an individual report for a critical look at its own practices and assesses its performance against REALLOCATE's benchmark for integrated learning. Reports (due M8) also briefly describe each city's mobility and climate policy context, and are reviewed and integrated into deliverable D4.1 (due M10). Subtask 4.1.4 - Planning peer learning and capacity building activities [M7-M12] [Leader: Eurocities - Participants: All]: Based on identified needs, best methodologies for peer learning and capacity building will be selected and mapped into a coherent programme and tentative timeline, which is key to delivering the expected outcomes, given the ambition and complexity of the proposed programme.

Task 4.2 - Facilitate peer learning [M1-M48] [Leader: Eurocities - Participants: All]. This task will deploy a set of peer learning activities among the SSML cities, and between SSML & cascade cities, to maximise impact.

Subtask 4.2.1 - Knowledge exchange webinars [M1-M48] [Leader: Eurocities - Participants: All]: Regular knowledge exchange webinars among cities, with expertise provided by horizontal thematic partners, organised thematically, based on WP2 needs assessment and implementation plans, and WP4 cities' self-assessment. Knowledge exchange webinars in Year 4 will focus on transferability SSMLs tested solutions, also joined by Cascade cities. At least 3 knowledge exchange webinars will be organised each year, in synergy with other peer-learning activities. Subtask 4.2.2 - Study visits [M6-M40] [Leader: Eurocities - Participants: All]: Five study visits will be organised to each Lead City from M6 to M40, to facilitate knowledge exchange and peer learning attended by a delegation of city representatives and technical partners from the SSML cities. The visit programme is structured along key challenges and learning needs among participating cities. During the visit, the participants (city experts, decision makers, and local stakeholders) will learn from the host city by means of short presentations, site-visits, and peer-to-peer discussions. A feedback session will be organised, beneficial to the host city.

Task 4.3 - Facilitate capacity building [M1-M48] [Leader: Eurocities - Participants: All]: Building capacity to upskill SSML cities' staff and increase potential for replication, upscaling, long-term impact of interventions to maximise the contribution towards climate neutrality & Vision Zero.

Subtask 4.3.1 - Technical webinars [M1-M48] [Leader: Eurocities - Participants: All]: At the project's start, regular thematic webinars will be organised to allow horizontal thematic partners to present to city representatives their specific expertise, assessments, and proposed tools. This will feed into SSMLs' implementation plans. Upon specific needs identification and implementation plans made available, thematic webinars will be organised to support labs' activities. REALLOCATE thematic webinars will be planned at least at every three months, and some will be organised in synergy with other projects/initiatives (see Task 6.3). Subtask 4.3.2 - Mentoring [M7-M48] [Leader: Eurocities - Participants: Factual, Ertico ITS EUR, Fraunhofer, IFP-research, Arup, CERTH, Cerema, ECF, Demos, UCD, Nudged, BSC CNS, SSML cities and local partners]: Individual mentoring exchanges between horizontal thematic partners and cities, based on each city's individual challenges, self-assessment and SSML specific plans will take place at least once a year. Following detailed support requests on specific projects/initiatives, mentors participate in dedicated meetings to advise & give feedback to city officials (technical experts & decision makers) involved.

Task 4.4 - Twinning: peer-review and work shadowing [M13-M48] [Leader: Eurocities - Participants: All] Cities are twinned in pairs based on common interests and needs (see Section 1.2.2); they read each other's self-assessment report (Subtask 4.1.3) and complete a "desk review" of it. Thereafter, peers meet for on-site visits and interactions with local stakeholders in the host city (staff from local administration, decision makers, local experts, service providers, NGOs, etc.) during two days. The visit's purpose is to understand how well the city is implementing its mobility plans/ actions and how they are embedded into climate policies. At the end of the visit, the peers present their initial findings/ recommendations to the host city followed by a short written feedback report. Peer-learning visits offer the opportunity for work shadowing: one/two people from the twinned city pairs spend a short period of time together, matched based on their working fields/roles/projects. During the visit, they shadow them in their daily work, which helps understand better organisational set-ups and processes.

Task 4.5 - Cascade Cities Future Labs [M7-M48] [Leader: ICLEI EUR - Participants: Eurocities]. Ten cities that applied for the Climate-Neutral and Smart Cities Mission joined the REALLOCATE Cascade Cities programme through letters of intent. Cascade Cities will attend all the technical webinars organised across the project lifetime (Subtask 4.3.1), and selected knowledge exchange webinars, in particular those organised during the last year of the project and targeted at transferability conditions (Subtask 4.2.1). Each of Cascade city will benefit by one mentoring session with a horizontal thematic partner, depending on their needs, and will join in-person one study visit in one of the lead cities and the two events organised under the Safer Streets and Climate-Neutral Cities series (including the REALLOCATE final conference). As a result of their involvement, each cascade city will draft an Implementation Plan for one REALLOCATE innovative solution. The precise activities for each cascade city will be detailed in a memorandum of understanding (M12). The task feeds directly into Task 6.6 and D6.4.

Role of partners: Eurocities will leverage its role as a city network to manage the peer learning & capacity building

programme, supported by ICLEI EUR and Demos. Factual and Eurocities will ensure the connection with the SSMLs developed in WP2. Factual, Ertico ITS EUR, Fraunhofer, IFP-research, Arup, Cerema, ECF, DEKRA, Demos, UCD, Nudgd, BSC CNS, CERTH act as horizontal thematic partners for capacity building & mentoring. The SSML cities and local partners will be the main beneficiary of capacity building & mentoring activities and will engage in knowledge exchange.

## Work package WP5 – Proactive continuous assessment

| **Work Package Number** | WP5 | **Lead Beneficiary** | 4. CERTH |
|---|---|---|---|
| **Work Package Name** | Proactive continuous assessment | | |
| **Start Month** | 1 | **End Month** | 48 |

| **Objectives** |
|---|
| The primary aim of this WP is to plan, support and assess all interventions planned in the SSMLs. The specific objectives of WP5 are to: 1) analytically define the impact assessment framework for all the interventions, including the definition of the KPIs to assess in-depth the interventions; 2) anticipate, design & implement all mechanisms and tools for the collection of all types of data to ensure interdependencies and co-benefits are identified and allow for the monitoring of KPIs against baselines; 3) develop the evaluation tools and strategies, paying attention to specific population groups such as women, children, the elderly and Persons with Disabilities (PwD); 4) conduct in-depth analyses with Big Data and AI techniques, to identify, interpret and explain relationships among indicators to provide cities and policy makers with a data-driven urban planning framework. |

| **Description** |
|---|
| T5.1: Evaluation and impact assessment framework [M01-M38] [Leader: CERTH -Participants: UCD, Cerema, DEKRA, Demos, Fraunhofer]. This task begins with developing the evaluation and impact assessment framework for the project's interventions and activities, integrating the System Dynamic Modelling approach and exploits both quantitative & qualitative data, with the Safe System framework (International Transport Forum), assessing the safety-related dimensions in a holistic way. It will work in 2 parallel layers: micro project and macro city levels.<br>T5.1.1 Micro evaluation at project level: A first evaluation layer will be based on a set of KPIs to be co-developed in close collaboration with the SSML stakeholders considering also the Sustainable Urban Mobility Indicators (SUMI). It will update the KPIs identified in proposal phase (Table 2.1a), ensure a coherent set of KPIs common to all the pilot cities to allow for cross comparison and a set of tailored KPIs to reflect the specificity and requirements of the local intervention. The KPIs definition will integrate both cross- domain objective/performance and subjective data to ensure interdependencies and co-benefits are identified and the impact of the interventions are assessed on both actual (performance/objective data) and perceived (subjective data) safety and inclusiveness, as well as on environment (through performance/objective data) and transformative governance (through subjective and qualitative data). This will be accompanied by the collection of the baseline data for each KPI using both traditional monitoring infrastructure and ex ante exploration surveys (at least 200 answers per SSML) to be combined with walking interviews with users and experts. The subjective data collection strategy will include a specific section focusing on population groups such as women, children and other vulnerable to exclusion (VEC) groups (i.e. PwD, low income population groups). A more in-depth insight on subjective views will be performed with more elaborate evaluation tools to continuously collect feedback from the SSML stakeholders (see T5.2.2).<br>T5.1.2 Macro evaluation at city level: A second layer of evaluation and impact assessment will go into depth in Cities by deploying a series of specific methodologies to evaluate key impacts, namely related to safety, climate targets and environmental footprint, social inclusiveness and transformative governance. The evaluation and impact assessment on road safety will be based on the Safe System framework, a two-dimension table that associates the five key components of a safe system (establish institutional governance, share responsibility, strengthen all pillars, prevent exposure to large forces, support safe road-user behaviour) and the six road-safety pillars (road-safety management, safe roads, safe vehicles, safe speeds, safe road-users behaviour, post-crash care). This table is to be filled in by cities before and after the interventions. The evaluation on reaching climate targets will be assessed using a selection of SUMI indicators: i) the cities' SUMP on their ability to achieve the EU climate goals; ii) the effectiveness of measures deployed in the SSMLs to reduce CO2 in the functional area, and exposure to air and noise pollution; iii) changes in modal split. The evaluation and impact assessment of the environmental footprint, as well as the circularity assessment will include: i) Life Cycle Analysis screenings and comparative analysis; ii) Circularity Analysis; Climate resilience and adaptation |

analysis; Screening analysis for air emissions at the site. For the social inclusion and accessibility impact assessment an accessibility-activity approach will be adopted (Allen, 2020) to understand the impacts of the SSML intervention on accessibility at city level. Data about daily activities will be collected with household travel surveys before as baseline, during and after the interventions. This will allow to fine tune the interventions with a focus on accessibility to low income households and social inclusion. Finally, assessment of the transformative governance impact will be performed based on a comparative approach on SSMLs' abilities to realize the goals of the Climate-Neutral and Smart Cities Mission, focusing on: i) operationalization of this Mission into goals for the SSMLs; ii) alignment of the EU-level and SSML-level goals with the outcomes of the SSMLs; iii) resulting learning and opportunities for generalization. This framework will draw on aggregated data (selected KPIs, survey results, observations) and structured interviews of key stakeholders (policy makers, experts, citizens, businesses).

T5.2: AI-based monitoring and assessment mechanisms and tools [M01-M48] [Leader: CERTH - Participants: BSC CNS; SSML cities and local partners]. This task will build the mechanisms and tools to enable the monitoring activities - a distributed dashboard and data hub, and the related monitoring system and tools to enable a continuous monitoring of KPIs. The first version will be deployed by M12, the final by M46. More specifically:

T5.2.1 AI-powered Distributed Dashboard and Multimodal Data Hub: The main goal is to create a rich and adaptive environment based on the state of art AI techniques that will provide Augmented Analytics and Multimodal AI Data Navigation for a better management and supporting the assessment of the REALLOCATE pilot cities dashboards and data hubs including. The operational, functional, connectivity and interoperability specifications and requirements along with the respective data models will be defined to upgrade all the cities' dashboards and data hubs to the same standards and capabilities, whereas cities without any previous solution will be provided with a new dashboard to interact with the rest of the platform. This will result in the REALLOCATE Distributed Dashboard and Multimodal Data Hub, having both a common layer of web services (backend) and a unified visualisation layer (website's interface, frontend). The Multimodal Data Hub will include smart visualization tools implementing predictive analytics in real time to support cities in decision making with automated processes for preparation/replication/collection/reporting/data warehouse maintenance.

T5.2.2 Monitoring system and open API-tools: The monitoring/logging infrastructure required for data collection of all KPIs will be defined, pursuing to exploit as much as possible existing infrastructure and upgrading it where required with open API tools. It will include the design of all the soft tools (on-line surveys, more specific tools for the SSML stakeholders, other web services feeds) for subjective (acceptance data) and other types of monitoring (i.e. environmental data, etc.). A set of APIs will also be developed to share data with the NetZero Cities Platform. Customised actions for each SSML will be included to: i) improve data collection for foot, bike and e-scooter traffic; ii) provide mechanisms for reporting pedestrian, cyclists, e-scooter injuries and deaths; iii) deliver a strategy for continuous assessment of accessibility in shared spaces for people with disabilities. The task will develop all the necessary means for authentication, pseudonymization and interoperability of data (Section 1.2.7).

T5.3: Mid-term assessment & corrective actions [M12-M30] [Leader: Fraunhofer- Participants: UCD, Cerema, DEKRA, Demos]. This task will focus on the midterm assessment of the pilot interventions and on the definition of the corrective actions to maximise their impacts in terms of the defined KPIs. All the collected results will be consolidated in a synthetic overview and cross compared to the baselines defined in T5.1 and according to the methodology defined therein. The local SSML task force will be provided with these documents and a workshop with each SSML task force will be organised to present and discuss the results and to complete the mid term impact assessment on all layers defined (Task 5.1). This will allow generation of a comprehensive overall picture of the current impact trajectory for the pilots in each SSML. The workshop will also include the collaborative identification of corrective actions for each SSML towards the 2nd phase of the deployment, via the establishment of concise checklists per intervention and per test site, that will be followed by an optimisation period in WP2 and WP3 before the next phase deployment and data collection phase that will feed T5.4. The output will be a report detailing the results of the midterm assessment and the outline of the proposed corrective actions.

T5.4: Living Labs assessment [M36-M48] [Leader: UCD - Participants: Cerema, DEKRA, Nudgd, Fraunhofer, IFP-research, ECF]. This task will carry out the full final impact assessment of the interventions, in the same pattern as in T5.3, and upon the evaluation and impact assessment framework defined in T5.1, involving the REALLOCATE local task forces. It will focus on the key impact layers defined in T5.1 leading to clear and measurable results. The impact assessment will merge the insights from both the quantitative and subjective data collected as part of the monitoring activities at local level and city levels in terms of traffic safety (to gain insights on both actual and perceived safety), environment and social inclusiveness, including the perspective of transformative governance. The final report will include the assessment of behavior design interventions (Task 3.6) using questionnaires deployed in SSMLs. This tasks' output will be a report detailing the final assessment results including the SWOT analysis for each intervention, and the robust study designs and data collection practices to ensure high-quality assessments, including statistical analyses, to ensure open proactive data and the ability to determine causality.

T5.5: AI enhanced decision support tool [M36-M48] [Leader: BSC CNS - Participants: CERTH, UCD, IFP-research, ECF]. Through augmentation and homogenisation processes, collected data is combined with spatial data (e.g. points of interest, demographics,) from both official (e.g. National Institutes of Statistics) and collaborative open sources (e.g:

OpenStreetMaps). The methodology will follow replicable and reproducible data analysis principles, and will focus on interpretable & explainable machine learning techniques for spatial & non-spatial data, at two levels: 1) Intervention-level data analysis: every intervention performance will be monitored with its KPIs. Machine learning models will be used for interpretability and explainability. Regression models will identify the key indicators to explain the local KPIs (e.g. modal shift, safety, inclusiveness, etc.). Spatial regression models will help identify relationships between the indicators and the area they belong to. 2) Project-level data analysis: with the data coming from all the interventions, the performance of the different interventions will be compared according to common KPIs and machine learning models will be run to characterise successful interventions. Therefore, the tool will provide insights to urban policymakers to successfully reproduce the interventions in new cities. The algorithms will be integrated into the Dashboards (see T5.2). In this way, insights from machine learning models will convert the platform into a decision-making tool for urban policymakers.
Role of partners: CERTH will be the leader of the WP and of Tasks 5.1, 5.2. Fraunhofer will be the leader of T5.3. BSC CNS will be the leader of T5.2. UCD will be the leader of T5.4. CEREMA will be the leader of safety impact assessment in T5.4 according to the approach reflected in T5.1. DEKRA, as neutral third party experts and auditors, will support under T5.1, T5.3 and 5.4 the road safety assessments through data collection and data analysis.

## Work package WP6 – Maximising impact & take-up: communication & dissemination, exploitation, transferability

| **Work Package Number** | WP6 | **Lead Beneficiary** | 5. ICLEI EURO |
|---|---|---|---|
| **Work Package Name** | Maximising impact & take-up: communication & dissemination, exploitation, transferability | | |
| **Start Month** | 1 | **End Month** | 48 |

| **Objectives** |
|---|
| This WP's primary aim is to provide the means for effective communication, dissemination and exploitation, to facilitate and maximise the wide-scale uptake of demonstrated solutions demonstrated to other European cities and beyond. Specific objectives:1)provide maximum visibility to project's critical products and results through targeted, effective and modern communication and dissemination activities; 2) inform European stakeholders and replicators across Europe of project's objectives, approaches, results in a strategic, effective, targeted manner; 3) focus communication and dissemination on impact, best practices, lessons learned from SSML solutions, to generate high-level acceptance; 4) establish cross-fertilisation mechanisms, synergies and dissemination relationships with other projects/initiatives; 5) organise knowledge exchange activities, providing learning resources to make project's results/successes available to targeted audience; 6) produce specific guidance for cities and policy-making recommendations; 7) ensure replication and upscaling of implemented solutions. |

| **Description** |
|---|
| Task 6.1 - Communication and dissemination foundation [M01-M48] [Leader: ICLEI EUR- Participants: All]. The Communication and Dissemination Strategy (D6.1) will outline the project's systematic approach to reaching out and communicating to its target audience. An audience analysis will segment the audience and present the best reaching channels. The strategy will detail roles and responsibilities of project partners and cross-cutting links across all WPs. An attractive, modern, unique visual identity will reflect the project's ambitions and messages, applied across all project communication materials, platforms and products. It will include the project's logo, colours, complementary visual elements, accompanied by templates for deliverables, reports, presentations. An internal midterm strategy evaluation will indicate message, channels and tools effectiveness, determining eventual adaptations. An online system will collect and monitor communication/dissemination work of all partners.<br>Task 6.2 - Setting up and maintaining digital and social media channels and media engagement [M01-M48] [Leader: ICLEI EUR- Participants: All]. REALLOCATE's open-source, user-friendly, secure website will display news, events, activities, opportunities for cooperation, along all project's objectives, methodologies, tools and results to visitors. Dedicated LinkedIn/Twitter profiles will communicate project-related activities, news, achievements, results. Other mobility social media channels (Eltis, CIVITAS, European Mobility Week, etc.) and accounts of partners will be leveraged. A biannual e-newsletter will update stakeholders and interested parties on project activities/results, engagement with general/ specialised media outlets will increase local impact of SSML activities. At least two press releases tailored to local contexts will be sent at the project's beginning and conclusion. |

Task 6.3 - Liaising with other mobility initiatives and Mission projects [M01-M48] [Leader: ICLEI EUR- Participants: All]. REALLOCATE will liaise with other mobility initiatives/Mission projects to secure maximum level of impact/ integration of project results across the sustainable mobility community. The aim is to leverage synergies, share and expand knowledge among cities, avoid overlaps with already delivered results, and boost cooperation among the 100 Mission Cities. The project builds its development upon concluded/ongoing projects, including on the same topic (MISS-2022-CIT-01-01), to support implementation of the Mission Cities. Strong connection will be established with NetZeroCities (managing the Mission Platform) via consortium partners, including through a Memorandum of Understanding. Cooperation and communication partnerships with other relevant initiatives, stakeholders, and networks will be established (CIVITAS, Eltis, Covenant of Mayors, URBACT, Interreg, Mayors' Alliance, etc.). Cooperation (e.g. mutual dissemination relationships and joint representation at events) with CIVITAS and CIVITAS National Networks (CIVINETs) will enable REALLOCATE to bring its results to planners, policymakers and analysts across Europe. ICLEI will organise a public event in Brussels using the Breakfast@Sustainability's format (under the title Safer Streets & Climate-Neutral Cities, as the first in a dissemination event series) to create opportunities for cities involved in Mission projects to exchange their experiences and showcase their work. REALLOCATE will specifically undergo activities of clustering and liasing with the sister R&I projects (part of the same cluster), and with the Cities Mission Platform.

Task 6.4 - Product development and dissemination and participation in events [M01-M48] [Leader: ICLEI EUR- Participants:BSC CNS, All partners]. Several publications capturing key results of WP6 will be developed. Various audiences will be targeted using infographics, factsheets, summary publications for capacity building and training materials, uploaded on CityConsult Agency learning platform managed by ICLEI EUR. A publication and product schedule will be developed (MS6.2) outlining planned publications and products, selected ones being translated into other languages. Standard dissemination/communication materials (D6.1) to promote project results will be developed (leaflets, postcards, brochures, roll-ups). Two short data-driven videos will explain the project's goals and achievements through high-impact visualisations of simulations. A Glossy Final Report (D6.2) including cities and SSML results will be prepared, translated in local languages (linked with replication packages). The consortium will attend numerous mobility events (the Urban Mobility Days, CIVITAS Forum, Cities Forum, H2020 Road Transport Research Conference, TRA conferences, ITS World Congress / ITS European Congress, Eurocities Mobility Forum, Polis Conference, etc.) A final conference will share project results and invite mobility experts and local government/civil society representatives to take part in a panel debate to discuss sustainable mobility themes (under the Safer Streets & Climate-Neutral Cities event series).

Task 6.5 - Exploitation of results and products [M01-M48] [Leader: ICLEI EUR- Participants: All]. Exploitation of project results encompasses two timeframes: during the project and after its completion. Exploitation planning will start from the project's and be embedded in all activities. Each partner will outline their exploitation contribution. An exploitation framework (MS6.3), will define exploitation activities for the project's lifetime and establish the exploitation roles of each partner involved and Intellectual Property (IP). This will lay out the Exploitation Strategy (D6.3) on how project outputs will be applied during the final phase and beyond project's lifetime, creating legacy. Contribute, upon invitation by the CINEA, to common information and dissemination activities to increase the visibility and synergies between HE/H2020 supported actions.

Task 6.6 - Replication & transferability of innovative solutions [M24-M48] [Leader: ICLEI EUR- Participants: All]. Developing a common guideline to support replication of solutions/measures implemented in SSMLs. Barriers and challenges that may affect scalability and replicability will be considered, along different parameters involved in implementing measures: regulations, financing, skills, capacity, stakeholder engagement. Replication guidelines will focus on overcoming barriers, while leveraging drivers to maximise the impact of solutions in other cities. The final result will be a Replication Package, a main document for demonstration activities and key tool in enabling future replication in 10 Cascade Cities - which will test and validate the replication package. Each Cascade City will commit to deliver an Implementation Plan for replicating at least one measure from the SSML interventions. ICLEI EUR will develop the template for Implementation Plans, review/edit the final drafts prepared by the cities.

Task 6.7 - Knowledge transfer / Education activities [M24-M48] [Leader: ICLEI EUR- Participants:All]. Project's results will be shared beyond the community involved in REALLOCATE (Consortium members and Cascade Cities). Capacity building activities will incorporate a comprehensive e-learning resources suite – including an online knowledge repository (CityConsult Agency learning platform) - to make project results available and ensure their application during and beyond project's lifetime. Education activities include adapted workshops to target groups (e.g. professionals, practitioners, decision makers). Speakers will be selected from SSML experts, consortium members and Cascade Cities. Knowledge generated within SSMLs and produced in WP2, WP3 and WP4, will be first transferred to Cascade Cities (bringing them closer to implementing innovative solutions learned from SSMLs) and then to other European cities in various geographical and cultural contexts.

Task 6.8 - Development of targeted guidance [M1-M48] [Leader: Cerema - Participants: ICLEI EUR, Eurocities, CERTH]. Specific horizontal guidance will complement the Replication Package, drawing on the 10 SSML interventions and expertise provided in WP3. The guidance will address three cross-cutting topics, whose selection will consider SUMP Guidance (Topic Guides / Practitioner Briefings) and agreed with DG MOVE (Indicative topics: Pedestrians &

inclusive design / Behaviour & choice design / Urban road safety & space reallocation - link to SUMP, Green Street Design). WP3 experts will contribute to guidance development based on the selected topics.
Task 6.9 - Policy impacts [M25-M48] [Leader: Eurocities - Participants: Cerema, ICLEI EUR, IFP-research, ECF, Ertico, UCD, Factual, Demos, CERTH] Subtask 6.9.1 - Policy dialogues [M25-M48] [Leader: Eurocities - Participants: Cerema, ICLEI EUR, IFP-research, ECF, Ertico ITS EUR, UCD, SSML cities and local representatives]: At least two policy dialogues will be organised in Year 3 and Year 4, involving EU representatives & local decision makers, in relation to the EU Road Safety Policy Framework 2021-2030, the new Urban Mobility Framework, upcoming European Urban Initiative of Cohesion Policy, the Urban Agenda for the EU, the Safe and Sustainable Mobility Partnership, EIT Urban Mobility, and the Efficient and Green Mobility Package, the Clean Air Package, and the Climate-Neutral and Smart Cities Mission. For higher impact, these might be organised as special sessions at large events (see Task 6.4). Subtask 6.9.2 - Policy recommendations [M25-M48] [Leader: Cerema - Participants: Eurocities, ICLEI EUR, IFP-research, ECF, Ertico, UCD, Factual, Demos, CERTH]: A policy recommendations document will be developed based on the SSML results to serve as inspiration for improved cities' working practices across Europe.
Role of partners: ICLEI EUR leads the WP and Tasks 6.1 to 6.7; Cerema leads Task 6.8; Eurocities leads Task 6.9; BSC CNS will play the main role in project videos development; ALL partners will be involved in communication, dissemination, exploitation, and transferability activities.

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

# STAFF EFFORT

**Staff effort per participant**

*Grant Preparation (Work packages - Effort screen) — Enter the info.*

| Participant | WP1 | WP2 | WP3 | WP4 | WP5 | WP6 | Total Person-Months |
|---|---|---|---|---|---|---|---|
| 1 - UCD | 24.00 | 14.71 | 18.00 | 11.00 | 13.00 | 6.50 | 87.21 |
| 2 - EUROCITIES | 3.00 | 13.00 | 2.00 | 38.00 | 1.00 | 11.00 | 68.00 |
| 3 - FACTUAL | 3.00 | 38.00 | 14.00 | 8.00 | 4.00 | 5.00 | 72.00 |
| 4 - CERTH | 3.00 | 6.00 | 9.00 | 6.00 | 40.00 | 6.00 | 70.00 |
| 5 - ICLEI EURO | 3.00 | 5.00 | 1.00 | 14.00 | 4.00 | 25.00 | 52.00 |
| 6 - Fraunhofer | 1.00 | | 10.00 | 5.00 | 13.00 | 2.00 | 31.00 |
| 7 - Nudgd | 1.00 | 8.00 | 21.00 | 10.00 | 2.00 | 6.00 | 48.00 |
| 8 - ERTICO ITS EUR | 1.00 | | 15.00 | 9.00 | | 2.00 | 27.00 |
| 9 - DEMOS | 1.00 | 6.00 | 3.00 | 6.00 | 6.00 | 1.50 | 23.50 |
| 10 - ECF | 1.00 | 3.00 | 4.00 | 12.00 | 2.00 | 8.00 | 30.00 |
| 11 - BSC CNS | 1.00 | 7.00 | 2.00 | 6.00 | 26.00 | 8.00 | 50.00 |
| 12 - Cerema | 1.00 | | 10.00 | 14.00 | 15.00 | 10.00 | 50.00 |
| 13 - VTT | 0.50 | 5.00 | | 3.00 | 2.00 | 1.00 | 11.50 |
| 14 - TAMPERE | 1.00 | 20.00 | | 10.00 | | 1.00 | 32.00 |
| 15 - ARUP | 1.00 | | 7.00 | 7.00 | 2.00 | 1.00 | 18.00 |
| 16 - IFP-research | 1.00 | 1.00 | 16.00 | 15.00 | 3.00 | 2.00 | 38.00 |
| 17 - DEKRA | 0.50 | | 8.00 | 5.00 | 8.00 | 1.00 | 22.50 |
| 17.1 - DEKRA ASSURANCE | 0.50 | | 7.00 | 5.00 | 7.00 | | 19.50 |
| 18 - BARCELONA | 1.00 | 18.00 | 1.00 | 16.00 | 4.00 | 2.00 | 42.00 |

**Staff effort per participant**

*Grant Preparation (Work packages - Effort screen) — Enter the info.*

| Participant | WP1 | WP2 | WP3 | WP4 | WP5 | WP6 | Total Person-Months |
|---|---|---|---|---|---|---|---|
| 19 - IMPD | 1.00 | 27.00 | 4.00 | 4.00 | 2.00 | 3.00 | 41.00 |
| 20 - NEMI | 1.00 | 12.00 | 2.00 | 4.00 | 2.00 | 1.00 | 22.00 |
| 21 - COBO | 1.00 | 20.00 | 1.00 | 14.00 | 4.00 | 2.00 | 42.00 |
| 22 - FIU | 0.50 | 8.50 | | 1.00 | 2.00 | 1.00 | 13.00 |
| 23 - BUDAPEST | 1.00 | 38.00 | 10.00 | 28.00 | 15.00 | 4.00 | 96.00 |
| 24 - BKK | 1.00 | 16.00 | 10.00 | 9.00 | 8.00 | 2.00 | 46.00 |
| 25 - GOTEBORG | 1.00 | 30.00 | | 20.00 | 5.00 | 2.00 | 58.00 |
| 26 - CITY OF UTRECHT | 1.00 | 12.00 | | 10.00 | 1.00 | 1.00 | 25.00 |
| 27 - Sport Utrecht | 1.00 | 8.00 | | 1.00 | | 1.00 | 11.00 |
| 28 - VVN | 1.00 | 8.00 | | 2.00 | | 1.00 | 12.00 |
| 29 - CITY OF WARSAW | 1.00 | 34.00 | | 20.00 | 8.00 | 3.00 | 66.00 |
| 30 - CITY OF ZAGREB | 1.00 | 32.00 | | 16.00 | | 1.00 | 50.00 |
| 31 - SBC | 1.00 | 7.00 | 2.00 | 6.00 | | 6.00 | 22.00 |
| 32 - FTTS | 0.50 | 17.00 | | 4.00 | | | 21.50 |
| 33 - METROPOLE LYON | 1.00 | 26.00 | 1.00 | 20.00 | 6.00 | 1.00 | 55.00 |
| 34 - COMMUNE LYON | 1.00 | 40.00 | 2.00 | 20.00 | 10.00 | 2.00 | 75.00 |
| 35 - FNM | 1.00 | 11.00 | | 1.00 | 1.00 | | 14.00 |
| 36 - HEIDELBERG | 1.00 | 32.00 | | 20.00 | 7.00 | 3.00 | 63.00 |
| 37 - HH | 0.50 | 7.50 | | 1.00 | 2.00 | 3.00 | 14.00 |
| **Total Person-Months** | 66.00 | 530.71 | 180.00 | 401.00 | 225.00 | 136.00 | 1538.71 |

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

# LIST OF DELIVERABLES

**Deliverables**

*Grant Preparation (Deliverables screen) — Enter the info.*

*The labels used mean:*

*Public — fully open ( automatically posted online)*
*Sensitive — limited under the conditions of the Grant Agreement*
*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) |
|---|---|---|---|---|---|---|
| D1.1 | D1.1 | WP1 | 1 - UCD | R — Document, report | PU - Public | 3 |
| D1.2 | D1.2 | WP1 | 1 - UCD | R — Document, report | PU - Public | 6 |
| D1.3 | D1.3 | WP1 | 4 - CERTH | R — Document, report | PU - Public | 6 |
| D1.4 | D1.4 | WP1 | 4 - CERTH | R — Document, report | PU - Public | 18 |
| D1.5 | D1.5 | WP1 | 4 - CERTH | R — Document, report | PU - Public | 36 |
| D2.1 | D2.1 | WP2 | 3 - FACTUAL | R — Document, report | PU - Public | 10 |
| D2.2 | D2.2 | WP2 | 3 - FACTUAL | R — Document, report | PU - Public | 12 |
| D2.3 | D2.3 | WP2 | 3 - FACTUAL | R — Document, report | PU - Public | 42 |
| D2.4 | D2.4 | WP2 | 9 - DEMOS | R — Document, report | PU - Public | 42 |
| D3.1 | D3.1 | WP3 | 1 - UCD | R — Document, report | PU - Public | 48 |
| D3.2 | D3.2 | WP3 | 6 - Fraunhofer | R — Document, report | PU - Public | 42 |
| D3.3 | D3.3 | WP3 | 7 - Nudgd | R — Document, report | PU - Public | 48 |
| D4.1 | D4.1 | WP4 | 9 - DEMOS | R — Document, report | PU - Public | 6 |
| D4.2 | D4.2 | WP4 | 9 - DEMOS | R — Document, report | SEN - Sensitive | 10 |
| D4.3 | D4.3 | WP4 | 2 - EUROCITIES | R — Document, report | PU - Public | 12 |

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**Deliverables**

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| Deliverable No | Deliverable Name | Work Package No | Lead Beneficiary | Type | Dissemination Level | Due Date (month) |
|---|---|---|---|---|---|---|
| D4.4 | D4.4 | WP4 | 2 - EUROCITIES | R — Document, report | PU - Public | 24 |
| D5.1 | D5.1 | WP5 | 4 - CERTH | R — Document, report | PU - Public | 12 |
| D5.2 | D5.2 | WP5 | 4 - CERTH | R — Document, report | PU - Public | 12 |
| D5.3 | D5.3 | WP5 | 1 - UCD | R — Document, report | PU - Public | 24 |
| D5.4 | D5.4 | WP5 | 11 - BSC CNS | DEM — Demonstrator, pilot, prototype | PU - Public | 12 |
| D6.1 | D6.1 | WP6 | 5 - ICLEI EURO | R — Document, report | PU - Public | 6 |
| D6.2 | D6.2 | WP6 | 5 - ICLEI EURO | R — Document, report | PU - Public | 48 |
| D6.3 | D6.3 | WP6 | 5 - ICLEI EURO | R — Document, report | SEN - Sensitive | 30 |
| D6.4 | D6.4 | WP6 | 5 - ICLEI EURO | R — Document, report | PU - Public | 42 |
| D6.5 | D6.5 | WP6 | 12 - Cerema | R — Document, report | PU - Public | 48 |

