

## Horizon 2020

**Call: H2020-MG-2016-2017**  
(2016-2017 Mobility for Growth )

**Topic: MG-4.5-2016**

**Type of action: RIA**  
(Research and Innovation action)

**Proposal number: 723369-1**

**Proposal acronym: UDeliver**

Deadline Id: H2020-MG-2016-Two-Stages

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### *How to fill in the forms*

The administrative forms must be filled in for each proposal using the templates available in the submission system. Some data fields in the administrative forms are pre-filled based on the previous steps in the submission wizard.



Proposal ID **723369-1**

Acronym **UDeliver**

## 1 - General information

Topic MG-4.5-2016

Call Identifier H2020-MG-2016-2017

Type of Action RIA

Deadline Id H2020-MG-2016-Two-Stages

Acronym

Proposal title\*

*Note that for technical reasons, the following characters are not accepted in the Proposal Title and will be removed: < > " &*

Duration in months

Fixed keyword 1

Fixed keyword 2

Fixed keyword 3

Fixed keyword 4

Free keywords



Proposal ID **723369-1**

Acronym **UDeliver**

### Abstract

*UDeliver brings together a multi-disciplinary consortium and five local districts (in Crema, Sassari and Alghero, Isère, Esch and Bristol) in a strong and innovative learning community focused on innovating the way small parcels and other local goods (e.g. fresh produce) are delivered in the last mile. The solutions will be people oriented, leveraging on citizens' participation and collaboration and promoting active mobility and resource sharing, and will be socially, economically and environmentally sustainable.*

*The main goal is to co-create with citizens, local authorities, organisations and businesses a set of sustainable delivery solutions performed by the citizens for the citizens. All solutions will be based on local delivery points and will aim at reducing the negative externalities associated with the access of delivery vans to local districts.*

*Every solution will be part of a comprehensive gamification strategy, implemented by means of an application for smart user devices, to transform real delivery actions into a gameful experience. The game will reward the propensity of the users to perform parcels' pick-up and delivery with sustainable mobility modes (active mobility) and their inclination to put themselves at the disposal of the other members of the district (collaboration and trust).*

*UDeliver will go even further in the collaboration with the local authorities as it will co-design with them a set of policies and urban plans that will support the solutions. UDeliver will also identify and test on the field the business models and marketing strategies that will assure the appropriate scale and visibility for these new forms of people and freight mobility solutions and foster their replicability.*

*UDeliver is a seed of social innovation and a framework for re-orienting the organisational, governance and planning processes of urban districts in the direction of sustainable, active and people oriented transport and of greater urban quality and liveability.*

Remaining characters

0

Has this proposal (or a very similar one) been submitted in the past 2 years in response to a call for proposals under the 7th Framework Programme, Horizon 2020 or any other EU programme(s)?

Yes

No



Proposal ID **723369-1**

Acronym **UDeliver**

### Declarations

1) The coordinator declares to have the explicit consent of all applicants on their participation and on the content of this proposal.	<input checked="" type="checkbox"/>
2) The information contained in this proposal is correct and complete.	<input checked="" type="checkbox"/>
3) This proposal complies with ethical principles (including the highest standards of research integrity — as set out, for instance, in the <a href="#">European Code of Conduct for Research Integrity</a> — and including, in particular, avoiding fabrication, falsification, plagiarism or other research misconduct).	<input checked="" type="checkbox"/>
4) The coordinator confirms:	
- to have carried out the self-check of the financial capacity of the organisation on <a href="http://ec.europa.eu/research/participants/portal/desktop/en/organisations/lfv.html">http://ec.europa.eu/research/participants/portal/desktop/en/organisations/lfv.html</a> or to be covered by a financial viability check in an EU project for the last closed financial year. Where the result was “weak” or “insufficient”, the coordinator confirms being aware of the measures that may be imposed in accordance with the H2020 Grants Manual (Chapter on Financial capacity check); or	<input checked="" type="radio"/>
- is exempt from the financial capacity check being a public body including international organisations, higher or secondary education establishment or a legal entity, whose viability is guaranteed by a Member State or associated country, as defined in the H2020 Grants Manual (Chapter on Financial capacity check); or	<input type="radio"/>
- as sole participant in the proposal is exempt from the financial capacity check.	<input type="radio"/>
5) The coordinator hereby declares that each applicant has confirmed:	
- they are fully eligible in accordance with the criteria set out in the specific call for proposals; and	<input checked="" type="checkbox"/>
- they have the financial and operational capacity to carry out the proposed action.	<input checked="" type="checkbox"/>
The coordinator is only responsible for the correctness of the information relating to his/her own organisation. Each applicant remains responsible for the correctness of the information related to him/her and declared above. Where the proposal to be retained for EU funding, the coordinator and each beneficiary applicant will be required to present a formal declaration in this respect.	

According to Article 131 of the Financial Regulation of 25 October 2012 on the financial rules applicable to the general budget of the Union (Official Journal L 298 of 26.10.2012, p. 1) and Article 145 of its Rules of Application (Official Journal L 362, 31.12.2012, p.1) applicants found guilty of misrepresentation may be subject to administrative and financial penalties under certain conditions.