## Deliverable D1.1 – D1.1

| | | | |
|---|---|---|---|
| **Deliverable Number** | D1.1 | **Lead Beneficiary** | 1. UCD |
| **Deliverable Name** | D1.1 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 3 | **Work Package No** | WP1 |

| **Description** |
|---|
| Guidebook on ethics requirements. This will include the ethics review principles and procedures adopted in the consortium. |

## Deliverable D1.2 – D1.2

| | | | |
|---|---|---|---|
| **Deliverable Number** | D1.2 | **Lead Beneficiary** | 1. UCD |
| **Deliverable Name** | D1.2 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 6 | **Work Package No** | WP1 |

| **Description** |
|---|
| This report will include the list of members of CHCB, HPF, AB and REAB. |

## Deliverable D1.3 – D1.3

| | | | |
|---|---|---|---|
| **Deliverable Number** | D1.3 | **Lead Beneficiary** | 4. CERTH |
| **Deliverable Name** | D1.3 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 6 | **Work Package No** | WP1 |

| **Description** |
|---|
| Data management plan. Updated versions in month 18 and month 36 |

## Deliverable D1.4 – D1.4

| | | | |
|---|---|---|---|
| **Deliverable Number** | D1.4 | **Lead Beneficiary** | 4. CERTH |
| **Deliverable Name** | D1.4 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 18 | **Work Package No** | WP1 |

| **Description** |
|---|
| Updated data management plan. |

## Deliverable D1.5 – D1.5

| | | | |
|---|---|---|---|
| **Deliverable Number** | D1.5 | **Lead Beneficiary** | 4. CERTH |
| **Deliverable Name** | D1.5 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 36 | **Work Package No** | WP1 |

| **Description** |
|---|
| Updated Data management plan. |

## Deliverable D2.1 – D2.1

| | | | |
|---|---|---|---|
| **Deliverable Number** | D2.1 | **Lead Beneficiary** | 3. FACTUAL |
| **Deliverable Name** | D2.1 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 10 | **Work Package No** | WP2 |

| **Description** |
|---|
| This deliverable is in the form of a needs assessment report. The deliverable will report the needs, gaps and opportunities identified for each SSML. The deliverable is an outcome of Task 2.1. |

## Deliverable D2.2 – D2.2

| | | | |
|---|---|---|---|
| **Deliverable Number** | D2.2 | **Lead Beneficiary** | 3. FACTUAL |
| **Deliverable Name** | D2.2 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 12 | **Work Package No** | WP2 |

| **Description** |
|---|
| SSMLs deployment plans: The deliverable will report on the deployment and implementation steps for the all the SSMLs. The deliverable is an outcome of Task 2.2. |

## Deliverable D2.3 – D2.3

| | | | |
|---|---|---|---|
| **Deliverable Number** | D2.3 | **Lead Beneficiary** | 3. FACTUAL |
| **Deliverable Name** | D2.3 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 42 | **Work Package No** | WP2 |

| **Description** |
|---|
| SSML report: The deliverable will provide a description of the pilots with their related actions and results. The deliverable is an outcome of Task 2.3. |

## Deliverable D2.4 – D2.4

| | | | |
|---|---|---|---|
| **Deliverable Number** | D2.4 | **Lead Beneficiary** | 9. DEMOS |
| **Deliverable Name** | D2.4 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 42 | **Work Package No** | WP2 |

| **Description** |
|---|
| Transformative Governance Framework: It includes actionable policy, learning, and assessment tools for deploying and implementing sustainable urban mobility solutions across the EU. The deliverable is an outcome of Task 2.4. |

## Deliverable D3.1 – D3.1

| | | | |
|---|---|---|---|
| **Deliverable Number** | D3.1 | **Lead Beneficiary** | 1. UCD |
| **Deliverable Name** | D3.1 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 48 | **Work Package No** | WP3 |

| **Description** |
|---|
| Catalogue of local scale plans for interventions: The deliverable will report the plans for street and neighborhood level interventions in the SSMLs. The deliverable is an outcome of Tasks 3.1, 3.2, 3.6, 3.7. |

## Deliverable D3.2 – D3.2

| | | | |
|---|---|---|---|
| **Deliverable Number** | D3.2 | **Lead Beneficiary** | 6. Fraunhofer |
| **Deliverable Name** | D3.2 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 42 | **Work Package No** | WP3 |

| **Description** |
|---|
| Catalogue of city & regional scale plans for interventions: The deliverable will report the plans for city and regional level interventions in the SSMLs. The deliverable is an outcome of Tasks 3.3, 3.4, 3.5, 3.6, 3.7. |

## Deliverable D3.3 – D3.3

| | | | |
|---|---|---|---|
| **Deliverable Number** | D3.3 | **Lead Beneficiary** | 7. Nudgd |
| **Deliverable Name** | D3.3 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 48 | **Work Package No** | WP3 |

| **Description** |
|---|
| Catalogue of behavioural, choice & empowering planning tools: It details the behavioural, choice design and empowering planning tools developed and used in the SSMLs. The deliverable is an outcome of Task 3.6. |

## Deliverable D4.1 – D4.1

| | | | |
|---|---|---|---|
| **Deliverable Number** | D4.1 | **Lead Beneficiary** | 9. DEMOS |
| **Deliverable Name** | D4.1 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 6 | **Work Package No** | WP4 |

| **Description** |
|---|
| This deliverable details the benchmark for integrated learning for the pilot cities. The deliverable is an outcome of Task T 4.1. |

## Deliverable D4.2 – D4.2

| | | | |
|---|---|---|---|
| **Deliverable Number** | D4.2 | **Lead Beneficiary** | 9. DEMOS |
| **Deliverable Name** | D4.2 | | |
| **Type** | R — Document, report | **Dissemination Level** | SEN - Sensitive |
| **Due Date (month)** | 10 | **Work Package No** | WP4 |

| **Description** |
|---|
| This deliverable details the Cities' self-assessment reports based on the REALLOCATE benchmark for integrated learning. The deliverable is an outcome of Task T 4.1. |

## Deliverable D4.3 – D4.3

| | | | |
|---|---|---|---|
| **Deliverable Number** | D4.3 | **Lead Beneficiary** | 2. EUROCITIES |
| **Deliverable Name** | D4.3 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 12 | **Work Package No** | WP4 |

| **Description** |
|---|
| Peer learning and capacity building master plan: framework for all peer learning and capacity building activities and their timelines, including methodologies deployed and mapped with the cities' needs. The deliverable is an outcome of Task T 4.1. |

## Deliverable D4.4 – D4.4

| | | | |
|---|---|---|---|
| **Deliverable Number** | D4.4 | **Lead Beneficiary** | 2. EUROCITIES |
| **Deliverable Name** | D4.4 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 24 | **Work Package No** | WP4 |

| **Description** |
|---|

| |
|---|
| Peer learning and capacity building activities and outcomes corresponding to the mid- & final stage of the project. The deliverable is an outcome of Task 4.2, 4.3, 4.4, 4.5.<br>An updated version will be provided in month 48. |

## Deliverable D5.1 – D5.1

| | | | |
|---|---|---|---|
| **Deliverable Number** | D5.1 | **Lead Beneficiary** | 4. CERTH |
| **Deliverable Name** | D5.1 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 12 | **Work Package No** | WP5 |

| **Description** |
|---|
| This deliverable details the Evaluation & impact framework of the project, on two layers (micro and macro), the mapped tools and mechanisms for its implementation, the definition and materialisation of project KPIs. The deliverable is an outcome of Tasks 5.1, 5.2. |

## Deliverable D5.2 – D5.2

| | | | |
|---|---|---|---|
| **Deliverable Number** | D5.2 | **Lead Beneficiary** | 4. CERTH |
| **Deliverable Name** | D5.2 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 12 | **Work Package No** | WP5 |

| **Description** |
|---|
| This report details the project distributed dashboards & centralised visualisation, including the Initial and final demonstrator of the distributed dashboard & web visualisation. The deliverable is an outcome of Task 5.2.<br>An updated version will be provided in month 46. |

## Deliverable D5.3 – D5.3

| | | | |
|---|---|---|---|
| **Deliverable Number** | D5.3 | **Lead Beneficiary** | 1. UCD |
| **Deliverable Name** | D5.3 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 24 | **Work Package No** | WP5 |

| **Description** |
|---|
| This report details the Project distributed dashboards & centralised visualisation, including the Initial and final demonstrator of the distributed dashboard & web visualisation. The deliverable is an outcome of Task 5.2.<br>An updated version will be provided in month 48. |

## Deliverable D5.4 – D5.4

| | | | |
|---|---|---|---|
| **Deliverable Number** | D5.4 | **Lead Beneficiary** | 11. BSC CNS |

| | | | |
|---|---|---|---|
| **Deliverable Name** | D5.4 | | |
| **Type** | DEM — Demonstrator, pilot, prototype | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 12 | **Work Package No** | WP5 |

| **Description** |
|---|
| This is a demonstrator of the AI enhanced decision support tools. An initial and final demonstrators of the AI enhanced decision support tools and their integration in the REALLOCATE Distributed dashboard as part of Task 5.5.<br>Updated version in month 46 |

## Deliverable D6.1 – D6.1

| | | | |
|---|---|---|---|
| **Deliverable Number** | D6.1 | **Lead Beneficiary** | 5. ICLEI EURO |
| **Deliverable Name** | D6.1 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 6 | **Work Package No** | WP6 |

| **Description** |
|---|
| Communication & Dissemination strategy, guidelines, materials: The strategy includes chapters on key messaging, target audience, visual identity, key channels, timelines, materials, roles and responsibilities, communications and dissemination monitoring. The deliverable is an outcome of Tasks 6.1, 6.2, 6.3. This basically constitutes the mandatory deliverable of a plan for dissemination and exploitation, including communication activities, which will be periodically updated. |

## Deliverable D6.2 – D6.2

| | | | |
|---|---|---|---|
| **Deliverable Number** | D6.2 | **Lead Beneficiary** | 5. ICLEI EURO |
| **Deliverable Name** | D6.2 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 48 | **Work Package No** | WP6 |

| **Description** |
|---|
| This report will be in the form of a Glossy final report: Hands on visual report detailing presentations of the cities and the results of the implemented SSMLs. The deliverable is an outcome of Task 6.4. |

## Deliverable D6.3 – D6.3

| | | | |
|---|---|---|---|
| **Deliverable Number** | D6.3 | **Lead Beneficiary** | 5. ICLEI EURO |
| **Deliverable Name** | D6.3 | | |
| **Type** | R — Document, report | **Dissemination Level** | SEN - Sensitive |
| **Due Date (month)** | 30 | **Work Package No** | WP6 |

| **Description** |
|---|

| |
|---|
| This deliverable is the Exploitation Strategy: it includes chapters on the key exploitable products, channels for exploitation and exploitation schedule. The deliverable is an outcome of Task 6.5. |

## Deliverable D6.4 – D6.4

| | | | |
|---|---|---|---|
| **Deliverable Number** | D6.4 | **Lead Beneficiary** | 5. ICLEI EURO |
| **Deliverable Name** | D6.4 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 42 | **Work Package No** | WP6 |

| **Description** |
|---|
| This deliverable details the Replication package for 10 SSMLs & Cascade Cities' Plans. It includes Guidelines for the replication of the measures demonstrated in the 10 SSML & Implementation Plans for the upscaling in Cascade Cities. The deliverable is an outcome of Task 6.6. |

## Deliverable D6.5 – D6.5

| | | | |
|---|---|---|---|
| **Deliverable Number** | D6.5 | **Lead Beneficiary** | 12. Cerema |
| **Deliverable Name** | D6.5 | | |
| **Type** | R — Document, report | **Dissemination Level** | PU - Public |
| **Due Date (month)** | 48 | **Work Package No** | WP6 |

| **Description** |
|---|
| This deliverable includes Targeted guidance & policy recommendations. A series of specific guidance and policy recommendations on a number of horizontal issues, drawing on the experiences of the SSML pilots. The deliverable is an outcome of Tasks 6.8, 6.9. |

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# LIST OF MILESTONES

**Milestones**

*Grant Preparation (Milestones screen) — Enter the info.*

| Milestone No | Milestone Name | Work Package No | Lead Beneficiary | Means of Verification | Due Date (month) |
|---|---|---|---|---|---|
| 1 | First version of Data Management Plan | WP1 | 4-CERTH | D1.3 (first outline of how the DMP will respond to FAIR principles) | 6 |
| 2 | SSMLs implementation plans available | WP2 | 3-FACTUAL | D2.2 (deployment and implementation steps listed for all SSMLs) | 12 |
| 3 | Deployment of interventions | WP2 | 3-FACTUAL | Interventions are deployed/implemented (all pilot executions done with the support of expert partners - subtask 2.3.2) | 32 |
| 4 | Matching 3D space design modelling with circularity/lifecycle scenario assessment | WP3 | 17-DEKRA | Horizontal thematic expert meeting to discuss circularity across all pilots | 18 |
| 5 | Tested digital tool matching/clustering pilot data | WP3 | 8-ERTICO ITS EUR | Tool is tested with data from 10 cities | 24 |
| 6 | Progress in behavioural changes | WP3 | 7-Nudgd | Progress in behavioural changes following interventions/pilot executions and tailored nudging are analised contextually (Task 3.6) | 32 |
| 7 | Reallocation of public spaces | WP3 | 1-UCD | All nature-based, inclusive & circular design interventions are realised for all SSMLs according to the specific expert plans (Task 3.1 | 36 |
| 8 | Framework/timeframe for peer learning established | WP4 | 2-EUROCITIES | D4.1-D4.3 (peer learning master plan with benchmarks and methodologies mapped for each city's needs) | 12 |
| 9 | Cascade Cities are engaged in REALLOCATE | WP4 | 2-EUROCITIES | Memorandums of understanding are signed to list the precise activities in which each Cascade city will be engaged | 12 |

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**Milestones**

*Grant Preparation (Milestones screen) — Enter the info.*

| Milestone No | Milestone Name | Work Package No | Lead Beneficiary | Means of Verification | Due Date (month) |
|---|---|---|---|---|---|
| 10 | Peer-learning & capacity building activities started | WP4 | 2-EUROCITIES | D4.4 at mid-stage (multiple knowledge exchange and technical webinars started and realised, twin cities review each other's self-assessment report and plan to conduct 2 days peer on-site visits) | 24 |
| 11 | All study visits for peer learning and capacity building took place | WP4 | 2-EUROCITIES | All study visits (subtask 4.2.2) took place, organised by each lead city for a delegation of representatives from the other | 40 |
| 12 | REALLOCATE Distributed Dashboard | WP5 | 11-BSC CNS | Dashboard is live | 12 |
| 13 | Mid-term evaluation of interventions | WP5 | 1-UCD | D5.3 (mid-term evaluation done, consolidated in synthetic overview and cross-compared to baselines, to inform further corrective actions) | 24 |
| 14 | Website and social media live | WP6 | 5-ICLEI EURO | Website and social media are live | 4 |
| 15 | Exploitation plan | WP6 | 5-ICLEI EURO | Document available | 6 |
| 16 | Public event - Breakfast @ Sustainability's | WP6 | 5-ICLEI EURO | Event took place | 24 |
| 17 | Final conference & public event | WP6 | 5-ICLEI EURO | Event took place | 48 |

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# LIST OF CRITICAL RISKS

**Critical risks & risk management strategy**

*Grant Preparation (Critical Risks screen) — Enter the info.*

| Risk number | Description | Work Package No(s) | Proposed Mitigation Measures |
|---|---|---|---|
| 1 | Partners leaving the consortium(Lik:Low, Sev:Medium) | | In case of partner exit, workload will be redistributed to the remaining partners according to their expertise to ensure the continuation. |
| 2 | Partners conflicting during the project development (Lik:Medium, Sev:Low) | | The Consortium Agreement delves into the conflicts discussed in the GA.<br>Each discussion aims to reach consensus, otherwise the simple majority vote of the assembly is considered conclusive. |
| 3 | Delaying in milestones achievement and project objectives (Lik:Medium, Sev:Low) | | Coordinator and WP leaders will keep track of the project deadlines. In case of delay, a meeting will be held with the involved partner(s) to establish the causes and adopt measures to prevent future delays. |
| 4 | Delays in project deliverables (Lik:High, Sev:Low) | | The WP leaders will be monitoring the working flow to identify possible delays in the deliverable submission. The Executive Board will prepare a backup solution and reallocation of resources and workload. |
| 5 | Misjudgment of the workload (Lik:Medium, Sev:Low) | | The EB will revise the workload at the kickoff meeting and constantly monitor the activities. If needed, EB will rectify (GA approved) workload. |
| 6 | Budget allocation revision/redistribution (Lik:Low, Sev:Low) | | According to necessity, workload redistribution or partner departure, the Coordinator will propose a budget redistribution to be approved by the GA |
| 7 | COVID crisis affects study visits, mentoring and peer review visits. (Lik:High, Sev:Medium) | | The peer learning and capacity building programme is organised on several layers, mainly online. Knowledge exchange meetings will be organized online and site visits will take place when COVID will allow it. |
| 8 | Delays due to tendering processes in SSML delay the intervention (Lik:Medium, Sev:High) | | The authorities responsible for the tendering process are part of the consortium and the project partners will support them in the specific requirements that they might have when preparing tenders. |
| 9 | Interoperability issues of Data Hub (Lik:Medium, Sev:High) | | The Data Hub will be based on Kafka, Apache Spark data models allowing interoperability and will provide connectors to the most widely used communication protocols. |

**Critical risks & risk management strategy**

*Grant Preparation (Critical Risks screen) — Enter the info.*

| Risk number | Description | Work Package No(s) | Proposed Mitigation Measures |
|---|---|---|---|
| 10 | The interventions do not solve the identified problems. Their impact is low (Lik:Low, Sev:High) | | The continuous monitoring strategy of cross- domain objective and subjective data and horizontal support will allow to develop and implement effective corrective actions to maximise the impact of each intervention. |
| 11 | Low stakeholders interest to take part in activities(Lik:low,Sev:High) | | All stakeholders will be timely informed to mitigate this risk. If needed, special actions will be discussed with the GA and the SSML Board. |
| 12 | Mentors have their own research agenda and do not engage specifically with the local pilots' needs. (Lik:Medium, Sev:High) | | Extensive exchanges already took place in proposal phase and the whole work programme is city driven to mitigate this risk. Feedback will be collected periodically from the SSML board to identify the issue if it arises.<br>The coordinator will propose mitigation measures with the GA. |
| 13 | Lack of transfer and insufficient replication among the twinned cities. (Lik:Medium, Sev:Medium) | | Regular feedback will be collected from the partner cities to mitigate this risk. If needed, corrective measures will be taken by the WP leader supported by the GA. |
| 14 | Poor quality of collected assessment data(Lik:Low,Sev:High) | | Data quality is continuously monitored with dedicated AI algorithms to mitigate the risk.Alternative monitoring strategy will be deployed if needed |
| 15 | Issues with different local ethics and GDPR hamper data collection (Lik:Low, Sev:High) | | A Guidebook on Ethics Requirements (WP1) and the DMP will describe the framework to be followed by all countries and organizations involved.<br>The REAB will be responsible for the observance of the guidelines. |
| 16 | Failure to prepare plans to replicate solutions in Cascade Cities (Lik:Low, Sev:Medium) | | The Cascade Cities have all already signed a letter of intent to replicate at least 1 solution. They will be mentored with highly specialised assistance throughout the project to ensure a smooth knowledge transfer process. |
| 17 | Inefficient exploitation strategy for market penetration (Lik:Medium, Sev:Medium) | | The exploitation strategy will be revised by an Exploitation expert (ICLEI) and the Coordinator. An evaluation of the revised strategy will follow up shortly to address its efficacy. |
| 18 | Inefficient communication and dissemination strategy (Lik:Low, Sev:Medium) | | A tailored Dissemination and Communication Strategy will be prepared by communication specialists (ICLEI). The Coordinator and WP6 Leader will regularly evaluate its effectiveness. |

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# PROJECT REVIEWS

**Project Reviews**

*Grant Preparation (Reviews screen) — Enter the info.*

| **Review No** | **Timing** (month) | **Location** | **Comments** |
|---|---|---|---|
| RV1 | 18 | Brussels | 1st interim review |
| RV2 | 36 | Brussels | 2nd interim review |
| RV3 | 48 | Brussels | 3rd interim review |

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**REALLOCATE**

Rethinking the dEsign of streets And pubLic spaces to Leverage the mOdal shift to Climate-friendly Active Transport Everywhere


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## 1. Excellence

***Background***: Cities face unprecedented urbanisation rates, climate issues and unsafe transport conditions. Increased automobility has led to habitat fragmentation and approx. 27% of total GHG emissions in Europe came from transport in 2017 (road transport accountable for ~72% of this total, EEA, 2022), indicating difficulties in meeting the Paris Climate Accord (2015). Drastic decrease in transport emissions of 55% by 2030 and 90% by 2050 is required (EEA, 2022) for climate neutrality. The EU's new Urban Mobility Framework promotes stronger action to make urban transport resilient, inclusive and environmentally friendly, as boosting active mobility along with integration with public transport can overcome key challenges (Koszowski, 2019). Inconvenient mobility infrastructure, inadequate services and insufficient governance for short-distance travel negatively impact active modes' safety and security, which still account for 70% of road fatalities in urban areas (EC, 2019). Diverse needs of societal groups (e.g. disabled, elderly) are disregarded, while dedicated quality control of active modes infrastructure is lacking (Haperen et al., 2019). This calls for increased user-centricity and public participation and consideration of behavioural patterns in sync with VisionZero and Safe System approaches. Regreening urban spaces and providing active transport infrastructure can encourage a modal shift and more pleasant environments.

### 1.1 Objectives and ambition

*Excellence of the project*: REALLOCATE is based on a **city driven** approach, supporting cities in their transition towards climate neutrality. It will pioneer a Safe Climate-Neutral Mobility (SCNM) System to support cities in accelerating their transition towards climate neutrality through the promotion of zero-emission, shared, active and human-centred, inclusive mobility. Particular to the SCNM System is that it emerges from co-developing and co-deploying a **green & digital transformation process that not only empowers those designing roads and managing infrastructure with new tools, but continuously engages end users - the citizens - for feedback and improvements**. The SCNM System will harness the active role of the quadruple helix of stakeholders (practitioners, civil society, academia and industry) coming together to enable climate neutrality, inclusiveness and safety for Vulnerable Road Users (VRUs) and achieve a paradigm shift in street space use and road behaviour. The project will comprehensively and concurrently consider road users' needs (through systematic, multi- stakeholder, multi-disciplinary, multi-sectoral approach) to upscale sustainable, green, human-centred mobility in cities towards climate neutrality. This will be achieved by: i) **integrating approaches for designing urban spaces** (informed by spatial sciences, street space reallocation, physical infrastructures redesign with stakeholders); ii) **endorsing choices** (technological tools & behavioural sciences) **for safe, inclusive, affordable, and sustainable urban mobility**. The SCNM System will be enabled by a strong transversal digital dimension for road infrastructure - smart enforcement tools, geofencing, dynamic space reallocation - with embedded nudges and incentives. By planning safe and inclusive urban mobility and public space, **REALLOCATE will provide suitable choices for users and thus impact behaviour**. The effective road space reallocation and making active modes more safe, appealing and prioritised in front of private cars will alter the current choice architecture for individual trips and the long-standing unsustainable travel habits. This will be aligned with presenting effective opportunities for new innovative choices/decisions/practices to form more sustainable mobility behaviours and thus minimize safety hazards, reattribute the streets' role as primary public spaces in cities (not overtaken by cars), and have a long term impact on road traffic related emissions. The new concept of a Safe & Sustainable Mobility Lab (SSML) pioneered by REALLOCATE expands Living Labs, to a focused road safety and sustainable mobility vision. SSMLs are thus meant to provide cities with a framework to **co-design and co-develop technologies and interventions to promote a modal shift** to sustainable urban mobility modes by leveraging the SCNM System, implemented to solve ongoing issues in **15 unsafe urban/ peri-urban areas**. REALLOCATE addresses multiple unsafe areas in various contexts, specifically including 6 problematic intersections, 5 street/arterial sections, and looking to significantly improve safety in 3 school areas and 5 urban/peri-urban districts. Here we will tackle specific road safety challenges for active modes (both actual and perceived), affordability and inclusiveness through shared schemes for increased comfort/convenience, overall reducing exposure to air and noise pollution by increased greenery by the street, integrated with the sustainable mobility strategy as defined in local SUMPs. The measures' effectiveness will be continuously assessed through innovative monitoring systems, cutting-edge numerical modelling, data science algorithms, and will also be exposed to bottom-up assessment strategies involving the citizens and direct stakeholders. REALLOCATE will develop SSMLs in **5 Lead Cities** and **5 Twin Cities**, all 10 part of the **100 Climate-Neutral & Smart Cities EU mission**. It will empower **10 Cascade Cities** (selected among all 377 cities that expressed an interest in becoming climate-neutral by 2030) with tools and knowledge to replicate the experience of REALLOCATE SSMLs. The challenges experienced in different European regions might differ, given their specific physical and socio-economic contexts; for this, **the geographical distribution of the Labs stretches from North (Goteborg , Tampere), to West (Heidelberg, Lyon, Utrecht), South (Barcelona, Bologna), and East Europe (Budapest, Warsaw, Zagreb)**. From these, informing guidance & policy for cities through 2D & 3D street (re-)design guidelines, policy recommendations, new governance and business models leveraging green tech and urban design solutions, capacity building and educational activities will emerge.

***Main Objective***:

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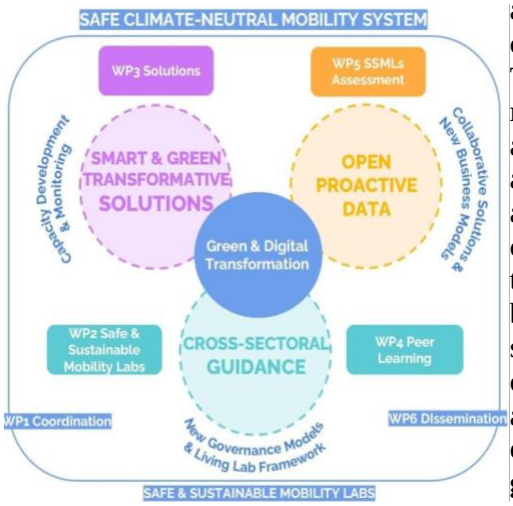
**REALLOCATE's main objective is to pave the way towards climate-neutral, safe and smart EU cities through integrated, innovative and inclusive sustainable urban mobility solutions that will address the needs of diverse groups and communities, while rebalancing the street/public space allocation.**

**REALLOCATE aims to pioneer in 10 cities a Safe Climate-Neutral Mobility System to contribute to the achievement of the ambitious target of the 100 Climate-Neutral and Smart Cities by 2030 mission.** This cannot be reached only with technological and infrastructural solutions put forth by experts or governments, but it requires involvement of citizens for behavioural change. Recognising that the built environment and space allocation creates nudges that affect human behaviour, a paradigm shift in the shared use of street spaces is further needed, as well as an understanding of how new infrastructure designs & policies affect citizen behaviour. Our pilots (15 in total, 2 for each Lead and 1 for each Twin City) will demonstrate **innovative urban space management and reallocation strategies for sustainable modes** (with a specific focus on active modes), having in mind safety, inclusivity (gender aspects, accessibility for disabled persons, planning for all modes), affordability and a just transition, and climate mitigation overall. REALLOCATE will co-design and co-deploy with the 10 Safe & Sustainable Mobility Labs the SCNM System as a modular green & digital transformation process based on a systematic, multi-disciplinary, multi-sectoral, multi-stakeholder approach with a specific focus on including in the process not only city representatives, policy makers, industry and academia, but also a wide and diverse range of road users. **Three pillars stand at the base of our green & digital transformation process for cities: I. Smart & green transformative solutions, II. Open proactive data and III. Cross-sectoral guidance**. These will be informed by six feeding-in constructs, as detailed in **Section 1.2**: 1) **Collaborative solutions** to develop safe and inviting streets for VRUs through urban design (e.g. new road space allocations) and technological solutions (AI, modelling, etc.) that employ citizen engagement and co-creation following circular economy principles; 2) **New business models** to foster scalability within the pilot cities and nations and replication in other cities; 3) **Continuous assessment of the interventions** through both top-down institutional monitoring and community-led impact assessment to engage everyone in the process; 4) **Capacity development** as a series of initiatives targeting policy makers and local authorities, industry, academia, local communities; 5) **Living Lab framework** using human-centred approaches, high engagement of stakeholders and pilots developed in real-life settings. 6) **New governance models** focused on facilitating dialogue between stakeholders and the development of new pathways to safe and sustainable mobility.




**Urban mobility challenges to reaching the 2030 Climate-Neutral and Smart Cities mission goals**

Challenges cities face are constantly increasing in complexity due to urbanisation intensification, exacerbated by climate change. Unsustainable urban mobility is one main challenge and a main cause of increasing climate change effects. **The following needs/challenges are identified in line with the needs of the 10 REALLOCATE cities**.

***Table 1.1a**: Main challenges to reach the 2030 goals, addressed by REALLOCATE specific objectives (Table 1.1b)*

| **Technical challenges (TC)** | |
|---|---|
| **TC1**: Impacts of measures for active modes on climate mitigation are not quantifiable due to lack of comprehensive assessment (data collection/analysis tools) of diverse active modes users patterns & habits | SO2 |
| **TC2**: Siloed data-driven/technical approach: not able to tackle the multitude of interconnected safety, socio-demographic, public health and environmental challenges in urban mobility comprehensively; | SO1,SO2, SO3,SO4 |
| **Transport engineering challenges (TEC)** | |
| **TEC3**: Too fragmented, non inclusive and not integrated actions promoting active travel and/or public transport, while cars still dominate most cities as their movement is often prioritised; SUMPs are seldom operational due to the lack of innovation/integration in mobility solutions; | SO5, SO6, SO7 |
| **TEC4**: VRUs are not comprehensively incorporated into infrastructure planning, resulting in poor infrastructure for pedestrians/cyclists, low integration of shared mobility services into public transport systems and deficiencies in barrier-free infrastructure, with negative impacts on VRUs' road safety; | SO1, SO2, SO3 |
| **Urban design and planning challenges (UDPC)** | |
| **UDPC5**: Allocation of road space to different modes of transport is currently unbalanced (too much space overtaken by cars, too little remaining for pedestrians and cyclists); | SO1, SO3 |
| **UDPC6**: Public space redesign actions are often not rooted in circular economy principles, and need adaptation to climate change, incorporation of greenery and alternative mobility for higher quality of life; | SO4 |
| **Social and educational challenges (SEC)** | |
| **SEC7:** Infrastructure investments are often ineffective due to poor data on road safety perception & lack | SO4, SO5 |

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| | |
|---|---|
| of awareness of citizens about the link between their travel behaviour & negative environmental effects; | |
| **SEC8:** Limited knowledge to meet the demand for capacity development in sustainable mobility to enable the pathways for sustainable mobility solutions leaving-no-one-behind; | SO6, SO7 |
| **Upscaling and replication challenges (URC)** | |
| **URC9:** Though testing, demonstrating, and marketing innovative approaches happens, there is a lack of a similar great effort dedicated to knowledge exchange and mutual learning among cities (and other public authorities) with the purpose of upscaling and replicating already known successful approaches; | SO5, SO6 |
| **URC10:** Attribution of funds prioritising major engineering infrastructure (e.g. roads and highways in East European cities), due to unsuitable transport-related priorities; insufficient financial resources for sustainable mobility solutions (loans, participatory budgeting, green bonds etc.); | SO5 |
| **URC11:** Lack of business and governance models at scale to reach climate objectives due to difficulty in renewing policies that favour accessibility vs. mobility; this is hindering the decarbonisation of urban mobility (through 15-minute city, active modes, public transport, shared services, micromobility, etc.) | SO5 |

### 1.1.1 Coherence with the work programme

The REALLOCATE proposal relates to the work program topic '*Designing inclusive, safe, affordable and sustainable urban mobility*' (HORIZON-MISS-2022-CIT-01-01). The alignment of the expected outputs, the scope and activities set out in the topic with the project objectives and actions is detailed in the following Table 1.1.b.

***Table 1.1b**: Specific objectives of the* REALLOCATE *project related to expected results and outcomes. Expected Outcomes (EO), Key Performance Indicators (KPIs, see Table 2.1a).*

| | |
|---|---|
| **SO#1: Tie innovative & integrated planning merging backcasting, AI modelling, (re-)design, & co-creation** | |
| To tie innovative planning (backcasting according to climate goals), with modelling, AI, followed by co-creation, and (re-)design (for solving safety issues in 10 SSMLs covering 15 urban or peri-urban areas with safety and security issues) for dynamic space reallocation, increased safety, travel mode shift, reduced pollution exposure. | |
| **Relation to the work programme**: REALLOCATE will provide solutions focusing on climate mitigation, for 15 unsafe areas in the 10 SSMLs using innovative planning, design and implementation approaches, with citizens at the centre, to foster behavioural change. The solutions will include innovative urban design, smart technological and data driven solutions to reduce actual and perceived road safety risks and support the achievement of climate neutrality by 2030 **(EO3).** The reallocation of road space will support a modal shift towards public transport and non-motorised modes and thus impact on climate mitigation **(EO1)**. The re-assessment of road and public space quality will respond to needs of diverse VRU groups (including women, children, people with disabilities, older people)(**EO4**). This will address the following specific topics of the call's **SCOPE**: boost the levels of active mobility modes; leverage the experience and infrastructure changes during the COVID-19 pandemic (new cycle lanes and 20-30 km/h zones); provide clear guidance to cities. The project is targeting 3 Eastern-European countries (Croatia, Poland, Hungary) where road deaths and serious injuries are **amongst the highest in Europe**. | |
| **Expected results: R1.1** set of solutions to increase accessibility of the Public Transport system for people with disabilities; **R1.2** framework for implementing 'Superblocks' validated in different planning contexts and urban structures; **R1.3** Solutions to redesign urban spaces around schools to foster active & safe travel for children in different planning contexts, integrating nature based street interventions; **R1.4** geofencing, dynamic tolling and dynamic street allocation to nudge towards more sustainable mobility modes; **R1.5** AI and smart enforcement tools to improve safety; **R1.6** regional strategies and plans for commuters towards climate neutrality; **R1.7** push & pull strategies integrated with road space reallocation; **R1.8** climate positive green corridors for safe & sustainable mobility; **R1.9** 3D Urban Design Guidelines for implementation considering safety, climate-neutrality and public space needs; **R1.10** Data-driven decision support tool for the implementation and update of the local SUMPs. | |
| **Linked Challenges**: TC1, UPC3, TEC6 | **Target groups:** practitioners, local authorities, VRUs |
| **Linked deliverables**: D2.1; D2.2;D3.1;D3.2;D3.3 | **Linked KPIs**:SUMI#2; SUMI#14; SUMI#17; KPI#5 |
| **SO#2: Deploy multi-scale holistic monitoring and assessment in 10 Living Labs (SSML), in 10 EU countries** | |
| To put forth new/innovative/interactive/dynamic large- and micro-scale data collection means and geo-localised reporting to continuously assess, through both technical and citizen-led strategies, how roads and adjacent public spaces respond to the needs of diverse and vulnerable users and desired modal splits in 15 pilots in 10 SSMLs. | |
| **Relation to the work programme**: REALLOCATE will develop and deploy a multi-scale assessment and monitoring framework, along with tools to monitor well-defined KPIs to assess in quantitative and qualitative ways the interventions' impacts considering **traffic safety**, **environment**, **social inclusiveness**, bringing also the perspective of **transformative governance** (**EO3**). Along with leveraging institutional monitoring, AI, and bottom-up monitoring (directly involving citizens) will be used to improve reporting but also reassess how roads/ public spaces respond to diverse groups' needs (women, children, elderly, disabled, vulnerable-to- exclusion groups) (**EO4**) through actions including space reallocations to reflect desired modal splits and long-term safety and emission benefits **(EO6)**. This addresses the following topics of the call's **SCOPE**: monitoring and providing qualitative and quantitative assessment/information of the local solutions implemented, starting from a clearly | |

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| | |
|---|---|
| defined baseline; integration with SUMI; integrating cross-discipline and cross-domain data (e.g. transport engineering, big data & citizen data) to enable synergy formation, interdependencies and co-benefits; identifying specific mobility- and public space redesign needs, and modal splits considering the safety perception of VRUs. | |
| **Expected results: R2.1** Impact evaluation framework at intervention- and project-level; **R2.2** Interactive dashboard to visualize intervention- and project-level KPIs; **R2.3** Intervention- and project-level data analysis, using replicable & reproducible data analysis principles, interpretable & explainable machine learning techniques | |
| **Linked Challenges**: TC1, TC2, TEC6 | **Target groups:**local authorities, mobility providers, VRUs |
| **Linked deliverables**: D5.1; D5.2; D5.3 | **Linked KPIs**: 10 cities with upgraded monitoring framework & tools to assess VRU safety, climate targets,SUMI indicators |
| **SO#3: Demonstrate proactive monitoring of VRU's profile based on data-driven models for user behaviour and infrastructure conditions** | |
| To model continuous data on user behaviour and infrastructure conditions to suggest safe/sustainable/suitable road and public space attribution that proactively address risks profiles (both to self and to other road users) linked to the increase in cycling and in new micro-mobility modes such as e-scooters. | |
| **Relation to the work programme**: REALLOCATE will develop and deploy digital and smart enforcement tools, dynamic space reallocation, geofences linked to nudging strategies to improve road safety, including proactively addressing risks from expected increases in cycling and e-scooters through AI and modelling (**EO5)**. The project will pilot new road design, nature based street interventions, etc. to rebalance the attribution of public space to different modes of transport to further reduce the risk for VRUs and support reaching Vision Zero and zero-emission objectives, thus increasing road safety and quality of life in cities (**EO6)**. This will address the following specific topics of the call's **SCOPE**: integration of SUMIs; data collection on mobility patterns (including behaviours), mobility-based user profile, in particular for VRUs, to improve risk assessment; and re-design of public space according to identified needs and perceived risks of road users. | |
| **Expected results: R3.1** AI enhanced digital support tool focusing on VRU risk detection, monitoring, reporting and exposure to noise and air pollution; **R3.2** AI algorithms for what if scenarios and modelling of impact on risk of new mobility services. **R3.3** AI-powered Digital Twin for assessing potential safety risk for VRUs. | |
| **Linked Challenges**: TC1, UPC3, TEC6 | **Target groups:** VRUs, mobility providers |
| **Linked deliverables**: D3.1;D3.2;D5.1;D5.2;D5.3 | **Linked KPIs: SUMI#3; SUMI#4; SUMI#13** |
| **SO#4: Develop road safety & green street design scenarios/guidelines rooted in Vision Zero & circular economy principles** | |
| To develop road safety and green street design scenarios/guidelines incorporating new/sustainable materials , design and deploy solutions rooted in circular economy, Vision Zero and adaptation to climate change principles. | |
| **Relation to the work programme**: REALLOCATE will develop guidelines and what if scenarios based on the 10 SSMLs experiences which will be rooted in Vision Zero, circular economy and green principles. They will detail roadmaps to redesign public space & reallocate road space focusing on increasing road safety and quality of life in cities supported by continuous engagement of practitioners and citizens (**EO3, EO4**). The guidelines will detail the employed principles of circular economy, sustainability and adaptation to climate change, and how to maximise the use of nature based solutions in removal of parking space to increase parks, trees and recreational green areas (**EO7**). This will address the following specific topics of the call's **SCOPE**: clear guidance to Cities, Member States, on how to systematically incorporate the active mode dimension into infrastructure planning, etc. | |
| **Expected results: R4.1** Traffic Safety and Green Street Design Scenarios and Guidelines; **R4.2** Framework to do comparative scenarios on environmental footprint and circularity scenarios prior and after the interventions; | |
| **Linked Challenges**: TC1, UPC4, SEC7 | **Target groups:** local and national authorities |
| **Linked deliverables**: D3.1; D3.2; D3.3 | **Linked KPIs**: KPI#6; KPI#7; SUMI#7 |
| **SO#5: Develop collaborative, cross-sectoral strategies for urban road safety and climate neutrality, as well as transformative governance models to support them and promote active modes in cities** | |
| To develop a collaborative, cross-sectoral safe & climate-neutral cities Forum to mainstream the uptake and upscaling of transformative safe, affordable and sustainable mobility solutions in 10 SSMLs and the Cascade cities | |
| **Relation to the work programme**: REALLOCATE's approach involves a nested collaborative cross sectoral framework spanning from a local Living Lab level framed on transformative governance models (WP2), to a consortium transdisciplinary support to cities from horizontal partners (WP3), to a inter city set of capacity building activities spinning out to Cascade Cities (WP4), to finally a European level with guidelines and policy recommendations to support replication (WP6). This will foster the extent and speed of the take-up and upscaling of the innovative, best practice, safe, affordable and sustainable urban mobility solutions supporting active mobility to contribute to the priority of the Zero Pollution Action Plan, the Sustainable & Smart Mobility Strategy, the EU road safety policy framework 2021-30 (**EO1, EO2**). This will address the following specific topics of the call's **SCOPE**: increase the levels of active mobility, particularly walking & cycling and contribute to overcoming a multitude of interconnected demographic, public health, and environmental challenges that Europe is facing. | |

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| | |
|---|---|
| **Expected results: R5.1** New collaborative framework encompassing public authorities, mobility service providers and local stakeholders to foster active mobility; **R5.2** Multi-stakeholder transformative governance models, road safety policy & recommendations based on comprehensive analysis of measures with spatial, behavioural & statistical data **R5.3** Methodology for Climate Mobility Plans to frame the pilots in each SSML within a wider strategy to achieve EU climate goals; **R5.4** Innovative governance and business models for sustainable mobility. | |
| **Linked Challenges**: TEC5, SEC7, RUC9-11 | **Target groups:** local & national authorities, EU policymakers |
| **Linked deliverables**: D4.1;D4.2;D4.3;D6.4;D6.5 | **Linked KPIs**: SUMI#10; KPI#1; KPI#12 |
| **SO#6: Develop specific/interactive knowledge transfer and lifelong-learning training to support cities in moving from a primarily car-focused approach taking into account the needs of all societal groups** | |
| To develop specific/interactive knowledge transfer and lifelong-learning awareness, training, and engagement workshops for all types of road users to promote/mainstream safe, zero-emission, active and human-centred mobility to increase practitioners' and public acceptance. | |
| **Relation to the work programme**: REALLOCATE will organise a series of knowledge transfer and lifelong learning activities to accelerate the transition towards climate neutrality in cities from top down and bottom up perspectives through the promotion of zero-emission, shared, active, human-centred mobility and thus contribute to the objectives of the Climate Neutral & Smart Cities Mission (**EO1**). The continuous engagement and the empowerment with new knowledge and skills of both practitioners and the general public will increase the extent and speed of the take-up and upscaling of REALLOCATE's innovative, replicable climate neutral, safe and affordable urban mobility solutions and the acceptance and utilisation from the citizens (**EO2**). This will address the following topics of the call's **SCOPE**: increase the levels of active mobility; dedicated activities to link to the CIVITAS Initiative (through pilot cities and partners' part of CIVITAS projects) and to projects funded under this topic to ensure a common lesson drawing & learning to further increase replication, upscaling & EU level take up. | |
| **Expected results: R6.1** Training framework and tools that will promote the adoption of the REALLOCATE solutions and contribute to high public acceptance; **R6.2** Peer learning and capacity building for cities. | |
| **Linked Challenges**: TEC5, SEC8, RUC9 | **Target groups:** practitioners, citizens, local authorities, CIVITAS initiative, EU initiatives /projects |
| **Linked deliverables**: D4.1;D4.2;D4.3;D6.1 | **Linked KPIs:** 50 engaged stakeholders per city; 10 pilot cities; 10 cascade cities committed to replicate 1/2 solutions |
| **SO#7: Maximise impact and take-up through an efficient & effective communication, dissemination and exploitation approach** | |
| To facilitate the wide-scale take-up of the solutions and knowledge demonstrated within the project - maximising the exploitation of the project results. | |
| **Relation to the work programme**: REALLOCATE will liaise with other mobility initiatives and Mission projects to secure the maximum level of impact and the integration of project results and efforts across the sustainable mobility community, and boost cooperation among the 100 Mission cities. A strong connection will be established with the NetZeroCities via consortium partners and with other projects funded in the MISS-2021-CIT-01-01 and other relevant calls. Cooperation and communication partnerships with relevant initiatives, stakeholders, networks will be established (CIVITAS, Eltis, Covenant of Mayors, European Mobility Week, URBACT, etc.). Cooperation with the CIVITAS National Networks (CIVINETs) will enable REALLOCATE to bring its results to planners, policymakers and analysts at the local level across Europe (**EO1, EO2**). This will address the following specific topics of the call's **SCOPE**: Collaboration with the Mission Platform through the CIVITAS initiative. | |
| **Expected results: R7.1** A collaboration framework with the Mission Platform by feeding open data into the platform as well as training activities; **R7.2** Guidelines and recommendations to support and stimulate the stakeholders and for other cities to implement the REALLOCATE innovative measures. | |
| **Linked Challenges**: TEC5, SEC8 | **Target groups:** CIVITAS, policy makers, EU initiatives. |
| **Linked deliverables**: D6.1;D6.3;D6.5. | **Linked KPIs**: KPI#10; Website 20000 visitors; 2,000 Social media:10,000 active engagements; Events:20 presentations |

### 1.1.2 Ambition and project advancement on the state-of-the-art

The Mission cities face the challenge of drastically decreasing transport emissions to achieve climate neutrality by 2030. **REALLOCATE's ambition to provide cities with human-centred, safe, zero-emission, integrated, innovative, inclusive sustainable urban mobility solutions** will be achieved via a paradigm shift in technological and infrastructural solutions co-developed with a strong involvement of citizens and practitioners to **reimagine and pilot innovations in how to share/reallocate street spaces and nudge citizen behaviour**. Our pilots will demonstrate innovative reallocation strategies for sustainable modes (active, but also Public Transport), having in mind safety, inclusivity (accessibility, gender aspects, planning for all modes), affordability and climate mitigation. **The project's highest goal is to advance effective replicable solutions considering socio-cultural, economic & environmental aspects altogether, to transform mobility through connected places and experiences that define everyday life and thus demonstrate that a more sustainable, climate-conscious future is possible**. While it will

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capitalise on knowledge from other European projects focused on technological tools (e.g. MoVE21), road design (e.g. MORE) or capacity building (e.g. SUMP-PLUS), **REALLOCATE pioneers an integrated synergetic approach** of all these aspects **through a Safe Climate-Neutral Mobility System** that will enable 10 Partner cities to drive a green & digital transformation process by testing/validating innovations across three fundamental pillars: I.Smart & green transformative solutions, II.Open proactive data, III.Cross-sectoral guidance.

**Smart & green transformative solutions** | *This pillar is aligned with **SO1** and **SO4***

*State of the art of the Specific Objectives:* There is an increasing recognition at local, national and EU level that boosting active mobility levels can play an important role in overcoming challenges the EU is facing (related to urbanisation, climate, road deaths, air quality, health & obesity (Koszowski, 2019), BUT concrete actions aimed at re-assessing road and public space while considering the needs of diverse groups is still sporadic. Temporary changes promoting active mobility have been trialled during the COVID-19 pandemic, but a coherent approach linked to SUMPs, Vision Zero, zero-emission and circularity principles is missing in most cities (Dia, 2021).

*Progress beyond the state of the art:* REALLOCATE will develop, demonstrate and validate innovative solutions in 15 pilots in urban/peri-urban areas in 10 SSML using innovative planning, design and implementation approaches, including co-creation and citizen engagement, urban design, modelling and AI, digital and smart enforcement tools, dynamic space reallocation, to reduce road safety risks, perceived unsafety for VRUs, exposure to air and noise pollution and embed this in updated SUMPs (**R1.1 to R1.10**). Learning from interventions and modelling will be captured in practitioners focused Traffic Safety and Green Street Design Scenarios and Guidelines (**R7.2**) to guide local authorities in transition to more sustainable and inclusive urban mobility rooted in Vision Zero & circular economy principles (**R4.1, R4.2**) and support the achievement of the Climate Contract objectives.

**Open proactive data** | *This pillar is aligned with **SO2** and **SO3***

*State of the art of the Specific Objectives:* Cities don't often collect data on differences between patterns, habits and behaviours of VRUs mobility (Fraboni, 2022). SUMIs are not yet systematically used by local authorities to monitor impacts of mobility policies (Finger, 2020). This gap is further aggravated by a lack of integration with cross-domain data. It is difficult to identify specific mobility and public space re-design needs, considering actual/perceived safety and security of VRUs (e.g. women, children and people with disabilities) for Vision Zero. Challenges in designing inclusive public space reallocations and addressing risk changes remain.

*Progress beyond the state of the art:* REALLOCATE will develop, deploy and demonstrate an innovative, interactive and dynamic large- and micro-scale data collection framework and tool to continuously assess, through both technical and citizen-led strategies, how roads and public spaces respond to needs of diverse and vulnerable users in 15 pilots in 10 SSMLs (**R2.1, R2.2, R2.3**). Collected qualitative/quantitative continuous data through top-down and bottom-up/citizen-led approaches will allow developing models on user behaviour and infrastructure conditions to suggest safe/sustainable/suitable road and public space attribution that proactively address risks profiles (both to self and to other road users) linked to increase in cycling and micro-mobility modes (**R3.1, R3.2**).

**Cross-sectoral guidance** | *This pillar is aligned with **SO5**, **SO6** and **SO7***

*State of the art of the Specific Objectives:* Achieving the Cities Mission goals requires that cities are empowered with a cross-sectoral guidance, but current guidance documents focus on specific aspects and reflect the siloed structure of municipalities (Guitzau, 2022). More integrated guidance including effective tools and actions to promote zero-emission, shared, active and human-centred mobility and increased upscaling of innovative best practices for urban mobility solutions is needed. There are limitations in existing actions to systematically incorporate the VRUs safety and accessibility dimensions into infrastructure planning. (Pangbourne,2020).

*Progress beyond the state of the art:* REALLOCATE will develop an innovative collaborative, cross-sectoral Safe & Climate-neutral Cities Forum to mainstream the uptake and upscaling of transformative safe, affordable and sustainable mobility solutions in 10 SSMLs and the Cascade Cities (**R6.2**). This will generate a move beyond the siloed approach in municipality and foster a more integrated, cross-sectoral, multi stakeholder approach to safe & sustainable urban mobility (**R5.1 to R5.4**). This will be fostered by a series of innovative interactive knowledge transfer and lifelong-learning awareness, training, and engagement tools for all types of road users to mainstream safe, zero-emission, active and human-centred mobility, to be mainstreamed using the Mission Platform and through the CIVITAS initiative to increase practitioners' and public acceptance (**R6.1, R7.1, R7.2**).

### 1.1.3 Project innovation potential

The REALLOCATE consortium includes a wide range of local authorities, research organisations, innovative SMEs, highly relevant NGOs and networks, coordinated by a world class University, to facilitate faster development of concepts and technologies into real life applications. Their expertise will be used for exploitation of tools, crucial for increasing the project's impact beyond its lifetime. REALLOCATE's technology solutions, responsible partner and TRL are reported in Table 1.1c.

Innovative features concerning the proposed development of existing technologies are explained below.

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First, big data and field research data (qualitative and citizen data) will be combined in AI-powered Digital Twins (DT) and the dynamic REALLOCATE distributed dashboard and multimodal data hub (such solutions have so far been primarily focused on quantitative big data). Collected field data and spatial data will be combined through augmentation and homogenisation processes (Task 5.5), to allow testing of explainable machine learning techniques at intervention and project level, particularly for assessing potential safety risks of VRUs. Tested and validated data gathering open-API tools and monitoring systems will be deployed in real environments for a more comprehensive capture and understanding of the street user interactions and with their surrounding environment, able to then inform more contextualised traffic calming solutions. A comprehensive AI-enhanced decision-support tool will assess the development of new mobility services, using simulation and forecasting, contributing to cities' understanding of potential pathways for long-term decision-making (WP3, T3.5). The development of the match-making digital tools mentioned above will cluster and translate the data collected under one platform (WP5, T5.2) into strategic recommendations (BSC CNS).

Focused on the case of Tampere, that already uses much open data, a new portal and remote access for servers aggregating safety risks and 3D road Digital Twin leveraged by AI edge modules will be developed by the local partner VTT. Innovative is making AI recognition possible in the whole city (starting with a pilot region) and defining risk areas, including near-misses (data which the city doesn't currently have). The 3D road Digital Twin will be developed to calculate different measures, including features that allow co-creation and action evaluation with citizens, making it a complete and qualified system to use in Tampere.

For the LIDAR Sidewalk detection, a vision component (algorithm to extract info from 3D cameras) will further enhance reliability of obstacle identification and sidewalk delineations; the technology will focus on accessibility for VRUs (disabled, women with prams, etc.), but will also be demonstrated on portions of cycling lanes in the SSMLs.

Based on all collected objective and subjective (citizen & stakeholder) data enabling more in-depth behavioural analyses, innovative nudging techniques will be refined to consider different citizen groups in view of diversity and inclusivity, to encourage active behaviour. A Smart Nudges digital toolset will be deployed on the REALLOCATE Dashboard, for a complete and qualified system in the operational environment of the REALLOCATE cities (Task 3.6).

***Table 1.1.c**: Technologies developed in REALLOCATE, responsible partners, related tasks, and TRL increment.*

| n. | Technology (responsible partner) | Task | Initial TRL | Final TRL |
|---|---|---|---|---|
| **1** | Sidewalk Scanner (**IFP-research**) | 3.2 | 4-5 | 7 |
| **2** | REALLOCATE distributed dashboard and multimodal data hub (**BSC CNS**) | 5.2 | 5-6 | 8 |
| **3** | AI enhanced decision support tool (**BSC CNS**) | 5.5 | 6 | 8 |
| **4** | AI-powered Digital Twin for assessing potential safety risk for VRUs (**CERTH**) | 5.2 | 5 | 7 |
| **5** | Portal and remote access for servers aggregating safety risks in Tampere (**VTT**) | 5.1 | 6 | 8 |
| **6** | 3D road Digital Twin leveraged by AI edge modules (**VTT**) | 3.2 | 5 | 8 |
| **7** | Monitoring system and data gathering open API-tools (**CERTH**) | 5.2 | 6 | 8 |
| **8** | Data-driven decision support tool to assess new mobility services (**ERTICO ITS EUR**) | 3.5 | 5-6 | 8 |
| **9** | Smart Nudges digital toolset for traffic safety (**Nudgd**) | 3.6 | 5-6 | 8 |

## 1.2 Methodology

### 1.2.1 Overall concept

REALLOCATE addresses the challenge of setting out new measures to promote active, low-carbon transport modes by making them safer and more appealing, in line with EU's commitment for green transition and EU Green Deal. The overall concept incorporates **the effective interconnected scientific knowledge and know-how in transport and mobility, urban planning, travel behaviour, and socio-economic profiles of cities with the real-time information obtained from advanced technology and data modelling of multiple safety and environmental factors.** This will allow developing operational instruments for decision-makers and individuals to address VRUs' safety and security on urban roads, as well as street design/space allocation in a systemic approach integrated into SUMPs. Bridging these aspects will ensure the effective exploitation of the developed impactful scientific research and operating tools, bringing benefits to the wider society, supporting the EU's new Urban Mobility Framework. Since huge GHG emissions in cities are caused by transport, **connecting urban mobility planning and climate objectives is key for delivering the cities' goals within the Mission**. This green & digital transformation for the pilot cities will be built upon: Smart & Green Transformative Solutions, Open Proactive Data, Cross-Sectoral Guidance, materialised with six constructs, detailed below with reference to WPs' activities.

**Smart & green transformative solutions**

**1. Urban design & technological solutions**: REALLOCATE will support cities in developing safe and inviting streets for VRUs, employing citizen engagement and co-creation, along with AI and modelling for dynamic space reallocation, to reduce physical and perceived safety risks, prevent collision and reduce exposure to air and noise

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pollution. Urban design solutions include: Superblocks validated in different planning contexts and urban structures; redesign of urban spaces around schools to foster active and safe travel; nature based street interventions; regional strategies for commuters towards climate neutrality; climate positive green corridors for safe and sustainable mobility. Technological and soft solutions will include: solutions to increase accessibility of Public Transport for people with disabilities; geofencing, dynamic tolling & dynamic street allocation to nudge towards more sustainable mobility modes; smart enforcement tools to improve safety and nudge towards more sustainable mobility; push & pull strategies integrated with road space reallocation; AI data-driven tools to update of local SUMPs [WP2, WP3].

**2. New business models**: the project will support cities to develop deployment-specific business road maps to ensure best possible value for decision-maker, end users and potential suppliers, which will foster upscaling. A generic business roadmap will be developed based on the pilots to enable faster-to-value approaches for stakeholders. It will provide a city/business/other stakeholder with a clearer understanding of crucial next steps. This will support development/improvements in 100 Mission Cities and those with similar goals by 2050 [WP3].

**Open proactive data**

**3. Multiscale holistic continuous monitoring of interventions & proactive risk assessment**: the project will co-develop with cities continuous assessment strategies integrating top-down/bottom-up. Cities and local communities will have an active role in the intervention and VRUs risk assessments. Top-down monitoring will leverage institutional sensors and take advantage of big data, AI analyses at the city level and granular location based sensor data in the pilot areas, responding to EU's call for employing smart applications and 'Mobility as a Service' (EU Mobility & Transport). Proactive monitoring of road user behaviours and interactions through smart applications will help identify hazardous locations/conditions from an objective perspective, and inform users in time. Crowdsourced web-maps will reveal VRUs' safety perceptions and potential conflictual hotspots [WP5].

**4. Capacity development**: the project will enable cities collaborations on common challenges, barriers, good practices, and successful innovative approaches and policies, supporting them with technical insights and expertise. It will facilitate intense knowledge exchange and peer learning among the pilot and Cascade cities through regular webinars, study visits, twinning activities. This will facilitate capacity building among horizontal technical partners and cities through in-depth mentoring/technical webinars. The 10 Cascade cities will be engaged in peer learning & capacity building to support solution transferability & replication through policies developed within the project focused on targeting policy makers, industry, academia & local communities, informing infrastructure requirements to incorporate active and micro-mobility needs in SUMPs and support the vision of 15-min cities [WP4].

**Cross-Sectoral Guidance**

**5. Living lab framework**: the project will guide cities in deploying this human-centred, collaborative innovation approach based on co-creation and high engagement of stakeholders, further expanded into the new concept of a Safe & Sustainable Mobility Lab (SSML) with a road safety and sustainable mobility vision. The multiple user groups (of different gender, ages, social backgrounds) will become co-creators in the innovation process, involved in the prototyping and validation of the innovative urban design, technological and soft solutions tested in real-life settings, enabling them to be sustainable, valuable and meaningful. The solution co-development will be supported by modelling and data analysis that will reveal conflictual & contextual hotspots in each SSML. The SSMLs will address complex societal needs through co-creation, integrated tech, transport, urban design thinking [WP2,WP6].

**6. New governance models**: the activities with multiple stakeholders and practitioners in the SSMLs will allow the development of new governance models for tackling/solving mobility issues following Living Lab methodologies. This will facilitate a long term dialogue between stakeholders even beyond the project lifetime and integrate dedicated Citizen Assemblies in the structure. The transformative governance model will be formalised in a guidance document which will allow sharing the learnings with other cities in Europe and worldwide [WP2, WP3].

Interlinked know-how and tools pave the way to coherent and integrated solutions and products. Transdisciplinary investigations will build up systemic knowledge by crossing the frontiers of various research domains involved, to gain in-depth understanding of human interaction with physical infrastructure, using technology, smart applications, and modelling. **Direct involvement of citizens is fundamental in translating personal perceptions and practice in KPIs and evidence-based analysis on VRUs' safety and security**. Citizens, transport authorities, practitioners and all involved stakeholders will have access to quick, user-friendly tools and guidelines to enforce safety and security for VRUs in cities. The pilot cities will be empowered with know-how and tools to collect relevant data and develop ambitious SUMPs centred on sustainable & active mobility, following the EU's new Urban Mobility Framework. **REALLOCATE will develop a novel interoperable, scalable, user-friendly Distributed Dashboard & Multimodal Data hub, an AI based VRU risk assessment for detecting potential safety risk and an AI enhanced decision support tool to empower cities & transport authorities to monitor and model exposure to road safety and security, and decrease emissions.** By promoting a seamless approach that deals with multiple testing and deployment means, the tools are built in line with Galileo & EGNOS contributing to the rollout of sustainable and green transportation systems. Impact on wider society is accelerated by the transfer of research & innovation results through an adaptation of the modal priority that places active modes on top (ETSC, 2020).

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### 1.2.2 Project Approach and Methodology

REALLOCATE is organised over a 48-month period with 6 Work Packages to support project's activities. The SSMLs pilots and activities will be conducted over four phases in an iterative strategic approach. End-users & stakeholders are actively involved in all phases of product/service/solution development with a focus on increasing public acceptance, through (i)***Ideation and exploration (****identifying needs of all stakeholders****):****(ii)* ***Co-creation and co-design*** *(bringing together stakeholders to iterate) (iii)* ***Real-life experimentation and testing*** *(in SSMLs to test if they respond to stakeholder needs) (iv)* ***Evaluation and validation by end-users and stakeholders*** *(by a much larger feedback group as 'natural' participants via validation surveys or 'open field trial'.*

*Pilots Organisation & Twinning Strategy*

***Safe & Sustainable Mobility Labs:*** Though all 100 Mission Cities have the same climate-neutrality objective, the challenges they experience in different physical and socio-economic contexts might differ. In REALLOCATE, this is addressed through constructing 10 Safe & Sustainable Mobility Labs (SSML) in different European countries (Table 1.2.a), stretching from North (Goteborg , Tampere) to South (Barcelona, Bologna), West (Heidelberg, Lyon, Utrecht), and East Europe (Zagreb, Budapest, Warsaw - in Croatia, Hungary, and Poland where **road deaths and serious injuries are amongst the highest in Europe**). These regions are characterised by different physical road infrastructure, climate conditions, cycling rate, levels of VRUs safety measures, and enforcement of regulations/policies. The 10 SSMLs are organised in **5 Lead SSMLs** and **5 Twin SSMLs**, which share the same commitment to pilot innovative interventions, but Lead Cities will each pilot two advanced interventions (at least one hybrid between soft & hard infrastructure solutions) while Twin Cities pilot one intervention, resulting in a total of 15 pilots (in unsafe areas). All 10 SSMLs involve local policymakers, transport engineers, urban planners, designers, and civil society, who will work in dynamic synergy, exchanging information and shared activities, guided by consortium experts, representing REALLOCATE's true working engine. **REALLOCATE has a dedicated work package (WP3) to provide horizontal technical support to interventions development in SSMLs** encompassing wide expertises: sustainable urban mobility planning and space reallocation (Cerema, ICLEI EURO, Fraunhofer, Eurocities, Arup); urban design and traffic calming (Arup); pedestrians and inclusive design (IFP-research); cycling policy (ECF); urban road safety & safe system approach (Cerema, UCD, IFP-research, ECF, DEKRA ASSURANCE ); safety auditing (DEKRA ASSURANCE ); digital tools & new mobility services (Ertico ITS EUR, Factual, UCD); behaviour & choice design (Nudgd); citizen empowering planning (UCD); transport economics & business models (Fraunhofer); transformative governance & regenerative infrastructures (Demos); nature-based street interventions (UCD); modelling and AI (BSC CNS, CERTH); mobility & innovation management (Factual); circularity lifecycle and carbon footprint assessment (DEKRA). REALLOCATE has also engaged (through letters of intent) with **10 Cascade Cities (Aalborg, Birmingham, Braga, Brașov, Ghent, Linz, Rhodes, Sarajevo, Tartu, Varna)** that aim to become climate neutral by 2030 which will closely follow (Task 4.5) activities implemented within Lead and Twin Cities to obtain hands-on experience. In this way, the results will be firmly anchored in their social/mobility contexts, be concrete and easily usable by public authorities, and involve citizens.

***Table 1.2a:*** REALLOCATE cities at a glance

| SSMLs (cities) | Area sqkm | Population | Modal share (walk+cycle) | Fatalities rates (walk+cycle) (deaths/year) | CO2 emissions - transport [million tons] | CIVITAS city | SUMP |
|---|---|---|---|---|---|---|---|
| ***Lead cities (2 pilots per city)*** | | | | | | | |
| **Goteborg** | 447.8 | 579.281 | 12%+14% | 1 + 1 (2021) | 0.95 (2017) | Yes | Yes (2014) |
| **Heidelberg** | 108.8 | 158.741 | 29%+29% | 0 (480 collisions, 2021) | 0.24 (2020) | No | In progress(2024) |
| **Lyon** | 47.87 | 513.275 | 45% + 3% | 5.8 | 1.8 (2021) | Yes | Yes (2017) |
| **Budapest** | 525.2 | 1.756.000 | 22%+2% | 30+4 (2019) | 1.7 (2015) | Yes | Yes (2019) |
| **Barcelona** | 101.4 | 1.620.000 | 42%+2% | 11.2+0.2 (2016) | 0.75 (2020) | Yes | Yes (2020) |
| ***Twin cities (1 pilot per city)*** | | | | | | | |
| **Tampere** | 523.4 | 226.696 | 25%+6% | 1.4+0.6 | 0.22 (2021) | Yes | Yes (2021) |
| **Utrecht** | 99.2 | 361.742 | 25% + 51% | 0 (2021) | 0.22 (2022) | Yes | Yes (2021) |
| **Warsaw** | 517.2 | 1.765.000 | 18%+3% | 48.5+2.5 (2016) | 1.6 (2020) | Yes | In progress(2023) |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Zagreb** | 641 | 806.341 | 10%+3% | 8 (combined, 2021) | 0.34 (2010) | Yes | In progress (2023) |
| **Bologna** | 140.9 | 388.367 | 22%+5% | 2 + 1 (2021) | 0.32 (2018) | Yes | Yes (2016) |

***Table 1.2b:*** REALLOCATE *pilots [Challenges detailed in Table 1.1a, KPIs detailed in Table 2.1a]*

**LEAD CITIES**

**Goteborg (2 pilots)**

**Pilot 1: Safe System Approach for children's active travel in peri-urban areas**

**Description**: Goteborg concerns an **unsafe peri urban area (#1)** (insufficient lighting, missing pedestrian or bicycle paths), perceived as extremely unsafe by the locals. Family logistics is mostly done by car, so exploring how to transition towards a more sustainable mode of transport is needed. | **Pilot aims:** Creating an active and safe journey for children to/from school/hobbies in peri-urban areas. Exploring the concept of 'safety' and 'trust' and its meaning to children/parents/other residents to acquire a wider perspective on behaviour and community travel values. Connect social sustainability, community value based travelling, circularity with an explorative approach to safety. | **Actions:** Creating a *'Virtual mobility hub'* (e.g. database for car-pooling schedule) combined with *infrastructure measures* (Improved Lighting; Decreased speed limit); *Co-creating* safety solutions and new ways to understand safety with residents; A *Safety System Approach* (considering VRUs, road infrastructure, vehicles) to transition towards a more sustainable commute, to inform a '15-min village' concept - replicable to other peri-urban areas and the Archipelago. | **Location:** Bergum Gunnilse (peri urban area) | **Safety relevance:** Exploring safety measures (physical, virtual, co-designed and behavioural-conceptual) in a highly unsafe/insecure peri-urban area. | **Climate relevance:** Measures expected to lead to a transition to a more sustainable travel in the whole Archipelago region, by replication of the tested '15-min village'.

**KPIs: SUMI#1, #3, #4, #6, #7, #9, #10, #11, #12, #16, #18; REALLOCATE KPIs #4, #10, #12**

**Pilot 2: Seamless travel, citizen engagement and nudging tools in a complex mobility hub**

**Description**: Korsvagen is a complex intersection, multi-modal mobility hub, with a high mix of transport modes (trams, buses, bicycles, cars, e-scooters, etc.) and constant flow of people (commuters, tourists, students, etc.). either commuting or going to events, Museums etc.The intersection is perceived as **'unsafe'**, having an additional obstacle bordering the intersection, the long-term construction site (Västlänken). | **Pilot Aims:** *Seamless travel* (connection between different transport modes, scale up MOVE21 project aiming at transforming EU cities in smart zero emissions nodes). *Street/public space reallocation*, *behaviour nudging* & *geofencing* to discourage car use. Accommodate all groups' needs (women, children, elderly, etc.). Increase active modes to reach cultural venues. Advance cycle theory-digital-pilot-implementation. | **Actions:** *Focus groups with citizens* to understand their experience of the area and *co-design* solutions. Collect *data on falls/fatalities/injuries*. Test different tolling demand management strategies to maximise impact on safety and emissions (geofencing). Through a *Digital Twin*; complex physical interventions will be simulated in *VR*; Test *dynamic space reallocation for cyclists and e-scooters*, *regreening* surfaces, etc. Info campaigns for emission-free cultural events and parking removal for walk+cycle space. | **Location:** GGCZ/Korsvägen junction/hub, **unsafe intersection (#2)** | **Safety relevance:** Pilot for an inclusive city where everyone feels/is safe in multimodal nodes. Safe street space for VRUs, even during heavy construction. | **Climate relevance:** Testing traffic demand management strategies to increase active modes to maximise impacts on emission lowering in complex urban intersections.

**KPIs: SUMI#8, #9, #10, #11, #12, #13, #14, #16, #18; REALLOCATE KPIs #1, #2, #3, #4, #9**

**Challenges**: TC2; TEC3; TEC4; UPC5; UPC6; SEC8; RUC11

**Local partners: Goteborg**, Halmstad University (HH), Goteborg & Co., BRG; SAFER, Universerum.

**Links with Climate Contract**: implementation of digital solutions and regulations to tackle climate change; zero emission vehicles and low emission zones; deployment of shared mobility; citizen and stakeholder engagement

**Expected impacts**: Reaching a zero-climate footprint, with emissions lowered by at least 10.3% annually.

**Heidelberg (2 pilots)**

**Pilot 1: Regional Commuter plan with Electronic Bus Lanes for climate neutrality**

**Description**: The largest share of CO2 emissions in Heidelberg stems from commuters, thus the city is taking a regional approach to climate mobility planning, through cooperation with adjoining communities. Heidelberg aims to advance innovation on *mobility hubs*, test *dynamic space reallocation for buses* through priority and separate bus lanes. To measure the impacts, Heidelberg's new traffic model, numerous traffic counting stations and parking observatory will aid the implementation. | **Pilot Aims:** Setting-up mobility hubs in adjoining communities to reduce commuter car traffic, with new bus lanes, fast cycling tracks, intermodal facilities. To reduce, and not relocate,

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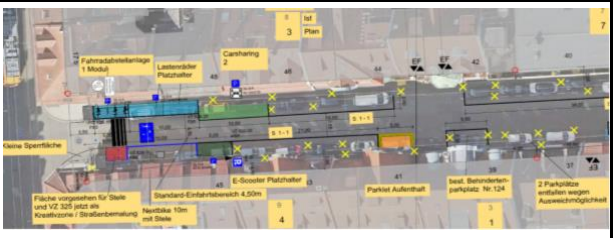
traffic and emissions using integrated planning, financing of regional measures, community incentives (to make it affordable and inclusive). | **Actions:** 1) Initiate a planning process with adjoining communities (through *participation*) to induce a modal shift towards public transport and cycling. Interventions: interchanges, bus bays, bus lanes, long-distance cycle lanes. 2) Test *dynamic space reallocation for buses*: electronic reservation of bus lanes for priority and separation targeted within the existing infrastructure (e.g. during rush hour, use of the opposite lane for inflow metering, to result in 'electronic bus lanes'). | **Location:** B37 Heidelberg-Schlierbach

**Safety relevance:** Test electronic dynamic space reallocation for bus lanes to ensure zero safety risks

**Climate relevance:** Reducing individual commuter traffic inflow will significantly reduce CO2 emissions.

**KPIs: SUMI #1, #3, #4, #6, #7, #8, #9, #11, #12, #16, #17, #18; REALLOCATE KPIs #9,#10, #12**

**Pilot 2: Contextual & Tactical Public space Reallocation**



**Description**: Heidelberg envisions reallocation of public space in favour of pedestrians, cyclists and public transport, through push & pull measures and behavioural change. | **Pilot Aims:** Creating low-traffic areas; Reallocating parking space; Creating attractive and inviting urban space; Improved safety for pedestrians (specifically children and elderly) and cyclists; Smart integration of cargo delivery in the designated areas. Tested area is Blumenstraße, to be replicated in various locations in Heidelberg. | **Actions:** Select certain street segments (including intersections) and combine push & pull measures to reduce traffic. *Co-creating solutions* for *low-traffic areas* (car access & speed restrictions, reduced car parking) and *space reallocation* with local citizens and SME (*tactical urbanism*) to increase acceptance, and inspire play and liveliness. Making them contextual, avoiding 'one size fits all' measures. Integration of drop-off points, cargo-bikes, parking spots for smart delivery. *Assessment of traffic flows* and *public acceptance* (through counting stations, digital, physical observations). *Impact monitoring* in different areas and in comparison with other measures. | **Location:** Blumenstraße + other street segments, including 1 **perceived unsafe intersection (#3)** | **Safety relevance:** The low-traffic areas and reallocation of parking spots will invite more children, elderly, and other pedestrians and cyclists to spend time in safe public spaces by the street. | **Climate relevance:** Measures for modal shift and behavioural changes are sought to increase sustainable mobility and discourage car use, and as a result reduce air and noise pollution.

**KPIs: SUMI #3, #4, #10, #13, #15, #17, #18; REALLOCATE KPIs #1, #2, #3, #4, #5, #6, #7, #9, #10, #12**

**Challenges**:TC1;TC2;TEC3;TEC4;UPC5;UPC6;SEC8 **Local partners:** Heidelberg, Fraunhofer ISI

**Links with Climate Contract**: Heidelberg declared a climate emergency as early as May 2019 and aims to be 100% climate neutral in 2030, towards which this pilot will contribute.

**Expected impacts**: Reduce GHG / CO2 emissions from transport by 40% by 2030.

**Lyon (2 pilots)**

**Pilot 1: Safety Measures for VisionZero in the schools' surroundings**

**Description**: Lyon was organised around cars for 60 years, but aims to make the shift towards travel decarbonisation, to become a city of pedestrians and cyclists (through new guidelines and design). It aims to test the comparative performance of public space reallocation between modes and safety solutions in schools' surroundings towards VisionZero. | **Pilot Aims:** Advancing a *hybrid solution* with technical and qualitative evaluations of transformations to reclaim public space around schools (through traffic calming and artistic interventions, improved walk & cycle routes), towards a vision of 'a city at a child's height' in 15 intervention sites, involving over 4000 children. | **Actions:** *Quantitative and qualitative assessment of the infrastructure* ( measure speed, count pedestrians, cyclists, e-scooter users, pollution)**.** *Assess sidewalk and cycle path quality* according to diverse users' needs, most especially children (500m zone around schools: usable widths, obstacles and unevenness using a LiDAR Sidewalk Scanner). Implement traffic calming solutions (e.g. speed limits, car-free zones, pre-testing of superblocks); remove on-street car parking or turn it into bike-sharing docks near schools, and reassess street users' interactions. Greening the school area. | **Location:** various **unsafe areas (#4)** in the 'Presqu'île' district | **Safety relevance:** VizionZero for children's safety in school areas. | **Climate relevance:** Meet long-term environmental, health and climate challenges through reclaiming road space to green and public (permeable) spaces.

**KPIs: SUMI#10, #13, #14, #18; REALLOCATE KPIs #1, #2, #3, #4, #5, #6, #10**

**Pilot 2: Lyon's Road Safety Tech & non-pollution parking policy**

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**Description**: Lyon is making a shift towards active travel and needs to test new road safety solutions. The amount of motorised traffic, compliance with limits, weight of vehicles are some of the levers to be activated to improve road safety. | **Pilot Aims:** Travel safety data (new methods of data collection/evaluation and making it widely available in a complete and reliable format); Detection of road safety hazards, including risks expected by growing cyclists and e-scooters; Implementation of Lyon Parking project (automatic number plate recognition, ANPR; Tests for secure bicycle parking (for a shift from cars to electrically assisted bicycles where needed) and other schemes to reduce risks for users, raise awareness, and reduce carbon footprint. | **Actions:** *Detection of* traffic safety *hazards, AI data collection/evaluation*, paired with *real time warning* and *behavioural nudging*. *Digital Twin for simulating* street user *interactions* with a series of safety solutions feeding in. *Parking policy modification* coordinated with the parking *tariff tool* (according to the vehicle's weight and fuel). | **Location:** the pilot for this intervention will be Lyon's city centre, where most collisions are recorded | **Safety relevance:** New travel safety data collection/evaluation and detection of hazards. | **Climate relevance:** Reducing carbon footprint by new parking tariff definition according to vehicle's weight and fuel, and user behaviour change through nudges.

**KPIs: SUMI#3, #7, #13, #18; REALLOCATE KPIs #9, #12**

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| **Challenges**:TEC3;TEC4;UPC5;UPC6;SEC7;RUC11 | **Local partners:** Commune Lyon, Métropole Lyon |

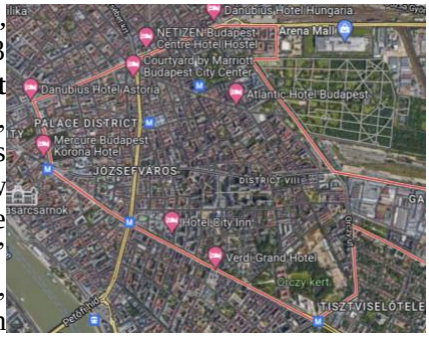
**Links with Climate Contract**: 4 priorities by 2030: metamorphosis of the urban motorway, reclamation of Rhône river banks, calming the historic centre; pedestrianisation of each arrondissement/district's core.

**Expected impacts:** By 2030: decrease 36% daily car trips; halve car trips in city center; triplicate bicycle trips by 2026; 50% decrease in accidents by 2030.

## Budapest (2 pilots)

### Pilot 1: Introducing 'Healthy Superblocks' in Budapest

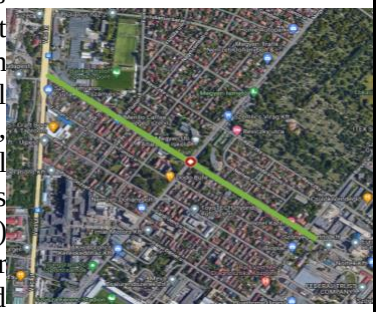
**Description**: Budapest has a major stock of old and diesel-fuelled vehicles, struggling with pollution. It needs to significantly reduce car traffic in 23 districts - many showing interest in testing the concept of 'superblocks'. | **Pilot Aims:** The city will test the first 'Healthy Superblocks' of Budapest, reorganising the traffic system to provide better accessibility for active modes to public and green spaces, services and safe mobility for VRUs in the low income and densely built District VIII to enhance livability. The implementation will merge two previously pioneered concepts ('Superblocks' in Barcelona and 'Healthy Streets' in London) under a different socially, financially, and demographically Eastern-European context, serving as an example for other cities in the region. | **Actions:** Budapest will use various *traffic* tools (road/vehicle surveillance; collision black spots) and *emission measurements* (air and noise pollution - station at Teleki László sqr.), *stakeholder cooperation* (synergies between local & city administrations and NGOs), *inclusive citizen engagement* and *co-design* to create innovative solutions. Converting thoroughfares to low traffic streets, parking restrictions, wider sidewalks, car-free spaces to protect VRUs and result in a more accessible/greener environment in the area. | **Location:** car-dominated **unsafe area (#5)** for VRUs, Budapest District VIII. | **Safety relevance:** VRUs inclusive safety in converted thoroughfares to low traffic or car-free zones. | **Climate relevance:** Reduced air pollution, new green areas, tree lines, water splashes, impermeable to permeable surfaces.




**KPIs: SUMI#10, #13, #14, #17, #18; REALLOCATE KPIs #1, #2, #3, #5, #6, #10**

### Pilot 2: Periurban Traffic Safety in Budapest

**Description**: The citizen needs living in the outer/suburban/periurban areas in Budapest are different from those living downtown. Peri-urban areas are less dense and have a different rhythm (less mobility hubs), but commuting starts from here and these areas are the most vulnerable to traffic safety. | **Pilot Aims:** This intervention concerns a periurban area with high commuting, hence needs a comprehensive approach considering all road users, including increasing e-scooter drivers, prioritising walking, cycling, VRUs. In harmony with the upcoming Cycle Traffic Network Plan, the pilot will focus on traffic calming and modal shift that can be used in the periurban stress points of the city, to create safer and more controlled intersections. | **Actions:** 1) planning and monitoring phase: *monitoring stations* for speeds, paired with other smart camera devices and traffic detectors to collect a large amount of data and *localise conflict points and times*. This will inform *real time data on travel times, MaaS*, the development of a *targeted traffic calming and road safety intervention package*. Monitoring and modelling air & noise pollution in intersections. 2) Intervention phase - all solutions will be informed by data from the monitoring phase and *AI algorithms*: lower speed limits enforced in designated areas supported by urban road signage; *street profile*



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*adaptation* along with dynamic *reallocation* of spaces (e.g. testing electronic bus lanes, learning from Heidelberg, or extending it to electronic cycle lanes). *Smart crosswalks*, smart speed radar display, adaptive traffic lights, and *nudges* for behaviour change. | **Location:** Budapest District IV: **unsafe intersection (#6)** of Fóti street with Megyeri street + the Fóti street between Baross str. and Váci str. | **Safety relevance:** Improving safety on the outer/peri-urban areas of Budapest. | **Climate relevance:** Promote active and sustainable modes of transport, reducing emissions and carbon impact.

**KPIs: SUMI #5, #8, #10, #13, #14, #18; REALLOCATE KPIs #1, #2, #3, #4, #5,#10, #12**

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| **Challenges**: TEC3; TEC4; UPC5; SEC8; RUC9; RUC11; RUC10; | **Local partners:** Budapest, BKK, Budapest Közút |

**Links with Climate Contract**: Micro-mobility points for shared mobility access; Redesign of public spaces; Digitalization towards MaaS; Renewable energy integration on public transport systems(PhotoVoltaic PV, storage)

**Expected impacts**: 20% decrease in accidents by 2030; fully electrified PT by 2040

## Barcelona LL (2 pilots)

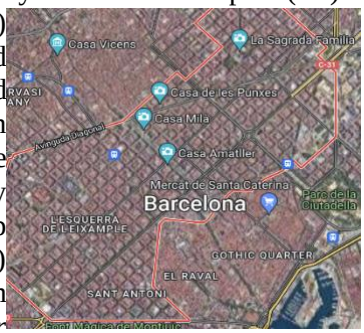
### Pilot 1: Implementation of Barcelona superblocks 2.0

**Description**: Barcelona Pilot 1 concerns implementing improved superblocks, with a deployment on a road in the Eixample neighbourhood which is a flagship district in Barcelona known for its hexagonal blocks, though it has a high number of private vehicles which makes is an **unsafe area (#7)** for VRUs, less community and green spaces, more pollution, being in need for measures to promote walking and cycling, and reduce car traffic. | **Pilot Aims:** Increase space for pedestrians and cyclists; Reduce emissions; Promote active mobility; Involve citizens and local stakeholders; Understand better the interactions between active road users. | **Actions:** *Superblocks 2.0 implementation - Speed limits* to 10km/h; Bicycles allowed, both directions; *Addressing conflicts between cyclists and pedestrians* (record accidents, safety perception). Planting *500 trees in 5km* (in multiple layers) based on their cooling capacity (size, shading, water requirements) to increase pedestrian comfort; *Involving* local commercial *stakeholders* in decision making for reducing car trips by creating delivery micro-hubs. | **Location:** Carrer Consell de Cent - Germanetes (Eixample) | **Safety relevance:** Space reallocation, improved conditions for pedestrians, car-free spaces, better understood interactions of active road users. | **Climate relevance:** Impact on emission reduction aligned with ClimateEmergency2030; handling heatwaves through tree-planting (amplifying cooling effect, GreenAxes model).

**KPIs: SUMI#4, #5, #10, #14, #15, #17; REALLOCATE KPIs#1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #11, #12**

### Pilot 2: Increased and Integrated Public Transport Accessibility System for People with Disabilities

**Description**: Barcelona has gained experience in delivering increased accessibility to Public Transport (PT) for People with Disabilities (PwD) through a Demand Responsive Travel (DRT) service. 900 door-to-door daily routes for PwD are currently offered, but demand is increasing. Barcelona Pilot 2 aims to optimise this through better equipped vehicles, smart systems and associated infrastructure. Sant Martí is considered an **unsafe area (#8)** in terms of accessibility and PT service availability for people with disabilities. | **Pilot aims:** Respond to increasing PwD user demand by supplementing sporadic trips. Prioritise users distanced from an accessible PT stop (Nemi tool - software solution for flexible and optimal DRT services) by: 1) Detecting requests that can be made without special transport (200m from accessible PT stops from the origin/destination) and prioritising *PwD with lower accessibility*. 2) Aggregating users in *shared electric taxis* for PwD. 3) Improving existing applications for better digital accessibility. | **Actions:** *Cooperation between local authorities*, public transport operators and policymakers; Direct involvement of PwD in *participatory workshops* (identify and remove barriers; co-develop specifications for vehicles & transport stops); Drivers' Trainings; Analyse and improve technical aspects: 1) matching accessible vehicles with accessible transport infrastructure; 2) improve the *vehicles' design for easy PwD access (wheelchair users, sensory impaired*) at waiting, boarding, etc.; 3) use people-vehicle/people-traffic lights continuous signal transmission/communication (for deceleration, etc.); 4) accessible info/booking services informing also on the accessibility level available in each layer and DRT service that complements the routes of fixed PT. | **Location:** Sant Martí. Collected demand data in the project's first month will define more precisely the implementation area. | **Safety relevance:** Significantly increased safety and accessibility of PT for PwD, through co-development of solutions and policymaking, with a positive impact on affordability. | **Climate relevance:** Emissions reduction by reducing individual trips, using shared electric vehicles (taxis) instead.




**KPIs: SUMI#1, #2, #3, #5, #6, #7, #8, #12, #18; REALLOCATE KPIs#9, #10, #11, #12**

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| **Challenges**:TC1;TC2;TEC3;TEC4;UPC5 | **Local partners:** Barcelona,IMPD, Factual, Nemi |

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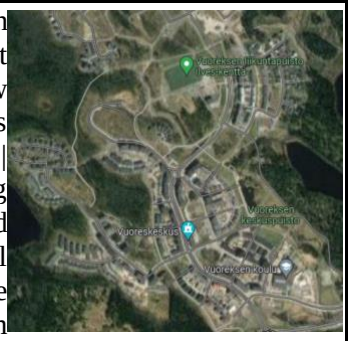
**Links with Climate Contract**: Collaborative projects with citizens; Transform public spaces, favour active modes; PT, DRT; Improve air quality; Circular economy; New governance tools.

**Expected impacts:** Increase bike use by 129.4 % and bike lanes by 55,7% in 2024 compared to 2018.

## TWIN CITIES

### Tampere | Pilot 1: AI for increased road safety, space reallocation and parametric design



**Description**: Tampere has a recently awarded best SUMP with a focus on low-carbon mobility and empowering people to make healthier urban mobility choices. The pilot will demonstrate AI for urban road safety & accident prevention (including among new mobility means), employing parametric design & space reallocation. First tests previously done in the city centre will be scaled up to suburban and school areas. | **Pilot Aims:** Evaluating innovative use of AI to protect citizens in urban traffic. Using Tampere IoT platform, AI recognition (cameras) for near-misses and safety hazard detections (harsh braking; harsh cornering), integrated with other data (ie. actual accidents, traffic camera data, speeds etc.). Engage people in co-creating safe environments. | **Actions:** 1) identify *hazardous spots*; 2) collect relevant data from city repositories; 3) analyse *historical data*; 4) Install *AI-cameras* to target crossings and develop *AI-algorithm* to recognize pedestrians/ cyclists/ e-scooters/ cars and their *interaction* through Tampere IoT-platform; 5) Follow-up with citizen engagement and local road space reallocation (e.g. through cultural/tactical urbanism, *visualisation* tools, e.g. *VR*) to create safe environments near schools. 6) Monitor data, implement speed reduction and data-driven solutions for safe and sustainable mobility. | **Location:** Vuores housing district followed by physical interventions in **two unsafe intersections (#9, #10)** near schools. | **Safety relevance:** Using AI and citizen engagement to identify unsafe areas and turn them into safe and interesting environments. | **Climate relevance:** Promoting low-carbon mobility in all areas (beyond just the city centre) and reducing environmental impact.

**KPIs: SUMI #10, #14, #18; REALLOCATE KPIs: #1, #2, #3, #5, #9, #10**

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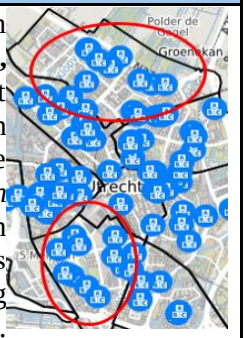
| **Challenges**: TEC3; UPC6; RUC9. | **Local partners:** City of Tampere, VTT |

**Links with Climate Contract**: Multiple common objectives with 'Carbon Neutral Tampere 2030'.

**Expected impacts:** Enable new mobility services, improve competitiveness of public transport, achieve a 72% reduction in GHG emissions and a 69% sustainable modes of transport in modal share by 2030

### Utrecht | Pilot 1: Safety-proofing schools in vulnerable neighbourhoods




**Description**: The Kanaleneiland / Overvecht neighborhoods were built in the 60's for cars with wide streets, much parking space and little accessible greenery. **Two unsafe school areas (#11, #12)** in these poorer neighbourhoods are selected considering VVN surveys, reports of Utrecht municipality and traffic accident concentrations. | **Pilot Aims:** Improve safety perception around school routes and surroundings; Promote active mobility; Improve air quality; Reduce noise pollution. | **Actions:** 1) Engagement with schools; collect *near-misses, conflicts between pedestrians, cyclists, e-scooters*. 2) Set the baseline with *input from street users* (interviews with parents by VVN & SportUtrecht; Terminal walks with children); GoPro recording children's bike rides; Customisation of the uCrowds/ SimCrowds 3D application based on gaming technology to *predict and simulate cyclist/e-scooter behaviour in interaction with pedestrians*. 3) Add extra data (inflow/outflow;speeds;air & noise pollution); Use 2D & 3D technology for visualisations & simulation, including a *Digital Twin (DT)*, and *electronic projections*. 4) Participation and co-design with schools, parents and children (e.g. using *VR tech/3D digital boards for children*) to solve bottlenecks on school routes and test user interactions. 5) Experimentation - infrastructural adaptations (e.g. reduced parking space, 30km/h, *Nature-based Solutions*); large-scale interventions first simulated in DT/ envisioned in 3D; behavioural measures (e.g. training, using crossing guards, *'velo-theque'* as flexible/affordable e-bike/cargo-bike sharing/renting on a needs basis). | **Location:** School areas in Kanaleneiland / Overvecht. | **Safety relevance:** Increase safety perception; Speed limit reduction; Addressing pedestrians-cyclists conflicts around schools. | **Climate relevance:** Green infrastructure/NbS; Reduced air and noise pollution.

**KPIs: SUMI #10, #13, #14, #18; REALLOCATE KPIs: #1, #2, #3, #4, #5, #6, #8,#9,#10**

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| **Challenges**: TEC3; TEC4; UPC5; UPC6; SEC8; | **Local partners:** City of Utrecht, VVN, SportUtrecht |

**Links with Climate Contract**: Climate neutral by 2050, reduce raw material use by 50% by 2030 (Action Plan Circular Economy), reduce GHG emissions. Active zero-emission mobility promoted through 10-min city vision.

**Expected impacts**: Significant reduction of near-misses and over 51% of residents satisfied with road safety.

### Warsaw | Pilot 1: Warsaw's green & safe road to school

**Description**: Warsaw's biggest challenge is the huge motorization rate in the city (>630cars/1000inh), and from here, the high traffic flows and urgent need to improve road safety for VRUs, particularly children. Warsaw was a finalist in the 2021 EU Urban Road Safety Award and wants to concentrate its efforts starting with the city centre, to give it back to pedestrians, and make it more attractive, lively and safe for VRUs. | **Pilot Aims:** Co-design

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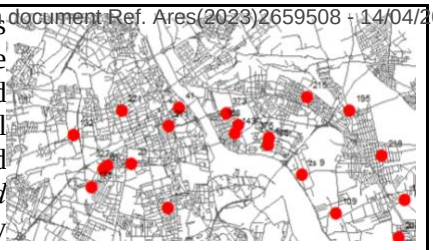
process for developing and implementing safe, attractive and green solutions around a primary school area in the city centre. | **Actions:** 1) Selecting the *unsafest intersection* nearby a central primary school **(**based on a detailed pedestrian crossing safety audit); 2) *citizens science* with the school and local community (place audits, climate data, measurements and mock-ups) coupled with *sensor-derived traffic data*; 3) *children's traffic behaviour survey and monitoring* (through *GPS-tracking apps, walking interviews* for voluntary children & parents); 4) analyse local land uses and the potential to *increase the biologically active area*; 5) co-develop *safety measures* and public space *redesign scenarios* through a *gamified participatory process and 2D & 3D visualisations*, 6) implement road space reallocation and climate adaptation measures (e.g. including LED public lighting) to improve actual & perceived safety and re-enliven the area. | **Location: Unsafe intersection (#13)** within Warsaw's city centre to be defined based on Warsaw's 2020 primary schools safety programme. | **Safety relevance:** Safety measures for schools by cutting private vehicles for active and public transport. | **Climate relevance:** Increasing biologically active areas to sequester carbon along school routes.



**KPIs: SUMI #10, #13, #14, #18; REALLOCATE KPIs: #1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #12,**

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| **Challenges**: TEC3; TEC4; UPC5; UPC6; RUC10 | **Local partners:** Warsaw, Public Road Authority, FNM |

**Links with Climate Contract**: Low emission zones; LED and smart technologies applied to streets/public spaces; Changes in zoning planning, increased tree cover to maximise carbon sequestration.

**Expected impacts**: Urban transport quality index of 72% & natural environment quality index of 82% by 2030. Reach Net-zero GHG emissions by 2030 & accelerate transition from current economy (Warsaw2030Strategy).

**Zagreb | Pilot 1: Central traffic corridor holistic solutions**

**Description**: The pilot will focus on a dense urban area with high volumes of VRUs (pedestrians, cyclists, children, elderly, people with disabilities) as well as high traffic volumes. The area is adjacent to the main pedestrian zone in Zagreb's city centre where several intersections on a main traffic corridor are highly unsafe. | **Pilot Aims:** The pilot will test safety and design solutions on the traffic corridor and how the conflict between different users is managed (700 cameras located around the city for vehicle counting). | **Actions:** Investigate peak hours using cameras and radars to automatically acknowledge priority to different street users. Use *smart traffic lights* in signalised intersections and mobility solutions to prioritise public transport (tram or bus), and active road users (pedestrians, cyclists - e.g. automated detection and defined low waiting times). Implement *urban redesign solutions* (sidewalk design, new bike lanes, intersection redesign & traffic-calming, raised intersections/crossings for better accessibility for VRUs, to result in liveable, safer, climate-friendly spaces). | **Location: Unsafe intersection (#14)** of Selska – Horvaćanska Street. | **Safety relevance:** Increase safety for active road users, by inviting modal shift through prioritisation. | **Climate relevance:** Prioritising sustainable transport modes, reducing congestion and emissions.

**KPIs: SUMI #5, #10, #13, #14, #18; REALLOCATE KPIs: #1, #2, #3, #4, #5, #6, #7, #10, #11**

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| **Challenges**: TC2; TEC3; TEC4; UPC5; URC10 | **Local partners:** Zagreb, SBC , FTTS |

**Links with Climate Contract**: Drastically improve PT, reduce car traffic, by 2035 rely on battery & hydrogen vehicles following the EU's Clean Vehicle Directive and RED III, increase active modes travel.

**Expected impacts**: Greenhouse gas reduction by 40% by 2030.

**Bologna | Pilot 1: Climate positive green corridors for safe and sustainable mobility**

**Description**: The pilot will focus on a high traffic and **unsafe corridor (#15)** Bertalia/Lazzaretto Campus, which has several dangerous intersections (classified as 'black', i.e. most prone to accidents by the city) and limited active mobility infrastructure. The aim is to create a green corridor along this route to rebalance road attribution towards more active mobility modes as part of the city's SUMP. | **Pilot Aims:** The green corridor will act as a porous barrier, reduce the exposure of pedestrians and local dwellers to traffic-related noise and air pollution. It will mitigate the impacts of heat waves, *reduce urban heat island effects* by shading building surfaces, deflecting radiation from the sun, releasing moisture into the atmosphere, and increase biodiversity. | **Actions:** Implementation of *behavioural* and *choice design interventions* to encourage people to commute in active mobility using the new active mobility infrastructure deployed as part of the project. Providing cycling-focused signage, information panels, racks and a covered bike station, seats, free drinking water distribution, equipment for emergency maintenance and a re-charge station for e-bikes. Development of customised safety auditing procedures to *minimise the impact of green infrastructure on visibility and safety at the intersections*. | **Location:** Bertalia/Lazzaretto University Campus. | **Safety relevance:** Solutions for dangerous intersections along a heavy

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| traffic corridor. \| **Climate relevance:** Green infrastructure; Protection from heat waves; Carbon sink; increase in biodiversity.<br>**KPIs: SUMI#3, #4, #5, #7, #10, #13, #14, #18; REALLOCATE KPIs: #1, #2, #3, #5, #6, #7, #10, #12** | |
| **Challenges**: TEC3; TEC4; UPC5; RUC11 | **Local partners: COBO** , FIU |
| **Links with Climate Contract**: Accelerate reaching neutrality through increased active modes/ PT/engagement | |
| **Expected impacts:** 40% reduction of GHG transport emissions, 16% reduction of CO2 emissions from cars by 2030, in compliance with EU and Paris climate Agreement. | |

***Integration strategies***

Sustainable mobility challenges in cities can only be tackled by interlinked and replicable solutions, requiring integrated strategies and mutual collaborative learning to adapt specific solutions to different contexts, through knowledge transfer. **REALLOCATE's integration strategy is based on 3 integrated approaches to foster knowledge transfer and collaborative learning** between/amongst horizontal partners, cities and Cascade Cities:
***Knowledge exchange****:* Exchanging on common challenges/barriers and providing Twin and Cascade Cities with expertise from Lead Cities, offering highly specialised assistance throughout the project's lifetime to ensure smooth knowledge transfer. ***Twinning****:* The twinned cities interact via reciprocal peer-review visits and work shadowing throughout the project, assessing cities' performance against a common standard, as a process of in-depth learning/ exchange. ***Cascade Cities Future Labs:*** REALLOCATE will develop a responsive framework to support Cascade Cities to rapidly and successfully replicate solutions tested by the Lead and Twin Cities. Cascade Cities will closely observe the pilots and exchange directly with those responsible for implementation (Tasks 4.5, 6.6), contributing to common learning within and beyond the consortium, across Europe. Replication Packages will be developed, including technical implementation specificities, process description, results achieved, challenges/barriers, etc. Each Cascade City will deliver an Implementation Plan for replicating at least one of the SSML interventions.

***Road Users and Stakeholders Engagement Strategy***

Citizens are at the core of activities in each SSML. The engagement strategy of REALLOCATE follows citizen science principles according to the following phases: (1) ***Scoping and community building***: enroll stakeholders to identify main concerns in each pilot; potential solutions will be derived through workshops and group sessions; targeted actions at local level will foster enrollment and participation; (2) ***Co-designing***: scientific experiments and interventions are co-designed using best practice in User Centred Design and Participatory Design considering users' requirements and aspirations; workshops will ensure interchange between community members and experts to prototype solutions and co-develop tools; (3) ***Data collection***: Researchers collect data in Living Labs to support the assessment of the interventions (WP5). Workshops are organized by local partners in each SSML to sustain community engagement and address data gathering challenges. (4) ***Data analysis and awareness***: collected data are analysed and discussed among stakeholders - in events and through visualisations - to generate new insights and perspectives, supporting awareness rising and cross-actor policy dialogues to co-develop recommendations. (5) ***Reflection and legacy***: reflecting on the intervention, documenting tools, methods and providing feedback about the tested technologies. Researchers and citizens translate scientific knowledge related to interventions' impact assessment into useful and practical knowledge for society, making a legacy beyond the project's lifetime.

### 1.2.3 Links with existing national and international projects

REALLOCATE will capitalize on knowledge gained in other relevant international projects, through the connections with several networks & initiatives where Consortium key partners are directly involved (**Table 1.2b**).

***Table 1.2b****: Main national and international projects of relevance for* REALLOCATE *(colored cell), expected synergies and partners involved (white cell). Keys: PC - project coordinator*

| |
|---|
| **NetZeroCities**: H2020, 2021-2025, https://netzerocities.eu |
| *Synergies*: NZC supports EU's Cities Mission by working as a service-oriented platform for mission cities. REALLOCATE will create synergies with NZC. *Partners*: Eurocities, ICLEI, Cerema, Demos, Fraunhofer, VTT. |
| **UPPER**: Horizon Europe, 2023-2027 |
| *Synergies*: UPPER focuses on public transport, with which REALLOCATE will collaborate for a complete picture on designing urban mobility for climate-neutral cities. *Partners*:Eurocities,ICLEI,Factual,IFP-research,ECF,Budapest,BKK. |
| **CIVITAS SUMP-PLUS:** H2020, 2019-2023, https://sump-plus.eu |
| *Synergies*: SUMP-PLUS helps towns/cities bridge implementation gaps and become accessible/green/liveable, by testing new approaches/tools in co-creation labs, sharing these with politicians/practitioners/ researchers via a learning community and practical guidance tools. *Partners*: ICLEI. |
| **CIVITAS SUMPs-UP**: H2020, 2016-2020, https://sumps-up.eu |
| *Synergies*: It developed an acceleration mechanism for SUMPs uptake across the EU, resulting in the 2nd edition of SUMP Guidelines, which REALLOCATE will use as a starting point for developing guidelines. *Partners*: ICLEI (PC), Eurocities, Cerema, Budapest, BKK. |
| **SUMI**: DG MOVE, 2017-2020, https://transport.ec.europa.eu/transport-themes/clean-transport-urban-transport/ |

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| |
|---|
| *Synergies*: SUMI developed indicators supporting cities perform a standardised evaluation of their mobility system. REALLOCATE will propose updates, with a focus on VRUs and climate impacts. *Partners*: Eurocities, Zagreb, Budapest, Warsaw, Barcelona, Goteborg , and several of the Cascade Cities. |
| **MORE**: H2020, 2018-2022, www.roadspace.eu |
| *Synergies*: MORE developed and implemented the design of urban corridor roads in five node cities on the TEN-T. The following outputs will be leveraged: the *Library with road design elements*, the *Stakeholder engagement tool for the co-creation of design options*, the *Simulation and Appraisal tool*. *Partners*: IFP-research, ECF, Budapest, BKK. |
| **FASTTRACK**: H2020, 2021-2023, https://fasttrackmobility.eu |
| *Synergies*: FastTrack supports the transfer, financing, and implementation of innovative transport solutions amongst 24 cities and metropolitan regions. Tested methods for fast-tracking innovation will be deployed in REALLOCATE. *Partners*: ICLEI (PC), Eurocities, CERTH, COBO , Budapest, BKK. |
| **HANDSHAKE**: H2020, 2018-2022, https://handshakecycling.eu |
| *Synergies*: HANDSHAKE helped cities improve cycling conditions as daily transport means. REALLOCATE will use its mentoring relationships as a model to transfer measures and knowledge between cities. *Partners*: ICLEI. |
| **iSCAPE**: H2020, 2016-2019, https://www.iscapeproject.eu/ |
| *Synergies*: iSCAPE piloted a living lab framework to co-develop solutions to traffic related pollution in EU cities. This framework will be used as a starting point for the Safe & Sustainable Mobility Labs. *Partners*: UCD (PC). |
| **CIVITAS ECCENTRIC:** H2020, 2016 - 2020 https://civitas.eu/projects/eccentric |
| *Synergies:* ECCENTRIC cities empowered women and vulnerable groups to contribute via meetings, debates, training, co-creation activities to co-develop policies/measures. The developed Topic Guide focusing on *Addressing gender equity and vulnerable groups in SUMPs* to be used in REALLOCATE. Partners: ICLEI. |
| **DIGNITY**: H2020, 2020-2022, https://www.dignity-project.eu/ |
| *Synergies:* DIGNITY supports public/private mobility providers conceive inclusive digital services and help policy makers formulate transport innovation strategies considering societal changes. *Partners*: Factual. |
| **MOVE21**: H2020, 2021-2025, https://move21.eu |
| *Synergies*: MOVE21 will transform EU cities and their surroundings into smart zero-emissions nodes for mobility and logistics using a living lab approach to co-develop an in-depth replication and transferability programme which will provide the basis for the exploitation in REALLOCATE. *Partners*: Eurocities, CERTH, Goteborg . |
| **SCALE-UP**: H2020, 2021-2025, https://www.scale-up-project.eu |
| *Synergies*: In SCALE-UP, three cities team up to develop data-driven and user-centric strategies to accelerate take-up of smart, clean, safe, inclusive mobility. Strategies will be used in REALLOCATE. *Partners*: Eurocities. |
| **European Mobility Week**: DG MOVE, 2002-ongoing, https://mobilityweek.eu |
| *Synergies:* It is EC's flagship awareness-raising campaign to foster behavioural change for active mobility, public, clean transport. EMW community will be engaged for exploitation and dissemination. *Partners:* Eurocities, ICLEI. |

### 1.2.4 Interdisciplinary consideration

The REALLOCATE consortium brings many competences together with an effective integration of STEM and SSH disciplines, including quantitative-objective-measurable and qualitative- subjective-people-oriented skills to be applied with the pilot areas, along with innovative approaches and solutions (technical, digital, social, organisational). A strong interdisciplinary approach will guarantee the inclusion of SSH within the infrastructural, digital and ICT innovations as a part of co-creating smart solutions for end-users. Integration of social and digital innovation experts will be used in developing stakeholder-led tailored innovations and interventions, and two networks of cities organisations (Eurocities, ICLEI EUR) will guide capacity building, twinning and longlife learning activities. The 'quadruple helix' is represented in the REALLOCATE trans-sectoral consortium: university & research centers (UCD, BSC CNS, CERTH, Fraunhofer, VTT, FTTS), urban design, safety & circularity auditing SMEs (ARUP,Factual,BKK,DEKRA,DEKRA ASSURANCE ), SSH experts & behavioural change specialists (Nudgd, Demos,HH ), designated Mission Cities (all partner cities), active mobility & VRUs engaging NGOs & specialists (ECF, IFP-research, Cerema, Nemi, IMPD, VVN), local associations & cooperatives (SportUtrecht, FIU, FNM ), EU-level networks to contribute to wider take-up via communication, dissemination, and exploitation (ICLEI EUR, Eurocities, Ertico ITS EUR).

### 1.2.5 Integration of social sciences and humanities

REALLOCATE requires an interdisciplinary knowledge base and transdisciplinary innovation, combining technical and social science expertise in the consortium. Social science and humanities (SSH) expertise (e.g. behaviour nudging, choice design, transformative governance), is necessary and relevant since the project includes a stakeholder & citizen engagement plan focusing on co-production of new solutions for safe, sustainable, human-centred, inclusive urban mobility, framed on effective communication to generate uptake of sustainable mobility behaviours. The SSH integration consists in: i) improved understanding of behavioural factors in road safety and attitude towards polluting

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transport (WPs 3, 4, 5); ii) co-production of solutions and opportunities for sustainable mobility, improvement of road safety management, with citizens and at institutional scale (WP2); iii) assessing multiple sociological parameters on public acceptance of climate-neutral mobility and VRUs safety measures; vi) co-creation of education material to raise awareness on transport's role in climate-neutrality, capacity development and increased preparedness for safer street/public space redesign (WPs 2, 6); v) co-development of policy briefs and recommendations for climate-neutral mobility with stakeholders (WP6); vi) training, communication campaigns, other outreach materials (WP6). Integration of SSH will enable the project to include local knowledge in road space reallocations, to co-analyse and derive benefits for population from physical infrastructure measures & technologies, to find root causes of perceived and actual unsafety on the basis of scientific evidences, to engage stakeholders and citizens across the SSMLs and to co-develop solutions. The newly developed sustainable/human-centred/safe mobility solutions will be derived from collection of hyperlocal data to capture physical infrastructure conditions, road safety and road users behaviours (in 10 SSMLs). Plans for info sharing are included to ensure the reuse and uptake of project tools. Knowledge produced by experts with citizens & stakeholders, will be shared with public administrations to inform city planning, urban design & policy making.

### 1.2.6 Gender dimension

REALLOCATE is fully committed to a balanced participation and gender equality in all project aspects. Gender balance and sensitivity will be ensured and continually encouraged in all project's organisational structures. In line with SDG 5 'Gender Equality' and MoRRI GE2, the project will promote participation with particular attention to gender in interpretation of findings to identify potential differences in needs and opportunities. Research methods and assumptions will take into consideration sex and gender aspects. Current data shows that women and children are more likely to choose walking or cycling, but men are more likely to die in a cycling accident (EU, 2020). People in low income households are likewise more dependent on these soft transport means (Chidambaram, 2020). Hence, considering road users' different transport needs and preferred mobility means on a socio-demographic background is pivotal. SSML stakeholders will be selected to take into account gender issues, and the language used in the project will be gender sensitive. Gender will be used as a variable in explaining different lifestyles. The consortium is aware that the men- women categorisation is not all-inclusive: the way the research questions are articulated will be inclusive of inter- sex identities. The project's implementation will strive to connect transport planning and inclusiveness of diverse needs is essential, with a greater emphasis on equality, inclusivity. ICLEI led the development of the '**Addressing gender equity & vulnerable groups in SUMPs**' Guide which will be used as a supportive guidance in understanding where gender equity & inclusivity meet transport planning to design balanced, socially inclusive, gender equitable places. As the design of transport systems influences citizens' mobility choices, such systems need to be geared towards the needs of all users. The consortium will pay full attention to gender issues to prevent any kind of barriers to the participation of all the community members.

***Table 1.2c**: Considerations on gender dimension in planned research and innovation activities (link to WPs).*

| Considerations | WPs |
|---|---|
| **Establishing research priorities** | |
| The Consortium agrees in including gender dimension as a priority, favouring gender equality, particularly concerning women's perceived and actual safety and security on the roads | all |
| **Formulating research questions, interventions and evaluation instruments** | |
| Report the gender of participants and gather gender-disaggregated data and outcomes, e.g. considering actual and perceived road safety, as well as uptake of digital mobility solutions | 3,5 |
| Adapt the research questions, project assumptions, language, behaviour and methods to the gender aspects | all |
| **Involving participants in community interventions, interviews and analysis instruments** | |
| Aim for gender balance in the participation to the project activities, minimising gender criticising | 2,4,6 |
| Evaluate gender needs to highlight barriers to be eliminated and individual needs to be fostered in promoting active mobility and public transport | 2,5 |
| **Data analysis and interpretation of findings** | |
| Consider unconscious gender assumptions in data collection, representation and diffusion | 5 |
| Evaluate the different gender response to the road safety effects and investigation framework, addressing the specific gender needs (e.g. individual priorities & comfort) resulting in gender-friendly guidelines & policies | 5,6 |
| **Promoting the adoption of a gendered perspective in policy briefs and guidelines** | |
| Include gender-dependent recommendations and guidelines; promote gender equality in SSMLs | 2,4,6 |
| Produce gender aspects in the communication and dissemination activities | 2,6 |
| Evaluate social acceptance of mobility measures for climate-neutral cities e.g. cycling uptake & giving up cars for short-distance rides considerate of gender e.g. concerning women's physical/clothing (dis-)comforts) | 5,6 |

### 1.2.6 Open Science approach and implementation

The REALLOCATE consortium is committed to implementing Open Science practices in project's activities. The REALLOCATE Distributed Dashboard and Multimodal Data hub developed in the project will allow Cities and

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partners to share research results at the early stage and with access to a wide audience. Collected data from pilots will be made available through a dedicated API to the NetZero Cities Platform. With public deliverables, REALLOCATE will ensure early access to methodologies, experimental setups, metadata and results of research (R5.1,R5.2,R7.1). The project's DMP will ensure timely upload on the platform and availability of project datasets, in compliance with GDPR and other relevant regulations. Clear and exhaustive descriptions of procedures (e.g. data post-processing, quality checks, observational methods) with a high level of detail will be part of public deliverables in REALLOCATE and will ensure a thorough reproducibility of research and innovation outputs. Open access to research outputs will be guaranteed by article publication in open-access journals, code scripts and data analysis models in open-access repositories (e.g. the EU initiative Zenodo). REALLOCATE adopts and fosters co-creation as an essential methodological component of innovation and research, achieved by the structure and management of the SSMLs that adapt the Living Lab concept to the specific challenges of the project. WP2 deploys specific tasks aimed at co-design and co-development of research products, tools and policies. The consortium will leverage on initiatives and infrastructures to support Open Science provided by the coordinating partner (UCD University Library System) and national and international platforms (e.g., EOSC, the European Open Science Cloud). Table 1.2d provides a summary of Open Science implementation practices in project's methodology.

***Table 1.2d**: Appropriate open science practices, their implementation and the related Tasks (T) in the work plan.*

| Open Science Practices | Implementation in the methodology of REALLOCATE (related Tasks) |
|---|---|
| Stakeholders & citizens engagement, and Labs setup | SSMLs are set up as an open community environment for the different involved actors. Relevant stakeholders are involved in each Lab, bridging a connection with local authorities and favoring the engagement of the citizens (all WP2 tasks) |
| Policy co-design and recommendation for implementation | Road safety policies with focus on existing & new VRUs co-designed with local & national stakeholders & policymakers to be detailed for each SSML (T6.9), incorporated in the co-production of recommendations with citizens' responses to project activities. |
| Co-development and co-testing of new technologies/solutions | New technologies/solutions to improve road safety will be co-developed and co-tested with local communities and the support of practitioners in each SSML for a user centred VRU focused approach to develop the technologies, to understand barriers (T2.2 to T2.5) |
| Open access to project services and direct-line sharing of results | Predictive models will inform decision-makers and stakeholders providing an assessment of road safety (WP3), including transport behaviour and choice design (T3.6). What-if analysis will be made available and documented in the Distributed Dashboard (T5.5). |
| REALLOCATE Multimodal Data hub | Implement/deploy flexible, interoperable, user-friendly open platform to integrate/store data, ensuring a unique entry point to harmonize/quality-check collected data (T5.2) |
| REALLOCATE Distributed Dashboard | A flexible, interoperable, user-friendly dashboard to serve as open entry point for users to tailored processed data, research outputs, tools/services piloted within the SSMLs (T5.2) |
| Open-access politics | The DMP will formalise the contents (T1.6) which are open for access and the modalities to future-proof data for future research. Use of open-access journals and repositories. |

### 1.2.7 Research data management

REALLOCATE data management is ingrained in the structure of the proposed data ecosystem (Data Hub, Distributed dashboard). WP5 lead (CERTH) will be responsible for the Data Management Plan (DMP-Task 1.6) that will detail all relevant aspects including data collection, curation, storage, (long-term) preservation, security, quality assurance, allocation of *Persistent Identifiers (PIDs)*, provision of metadata in line with disciplinary requirements, licensing, rules and procedures for data sharing. The project's data management revolves around FAIR data management principles, so data will be made available for any type of use & reuse (e.g., to support data-driven decision, investigate AI predictive/ prognostic models, etc.). CERTH will coordinate the guidelines and implementation of vital processing steps for the data (deployment, environmental, climatic, device specific, sensor-based) coming from 10 SSMLs, following the FAIR guiding principle and in compliance with the European GDPR and associated national legislations. REALLOCATE will ensure through its Data Hub: ***Data findability***: ensured by multimodal data navigation development, allowing end-users to easily 'meta-query' and find datasets they need. Sensitive data (e.g. complete device GNSS traces or image sequences) will be processed and protected through pseudonymisation within the SSMLs. Data/research outputs will be accessed via PIDs provided by trusted repositories (e.g. OpenAIRE, IEEE DataPort, github). CERTH will supervise the in loco steps and provide specific scripts for data processing and establish measures for data security and protection. ***Data flow***: most data will be generated at, or sent to, the SSMLs for raw data processing. Only processed data from the SSMLs, after pseudonymisation or anonymisation, will be sent to and stored at the central Data Hub for privacy protection. Sensitive data, such as referable raw data from wearables/mobile devices, will be locally managed by the SSML product owners, which will ensure data protection with existing internal protocols. A consensus raw data analysis pipeline will be defined among SSMLs and used for homogenising data for further analyses, e.g. for risk prediction & quantification models. The standard for the GDPR-safe data flow follows a foundation of services (e.g. Kafka, Apache Spark, machine learning libraries, etc.) adhering

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to the DMP, ensuring correct data collection, processing, quality assessment. Data is then further processed according to the project needs, and organised for future use. This architecture will guarantee flexibility, extensibility, and efficiency of data usage, even beyond the project end. ***Data sharing***: For some analyses the GDPR-compliant data will be shared in aggregated form (e.g. number of 'hard brake' events per day to be associated with environmental and climate conditions), while for the analyses requiring associations of different data types from the same individual (e.g. sensor, GNSS, etc), data will be provided to BSC CNS. This will happen after pseudonymization or after stricter processing such as K-anonymization or noise addition anonymization (differential privacy levels) that will allow a reasonable level of detail for the analysis (using CERTH's tailored scripts). The non-sensitive data will be accessible on the Data Hub through the Application Programming Interfaces (APIs) enabling an access controlled use of observations and pre-processed data, while the REALLOCATE Distributed Dashboard and Multimodal Data Hub will be end-user's access point, providing data analytics, visualisation and applications, tools, monitoring & alerting systems, services designed within the SSMLs. ***Curation & storage/ preservation***: GDPR compliant data from the studies will be collected in a data hub. The completeness, compliance and consistency in data entry will be periodically verified. Each SSML will follow the DMP for any locally stored and retained data. Data storage will be performed in a secured form (e.g. data encrypted with a strong cryptographic protocol) in servers indicated by the pilots, and agreed within the consortium. ***Data Accessibility***: the adopted strategy will ensure that data collected centrally at the Data Hub will be GDPR compliant. This will make it possible to share them within the consortium and **to the NetZeroCities Platform** allowing long-term maintenance and accessibility of collected data. Non-sensitive processed data can be centrally stored with adequate security (data exchange with server, encrypted and authenticated through public key) and redundancy protocols (storage redundancy or compliant backup). Non-sensitive raw data will be deleted from the servers after project completion, unless deemed necessary for future analysis (stored in Zenodo). Open access of data and research outputs will be stored for at least five years (in the case of IEEE dataport, indefinitely). ***Interoperability and Reusability***: Details about DMP implementation will be discussed with the SSMLs in Month 6, to adapt to local peculiarities and allow maximal Interoperability and Reusability of generated data. Common standards for images/videos will be considered (e.g., jpg, mp4), while for point clouds, ASCII file formats (XYZ, OBJ with some proprietary binary exceptions), PTX (Leica) and ASC will be used. For other cases, CSV files will be employed. Simulation/trial parameters and algorithmic codes will be provided in txt files. For data management the reference platform will be CKAN which is 100% open source. **Protection of personal data** is also intrinsic to the project's architecture illustrated in the previous subsections: i) each data holder will ensure that its data storage infrastructure will comply to GDPR requirements; ii) the data holder will enforce its data sovereignty, including protecting personal data of subjects, according to their consent status; iii) The Data Hub will provide tools to facilitate data holders to collect consent from subjects (European data consent form). It will be ensured that Privacy Policies provide lawful, fair, and transparent processing of minimum data needed to fulfil the project's aims. Data will only be retained for as long as needed and consent will be used as the lawful basis for processing. The project will put in place processes to ensure all eight legal rights (to be informed, have access, rectification, erasure, restriction of processing, portability, objection & automated decision making) can be exercised by every individual.

# 2 Impact

## 2.1 Project's pathways towards impact

How REALLOCATE responds to Expected Outcomes of HORIZON-MISS-2022-CIT-01-01 is presented in 2.1.1, estimating Impacts through identified KPIs, assuming the implementation and replication of REALLOCATE measures and solutions. Table 2.1a presents a set of defined REALLOCATE KPIs to be updated as part of Task 2.2.

***Table 2.1a****: REALLOCATE KPIs mapped against each pilot (Y), integrating SUMI and project developed KPIs.*

| **Indicator** | **Indicators to monitor in 15 REALLOCATE Pilots** | | | | | | | | | | | | | | | **Definition of REALLOCATE KPIs** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *SUMI* | *G1* | *G2* | *H1* | *H2* | *L1* | *L2* | *B1* | *B2* | *Ba1* | *Ba2* | *T1* | *U1* | *W1* | *Z1* | *Bo1* | *KPI#1* - Increases in pedestrians + cyclists (numbers)<br>*KPI#2* - Pedestrian & disabled comfort (reduced risks; walking dstance/time; shade, walkable conditions) (% from baseline)<br>*KPI#3* - Cycling & e-bike comfort (reduced cycle waiting time, increased bike parkings, etc.) (% from baseline)<br>*KPI#4* - VRUs/user interactions improvements (AI modelled - reduced |
| *SUMI#1* | *Y* | | *Y* | | | | | | *Y* | | | | | | | |
| *SUMI#2* | | | | | | | | | *Y* | | | | | | | |
| *SUMI#3* | *Y* | | *Y* | *Y* | | *Y* | | | *Y* | | | | | | *Y* | |
| *SUMI#4* | *Y* | | *Y* | *Y* | | | | | | *Y* | | | | | *Y* | |
| *SUMI#5* | | | | | | | | *Y* | *Y* | *Y* | | | | *Y* | *Y* | |
| *SUMI#6* | *Y* | | *Y* | | | | | | *Y* | | | | | | | |
| *SUMI#7* | *Y* | | *Y* | | | *Y* | | | *Y* | | | | | | *Y* | |
| *SUMI#8* | | *Y* | *Y* | | | | | *Y* | *Y* | | | | | | | |

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| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *SUMI#9* | *Y* | *Y* | *Y* | | | | | | | | | | | | | near misses, responsive traffic lights, etc.) *KPI#5* - Reallocation of public space (sqm/year) *KPI#6* - Conversion from impermeable to permeable/vegetated surface (sqm + no. of trees planted) *KPI#7* - Uptake/incorporation of Circular Economy principles (% from baseline) *KPI#8* - Engagement (no. of people engaged in co-creation/co-management) *KPI#9* - Public acceptance of interventions (citizens + stakeholders) (% of persons asked) *KPI#10* - Extendibility - Replicability of the intervention (% extendable/ replicable) *KPI#11*- Promotion of infection free mobility in Interventions (possibility to keep 1-2m distance) *KPI#12* - Achievement of Climate Targets for Transport (% of achievement) |
| *SUMI#10* | *Y* | *Y* | | *Y* | *Y* | | *Y* | *Y* | | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | |
| *SUMI#11* | *Y* | *Y* | *Y* | | | | | | | | | | | | | |
| *SUMI#12* | *Y* | *Y* | *Y* | | | | | | *Y* | | | | | | | |
| *SUMI#13* | | *Y* | | *Y* | *Y* | *Y* | *Y* | *Y* | | | | *Y* | *Y* | *Y* | *Y* | |
| *SUMI#14* | | *Y* | | | *Y* | | *Y* | *Y* | | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | |
| *SUMI#15* | | | | *Y* | | | | | | *Y* | | | | | | |
| *SUMI#16* | *Y* | *Y* | *Y* | | | | | | | | | | | | | |
| *SUMI#17* | | | *Y* | *Y* | | | *Y* | | | *Y* | | | | | | |
| *SUMI#18* | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | | *Y* | *Y* | *Y* | *Y* | *Y* | |
| *REALLOCATE KPIs* | | | | | | | | | | | | | | | | |
| *KPI#1* | | *Y* | | *Y* | *Y* | | *Y* | *Y* | | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | |
| *KPI#2* | | *Y* | | *Y* | *Y* | | *Y* | *Y* | | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | |
| *KPI#3* | | *Y* | | *Y* | *Y* | | *Y* | *Y* | | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | |
| *KPI#4* | *Y* | *Y* | | *Y* | *Y* | | | *Y* | | *Y* | *Y* | *Y* | *Y* | *Y* | | |
| *KPI#5* | | | | *Y* | *Y* | | *Y* | *Y* | | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | |
| *KPI#6* | | | | *Y* | *Y* | | *Y* | | | *Y* | | *Y* | *Y* | *Y* | *Y* | |
| *KPI#7* | | | | *Y* | | | | | | *Y* | | | *Y* | *Y* | *Y* | |
| *KPI#8* | | | | | | | | | | *Y* | | *Y* | *Y* | | | |
| *KPI#9* | | *Y* | *Y* | *Y* | | *Y* | | | *Y* | *Y* | *Y* | *Y* | *Y* | | | |
| *KPI#10* | *Y* | | *Y* | *Y* | *Y* | | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | *Y* | |
| *KPI#11* | | | | | | | | | *Y* | *Y* | | | | *Y* | | |
| *KPI#12* | *Y* | | *Y* | *Y* | | *Y* | | *Y* | *Y* | *Y* | | | *Y* | | *Y* | |

### 2.1.1 Contribution to the topic outcomes and to the wider impacts of the destination

**EO1** - Contribute to the objectives of the Climate-Neutral and Smart Cities Mission by accelerating the transition towards climate neutrality in cities via the promotion of zero-emission, shared, active, and human-centred mobility.

REALLOCATE reduces car traffic and related emissions through a set of diverse scalable measures; creation of safe conditions for VRUs (in 10 SSMLs), addressing commuter traffic in peri-urban areas (Heidelberg1, Budapest1), stimulating shared mobility (Barcelona1, Goteborg 1&2, Heidelberg1, Budapest2), improving public transport (Barcelona2, Heidelberg1) and behavioural change throughout the pilots. Within modes, climate neutral choices will be stimulated by interventions such as new parking tariff tools based on vehicles' weight and fuel (Lyon 2). Comprehensive outputs include framing street safety interventions under SUMPs geared towards climate impacts (**R5.3**). These will be transferred to local authorities, practitioners, policymakers through training frameworks and tools (**R6.1**) that promote the adoption of sustainable solutions that have been co-created with the citizens and local stakeholders, increasing acceptance and adoption. It triggers a change in regulations for urban mobility, and overcomes the main obstacle to climate transition, which is in the capacity to implement climate-friendly and smart technologies. The output of matching climate thinking for urban mobility with economic, governance, and business models (**R5.4**) puts forth a more strategic, holistic, and long-term climate investment approach for transport, in a collaboration framework with the Mission Platform (**R7.1**), along with supporting guidelines and recommendations (**R7.2**), and a Transformative Governance Framework (**R5.2**).

***Results***: R5.3; R5.4; R6.1; R7.1; R7.2; R1.1 to 1.8; R5.2. ***REALLOCATE KPIs*** #1, #2, #3, #4, #5, #6, #7, #10, #12; SUMIs #10, #13, #14, #17, #18

***Scale and Significance*: High**. *#published reports or articles linking active mobility with climate neutrality starting*

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*from REALLOCATE solutions (>20 in total) #new planned initiatives, policies & research activities that advance a 'climate-neutral' mobility inspired by/adopting solutions & strategies developed by REALLOCATE (>10 by project end, >20 by 2030); %traffic emissions reductions by modal shift & behavioural changes of users (>15% by project end, >50% by 2030); %new commuters, %reduction in commuting time/congestion, %affordability increase, %accessibility increase, %satisfaction increase with sustainable transport (>30%, >30%, >20%, >75%, >75% compared to baseline); %PwD-accessible PT ( >20%) ; %air and noise emissions and % CO2transport reductions in functional areas (>10%; >15%); %achievement of Climate Targets in SSMLs through REALLOCATE-inspired actions (>40% by 2030);%positive feedback from mobility experts and contacts (>80% from ~500 contacts).*

***Target users:*** *local authorities, EU institutions / business / NGOs representatives, experts, and policymakers, urban design/planning/traffic engineering practitioners in cities/ citizens (all street users, especially commuters,disabled)*

**EO2 -** Increase the extent and speed of the take-up and upscaling of innovative, best practice and replicable safe, affordable and sustainable urban mobility solutions in the living labs involved in the proposals (at least 4 cities and 4 follower cities, considering geographic diversity including in terms of regions' level of development) ...

The transdisciplinary support offered by horizontal partners in developing suitable solutions is transferred through an inter-city and cross-sectoral set of capacity building activities involving 5 Lead, 5 Twin and 10 Cascade Cities, to reach the European policy making level supporting replication. For example, 'Superblocks' are reiterated and restested within REALLOCATE (e.g. from Barcelona2 to Budapest1), and compared to another tactical reallocation solution (Heidelberg2), identifying their comparative potential for replicability. The collaborative framework with public authorities, mobility providers and stakeholders, the road safety policy and recommendations derived from multi-data analysis and transformative governance models, and the collaborative framework with the Mission Platform put forth in REALLOCATE enable upscaling of tested solutions. Various public space reallocation approaches and affordable mobility solutions will become directly scalable, including in lower-income countries, through empowerment with new knowledge and skills of both practitioners and the general public – replicated in Cascade cities – and encapsulated in guidelines and recommendations.

***Results*:** R5.1; R5.2; R6.1; R7.1; R7.2; R1.9; ***REALLOCATE KPIs*** #8, #9, #10;

***Scale and Significance*: High**. *#best practice, reliable, safe and sustainable mobility solutions experimented (>15 soft/infrastructural/hybrid solutions in 10 SSMLs, uptaken in 10 Cascade Cities, scaled up to more Mission Cities and others >50 by 2030); Events with >20 presentations; %public acceptance of interventions (>70% from >200 citizens/stakeholders asked per SSML); %positive feedback in interventions from the expert group (>80% from >50 experts asked); replicability of the interventions (>70% extendable/replicable to other cities); #educational and training materials (>80); #citizens + #staff in local authorities accessing training materials (>200 per SSML)*

***Target users:*** *citizens, mobility providers and local authorities in Mission Cities, CIVITAS initiative, other EU initiatives/projects (Eltis, Covenant of Mayors, European Mobility Week, NetZeroCities, Mayors' Alliance).*

**EO3 -** Solutions for at least ten unsafe areas/living labs in urban/peri-urban areas using innovative planning, design and implementation approaches, including but not limited to co-creation and/or citizen engagement, modelling and AI, digital & smart enforcement tools, dynamic space reallocation, to reduce road safety risks, reducing exposure to air & noise pollution, the perceived feeling of unsafety for pedestrians & cyclists.

REALLOCATE will test and implement a wide range of solutions in a wide range of contexts. Examples include AI data collection/evaluation/modelling, detection of safety hazards, real-time warning, simulations through Digital Twins and VR, smart enforcement or parking tools and dynamic space reallocation (Goteborg 1&2; Lyon2; Heidelberg1) and behavioural nudging (in all 15 pilots). Participatory workshops, co-creation, citizen science, and stakeholder cooperation stand at the basis of each intervention for more tailored and wide-embraced soft solutions or infrastructure measures, framed under cultural and tactical urbanism actions to address actual and perceived safety issues. Wide-scale take-up of solutions will be enabled through accessible, interactive, interpretable & explainable solution dashboards along with strategies for social inclusiveness, transformative governance, and continuous engagement & knowledge transfer to practitioners and authorities, including Cascade cities and beyond.

***Results*:** R1.1; R1.2; R1.3; R1.4; R1.5; R2.1; R2.2; R2.3; ***REALLOCATE KPIs*** #4, #5; SUMI #3, #4, #13, #18

***Scale and Significance*: High**. *soft/infrastructural/hybrid solutions in 15 pilots in 10 SSMLs; % of reduction in active modes collisions (>25% by project end; >40% by 2030); #people engaged in co-creation/co-management activities (>100 per SSML);% reduced walking distances (>20% overall actual and perceived); % reduction in cycling waiting time (>20%); % decrease in perceived unsafety (>60% from baseline in surveys and citizen engagement events); %seamless travels in multimodal nodes (>20% from baseline).*

***Target users:*** *citizens, VRUs, different social groups, mobility providers entering the tech & AI market, local and regional authorities, design/planning/engineering practitioners in Mission Cities; CIVITAS initiative, URBACT;*

**EO4 -** Re-assess road and public space quality responding to needs of diverse groups (e.g women, children, people with disabilities, older people); actions may include but are not limited to improving data collection for foot, bike and e-scooter traffic as well as the mechanisms for reporting pedestrian and cyclists, e-scooter injuries and deaths.

REALLOCATE includes several innovative technologies to assess public space. The LiDAR Scanner collects qualitative and quantitative data on surface attributes, relevant especially for preventing falls of elderly, disabled, but

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also to eliminate barriers for persons with prams/wheelchairs (Lyon1, Utrecht1, Budapest1, Barcelona1). Innovative combination of AI augmentation with citizen science will give citizens an active role in data collection, providing them with better resources and skills to flag traffic safety issues (Goteborg 1; Tampere1; Warsaw1; Utrecht1). Input/feedback are collected from diverse groups, VRUs, through interviews, walks&talks, optimised Apps, as needed in the 15 pilots. Data will be comparatively analysed to conclude on replicability/reproducibility of solutions for data gathering, monitoring systems and reporting (based on AI detection) through open API tools.

***Results*:** R1.1; R1.2; R1.3; R1.5; R1.7; R2.3. ***REALLOCATE KPIs*** #2, #3, #4, #9; SUMI #10, #14

***Scale and Significance*: High**. *#improved reporting mechanisms for VRUs injuries & deaths (by 30%); #scientific publications presenting new data collection/ reporting mechanisms(>5); #improved AI data gathering technologies and monitoring systems (>5); AI algorithms increasing understanding of road accidents (by 30%) and advancing scanning of road infrastructure (by 70%); length of microscale LiDAR scanned sidewalk surface, including for PwD (>50km); #citizens collecting data/citizen science combined with AI (>200 in 4 SSML); %increased comfort of pedestrians, disabled and cyclists (>70%); %increased quality of public spaces (>40%); %improved satisfaction in household travel surveys with disadvantaged/low-accessibility groups(>80% from >150 per SSML)*

***Target users:*** *diverse community groups (including disabled, low-income households and vulnerable to exclusion groups); experts and practitioners; academics and researchers (e.g. EURA); tech providers; city representatives,*

**EO5 -** Address proactively potential risk raised by expected increases in cycling and e-scooters.

REALLOCATE will assess risks added to the system by a user's modal choice vs. those imposed by the system on the user itself in space reallocations, digital and smart enforcement tools, geofencing, AI, and other nudging techniques. It will obtain closer understanding of street users' interactions, especially VRUs (Goteborg 2, Lyon2, Tampere1), localise conflicts (Budapest2, Barcelona1), and simulate in 3D applications micromobility behaviours in interaction with pedestrians (Utrecht1). Data collected in SSMLs and employed in AI simulation, Digital Twins and Data Hubs will render the projection of potential risks expected by mode from increases in bicycles, e-scooters and other emerging mobility means. All types of mobility data will be inserted in an AI enhanced digital tool, capable of making predictions and simulating what-if scenarios, providing Augmented Analytics and Multimodal AI Data Navigation. ***Results*:** R3.1; R3.2; R3.3; R1.5; ***REALLOCATE KPIs*** #4, #1, #2, #3;

***Scale and Significance*: High**. *#street users and VRUs behaviour predictive algorithms (>4); Digital Twins (>4); #integrated dataset with metadata identifiers for road users behaviours; #monitored variables (>30); %reduced active modes fatalities(>15%);%reduced near misses(>15%);#scientific publications on VRUs'predictive risks(>4)*

***Target users:*** *all street users considering their multimodal potential; citizens and stakeholders in tested pilots; policymakers for traffic safety; AI and tech-providers; engineering practitioners; academics and tech researchers and experts; EU policymakers and knowledge-sharing initiatives (CIVITAS, European Mobility Week, Eltis);*

**EO6 -** Rebalancing the attribution of public space to different modes of transport so that it better reflects the actual or desired local modal split as well as support reaching Vision Zero and zero-emission objectives…

REALLOCATE not only has a strong focus on rebalancing public space to different extents (Utrecht1, Goteborg 1&2, Heidelberg2, Lyon2, Tampere1, Warsaw1, Zagreb1; extensively in 'superblocks' in Barcelona2 and Budapest1), but also pays proper attention to making it safe and inviting to nudge the modal shift to active modes. This approach allows for a direct comparison of their immediate impacts in supporting the desired local modal split, ensured road safety and lowered emissions. Other types of interventions consist of new solutions for commuters in peri-urban areas (Heidelberg1), green & safe urban-periurban transition corridors (Bologna1). The analysis, along with safety & climate impact assessments forecast these solutions' potential to reach zero-deaths and zero-emissions by 2030. Citizens' continuous engagement as co-designers will lead to widely embraced solutions, contributing directly to road safety for Vision Zero and increased quality of life in cities.

***Results*:** R3.1; R2.1; R2.3; R1.2; R1.3; R1.6; R1.7; R1.8; ***REALLOCATE KPIs*** #5, #1, #2, #3; SUMI #14, #18

***Scale and Significance*: High**. *#locations with rebalanced road & public space (>10 in REALLOCATE) and replicated by 2030 (>10 in Cascade cities, >15 in European cities); >10 low-traffic zones implemented; %increase of modal split for PT (>25%) and active mobility (>15%); #increased pedestrians + cyclists (>25%); %conversion space from car-parking to active modes usage (>30%); >50km of cycling and walking infrastructure added; %increased proximity to points-of-interest for active modes (>10%); %increased satisfaction with public spaces (>60% from the baseline); 3D Street Design Guidelines with VRU tech solutions contextually tested (>7 )*

***Target users:*** *citizens; policymakers; traffic engineers, urban designers, planners, practitioners; CIVITAS Initiative*

**EO7 -** Public space redesign actions targeted by the awarded projects should consider the circular economy principles, adaptation to climate change (in particular heatwaves), cross-sectoral synergies and not come at the cost of removing or deterioration of parks, trees or green recreational areas.

REALLOCATE will include nature-based street interventions and circular economy scenarios to increase sustainability of all actions throughout the pilots. Examples include regreening, permeable surfaces and biological active areas (Goteborg 2, Heidelberg2, Lyon1, Warsaw1), including in 'superblocks' (Barcelona2, Budapest1) or along new green corridors to reduce heatwaves effects (along a university campus, Bologna1). The net-positive environment impacts and community benefits will be assessed based on sustainability criteria in climate- and social-

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focused impact reports. The solutions are expected to lead to scaled-up demonstrations of how road safety and climate can be addressed through synergised scenarios for active mobility and nature-dominant public spaces, compiled in 2D & 3D Urban Design Guidelines, uptaken by over 30 cities, in Europe and beyond.

***Results***: R1.3; R1.8; R1.9; R4.1; R5.3; ***REALLOCATE KPIs*** #6, #7, #12;

***Scale and Significance*: High**. *%surface converted from impermeable to permeable/vegetated (>20%); #trees planted (500trees/5km in >4 SSML); uptake/incorporation of circular economy principles (>20% from baseline); promotion of infection-free mobility (>30% possibility to keep 1-2m distance in new green public spaces); %shaded/weather protected public space by trees (>15%).*

***Target users:*** *citizens and stakeholders; urban design and landscaping practitioners (e.g. IFLA Europe); sustainability and circular economy experts; URBACT;CIVITAS initiatives; policymakers in circularity, adaptation.*

REALLOCATE will contribute to the aims set out in the EU Mission Climate-Neutral and Smart Cities by clustering the effects on three main pillars on which REALLOCATE is based: I. Smart & Green Transformative Solutions, in synergy with II. Open Proactive Data, and with III. Cross-Sectoral Guidance (including policy), developed to respond to and to primarily aid 1) delivering climate-neutral and smart cities by 2030 and 2) having cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050.

**Pillar 1: Smart & Green Transformative Solutions**

**Expected Impact**: **Economic and Technological**. A catalogue of the plans for the SSML street, neighborhood, city and regional level interventions will be widely disseminated along with the findings from their assessment. This will be accompanied by a catalogue of behavioural, choice & empowering planning tools used to nudge citizens towards more sustainable and safe mobility behaviours in the SSMLs. This will provide the wider policy makers and private sector transport planners with a comprehensive and validated set of interventions to contribute to the achievements of the targets for Vision Zero and 100 Cities Mission [***This is a short/medium range impact***].

*Significance*: **High**. Over 15 piloted and validated interventions to increase VRUs' safety and reduce emissions both from a top down (infrastructural, smart policies) and bottom up (behavioural, choice design) perspectives.

*Scale, direct target*: street, neighborhood, city, regional, national, EU levels policymaking, planners & designers

**Pillar 2: Open Proactive Data**

**Expected Impact**: **Scientific**. As part of the Impact Assessment Framework, the data collection and visualisation tools and measures of each pilot city will be upgraded and further developed with AI enhanced decision support tools to ensure the evaluation of the interventions at micro project and macro city levels. This will include: hyperlocal cross- domain objective/performance and subjective data on both actual and perceived safety and inclusiveness, as well as on environment and transformative governance; city level data on road safety, climate targets and environmental footprint, social inclusiveness and transformative governance. The data will be made available through the project Data Hub, the NetZeroCities Platform and other open repositories (e.g. Zenodo) to maximise further scientific research and findings [***This is a short/medium range impact***].

*Significance*: **High**. Hyperlocal and city level data for 10 cities for a wide range of variables to enable further research in the areas of VRU safety, climate neutral city interventions, sustainable mobility.

*Scale, direct target*: scientific community interested in sustainable mobility, behavioural change, VRU safety

**Pillar 3: Cross-Sectoral Guidance**

**Expected Impact**: **Societal and Policy**. The Peer learning and capacity building activities will upskill staff in the 10 partner cities and 10 Cascade Cities. Replication Packages for measures demonstrated in the 10 SSML and the Implementation Plans for upscaling in Cascade Cities will allow for a streamlined replication and multiplication of the impacts of piloted interventions in Countries of the Partner cities and Cascade cities. The targeted guidance and policy recommendations on a number of horizontal issues, drawing on the experiences of the SSML pilots, will allow for an impact on EU policies for further replication [***This is a medium/long range impact***].

*Significance*: **High**. Over 50 practitioners per SSML will be directly involved in capacity building activities; 10 Cascade Cities will avail of the guidance and prepare Implementation Plans to replicate the solutions; over 100 other EU cities will be exposed to the results and interventions through NetZeroCities, European Mobility Week, CIVITAS, CIVINETs, Breakfast@Sustainability and similar other initiatives of REALLOCATE partners.

*Scale, direct target*: local and national policymakers and practitioners, EU policymakers for climate and road safety

**Additional Impacts of REALLOCATE**

REALLOCATE will contribute to the ambitious objectives of digital transformation and sustainable mobility set out by the Horizon Europe Strategic Plan 2021-2024 and the EU Road Safety Policy 2021-2030, through improving scientific understanding of interconnections between road users and with the urban infrastructure, and modelling data collected through newly-developed innovative technologies/actions (WPs 2, 3, 5). REALLOCATE will contribute to the objectives set out by the EU Green Deal (Transport & the Green Deal) of shaping a smart and sustainable future mobility through: developing, deploying and testing in real environments the use of smart applications for increased VRUs safety (WP3), integrating multiple datasets for a comprehensive understanding of hazards (WPs 3, 5), contextualised exploitation through policy (WP6). Developing concrete policy recommendations (WP6) to increase

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road safety will promote the EU's policies on Mobility & Transport (e.g. supporting cities to develop their own SUMPs), while the development of novel indicators and guidelines to improve road infrastructure (WP5) support the EU STRIA and inform SUMI. The project's results and outcomes will be available through user-friendly dashboards to the wider public (WP5). Actions in the 10 SSMLs will be closely aligned with local road safety targets and infrastructure plans foreseen in the Sustainable and Smart Mobility Strategy and EU Road Safety Policy Framework 2021-2030 towards VisionZero, as well as with drastically reducing emissions from transport, to meet the targets of the Zero Pollution Action Plan, and overall of the Climate-Neutral and Smart Cities Mission. The results and best practices will be shared through policy dialogues and other dissemination means to EU representatives, linking up with upcoming European Urban Initiative of Cohesion Policy, the Urban Agenda for the EU, the Safe and Sustainable Mobility Partnership, EIT Urban Mobility. Dedicated activities of REALLOCATE will be linked through pilot cities and partners' participation to the CIVITAS Initiative and a collaboration framework with the Mission Platform will be established by feeding-in open data and training activities. These will also increase public and practitioner acceptance of the suitable and innovative solutions developed. Further synergies will be formed with actions and projects from Horizon Destination 6 for Safe, Resilient Transport and Smart Mobility, particularly concerning drastically decreasing the road collisions and fatalities (in REALLOCATE especially for the active modes), and the optimised digital infrastructure (by contributing with AI enhanced tools, algorithms, Digital Twins and data feeding into the Mission Platform, developed in REALLOCATE).

### 2.1.2 Potential barriers and mitigation measures

REALLOCATE will address existing barriers and provide systematic solutions to overcome them (Table 2.1b).

***Table 2.1b**: Barriers to REALLOCATE outcomes & impacts (colored lines), and mitigation action (white lines).*

| REGULATORY AND SYSTEMIC |
|---|
| > Lack of comprehensive safety framework and regulatory conditions for VRUs could limit the replicability of the project methodology in the different countries |
| Mapping existing local policies/indicators to implement an appropriate methodological framework (WP5). Interchanges with local stakeholders and policymakers (WP4, 5) will translate findings into concrete tailored services for population (WP4, 6) and policy recommendation at different scales (WP5,6). |
| > Heterogeneity in regulatory & cultural frameworks across EU leading to different paces of VRU policy adoption |
| Citizen and stakeholder engagement in 10 SSMLs facilitates open dialogue to establish an adaptable approach to the received feedback (WP2). Provide guidelines recommendations (WP5,6) where opportunities for implementation exist, otherwise support and stimulate the stakeholders to add relevant items in local/city/county development and regulatory plans fostering future guidelines implementations. |
| > In the adoption of traffic & transport measures and political mechanisms promoting road safety for VRUs, these are not implemented with a view to the long-term shift in behaviours and the use of street spaces |
| Novel interoperable tools/services (WP3,4) and interactive recommendations (WP5) will be easily accessible and effectively conveyed to users (stakeholders/citizens) through communication and dissemination strategy (WP6). |
| **SOCIO-ECONOMIC** |
| > Socio- economic barriers preventing the diffusion of outcomes, limiting outreach of road safety technologies and tools, including hindering of access to mobility data in different locations. |
| Identification of the existing economic barriers and policies (T3.7), mobility plans for climate neutrality and links with current SUMPs (T3.3), collaborative efforts between public and private sectors (in all 10 SSMLs) tested also across admin borders in some pilots (e.g. Heidelberg). |
| > Heterogeneity of contexts and investment costs limit the potential diffusion and implementation of guidelines |
| Customized engagement strategy (WP6), co-development of a tailored communication strategy (WP2, 4, 5), specific local policies involving local authorities and city councils (WP2,4), co-created concrete guidelines (WP6). |
| **CULTURAL** |
| > Difficulties to reach culturally diverse communities and access them |
| Identification of barriers for people engagements (WP2, 4), socio-economic impact assessment (WP5), targeted communication strategies to increase SSML visibility (WP2,6), co-design of concrete guidelines (WP4,6). |
| > Public acceptance of policy recommendations that defy the widespread of road safety strategies |
| Identification of the socioeconomic barriers and perceptions, considering gender (WP5); tailored engagement and communication strategy (WP6), provision of user-friendly tools through co-created services (WP2, 3, 4). |
| TECHNICAL |
| >Potential barriers in accessing high-quality mobility data in the different SSMLs for REALLOCATE analyses |
| AI tools to support in the assessment of new mobility services (T3.5); multiple means of data collection for foot/bike/e-scooter traffic (e.g. through wearable sensors and location-tracked devices); pilots in multiple cities supported by horizontal technical partners to ensure proper collection, anonymisation, protection and interpretation |

## 2.2 Measures to maximise impact - Dissemination, exploitation, and communication of results

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REALLOCATE has designed a complete range of activities led by two core strategic elements: an efficient and comprehensive communication and dissemination strategy and a forward-thinking exploitation strategy to facilitate and encourage the use of its innovative products beyond the project's lifetime. REALLOCATE will deliver the expected impact of HORIZON-MISS-2022-CIT-01-01 having a strong commitment to develop and demonstrate context-sensitive SSML solutions, where city partners co-design and co-develop technologies/ interventions to promote a modal shift to sustainable urban mobility, leveraged by the SCNM System. The project will deliver innovative and replicable solutions and tools and will ensure that inclusive, safe, affordable, and sustainable urban mobility can be delivered more comprehensively, efficiently and effectively. A comprehensive set of guidance and policy recommendations will be produced for further European take-up, dedicated to key target groups (policy makers, city representatives, practitioners, academics). The project's impact will be generated through involving a broad group of stakeholders (politicians, practitioners, experts, businesses, NGOs, citizens), further enhanced through development of innovative knowledge transfer, capacity building methods and tools, and creation of a peer learning environment that accelerates this transfer process.

### 2.2.1 Dissemination and communication of results

***Dissemination:*** REALLOCATE will make each target audience aware of the project's products and outputs. Through the consortium's wide variety of contacts and far-reaching networks, the project will reach various stakeholders with tailored messages, targeting their respective interests. The dissemination activities will be based on a thorough, well-structured strategy, which will be applied across all WPs, as a cross-cutting action. Based on the fruitful collaboration of two major European Local Authority networks (EUROCITIES and ICLEI EUR), the project has an excellent contact base to achieve an effective European-wide outreach. An extensive stakeholder mapping will be conducted as part of the communication strategy and will incorporate European cities, mobility experts and contacts from other mobility-related initiatives. Approx. 500 contacts will be included, to be increased over the project's lifetime. All partners will be made aware of their dissemination duties and roles during the project's lifetime, as guided by the lead partner for communication (ICLEI EUR). Together, the partners manage wide European communication channels reaching people in all regions of Europe (and beyond), see for instance Table 2.2.

***Table 2.2:*** *Pre-existing channels run by project partners can promote REALLOCATE and multiply CDE*

| Partner Channel and Reach | Target audience | Links |
|---|---|---|
| **ICLEI** is a global network of 2500+ local and regional governments committed to sustainable urban development, active in 125+ countries. | | |
| ICLEI Europe website:20,500 visitors/month | Local authorities / Policy-makers / Academia Civil society | https://iclei-europe.org/ |
| ICLEI Europe Twitter: 20,400 + | | @ICLEI_Europe |
| ICLEI Europe Linkedin: 2,400 + | | ICLEI-Europe |
| ICLEI Europe eNewsletter: 2,000 | | https://iclei-europe.org/newsletter/ |
| ICLEI Global iNews: 6,000 | | https://iclei.org/ |
| ICLEI Informed Cities newsletter: 1,500 | | https://informedcities.eu/newsletter/ |
| **EUROCITIES** with 200+ cities in 38 countries represents 130 million people. Being involved in the Mission Platform, Eurocities ensures synergies are created. | | |
| EUROCITIES website: 60,000 visitors/month | Local authorities / Policy-makers / Civil society / Academia | https://eurocities.eu |
| EUROCITIES Twitter: 27,500 | | @EUROCITIES |
| EUROCITIES Europe Linkedin: 27,255 | | https://www.linkedin.com/company/eurocities/ |
| **European Cyclists' Federation** unites the cycling movements as the only civil society voice at the pan-European level, with 60+ members in 40+ European countries. | | |
| ECF website: 31,200 visitors/month | Local authorities / Policy-makers / Academia Civil society | https://ecf.com |
| ECF Twitter: 2.8 million impressions | | @EUCyclistsFed |
| ECF LinkedIn: 570,000 impressions | | www.linkedin.com/company/european-cyclists'-federation/ |
| ECF monthly newsletter: 70,000+ | | |
| ECF Facebook: 1.5 million reached | Civil society | www.facebook.com/eucyclistsfed/ |
| **International Federation of Pedestrians** represents associations and individuals with + 40 members from all over the world, working for liveable public space and rights of pedestrians. | | |
| IFP website: 10,000 visitors/month | Local authorities / Policy-makers / Civil society /Academia | https://www.pedestrians-int.org/en/ |
| IFP Twitter: 6,863 followers | | @IFPedestrians |
| IFP Facebook: 13,000 | | @IFPedestrians |

The table below draws an overview of the audience composition and their involvement relevant for REALLOCATE, which is further elaborated in the communication and dissemination strategy.

| Target Group | Objectives | Key messages | DCE measures |
|---|---|---|---|
| **CITIES AND RELATED STAKEHOLDERS in 5 Lead, 5 Twin, 10 Cascade Cities and beyond** | | | |
| Local city authorities | | | |

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| | | | |
|---|---|---|---|
| (mayors; urban planning transport, environment departments); regional planning authorities; decision makers; Mobility providers/Public Transport Operators/ Agencies /Research Institutes; practitioners (ATM,Nysse,TCL,TNO) | Raise awareness,motivate replication of SSMLs innovative aspects/Present tools,guidance, etc. / Show impacts of solutions, share experience on implementation barriers/ Facilitate adaptation of innovative concepts to local, national contexts and planning practices / Create conditions for successful knowledge transfer | The race to carbon-neutral cities goes hand-in-hand with the transition towards sustainable mobility. | Workshops with 10 SSMLs & 10 Cascade cities/Website (Newsfeed, e-newsletter), 2 Press releases/LinkedIn, Twitter /Mobility Media Channels (Eltis, EMW)/ Science Communications & Open Research Events/ e-learning (CityConsult Agency)/2PolicyDialogue |
| Cities play a crucial role in REALLOCATE and will be at the core of its dissemination activities. The project will take a qualitative approach to make stakeholders aware of and support them in using developed tools and guidance. | | | |
| **CENTRAL GOVERNMENT, NATIONAL POLICY-MAKERS and PRACTITIONERS** | | | |
| Transport and mobility Policy-makers / National representatives; Mayors Alliance, Covenant of Mayors, Interreg, URBACT, CIVINETs, CIVITAS;TRIMIS;AET; | Present successful SSMLs initiatives; Facilitate adaptation of solutions and guidance to national contexts and planning practices; Obtain national support for adopting specific national frameworks. | Safe, inclusive, active and sustainable mobility systems boost social cohesion and public health, speed up transition to carbon-neutrality. | REALLOCATE Final Report; Conferences; Dialogues; Project Events; Workshops; Factsheets; Infographics, Summaries; e-Newsletter; 2 Policy |
| Private sector transport planners / Industry (e.g. PTV , Tier, Lime etc.) | Facilitate exploitation of solutions collaborating with industry stakeholders / planners to identify potential commercial opportunities. | Join us on the fast track to carbon-neutrality with smart, green, mobility solutions! | REALLOCATE Expert Seminars, Conferences; Workshops; Open Science Communications; |
| They will receive guidance on national conditions, as national support is crucial across EU for mobility innovation. | | | |
| **The wider RESEARCH COMMUNITY** | | | |
| Academia, researchers in urban planning, transport engineering, behavioural, social, environmental, sciences (e.g. in AESOP, EURA, Euro-CASE) | Provide evidence based assessment of SSML interventions using quantitative/qualitative variables; increased credibility & acceptance; provide guidance to reach Vision Zero and Mission Cities targets. | Paradigm shift in street space use and road behaviour requires systematic, multi-sectoral, multi- stakeholder, multi-disciplinary approach. | Journal papers (e.g. International Journal of SustainableTransportation; Sustainable Cities and Society). International Mobility Conferences. |
| The Consortium is led by a University and brings together research institutes with expertise in sustainable urban mobility, for engaging with new ideas, the overall research framework, researchers in fields of mobility innovation. | | | |
| **LOCAL ACTORS** | | | |
| Civil society; Citizens (resident associations, VRUs, women, children, elderly, disabled, etc.) | Informing about planned measures and their effects, indicating benefits / Encouraging citizens and stakeholder to get involved in planning processes / Change mindsets about mobility behaviour; | Putting citizens & safety at the heart of zero-carbon mobility. Let's accelerate together! | Media communications aligned with website and social media (Facebook, Twitter, LinkedIn); |
| Local businesses (shop-keepers, deliveries) | | Let's innovate for smart zero-carbon mobility! | Local stakeholder events; REALLOCATEworkshop |

***Communication:*** REALLOCATE's results will be widespread using various complementary channels and a recognisable visual identity. Applied research will be conducted, generating valuable knowledge that will be converted into technical/scientific papers (>20), reports (>25), promoted in an attractive, easy-to-digest format (e.g. brochures & fact-sheets >80), made accessible to stakeholders and the general public. Projects' digital communication hub is its **website**, hosting key information about its objectives, approach, outputs, the project partners, an overview of the 5 Lead, 5 Twin and 10 Cascade cities, a news and events section, a resources page with all project's publications. Dynamic **social media** channels (Twitter & Linkedin), regular **e-newsletters** will promote project news and publications, engaging with online communities, highlighting that zero-carbon mobility is key in the race to zero-carbon cities. Social media activities will draw the audience to the website. Communication and dissemination will be tailored to specific target groups as described in the table above. Links with European projects will be created and collaboration with national multipliers and City partners will be sought. Translation/interpretation of relevant messages/outputs will ensure info accessibility for everyone, including the less-abled. The outreach strategy will outline planned communications activities, key messages for target groups, appropriate channels, communication products, evaluation and monitoring measures and criteria, the consortium partners' roles and responsibilities in activities.

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REALLOCATE is committed to establishing a cooperation with the projects funded under the same topic HORIZON-MISS-2022-CIT-01-01 as part of cluster inclusive, safe and sustainable urban mobility as well as with the Climate-neutral and Smart Cities Mission Platform. This cooperation shall materialise in the coordination of research and innovation, monitoring and communication and dissemination activities of mutual interest, and any other type of collaborations that may occur during the conduct of this Innovation Action project, on the basis of mutual benefit.
REALLOCATE has flexibility in identifying activities and means of collaboration with the other projects funded under the same topic and the Mission Platform. The collaboration could cover e.g. defining complementary solutions, measures or methodologies, capacity building, networking or dissemination activities (such as webinars, workshops, site visits or publications). A detailed description of the specific activities and common actions that will be undertaken will be further defined during the first months of the project lifetime.
To foster complementarity and avoid duplication, all the projects funded under topic HORIZON-MISS-2022-CIT-01-01 and part of cluster inclusive, safe and sustainable urban mobility as are expected to share information on their living-labs demonstration/pilot activities and relevant results to the Mission Platform, including where possible the provision of data to enable the monitoring of progress towards the achievement of the Climate-neutral and Smart Cities Mission objectives. The collaboration with the Mission Platform will be formalised through a Memorandum of Understanding to be concluded as soon as possible after the project starting date.
The CIVITAS initiative promotes a collaborative approach for the cities and stakeholders members of the CIVITAS community to support them in developing innovative solutions, measures and policies, needed for cleaner and better urban mobility/transport. The CIVITAS initiative has established a framework for coordinated evaluation, dissemination and information exchange activities and supports local partnerships in testing and implementing new approaches under real-life conditions. Through coordination of events and dissemination/capacity building activities, and coordinated impact assessments, the cities and stakeholders of the CIVITAS community develop a knowledge base and their technical capacity while benefiting of expertise and support in implementing and scaling-up innovative solutions/measures.
We, the consortium members of the REALLOCATE project acknowledge and share the CIVITAS objectives and, through playing an active role in the CIVITAS community, hope to contribute towards them. In order to promote the CIVITAS initiative, the REALLOCATE project will share the project's lessons and conclusions with the CIVITAS network. We will implement the CIVITAS corporate design, according to the guidelines provided. On request, we will cooperate with the CIVITAS-secretariat and participate at CIVITAS-lead activities. Further details will be specified during dedicated meetings between the REALLOCATE project and CIVITAS ELEVATE, the Coordination and Support Action – CSA currently supporting the CIVITAS initiative and the REALLOCATE project/consortium.

### 2.2.2 Exploitation of project results

A forward-thinking exploitation strategy (strategically embedded from project's start through WP4&WP6) sets out REALLOCATE's approach to exploiting key results/outputs to create positive societal impact in contributing to accelerating carbon-neutral mobility. Each project partner - output owners (see below), though making this knowledge/IP publicly available - will facilitate their output's use beyond the project's lifetime.

| WP. | REALLOCATE's Key Exploitable Results | Owner | Exploitation type |
|---|---|---|---|
| 5 | AI-powered distributed dashboard and multimodal data hub | BSC CNS | *Technological:* Patents (>3), Journal papers (>20); Tech presentations at workshops, seminars, Open Tech/Research Events (>10); visualised through REALLOCATE dashboard; |
| 3 | AI enhanced decision support tool | BSC CNS | |
| 3 | AI-powered Digital Twin for assessing potential safety risk for VRUs | CERTH | |
| 2 | Portal and remote access for servers aggregating safety risks in Tampere | VTT | |
| 2 | 3D road Digital Twin leveraged by AI edge modules | VTT | |
| 3 | Data-driven decision-support tool to assess new mobility services | ERTICO ITS EUR | |
| 3 | Smart Nudges digital toolset for traffic safety | Nudgd | |
| 3 | LiDAR surface scanning to prevent pedestrian falls, including for PwD | IFP-research | |
| 5 | Monitoring system and data gathering open API-tools | CERTH | |
| *Significance:* user-friendly tools for consistent road safety assessment in relation to climate indicators - a concrete economic opportunity impacting beyond the SSMLs involved; support to shift from car-centric to active mobility. | | | |
| 5 | Impact evaluation framework at intervention- and project-level | CERTH | *Scientific:* Journal papers (>3) Open Science Events (>5) |
| 3 | Comparative framework for implementing 'reallocation models' in different urban contexts and planning structures; | UCD | |
| *Significance:* facilitate data blending and bridge knowledge gaps between engineering, urban design and socio-economic disciplines; providing new systemic knowledge; supporting policy and decision-making; | | | |
| 3 | Safety System and Vision Zero auditing policy guidelines | Cerema | *Operational (guidelines)*:Workshops, |
| 3 | 3D Urban Design Guidelines for inclusive, safe, climate-neutral spaces | ARUP | |

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| | | | |
|---|---|---|---|
| **3** | Local-scale circular economy and lifecycle sustainability guidelines | DEKRA | Seminars, Conferences with practitioners/policy maker(>10);Specialised Media (CIVITAS, Eltis, City Consult Agency). |
| **3** | Innovative governance and business models for sustainable mobility | Demos | |
| **3** | Methodological guidelines for Climate Mobility Plans to update SUMPs | Fraunhofer | |
| **6** | Replication Package (guidelines) for 10 SSMLs | ICLEI EUR | |
| **6** | Cascade Cities Implementation Plans | ICLEI EUR | |
| *Significance:* ensure applicability, replication and upscaling of project concepts, methodologies and results to other EU cities and beyond, tackle societal risks of road safety, climate and inform EU policy. | | | |

Different exploitation activities at consortium level and expected intentions of partners are summarised below.

| **Exploitation activity at Consortium level** |
|---|
| **Non-commercial, carried out individually by partners or joint as a Consortium:** Implementation of internal activities to support development of REALLOCATE's **innovations, methodologies, tools, guidance and policy recommendations; Engaging other cities directly in the project** - 10 Cascade Cities to closely follow demonstration activities in 10 SSMLs, through dialogue/exchange and enhance replication likelihood; **Information provision to enable replication -** A Replication Package will enable cities to make informed decisions and replicate solutions; **Opportunity for direct exchange** - Knowledge transfer support, capacity building, mentoring activities enable external decision-makers (from other cities) to see/discuss demonstration measures in person, facilitating replication; **Wider outreach** - documented project results will reach a very broad audience through project's website, Eltis - important strategic multiplier, CIVITAS website, ICLEI's City Consult Agency. |
| **Organisation types involved in exploitation activities** |
| **Expert partners and City Networks:** Based on REALLOCATE's new results, expert partners will provide their customers with innovative approaches to foster safer, climate-neutral mobility and increase their ability for future research and development activities nationally and internationally. The partners work closely with cities / national governments, and will promote a better understanding amongst policy makers about policy impacts in responding to diverse groups and community needs. Their experience in multiple EU-funded projects safeguards wide results dissemination/exploitation to transport experts, public authorities, transport providers/ associations in Europe. |
| **City partners:** 5 Lead + 5 Twin cities will use REALLOCATE's results to enhance sustainable, safer, more affordable and accessible mobility. Outcomes will be disseminated through networking/meetings on transport and mobility topics. Platforms and channels allow technicians and decision makers from Lead, Twin and Cascade cities to exchange good practices and results, leading to an European-wide dissemination of REALLOCATE's results, further encouraging take-up by an even wider range of cities enabling legacy creation beyond the project's lifetime. |
| **Academia:** Aiming to engage with new ideas, research frameworks and researchers in connected fields which provide added value to their students/ PhDs/ institution. They will publish and present REALLOCATE results in highly-impacted journals and conferences, ensuring international scientific visibility of the project. Some of REALLOCATE's researchers have productive collaborations with industrial partners, the EC, United Nations, World Bank, national or local governments and worldwide academic institutions, helping exploit project outcomes. |

### 2.2.4 Knowledge management and Intellectual Property Right strategy

The consortium will make project results available Open Access. REALLOCATE will handle IP management via a three-level approach in Task 1.3: (1) **Proposal Phase**: Preliminary Identification of results under IP regime: The consortium has already identified outputs that can be subject to IP/ownership. Refraining from using identical or similar characteristics to an IPR, preliminary research was performed using Google Patents, Patent Lens, EUIPO (Espacenet, eSearch plus), EUIPN (TMview) and WIPO (Global Brand Database). (2) **During the project**: Grant Preparation Phase: A) preliminary assessment of intangible assets through the Horizon IP Scan service will be utilised, aiming to identify any IP issues. B) Demonstration in urban environments: REALLOCATE will give emphasis to the protection of IPRs derived from demonstrations. A set of both protective and supportive measures (e.g. requirement to sign Consent Forms) will be undertaken by the consortium, ensuring transparent allocation of IPRs and fair exploitation by the consortium. C) Democratisation of Scientific Knowledge: The consortium will openly publish the overall project results and all partners will deposit scientific peer reviewed publications in a centralised repository (Open Research Europe). (3) **Post-project IPR strategy**: Since the Freedom-To-Operate Analysis resulted in no barriers, the pre-identified and newly generated IPRs can and will be protected even after the project's end. The post-project IPR strategy will be defined within the duration of the project by all the partners.

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## 2.3 Summary Canvas

| SPECIFIC NEEDS | EXPECTED RESULTS | D & E & C MEASURES |
|---|---|---|
| *Technical needs* - Quantifying active modes impacts on climate through holistic data collection/analysis and integration;<br>*Transport engineering needs* - Innovation in shared mobility services and incorporating VRUs needs; integrated actions for active mode infrastructure;<br>*Urban design/planning needs* - Balancing road space allocation to active modes, incorporate nature-based solutions in circular public space redesign;<br>*Social/educational needs* - awareness on how travel behaviour impacts environment; addressing road safety perception for active modes;<br>*Upscaling needs* - governance and business models to decarbonise mobility; | **Tech & AI tools:** AI powered dashboard and multimodal data hub (R2.2; R7.1); AI enhanced decision support (R3.1) for new mobility services (R3.2) and SUMP (R1.10); AI-powered Digital Twin to assess VRUs safety risks (R3.3);VRUs interaction risk and injury detection (3.1); monitoring, data gathering API (R3.1;R3.2); Portal aggregating safety risks(R3.5);SmartNudge tool for traffic safety(R6.1);<br>**Frameworks:** Impact evaluation framework at intervention and project level (R2.1); Comparative frameworks for circular design (R4.2);<br>**Guidelines:** Safety system and Vision Zero auditing through comprehensive safety analysis (R5.2); Transformative governance and business models for sustainable mobility (R5.2, R5.4); Climate Mobility Plans (R5.3); Replication Package (R7.2); 3D Urban Design Guidelines (R1.9); | **Exploitation:** Patenting AI and tech tools; ownership identification; roadmap definition to reach relevant stakeholders; outline post-grant actions for proper upscaling;<br>**Dissemination** towards the scientific community: Scientific publications with results from impact evaluation frameworks, comparative replication models, and performance of AI/tech tools for climate-neutral mobility (>20); Open Science Events (>5); Infographics, Factsheets (>60);<br>**Dissemination** towards practitioners and policymakers: Workshops with 10SSML and 10 Cascade Cities, Seminars, Conferences (>10), Open Tech/Research Events (>10); Science Communications; Results visualised through dedicated interoperable Dashboard; LinkedIn, Twitter, Mobility Media Channels (Eltis, European Mobility Week), e-learning (CityConsult Agency of ICLEI); 2 Policy Dialogues; Final Report; Stakeholder events;<br>**Communication** towards citizens: Website; Breakfast@Sustainability - Public Event showing benefits of climate-neutral mobility; min. 2 Press Releases; biannual e-Newsletter; Brochures, Leaflets with visual identity; dedicated Social Media networks (of ICLEI EUR, Eurocities, IFP research); Facebook; |
| **TARGET GROUPS** | **OUTCOMES** | **IMPACTS** |
| **10 Partner Cities + 10 Cascade Cities +** other EU cities (via Eurocities, ICLEI);<br>**End-users:** children/youth, elderly,VRUs, disabled, pedestrians, cyclists, residents;<br>**Authorities:** local and regional planning authorities; transport planning decision makers; mayor's office; city departments;<br>**Companies, practitioners, NGOs:** mobility providers, transport operators, architects, engineers, ISOCARP, TRIMIS;<br>**Scientific community**: AI, transport engineering, urban design and planning; environmental, social, behavioural sciences, AESOP, EURA; Euro-CASE;<br>**EU initiatives, forums**: CIVITAS, CIVINETs, Covenant of Mayors, Eltis, International Transport Forum, URBACT, Interreg, EU representatives; | **-Up-taken solutions by 10 Cascade Cities** (at least 1 measure as defined in Implementation Plans);<br>**-Digital Twins** and **AI powered Dashboard and Multimedia Data Hub** enabled open source;<br>**-Public Authorities access Integrated data** gathering techniques and monitoring systems;<br>**-High use of Frameworks by Researchers** (measured by publication citation index) and **Guidelines by Authorities/Practitioners** (on circular design, safety system, climate mobility business models via Replication Packages);<br>**-Citizens in 10 SSMLs** choose active modes for better health, climate, and to be in inviting, safe, inclusive, accessible vegetated street spaces;<br>-contributing to the European **Urban Mobility Framework, the EU Road Safety Policy Framework** with new/better monitored qualitative and quantitative KPIs for policy formulation. | **Scientific:** New breakthrough scientific advances from integration of AI objective data (improved near-misses understanding, falls detection, predictive algorithms) with citizen science and subjective perception;<br>**Technological:** A new market for Digital Twins for VRUs safety, AI algorithms facilitating monitoring, Multimedia Data Hub, and Smart Nudge toolsets for climate-neutral mobility safety - which will become valuable tools to researchers and tech practitioners (contributing to drastically lowering road safety risks >40% by 2030);<br>**Economic:** Replicated models of reallocated space (e.g. 'Healthy Superblocks') paired with climate mobility business models in >15 cities, including in Eastern Europe, generating a major shift in travel behaviour (30% reduction of air pollution costs for Europeans) and improved quality of life (>5000 euros increase in productivity per employee/year);<br>**Societal:** Increased comfort and safety in vegetated public spaces by the street for citizens (>70%) from uptaken climate-neutral and safe mobility guidelines to >50 Mission Cities by 2030. Reduction in traffic emissions >50% by 2030 and health risks >20% of European citizens embracing active modes in regreened public spaces. |

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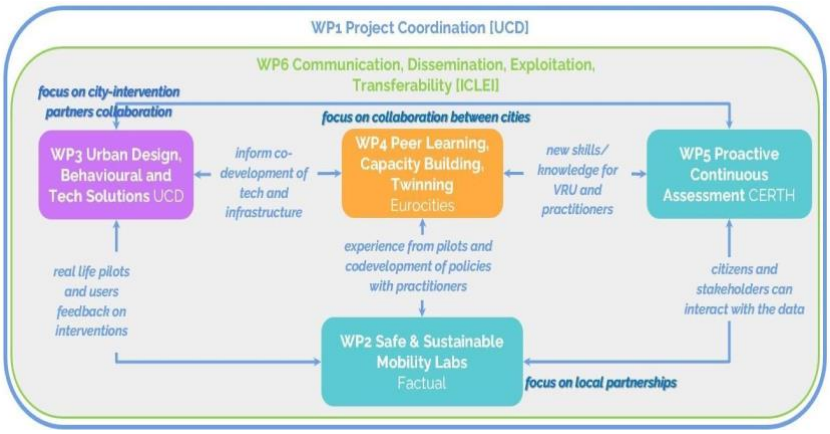
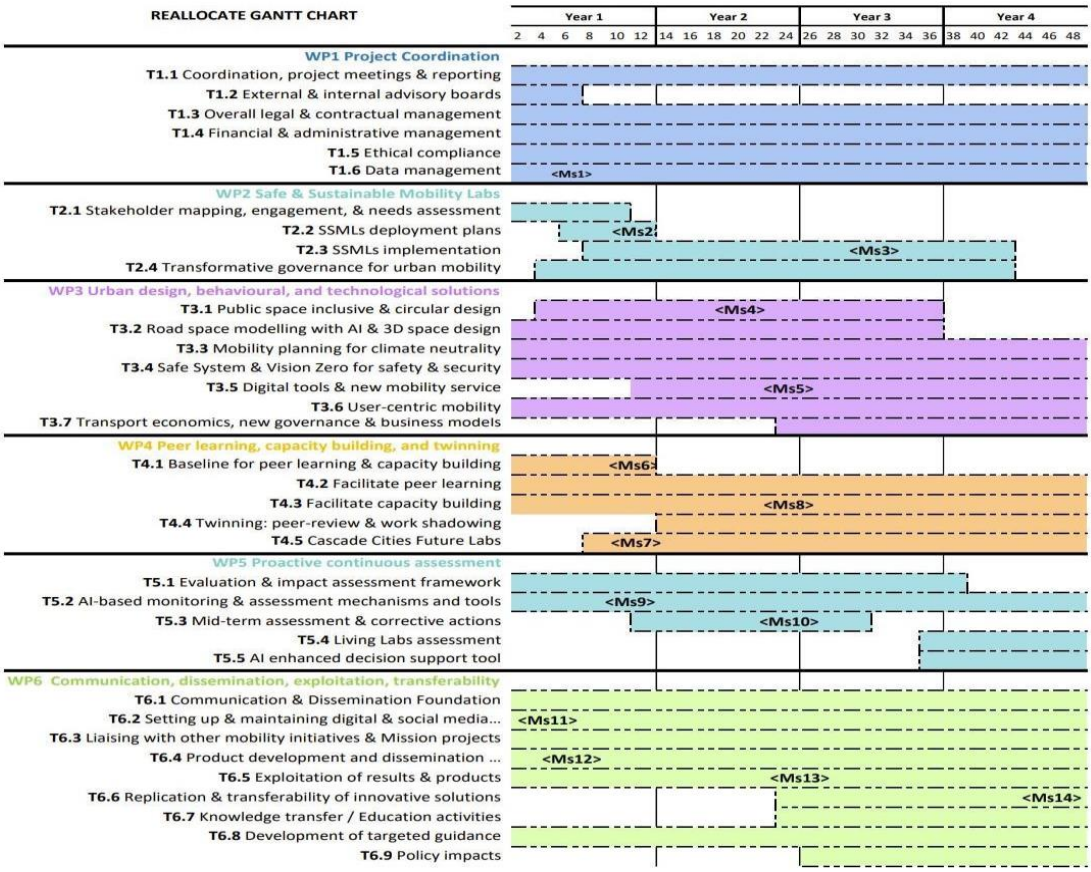
## 3. Quality and efficiency of the implementation




REALLOCATE's work plan consists of 6 WPs ensuring cross-fertilisation among consortium members for implementation and provision of holistic support to partner cities for designing safe, inclusive, affordable, and sustainable urban mobility to contribute to Cities Mission objectives and respective Climate Contracts. The support is layered as described below, all coordinated through the management structure detailed in **WP1**. **City Level:** **WP2** concerns deploying the SSMLs in 10 cities (5 Lead + 5 Twin), supporting them to: i) set up their local innovation ecosystem; ii) co-develop intervention plans; iii) manage processes/interactions with stakeholders to define baselines, KPIs, obtain data; and iv) deploy innovative solutions, approaches, policies. **WP5** concerns interventions' assessment to delivering tools, replicable processes and analyses. It will develop/deploy an effective monitoring framework integrating cross-domain objective performance and subjective data to identify interdependencies and co-benefits and assess holistically the interventions' impact. **Consortium Level:** **WP3** will provide horizontal expertise to the 10 SSMLs to deploy in WP2 the innovative and replicable mobility solutions, covering multiple thematic areas relevant to the call and the broader Cities Mission. **Inter-city Level:**: **WP4** concerns capacity building running integrated approaches to foster knowledge transfer and collaborative learning through: 1) *Mentoring:* specialised assistance for innovation from horizontal partners to the Lead and Twin Cities; 2) *Knowledge exchange and twinning:* Peer learning amongst cities via regular webinars, reciprocal visits, and work shadowing; 3) *Cascade Cities Future Labs:* replication packages, guidelines and support for developing implementation plans to 10 Cascade Cities. **National and European Level:** **WP6** concerns DCE activities, developing/implementing specific plans; producing city/policy-making guidance, informing in a targeted way stakeholders/potential replicators about project's objectives/results, generate high-level acceptance, establish synergies/cross-fertilisation with other projects/initiatives, organise knowledge exchange and provide learning resources, cooperate with the CIVITAS Initiative and national CIVINETs to bring results to planners, policymakers and analysts, ensure replication and upscaling of the implemented solutions.

### 3.1 Work plan and resources

#### 3.1.1 Work plan



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**The beneficiaries must base their contracts/subcontracts according to the principles for best value for money and absence of any conflict of interest (according to Articles 6.2 and 9.3 of GA). Beneficiaries that are 'contracting authorities' or 'contracting entities' (within the meaning of the EU public procurement Directives 2004/18/EC and 2004/17/EC or any EU legislation that replaces these Directives) must moreover comply with the applicable national law on public procurement.**

***Table 3.1g:*** *'Subcontracting costs' items*

| 21 COBO | Cost (€) | Description of tasks and justification |
|---|---|---|
| **Subcontracting** | 20,000 | Upgrade city dashboards and data hubs to REALLOCATE standards and capabilities required in WP5 from external consultant [the city doesn't have the relevant expertise] |

**All depreciation costs for equipment, infrastructure or other assets in the project are in compliance with Article 6 and will be recorded in the appropriate beneficiary's accounts, purchased in accordance with Article 6.2.C of the grant agreement and written off in accordance with international accounting standards and the beneficiary's usual accounting practices.**

***Table 3.1h:*** *'Purchase costs' items (travel and subsistence, equipment and other goods, works and services)*

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| **5 ICLEI EURO** | **Cost(€)** | **Justification** |
|---|---|---|
| **Travel & subsistence** | 24,750 | Travel to meetings (1 kickoff+ 6 project & pilot visit meetings, €5,250, 1 person per trip); conferences (8 conferences, 2 people each, €12,000) WP4 peer-review visits (10, €7,500, 1 person per trip) |
| **Other goods, works & services** | 84,000 | Financial Statement/CFS costs (€10,000); Translations/proofreading publications (€10,000); Organising the final conference (€30,000); Visual identity (logo, website, etc €12,000); Printing, shipping publications (€9,000); Video production (€13,000) |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 108,750 | |
| **7 Nudgd** | | |
| **Travel & subsistence** | 6,750 | Travel to meetings (1 kickoff + 8 project & pilot visit meetings, €6,750, 1 person per trip) |
| **Other goods, works & services** | 33,000 | Design services, print, development for material for interventions in WP3. |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 39,750 | |
| **13 VTT** | **Cost(€)** | **Justification** |
| **Travel & subsistence** | **5,250** | Travel to meetings (1 kickoff + 6 project & pilot visit meetings, €5,250, 1 person per trip) |
| **Equipment** | 25,000 | Technology platform: Usage costs of the VTT's automated vehicle, connectivity, server and digital twin tools [depreciation over 36 months] |
| **Other goods, works & services** | 10,000 | Mechanical implementation and electricity connection of the prototype system before deployment |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 40,250 | |
| **16 IFP-research** | **Cost(€)** | **Justification** |
| **Travel & subsistence** | 18,750 | Travel to meetings(1 kickoff + 6 project & pilot visit meetings,€5,250, 1 person per trip); WP4 peer- review visits(5, €3,750, 1 person per trip); conferences (3, €2,250); scanning expeditions (10, €7,500, 1 person per trip) |
| **Equipment** | 41,000 | Sidewalk scanner hardware (LIDAR, 3D camera, GPX system) (€16,000); vision component to further enhance reliability of identification of LIDAR (€25,000) |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 59,750 | |
| **21 COBO** | **Cost(€)** | **Justification** |
| **Travel & subsistence** | 6,750 | Travel to meetings (1 kickoff + 8 project & pilot visit meetings, €6,750, 1 person per trip) |
| **Equipment** | 40,000 | Street furniture and road safety/paving of bike lane, sensors, digital kiosk. |
| **Other goods, works & services** | 13,000 | Cost for organising a project meeting (€8,000); Translations and proofreading of publications (€5,000) |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 59,750 | |
| **22 FIU** | **Cost(€)** | **Justification** |

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| | | |
|---|---|---|
| **Travel & subsistence** | 5,250 | Travel to meetings (1 kickoff + 6 project & pilot visit meetings, €5,250, 1 person per trip) |
| **Other goods & services** | 7,000 | Living lab materials for workshops and other activities (€7,000) |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 12,250 | |
| **23 Budapest** | **Cost(€)** | **Justification** |
| **Travel & subsistence** | 6,750 | Travel to meetings (1 kickoff + 7 project & pilot visit meetings, €6,750, 1 person per trip) |
| **Equipment** | 130,000 | Contribution to traffic safety intervention (€50,000); Contribution to superblock (€80,000) |
| **Other goods, works & services** | 50,250 | Cost for organising a project meeting (€7,000); technical design and permission procedure for the pilots WP2 (€40,000); Financial certificate (€3,250) |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 187,000 | |
| **25 Goteborg** | **Cost(€)** | **Justification** |
| **Travel & subsistence** | 6,750 | Travel to meetings (1 kickoff + 7 project & pilot visit meetings, €6,750, 1 person per trip) |
| **Equipment** | 40,000 | Universerum digital twin usage for project activities (€40,000) |
| **Other goods, works & services** | 113,000 | Cost for project meeting (€10,000); pre-study for Goteborg Green City Zone (€20,000); Local community engagement events in Universeum (€30,000); SSML solutions testing service int Göteborg & Co.(€50,000);Financial certificate(€3,000) |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 159,750 | |
| **28 VVN** | **Cost(€)** | **Justification** |
| **Travel & subsistence** | 5,250 | Travel to meetings (1 kickoff + 6 project & pilot visit meetings, €5,250, 1 person per trip) |
| **Other goods, works & services** | 18,500 | Materials, tools and consumables for activities in schools (€11,500); rent of venue for 4 workshops (€2,000); material for behaviour intervention (€5,000) |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 23,750 | |
| **29 City of Warsaw** | **Cost(€)** | **Justification** |
| **Travel & subsistence** | 6,750 | Travel to meetings (1 kickoff + 8 project & pilot visit meetings, €6,750, 1 person per trip) |
| **Equipment** | 50,000 | contribution to equipment and tools for monitoring pilot (€50,000) |
| **Other goods, works & services** | 14,894 | survey on air pollution before implementation for baseline (€8,511.00); local modal share survey for baseline (€6,383.00) |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 71,644 | |
| **30 City of Zagreb** | **Cost(€)** | **Justification** |
| **Travel & subsistence** | 6,750 | Travel to meetings (1 kickoff + 8 project & pilot visit meetings, €6,750, 1 person per trip) |
| **Equipment** | | |

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| | | |
|---|---|---|
| **Other goods, works & services** | 30,000 | Traffic lights and and software for management for VRUs (€30,000) |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 36,750 | |
| **32 FTTS** | **Cost(€)** | **Justification** |
| **Travel & subsistence** | 5,250 | Travel to meetings (1 kickoff + 6 project & pilot visit meetings, €5,250, 1 person per trip) |
| **Equipment** | 33,500 | Connectivity modules (€4,000); Sensors(Radar, Speed detection, noise and air quality, weather sensors, vehicle & pedestrian counting, €15,000);Smart Traffic light system(€5,000);Terminal devices (€6,500); Drone (€3,000) |
| **Other goods, works & services** | | |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 38,750 | |
| **35 FNM** | **Cost(€)** | **Justification** |
| **Travel & subsistence** | 5,250 | Travel to meetings (1 kickoff + 6 project & pilot visit meetings, €5,250, 1 person per trip) |
| **Other goods, works & services** | 4,000 | Materials for Living Labs activities around schools (€4,000) |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 9,250 | |
| **36 Heidelberg** | **Cost(€)** | **Justification** |
| **Travel & subsistence** | 6,750 | Travel to meetings (1 kickoff + 7 project & pilot visit meetings, €6,750, 1 person per trip) |
| **Equipment** | 120,000 | Equipment for dynamic space allocation system for public transport (€40,000); Deployment of the mobility hubs (€80,000). |
| **Other goods, works & services** | 8,000 | Cost for project meeting (€5,000); Financial certificate(€3,000) |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 134,750 | |
| **37 HH** | **Cost(€)** | **Justification** |
| **Travel & subsistence** | 5,250 | Travel to meetings (1 kickoff + 6 project & pilot visit meetings, €5,250, 1 person per trip) |
| **Other goods, works & services** | 5,000 | materials for local communication activities (€5,000) |
| **Remaining purchase costs (<15% of pers. Costs)** | | |
| **Total** | 10,250 | |

### 3.2 Capacity of participants and consortium as a whole

The REALLOCATE consortium, led by UCD, is a well-balanced team of 38 highly qualified and experienced partners with complementary scientific, technical, communication, and management skills: 8 higher education or research institutions with experience ranging from urban and transport planning, AI and smart technologies, nature-based solutions, climate action (UCD, CERTH, Cerema, BSC CNS, VTT), SSH disciplines (Fraunhofer, Demos, Cerema), 3 European networks dedicated to peer learning, transferability, and the promotion of sustainability, innovation, and urban policy (Eurocities, ICLEI EUR, Ertico ITS EUR), 5 private companies or SMEs leading in

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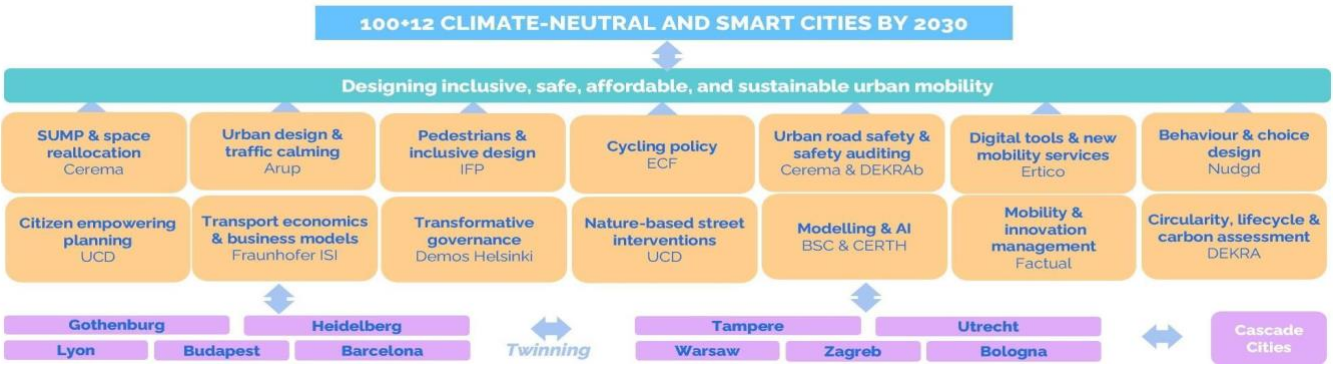
mobility innovation (Factual), behavioural approaches (Nudgd), sustainable and circular urban design and auditing (DEKRA, DEKRA ASSURANCE , Arup), 2 user networks focused on active mobility (IFP-research, ECF), 10 municipalities (Tampere, Barcelona, Bologna, Budapest, Goteborg , Utrecht, Warsaw, Zagreb, Lyon, Heidelberg), and 12 SSML local partners providing local support to municipalities (VTT, IMPD, Nemi, FIU, BKK, SportUtrecht, VVN, SBC , FTTS, LyonM, FNM , HH ). The multi-actor composition of REALLOCATE involves a broad range of stakeholders, networks, cities, communities, at European level and beyond, playing an active role in existing collaborations of end-user-oriented projects, and creating inclusive dialogues that can bring change at both community and governance levels. The complementarity of expertise among REALLOCATE's partners perfectly fits the call's broad spectrum, visible through their different roles in WPs and SSMLs. The Consortium partnership has been designed to provide holistic support to the 10 partner cities for safe, sustainable, inclusive, affordable urban mobility and thus contribute to achieving Cities Mission objectives and Climate Contracts requirements by 2030. Notably, Eurocities city network will manage REALLOCATE's highly ambitious peer learning and capacity building programme (WP4), and ICLEI EUR will double this effort feeding it into transferability and replication (WP6).

Holistic support to 10 partner cities will be provided horizontally by key experts in the following thematic areas: sustainable urban mobility planning and space reallocation (Cerema, Arup); urban design and traffic calming (Arup); pedestrians and inclusive design (IFP-research); cycling policy (ECF); urban road safety & safe system approach (Cerema, IFP-research, ECF); safety auditing on streets and roads that will be assessed in the 10 REALLOCATE SSMLS (DEKRA ASSURANCE , which is an affiliated entity of DEKRA, the latter focusing on carbon footprint assessment, while the former substantiating safety auditing for the proposed scenarios, being specialised in safety consulting, necessary particularly for Task 3.4 but also for Task 3.1); digital tools & new mobility services (Ertico ITS EUR, Factual); behaviour & choice design (Nudgd); citizen empowering planning (UCD); transport economics & business models (Fraunhofer); transformative governance & regenerative infrastructures (Demos); nature-based street interventions (UCD); modelling and AI (BSC CNS, CERTH); mobility & innovation management (Factual); circularity, lifecycle and carbon footprint assessment (DEKRA). These horizontal technical partners will provide capacity building and mentoring to the 10 SSMLs; local living lab partners will be the main beneficiaries of this programme and will have direct responsibilities in knowledge exchange activities (including study visits and twinning).




WP leaders are supported by highly committed and specialized partners. Deployment of community-engagement activities for local implementation rooting is at REALLOCATE's basis, translated into its partnership structure. All partners are involved in local dissemination/awareness actions and will contribute to communication/dissemination activities of project results. The inclusion of relevant universities and research institutes already involved in several related EU projects focusing on citizen engagement, community empowerment, and sustainable urban mobility policies will provide smooth and constructive interactions with existing networks and platforms, increasing networking with end-users and enhancing their confidence in the project results. The REALLOCATE management structure has been framed to boost mutual learning and bottom-up approaches; the consortium is fully aware that management activities are essential for successful project implementation and transparent accountability of EC contribution. The Coordinating partner, University College Dublin (UCD), represented by Prof. Francesco Pilla (PC, Project Coordinator), acts as the intermediary between the EC and the Consortium, and is the promoter and supervisor of overall technical and scientific progress of REALLOCATE. The PC will be assisted by a Project Manager (PM) for high quality project management. Francesco Pilla is Professor of Smart Cities at the School of Architecture, Planning and Environmental Policy. He coordinated the H2020 project iSCAPE and is the Principal Investigator for UCD in several other ongoing H2020, Horizon Europe and National projects in sustainability, climate change adaptation/mitigation, citizen science, urban planning, sustainable mobility, citizen empowerment, climate action. The consortium defined an effective management structure, with a clear distribution of responsibilities and the organization in 2 levels of information flow, to ensure smooth project implementation. REALLOCATE Partners have a wide experience of participating together in numerous EC-funded projects (>100).

1) SCIENTIFIC COORDINATION LEVEL: the PC will be supported by a Scientific Team ensuring soundness of all scientific activities; the advisors of inclusive sustainable mobility (IFP-research,ECF) and mobility planning for climate neutrality(Cerema) will support the Consortium in mainstreaming diversity, gender balance and inclusion

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principles in the entire project implementation, ensuring the proposed interventions follow SUMP principles; the Data Manager (CERTH) will ensure compliance with GDPR; one external Advisory Board (AB) whose members are experts in transport modelling & technology, sociology and citizen science to give feedback on scientific activities.
2) OPERATIONAL LEVEL: the PC will be supported by a Management Team, ensuring appropriate project management, ethics compliance and facilitate communication among partners and with the EC, composed by: the PM, assisting the General Assembly and the Coordinator in all administrative and financial duties;the General Assembly (GA); Executive Board (EB) composed of the PC and all WP leaders, responsible for the overall WPs management; a SSML Board with the 10 SSML leaders, will provide local operational support for SSML activities, chaired by the SSMLs coordinator (Factual); the Capacity Building manager (Eurocities); the Risk Manager (appointed in M1) to assist in monitoring and managing the project related risk; the Regulatory and Ethics Advisory Board (REAB) with members chosen from consortium, with expertise and experience in ethics assessment and compliance; the dissemination, communication and exploitation manager (ICLEI EUR) which will act as a broker and facilitator for innovation deployment, dissemination and communication of project results.

# 4. Ethics self-assessment

## 4.1 Ethical dimension of the objectives, methodology and likely impact

As part of Task 5.5 we will develop an AI enhanced decision support tool. Through augmentation and homogenisation processes, mobility and environmental data collected in the pilots with sensors is combined with spatial data (e.g. points of interest, demographics,) from both official (e.g. National Institutes of Statistics) and collaborative open sources (e.g: OpenStreetMaps). The methodology will follow replicable and reproducible data analysis principles, and will focus on interpretable & explainable machine learning techniques for spatial & non-spatial data, at two levels: 1) Intervention-level data analysis: every intervention performance will be monitored with its KPIs. Machine learning models will be used for interpretability and explainability. Regression models will identify the key indicators to explain the local KPIs (e.g. modal shift, safety, inclusiveness, etc.). Spatial regression models will help identify relationships between the indicators and the area they belong to. 2) Project-level data analysis: with the data coming from all the interventions, the performance of the different interventions will be compared according to common KPIs and machine learning models will be run to characterise successful interventions. Therefore, the tool will provide insights to urban policymakers to successfully reproduce the interventions in new cities. AI will be used also in Task 3.5 but it will work on data processed in Task 5.5, so all through explainable AI techniques focused on interpretability and explainability.

## 4.2 Compliance with ethical principles and relevant legislations

REALLOCATE data management is ingrained in the structure of the proposed data ecosystem (Data Hub, Distributed dashboard). WP5 lead (CERTH) will be responsible for the Data Management Plan (DMP-Task 1.6) that will detail all relevant aspects including data collection, curation, storage, (long-term) preservation, security, quality assurance, allocation of Persistent Identifiers (PIDs), provision of metadata in line with disciplinary requirements, licensing, rules and procedures for data sharing. The project's data management revolves around FAIR data management principles, so data will be made available for any type of use & reuse (e.g., to support data- driven decision, investigate AI predictive/ prognostic models, etc.). CERTH will coordinate the guidelines and implementation of vital processing steps for the data (deployment, environmental, climatic, device specific, sensor-based) coming from 10 SSMLs, following the FAIR guiding principle and in compliance with the European GDPR and associated national legislations. REALLOCATE will ensure through its Data Hub: Data findability: ensured by multimodal data navigation development, allowing end-users to easily 'meta- query' and find datasets they need. Sensitive data (e.g. complete device GNSS traces or image sequences) will be processed and protected through pseudonymisation within the SSMLs. Data/research outputs will be accessed via PIDs provided by trusted repositories (e.g. OpenAIRE, IEEE DataPort, github). Only processed data from the SSMLs, after pseudonymisation or anonymisation, will be sent to and stored at the central Data Hub for privacy protection. Sensitive data, such as referable raw data from wearables/ mobile devices, will be locally managed by the SSML product owners, which will ensure data protection with existing internal protocols. A consensus raw data analysis pipeline will be defined among SSMLs and used for homogenising data for further analyses, e.g. for risk prediction & quantification models. The standard for the GDPR-safe data flow follows a foundation of services (e.g. Kafka, Apache Spark, machine learning libraries, etc.) adhering to the DMP, ensuring correct data collection, processing, quality assessment. Data is then further processed according to the project needs, and organised for future use. Data sharing: For some analyses the GDPR-compliant data will be shared in aggregated form, while for the analyses requiring associations of different data types from the same individual (e.g. sensor, GNSS, etc), data will be provided to BSC CNS. This will happen after pseudonymisation or after stricter processing such as K-anonymization or noise addition anonymization (differential privacy levels) that will allow a reasonable level of detail for the analysis. The non-sensitive data will be accessible on the Data Hub through the

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Application Programming Interfaces (APIs) enabling an access controlled use of observations and pre-processed data. Open access of data and research outputs will be stored for at least five years (in the case of IEEE dataport, indefinitely). Interoperability and Reusability: Details about DMP implementation will be discussed with the SSMLs in Month 6, to adapt to local peculiarities and allow maximal Interoperability and Reusability of generated data. Common standards for images/videos will be considered (e.g., jpg, mp4), while for point clouds, ASCII file formats (XYZ, OBJ with some proprietary binary exceptions), PTX (Leica) and ASC will be used. For other cases, CSV files will be employed. Simulation/trial parameters and algorithmic codes will be provided in txt files. For data management the reference platform will be CKAN which is 100% open source. Protection of personal data is also intrinsic to the project's architecture illustrated in the previous subsections: i) each data holder will ensure that its data storage infrastructure will comply to GDPR requirements; ii) the data holder will enforce its data sovereignty, including protecting personal data of subjects, according to their consent status; iii) The Data Hub will provide tools to facilitate data holders to collect consent from subjects (European data consent form). It will be ensured that Privacy Policies provide lawful, fair, and transparent processing of minimum data needed to fulfil the project's aims. Data will only be retained for as long as needed and consent will be used as the lawful basis for processing. The project will put in place processes to ensure all eight legal rights (to be informed, have access, rectification, erasure, restriction of processing, portability, objection & automated decision making) can be exercised by every individual.

## 5. History of changes

| Requested change | Change |
|---|---|
| **GPR – P9 DEMOS** has been evaluated by REA as weak from a financial point of view. Next actions need to be discussed on a phone call with PO on Monday 20/03, 9 to 11 AM, CET. Please send a link to connect. | P9 DEMOS budget has been reduced by 20% and the budget has been allocated to P1 UCD to minimise the risk. |
| The proposed work is highly ambitious, moving existing technologies from TRL 4 – 6 to TRL 7 – 8. Although the tools are presented, the innovative features are not elaborated in all detail. Please address. | Text added to section 1.1.3 to address the comment at page 7-8 |
| Some of the means to assess the progress of the proposed project are not sufficiently elaborated. For example, the milestones related to the expected progress in terms of changes in mobility behaviour for VRUs, reallocation of public spaces and capacity building are not explained in an exhaustive way. Please address. | Concerning the expected progress in changes in mobility behaviours, Task 3.6, for instance, dedicated to user-centred mobility, is ongoingly throughout the project's timeline. However, after the needs assessment of all SSMLs in Month 10 (Task 2.1), we will perform context-specific behavioural analyses for each SSML; although these might not happen all at the same time, we expect that all pilot executions (Subtask 2.3.2), together with behavioural analyses and first testing of nudging technologies to be complete by Month 32, followed by corrective actions until Month 42.<br>Concerning the expected progress in changes in mobility behaviours, we added specific milestones to address the comments in Annex 1 Part A. |
| Please introduce following text in Annex 1 Part B section 3 just above Table 3.1g:<br>*"The beneficiaries must base their contracts/subcontracts according to the principles for best value for money and absence of any conflict of interest (according to Articles 6.2 and 9.3 of GA). Beneficiaries that are 'contracting authorities' or 'contracting entities' (within the meaning of the EU public procurement Directives 2004/18/EC and 2004/17/EC or any EU legislation* | Text added to section 3.1g, a standard sentence on best value for money principle was added at the request of CINEA at page 35 |

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| | |
|---|---|
| *that replaces these Directives) must moreover comply with the applicable national law on public procurement."* | |
| In case it is foreseen the **use of contributions in kind provided by third parties** (Article 9.2 of the GA)<br>• please describe the third party in Annex 1 Part B (Table 3.1j) for each participant that will make use of in-kind contributions (non-financial resources made available free of charge by third parties). In kind contributions provided by third parties free of charge are declared by the participants as eligible direct costs in the corresponding cost category (e.g. personnel costs or purchase costs for equipment). Specific provisions Art 6.1 & Art 9.2 of the GA.<br>• describe and justify the foreseen tasks to be performed by the third party<br>• the expected cost for the participant | The description of costs for P36-Heidelberg has been extended to provide more details at page 35. |
| Develop Data Management Plan (DMP) by M6 and revised versions at the end of each reporting period as additional deliverables. | The first DMP deliverable at M6 is listed under D1.3, with additional deliverables created at M18 (D1.4) and M36 (D1.5) in Annex 1 Part A. |
| When encoding deliverables in the system (Part A of Annex 1 to the GA), **make sure to also include a short description (at least 2 sentences per deliverable)** in the corresponding editable fields, to express the aim of the deliverable in a verifiable way (e.g. with clear indicators of success or failure), and to explain to which task each deliverable refers. | The description of all deliverables has been extended in Annex 1 Part A. |
| Please include in the dissemination WP the following sentence: "*Contribute, upon invitation by the CINEA, to common information and dissemination activities to increase the visibility and synergies between HE/H2020 supported actions*." | Included in WP6 in Annex 1 Part A. |
| A more detailed 'plan for dissemination and exploitation including communication activities' will need to be provided as a mandatory project deliverable within 6 months after start date of the project. | An explanation has been added to D6.1 to detail that it basically constitutes the mandatory deliverable of a plan for dissemination and exploitation, including communication activities, which will be periodically updated in Annex 1 Part A. |
| Please include the following text on the collaboration at the level of the cluster and with the Cities Mission platform in section "dissemination and communication" (Annex 1 Part B).<br>*"REALLOCATE is committed to establishing a cooperation with the projects funded under the same topic HORIZON-MISS-2022-CIT-01-01 as part of cluster inclusive, safe and sustainable urban mobility as well as with the Climate-neutral and Smart Cities Mission Platform. This cooperation shall materialise in the coordination of research and innovation, monitoring and communication and dissemination activities of mutual interest, and any other type of collaborations that may occur during the conduct of this Innovation Action project, on the basis of mutual benefit.*<br>*REALLOCATE has flexibility in identifying activities and means of collaboration with the other projects funded under the same topic and the Mission Platform. The collaboration could cover e.g. defining complementary solutions, measures or methodologies, capacity building, networking or dissemination activities (such as webinars, workshops, site visits or publications). A detailed description of the specific activities and common actions that will be undertaken will be further defined during the first months of the project lifetime.*<br>*To foster complementarity and avoid duplication, all the projects funded under topic HORIZON-MISS-2022-CIT-01-01 and part of cluster inclusive, safe and sustainable urban mobility as are expected to share information on* | The suggested paragraphs have been added towards the end of section 2.2.1 Dissemination and communication of results at page 29.<br>A specific Task 6.3 (in WP6) is planned to liaise with other mobility initiatives, and especially with Mission projects, but more specificity has been added to it, to specifically indicate activities of clustering and liaising with sister R&I projects and with the Cities Mission Platform in Annex 1 Part A. |

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| | |
|---|---|
| *their living-labs demonstration/pilot activities and relevant results to the Mission Platform, including where possible the provision of data to enable the monitoring of progress towards the achievement of the Climate-neutral and Smart Cities Mission objectives. The collaboration with the Mission Platform will be formalised through a* ***Memorandum of Understanding*** *to be concluded as soon as possible after the project starting date."*<br>In addition, please plan in the DoA (Annex 1 part A in the appropriate Work Package) a task/activity on clustering and liaising with the sister R&I projects (part of the same cluster) and with the Cities Mission Platform. | |
| Please include the following text in Annex 1 Part B in the appropriate section/part (e.g. the dissemination and communication part):<br>*"The CIVITAS initiative promotes a collaborative approach for the cities and stakeholders members of the CIVITAS community to support them in developing innovative solutions, measures and policies, needed for cleaner and better urban mobility/transport. The CIVITAS initiative has established a* ***framework for coordinated evaluation, dissemination and information exchange activities*** *and supports local partnerships in testing and implementing new approaches under real-life conditions. Through coordination of events and dissemination/capacity building activities, and coordinated impact assessments, the cities and stakeholders of the CIVITAS community develop a knowledge base and their technical capacity while benefiting of expertise and support in implementing and scaling-up innovative solutions/measures.*<br>*We, the consortium members of the REALLOCATE project acknowledge and share the CIVITAS objectives and, through playing an active role in the CIVITAS community, hope to contribute towards them. In order to promote the CIVITAS initiative, the REALLOCATE project will share the project's lessons and conclusions with the CIVITAS network. We will* ***implement the CIVITAS corporate design****, according to the guidelines provided. On request, we will cooperate with the CIVITAS-secretariat and* ***participate at CIVITAS-lead activities****. Further details will be specified during dedicated meetings between the REALLOCATE project and CIVITAS ELEVATE, the Coordination and Support Action – CSA currently supporting the CIVITAS initiative and the REALLOCATE project/consortium."* | The suggested paragraphs have been added towards the end of section 2.2.1 Dissemination and communication of results (right after the paragraphs suggested under point 4.13) (page 29). |
| In **Table 3.1h** ('Purchase costs' items) **of Annex 1 - Part B**, please provide a **clear breakdown of costs for each participant** and **for each category (please check if cost for Certificate for Financial Statement – CFS is foreseen for the beneficiaries where this is necessary[1])** if the sum of the costs for 'travel', 'equipment', and 'goods and services' exceeds 15% of the personnel costs for that participant. | P5 ICLEI EUR: corrected the breakdown<br>P7 Nudgd: added table<br>P13 VTT: corrected the total<br>P36 Heidelberg: corrected justification for Equipment<br>The table has been organised to have the partners in numerical order<br>Number of people travelling has been added to all tables.<br>All the partners have been checked and corrected to make it consistent in table 3.1h.<br>all the tables in section 3.1h have been amended using the correct template for HE |

[1] CFSs are necessary for beneficiaries (and linked third parties) requested EU contribution of €430 000 or more calculated on all costs.

**ANNEX 2**

# ESTIMATED BUDGET FOR THE ACTION

| | Estimated eligible[1] costs (per budget category) | | | | | | | | | | Estimated EU contribution[2] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | |
| | A.1 Employees (or equivalent)<br>A.2 Natural persons under direct contract<br>A.3 Seconded persons | | A.4 SME owners and natural person beneficiaries | B. Subcontracting | C.1 Travel and subsistence | C.2 Equipment | C.3 Other goods, works and services | D.2 Internally invoiced goods and services | E. Indirect costs | | | | | |
| **Forms of funding** | Actual costs | Unit costs (usual accounting practices) | Unit costs[7] | Actual costs | Actual costs | Actual costs | Actual costs | Unit costs (usual accounting practices) | Flat-rate costs[8] | | | | | |
| | a1 | a2 | a3 | b | c1 | c2 | c3 | d2 | e = 0,25 * (a1 + a2 + a3 + c1 + c2 + c3) | f = a + b + c + d + e | U | g = f * U% | h | m |
| **1 - UCD** | 610 476.00 | 0.00 | 0.00 | 0.00 | 54 750.00 | 0.00 | 14 500.00 | 0.00 | 169 931.50 | 849 657.50 | 100 | 849 657.50 | 849 657.50 | 849 657.50 |
| **2 - EUROCITIES** | 480 000.00 | 0.00 | 0.00 | 0.00 | 29 250.00 | 0.00 | 2 000.00 | 0.00 | 127 812.50 | 639 062.50 | 100 | 639 062.50 | 639 062.50 | 639 062.50 |
| **3 - FACTUAL** | 540 000.00 | 0.00 | 0.00 | 0.00 | 20 250.00 | 0.00 | 8 000.00 | 0.00 | 142 062.50 | 710 312.50 | 70 | 497 218.75 | 497 218.75 | 497 218.75 |
| **4 - CERTH** | 280 000.00 | 0.00 | 0.00 | 0.00 | 12 000.00 | 14 000.00 | 6 500.00 | 0.00 | 78 125.00 | 390 625.00 | 100 | 390 625.00 | 390 625.00 | 390 625.00 |
| **5 - ICLEI EURO** | 413 400.00 | 0.00 | 0.00 | 0.00 | 24 750.00 | 0.00 | 84 000.00 | 0.00 | 130 537.50 | 652 687.50 | 100 | 652 687.50 | 652 687.50 | 652 687.50 |
| **6 - Fraunhofer** | 0.00 | 287 920.00 | 0.00 | 0.00 | 7 500.00 | 0.00 | 3 000.00 | 0.00 | 74 605.00 | 373 025.00 | 100 | 373 025.00 | 373 025.00 | 373 025.00 |
| **7 - Nudgd** | 242 000.00 | 0.00 | 0.00 | 0.00 | 6 750.00 | 0.00 | 33 000.00 | 0.00 | 70 437.50 | 352 187.50 | 70 | 246 531.25 | 246 531.25 | 246 531.25 |
| **8 - ERTICO ITS EUR** | 256 500.00 | 0.00 | 0.00 | 0.00 | 6 750.00 | 0.00 | 0.00 | 0.00 | 65 812.50 | 329 062.50 | 100 | 329 062.50 | 329 062.50 | 329 062.50 |
| **9 - DEMOS** | 185 556.00 | 0.00 | 0.00 | 0.00 | 6 000.00 | 0.00 | 9 500.00 | 0.00 | 50 264.00 | 251 320.00 | 100 | 251 320.00 | 251 320.00 | 251 320.00 |
| **10 - ECF** | 180 000.00 | 0.00 | 0.00 | 0.00 | 8 250.00 | 0.00 | 4 000.00 | 0.00 | 48 062.50 | 240 312.50 | 100 | 240 312.50 | 240 312.50 | 240 312.50 |
| **11 - BSC CNS** | 300 000.00 | 0.00 | 0.00 | 0.00 | 9 000.00 | 0.00 | 12 000.00 | 0.00 | 80 250.00 | 401 250.00 | 100 | 401 250.00 | 401 250.00 | 401 250.00 |
| **12 - Cerema** | 315 781.00 | 0.00 | 0.00 | 0.00 | 9 000.00 | 0.00 | 2 500.00 | 0.00 | 81 820.25 | 409 101.25 | 100 | 409 101.25 | 409 101.25 | 409 101.25 |
| **13 - VTT** | 0.00 | 91 456.00 | 0.00 | 0.00 | 5 250.00 | 25 000.00 | 10 000.00 | 0.00 | 32 926.50 | 164 632.50 | 100 | 164 632.50 | 164 632.50 | 164 632.50 |
| **14 - TAMPERE** | 231 440.00 | 0.00 | 0.00 | 0.00 | 6 750.00 | 10 000.00 | 4 000.00 | 0.00 | 63 047.50 | 315 237.50 | 100 | 315 237.50 | 315 237.50 | 315 237.50 |
| **15 - ARUP** | 316 800.00 | 0.00 | 0.00 | 0.00 | 7 500.00 | 0.00 | 0.00 | 0.00 | 81 075.00 | 405 375.00 | 70 | 283 762.50 | 283 762.50 | 283 762.50 |
| **16 - IFP-research** | 276 667.00 | 0.00 | 0.00 | 0.00 | 18 750.00 | 41 000.00 | 0.00 | 0.00 | 84 104.25 | 420 521.25 | 100 | 420 521.25 | 420 521.25 | 420 521.25 |
| **17 - DEKRA** | 256 000.00 | 0.00 | 0.00 | 0.00 | 22 500.00 | 0.00 | 0.00 | 0.00 | 69 625.00 | 348 125.00 | 70 | 243 687.50 | 243 687.50 | 243 687.50 |
| **17.1 - DEKRA ASSURANCE** | 80 000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 20 000.00 | 100 000.00 | 70 | 70 000.00 | 70 000.00 | 70 000.00 |
| **18 - BARCELONA** | 252 000.00 | 0.00 | 0.00 | 0.00 | 6 750.00 | 0.00 | 4 000.00 | 0.00 | 65 687.50 | 328 437.50 | 100 | 328 437.50 | 328 437.50 | 328 437.50 |
| **19 - IMPD** | 201 142.00 | 0.00 | 0.00 | 0.00 | 5 250.00 | 0.00 | 0.00 | 0.00 | 51 598.00 | 257 990.00 | 100 | 257 990.00 | 257 990.00 | 257 990.00 |
| **20 - NEMI** | 132 000.00 | 0.00 | 0.00 | 0.00 | 5 250.00 | 0.00 | 0.00 | 0.00 | 34 312.50 | 171 562.50 | 70 | 120 093.75 | 120 093.75 | 120 093.75 |
| **21 - COBO** | 170 856.00 | 0.00 | 0.00 | 20 000.00 | 6 750.00 | 40 000.00 | 13 000.00 | 0.00 | 57 651.50 | 308 257.50 | 100 | 308 257.50 | 308 257.50 | 308 257.50 |
| **22 - FIU** | 52 884.00 | 0.00 | 0.00 | 0.00 | 5 250.00 | 0.00 | 7 000.00 | 0.00 | 16 283.50 | 81 417.50 | 100 | 81 417.50 | 81 417.50 | 81 417.50 |
| **23 - BUDAPEST** | 211 200.00 | 0.00 | 0.00 | 0.00 | 6 750.00 | 130 000.00 | 50 250.00 | 0.00 | 99 550.00 | 497 750.00 | 100 | 497 750.00 | 497 750.00 | 497 750.00 |
| **24 - BKK** | 161 000.00 | 0.00 | 0.00 | 0.00 | 5 250.00 | 7 500.00 | 0.00 | 0.00 | 43 437.50 | 217 187.50 | 70 | 152 031.25 | 152 031.25 | 152 031.25 |
| **25 - GOTEBORG** | 377 000.00 | 0.00 | 0.00 | 0.00 | 6 750.00 | 40 000.00 | 113 000.00 | 0.00 | 134 187.50 | 670 937.50 | 100 | 670 937.50 | 670 937.50 | 670 937.50 |
| **26 - CITY OF UTRECHT** | 178 667.00 | 0.00 | 0.00 | 0.00 | 6 750.00 | 0.00 | 20 000.00 | 0.00 | 51 354.25 | 256 771.25 | 100 | 256 771.25 | 256 771.25 | 256 771.25 |
| **27 - Sport Utrecht** | 59 583.00 | 0.00 | 0.00 | 0.00 | 5 250.00 | 0.00 | 3 500.00 | 0.00 | 17 083.25 | 85 416.25 | 100 | 85 416.25 | 85 416.25 | 85 416.25 |
| **28 - VVN** | 66 250.00 | 0.00 | 0.00 | 0.00 | 5 250.00 | 0.00 | 18 500.00 | 0.00 | 22 500.00 | 112 500.00 | 100 | 112 500.00 | 112 500.00 | 112 500.00 |
| **29 - CITY OF WARSAW** | 176 000.00 | 0.00 | 0.00 | 0.00 | 6 750.00 | 50 000.00 | 14 894.00 | 0.00 | 61 911.00 | 309 555.00 | 100 | 309 555.00 | 309 555.00 | 309 555.00 |
| **30 - CITY OF ZAGREB** | 130 200.00 | 0.00 | 0.00 | 0.00 | 6 750.00 | 0.00 | 30 000.00 | 0.00 | 41 737.50 | 208 687.50 | 100 | 208 687.50 | 208 687.50 | 208 687.50 |
| **31 - SBC** | 38 200.00 | 0.00 | 0.00 | 0.00 | 5 250.00 | 0.00 | 0.00 | 0.00 | 10 862.50 | 54 312.50 | 100 | 54 312.50 | 54 312.50 | 54 312.50 |

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| | Estimated eligible[1] costs (per budget category) | | | | | | | | | | Estimated EU contribution[2] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | |
| | A.1 Employees (or equivalent)<br>A.2 Natural persons under direct contract<br>A.3 Seconded persons | | A.4 SME owners and natural person beneficiaries | B. Subcontracting | C.1 Travel and subsistence | C.2 Equipment | C.3 Other goods, works and services | D.2 Internally invoiced goods and services | E. Indirect costs | | | | | |
| **Forms of funding** | Actual costs | Unit costs (usual accounting practices) | Unit costs[7] | Actual costs | Actual costs | Actual costs | Actual costs | Unit costs (usual accounting practices) | Flat-rate costs[8] | | | | | |
| | a1 | a2 | a3 | b | c1 | c2 | c3 | d2 | e = 0,25 * (a1 + a2 + a3 + c1 + c2 + c3) | f = a + b + c + d + e | U | g = f * U% | h | m |
| **32 - FTTS** | 59 635.00 | 0.00 | 0.00 | 0.00 | 5 250.00 | 33 500.00 | 0.00 | 0.00 | 24 596.25 | 122 981.25 | 100 | 122 981.25 | 122 981.25 | 122 981.25 |
| **33 - METROPOLE LYON** | 273 480.00 | 0.00 | 0.00 | 0.00 | 5 250.00 | 35 000.00 | 0.00 | 0.00 | 78 432.50 | 392 162.50 | 100 | 392 162.50 | 392 162.50 | 392 162.50 |
| **34 - COMMUNE LYON** | 294 881.00 | 0.00 | 0.00 | 0.00 | 6 750.00 | 0.00 | 4 000.00 | 0.00 | 76 407.75 | 382 038.75 | 100 | 382 038.75 | 382 038.75 | 382 038.75 |
| **35 - FNM** | 46 200.00 | 0.00 | 0.00 | 0.00 | 5 250.00 | 0.00 | 4 000.00 | 0.00 | 13 862.50 | 69 312.50 | 100 | 69 312.50 | 69 312.50 | 69 312.50 |
| **36 - HEIDELBERG** | 446 250.00 | 0.00 | 0.00 | 0.00 | 6 750.00 | 120 000.00 | 8 000.00 | 0.00 | 145 250.00 | 726 250.00 | 100 | 726 250.00 | 726 250.00 | 726 250.00 |
| **37 - HH** | 56 952.00 | 0.00 | 0.00 | 0.00 | 5 250.00 | 0.00 | 5 000.00 | 0.00 | 16 800.50 | 84 002.50 | 100 | 84 002.50 | 84 002.50 | 84 002.50 |
| **Σ consortium** | 8 349 000.00 | 379 376.00 | 0.00 | 20 000.00 | 373 500.00 | 546 000.00 | 488 144.00 | 0.00 | 2 534 005.00 | 12 690 025.00 | | 11 998 600.00 | 11 998 600.00 | 11 998 600.00 |

[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) 7115[1])

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 actions[2]

Type: unit costs

Units[3]: see (for each access provider and installation) the unit cost table in Annex 2b

Amount per unit*: see (for each access provider and installation) the unit cost table in Annex 2b

* Amount calculated as follows:

For trans-national access:

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

For virtual access:

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

## Euratom staff mobility costs[8]

### 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 2021[10]

EU-Member States[11]

| Country / Place | Coefficient (%) |
|---|---|
| Bulgaria | 59,1 |
| Czech Rep. | 85,2 |
| Denmark | 131,3 |
| Germany<br>Bonn<br>Karlsruhe<br>Munich | 101,9<br>95,8<br>98<br>113,9 |
| Estonia | 82,3 |
| Ireland | 129 |
| Greece | 81,4 |
| Spain | 94,2 |
| France | 120,5 |
| Croatia | 75,8 |
| Italy<br>Varese | 95<br>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)<br>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 children[12]**}**

[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.)

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**ANNEX 3**

# ACCESSION FORM FOR BENEFICIARIES

**EUROCITIES ASBL (EUROCITIES)**, PIC 999450559, established in SQUARE DE MEEUS 1, BRUXELLES 1000, Belgium,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**FACTUAL CONSULTING SL (FACTUAL)**, PIC 906285454, established in JOSEP VALLS 13, 2ON A, SANT CUGAT DEL VALLES 08195, Spain,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS (CERTH)**, PIC 998802502, established in CHARILAOU THERMI ROAD 6 KM, THERMI THESSALONIKI 57001, Greece,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH) (ICLEI EURO)**, PIC 998341364, established in LEOPOLDRING 3, FREIBURG IM BREISGAU 79098, Germany,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV (Fraunhofer)**, PIC 999984059, established in HANSASTRASSE 27C, MUNCHEN 80686, Germany,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**NUDGD AB (Nudgd)**, PIC 895330274, established in FRIGANGSGATAN 4, GOTEBORG 413 01, Sweden,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**EUROPEAN ROAD TRANSPORT TELEMATICS IMPLEMENTATION COORDINATION ORGANISATION - INTELLIGENT TRANSPORT SYSTEMS & SERVICES EUROPE (ERTICO ITS EUR)**, PIC 999785112, established in AVENUE LOUISE 326, BRUXELLES 1050, Belgium,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**DEMOS RESEARCH INSTITUTE OY (DEMOS)**, PIC 906147035, established in MECHELININKATU 3D, HELSINKI 00100, Finland,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**EUROPEAN CYCLISTS FEDERATION ASBL (ECF)**, PIC 965873912, established in RUE DE LA CHARITE 22, BRUXELLES 1210, Belgium,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Jill Warren with ECAS id n00429g0 signed in the Participant Portal on 18/04/2023 at 18:07:49 (transaction id SigId-46151-zhTH2KAr5sQKYGPcOrpLPDzIeaaDdEPY6Y5peLlzXY732gURzNaWVK4eegB4JzQqJJk2kDMqEzgPGEGRbTLdB9Xm-rS0vSrmBGYCdxRy5uIgXIe-9rAIPzUhp8TnxLMgPtzHtRuIX0STzzRoypF8DZRXiAOLDHJSzqYSg6jqk59otQN57AReyV4irbbszsidsGqVFSGm). Timestamp by third party at 2023.04.18 18:07:53 CEST

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**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**BARCELONA SUPERCOMPUTING CENTER CENTRO NACIONAL DE SUPERCOMPUTACION (BSC CNS)**, PIC 999655520, established in CALLE JORDI GIRONA 31, BARCELONA 08034, Spain,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**CENTRE D ETUDES ET D EXPERTISE SUR LES RISQUES L ENVIRONNEMENT LA MOBILITE ET L AMENAGEMENT (Cerema)**, PIC 948933735, established in 25 AV FRANCOIS MITTERRAND, BRON 69500, France,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** (‘the Agreement’)

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**TEKNOLOGIAN TUTKIMUSKESKUS VTT OY (VTT)**, PIC 932760440, established in TEKNIIKANTIE 21, ESPOO 02150, Finland,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**TAMPEREEN KAUPUNKI (TAMPERE)**, PIC 998829080, established in ALEKSIS KIVEN KATU 14-16, TAMPERE 33101, Finland,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**OVE ARUP & PARTNERS IRELAND LIMITED (ARUP)**, PIC 986125669, established in RINGSEND ROAD 50, DUBLIN 4, Ireland,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**INTERNATIONAL FEDERATION OF PEDESTRIANS - RESEARCH (IFP-research)**, PIC 885311435, established in SINT LAMBERTUSSTRAAT 133, BRUSSELS 1200, Belgium,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**DEKRA AUTOMOBIL GMBH (DEKRA)**, PIC 996461504, established in HANDWERKSTRASSE 15, STUTTGART 70565, Germany,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**AJUNTAMENT DE BARCELONA (BARCELONA)**, PIC 997628123, established in PLAÇA DE SANT JAUME SN, BARCELONA 08002, Spain,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**INSTITUT MUNICIPAL DE PERSONES AMB DISCAPACITAT (IMPD)**, PIC 904754309, established in CALLE VALENCIA 344 1A, BARCELONA 08009, Spain,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**NEMI MOBILITY SOLUTIONS SL (NEMI)**, PIC 891921015, established in CARRER MARIE CURIE KM 0 PARC TECNOLOGIC NORD, BARCELONA 08042, Spain,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**COMUNE DI BOLOGNA (COBO)**, PIC 999590239, established in PIAZZA MAGGIORE 6, BOLOGNA 40124, Italy,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**FONDAZIONE PER L'INNOVAZIONE URBANA (FIU)**, PIC 930035904, established in PIAZZA MAGGIORE 6, BOLOGNA 40121, Italy,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**BUDAPEST FOVAROS ONKORMANYZATA (BUDAPEST)**, PIC 959102439, established in VAROSHAZ UTCA 9-11, BUDAPEST 1052, Hungary,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**BKK BUDAPESTI KOZLEKEDESI KOZPONT ZARTKORUEN MUKODO RESZVENYTARSASAG (BKK)**, PIC 965804460, established in RUMBACH SEBESTYEN UTCA 19-21, BUDAPEST 1075, Hungary,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** (‘the Agreement’)

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**GOTEBORGS KOMMUN (GOTEBORG)**, PIC 997186676, established in POSTGATAN 4, GOTEBORG 411 13, Sweden,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**GEMEENTE UTRECHT (CITY OF UTRECHT)**, PIC 998300818, established in STADSPLATEAU 1, UTRECHT 3521 AZ, Netherlands,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**STICHTING SPORT UTRECHT (Sport Utrecht)**, PIC 946757346, established in HERCULESPLEIN 209, UTRECHT 3584 AA, Netherlands,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**VEILIG VERKEER NEDERLAND (VVN)**, PIC 883968179, established in STATIONSSTRAAT 79A, AMERSFOORT 3811 MH, Netherlands,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**MIASTO STOLECZNE WARSZAWA (CITY OF WARSAW)**, PIC 994575630, established in PLAC BANKOWY 3/5, WARSZAWA 00-950, Poland,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**GRAD ZAGREB (CITY OF ZAGREB)**, PIC 989531727, established in TRG STJEPANA RADICA 1, ZAGREB 10 000, Croatia,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**SINDIKAT BICIKLISTA UDRUGA (SBC)**, PIC 950733861, established in RIBNJAK 3, ZAGREB 10000, Croatia,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**SVEUCILISTE U ZAGREBU FAKULTET PROMETNIH ZNANOSTI (FTTS)**, PIC 989482063, established in VUKELICEVA 4, ZAGREB 10000, Croatia,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**METROPOLE DE LYON (METROPOLE LYON)**, PIC 924429401, established in 20 RUE DU LAC, LYON 69003, France,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**COMMUNE DE LYON (COMMUNE LYON)**, PIC 997468170, established in PLACE DE LA COMEDIE 1, LYON CEDEX 01 69205, France,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**FUNDACJA NA RZECZ WSPOLNOT LOKALNYCH NA MIEJSCU (FNM)**, PIC 920688596, established in BEDNARSKA, NR 13/15, LOK. 12, WARSZAWA 00-321, Poland,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**STADT HEIDELBERG (HEIDELBERG)**, PIC 925908457, established in MARKTPLATZ 10, HEIDELBERG 69117, Germany,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

Associated with document Ref. Ares(2023)2659508 - 14/04/2023

**ANNEX 3**

## ACCESSION FORM FOR BENEFICIARIES

**HOGSKOLAN I HALMSTAD (HH)**, PIC 998196931, established in KRISTIAN IVS VAG 3, HALMSTAD 301 18, Sweden,

**hereby agrees**

**to become beneficiary**

**in Agreement No 101103924 — REALLOCATE** ('the Agreement')

**between** UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (UCD) **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

**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 | | |
| | A.1 Employees (or equivalent)<br>A.2 Natural persons under direct contract<br>A.3 Seconded persons | | A.4 SME owners and natural person beneficiaries | B. Subcontracting | C.1 Travel and subsistence | C.2 Equipment | C.3 Other goods, works and services | [ D.1 Financial support to third parties] | D.2 Internally invoiced goods and services | [ D.3 Transnational access to research infrastructure unit costs ] | [ D.4 Virtual access to research infrastructure unit costs ] | *[OPTION for HE PCP/PPI:* D.5 PCP/PPI procurement costs*]* | *[OPTION for Euratom Programme Cofund Actions:* D.6 Euratom Cofund staff mobility costs*]* | *[OPTION for HE ERC Grants:* D.7 ERC additional funding*]* | *[OPTION for HE ERC Grants:* D.8 ERC additional funding (subcontracting, FSTP and internally invoiced goods and services)*]* | E. Indirect costs | | | | | | |
| **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] | | | | | | |
| | 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]~~ ) | f = a+b+c+d+e | U | g = f*U% | h | m | n |
| **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).

ⓘ 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 lateron, in order to replace costs/contributions that are found to be ineligible.

[1] See Article 6 for the eligibility conditions. All amounts must be expressed in EUR (see Article 21 for the conversion rules).

[2] 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.

[3] See Data Sheet for the reimbursement rate(s).

[4] 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.

[5] See Annex 2a 'Additional information on the estimated budget' for the details (units, cost per unit).

[6] See Data Sheet for the flat-rate.

**ANNEX 5**

# SPECIFIC RULES

## CONFIDENTIALITY AND SECURITY (— ARTICLE 13)

### Sensitive information with security recommendation

Sensitive information with a security recommendation must comply with the additional requirements imposed by the granting authority.

Before starting the action tasks concerned, the beneficiaries must have obtained all approvals or other mandatory documents needed for implementing the task. The documents must be kept on file and be submitted upon request by the coordinator to the granting authority. If they are not in English, they must be submitted together with an English summary.

For requirements restricting disclosure or dissemination, the information must be handled in accordance with the recommendation and may be disclosed or disseminated only after written approval from the granting authority.

### EU classified information

If EU classified information is used or generated by the action, it must be treated in accordance with the security classification guide (SCG) and security aspect letter (SAL) set out in Annex 1 and Decision 2015/444[1] 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 Integrity[2].

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 Common Public Domain Dedication (CC 0) or equivalent (to the extent legitimate interests or constraints are safeguarded), in line with the FAIR principles (in particular machine-actionable) and provide information at least about the following: datasets (description, date of deposit, author(s), venue and embargo); Horizon Europe or Euratom funding; grant project name, acronym and number; licensing terms; persistent identifiers for the dataset, the authors involved in the action, and, if possible, for their organisations and the grant. Where applicable, the metadata must include persistent identifiers for related publications and other research outputs.

*Open science: additional practices*

Where the call conditions impose additional obligations regarding open science practices, the beneficiaries must also comply with those.

Where the call conditions impose additional obligations regarding the validation of scientific publications, the beneficiaries must provide (digital or physical) access to data or other results needed for validation of the conclusions of scientific publications, to the extent that their legitimate interests or constraints are safeguarded (and unless they already provided the (open) access at publication).

Where the call conditions impose additional open science obligations in case of a public emergency, the beneficiaries must (if requested by the granting authority) immediately deposit any research output in a repository and provide open access to it under a CC BY licence, a Public Domain Dedication (CC 0) or equivalent. As an exception, if the access would be against the beneficiaries' legitimate interests, the beneficiaries must grant non-exclusive licenses — under fair and reasonable conditions — to legal entities that need the research output to address the public emergency and commit to rapidly and broadly exploit the resulting products and services at fair and reasonable conditions. This provision applies up to four years after the end of the action (see Data Sheet, Point 1).

**Plan for the exploitation and dissemination of results including communication activities**

Unless excluded by the call conditions, the beneficiaries must provide and regularly update a plan for the exploitation and dissemination of results including communication activities.

## SPECIFIC RULES FOR CARRYING OUT THE ACTION (— ARTICLE 18)

### Implementation in case of restrictions due to strategic assets, interests, autonomy or security of the EU and its Member States

Where the call conditions restrict participation or control due to strategic assets, interests, autonomy or security, the beneficiaries must ensure that none of the entities that participate as affiliated entities, associated partners, subcontractors or recipients of financial support to third parties are established in countries which are not eligible countries or target countries set out in the call conditions (or, if applicable, are controlled by such countries or entities from such countries) — unless otherwise agreed with the granting authority.

The beneficiaries must moreover ensure that any cooperation with entities established in countries which are not eligible countries or target countries set out in the call conditions (or, if applicable, are controlled by such countries or entities from such countries) does not affect the strategic assets, interests, autonomy or security of the EU and its Member States.

### Recruitment and working conditions for researchers

The beneficiaries must take all measures to implement the principles set out in the Commission Recommendation on the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers[3], 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.

[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).

European Commission

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