### Personal data protection

Your reply to the grant application will involve the recording and processing of personal data (such as your name, address and CV), which will be processed pursuant to Regulation (EC) No 45/2001 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data. Unless indicated otherwise, your replies to the questions in this form and any personal data requested are required to assess your grant application in accordance with the specifications of the call for proposals and will be processed solely for that purpose. Details concerning the processing of your personal data are available on the [privacy statement](#). Applicants may lodge a complaint about the processing of their personal data with the European Data Protection Supervisor at any time.

Your personal data may be registered in the [Early Warning System \(EWS\)](#) only or both in the EWS and [Central Exclusion Database \(CED\)](#) by the Accounting Officer of the Commission, should you be in one of the situations mentioned in:

- the Commission Decision 2008/969 of 16.12.2008 on the Early Warning System (for more information see the [Privacy Statement](#)), or
- the Commission Regulation 2008/1302 of 17.12.2008 on the Central Exclusion Database (for more information see the [Privacy Statement](#)).

Proposal ID **723369-1**

Acronym **UDeliver**

## List of participants

#	Participant Legal Name	Country
1	ISTITUTO SUPERIORE MARIO BOELLA SULLE TECNOLOGIE DELL'INFORMAZIONE E DELLE TELECOMUNICAZIONI	Italy
2	UNIVERSITY OF THE WEST OF ENGLAND, BRISTOL	United Kingdom
3	UNIVERSITA DEGLI STUDI DI SASSARI	Italy
4	LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY	Luxembourg
5	TNT GLOBAL EXPRESS SPA	Italy
6	BDS BUSINESS DEVELOPMENT SERVICES SRL	Italy
7	Interact S.A.	Luxembourg
8	Centre d'Initiative et de Gestion Local Esch-sur-Alzette	Luxembourg
9	Expert Support Association	Bulgaria
10	Karakas Graphic Communications sa	Belgium
11	Comune di Crema	Italy
12	Comune di Sassari	Italy
13	Comune di Alghero	Italy
14	DEPARTEMENT DE L'ISERE	France

**Please provide the complete list of participants to the project and ensure that the eligibility conditions on the composition of the consortium are complied with. Although successful proposals invited to submit a full proposal for the second stage will be allowed to add partners, this may not have the effect of fundamentally altering the proposal submitted for the first stage.**

**By the complete list of participants, it will be possible to streamline the evaluation process with faster checks for eligibility, and more efficient selection of expert evaluators.**

**The list of participants is pre-filled based on the information given on Step 4 of the application. To add more partners, please save and close the form and go back to Step 4.**



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **ISMB**

## 2 - Administrative data of participating organisations

**PIC**

999599357

**Legal name**

ISTITUTO SUPERIORE MARIO BOELLA SULLE TECNOLOGIE DELL'INFORMAZIONE E DELLE TE

Short name: *ISMB*

*Address of the organisation*

Street VIA PIER CARLO BOGGIO 61

Town TORINO

Postcode 10138

Country Italy

Webpage [www.ismb.it](http://www.ismb.it)

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... no  
Non-profit ..... yes  
International organisation ..... no  
International organisation of European interest ..... no  
Secondary or Higher education establishment ..... no  
Research organisation ..... yes

Legal person ..... yes

**Enterprise Data**

SME self-declared status ..... 2013 - no  
SME self-assessment ..... unknown  
SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: 721 - Research and experimental development on natural sciences and engineering



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **ISMB**

*Department(s) carrying out the proposed work*

**Department 1**

Department name

not applicable

Same as organisation address

Street

Town

Postcode

Country

*Dependencies with other proposal participants*

<b>Character of dependence</b>	<b>Participant</b>	
--------------------------------	--------------------	--



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **ISMB**

### Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

Title

Dr.

Sex

Male

Female

First name **Andrea**

Last name **VESCO**

E-Mail **vesco@ismb.it**

Position in org.

Senior Researcher

Department

Smart City Strategic Program

Same as organisation

Same as organisation address

Street

VIA PIER CARLO BOGGIO 61

Town

TORINO

Post code

10138

Country

Italy

Website

http://www.ismb.it/en

Phone 1

+39 011 2276610

Phone 2

+XXX XXXXXXXXXX

Fax

+XXX XXXXXXXXXX

### Other contact persons

First Name	Last Name	E-mail	Phone
Francesco	Ferrero	fferrero@ismb.it	+393356056494





Proposal ID **723369-1**

Acronym **UDeliver**

Short name **UWE BRISTOL**

**PIC** 999839432      **Legal name** UNIVERSITY OF THE WEST OF ENGLAND, BRISTOL

*Short name: UWE BRISTOL*

*Address of the organisation*

Street Frenchay Campus, Coldharbour Lane

Town BRISTOL

Postcode BS16 1QY

Country United Kingdom

Webpage www.uwe.ac.uk

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... yes      Legal person ..... yes  
 Non-profit ..... yes  
 International organisation ..... no  
 International organisation of European interest ..... no  
 Secondary or Higher education establishment ..... yes  
 Research organisation ..... yes

**Enterprise Data**

SME self-declared status ..... 2011 - no  
 SME self-assesment ..... unknown  
 SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: 853 - Higher education



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **UWE BRISTOL**

*Department(s) carrying out the proposed work*

**Department 1**

Department name

not applicable

Same as organisation address

Street

Town

Postcode

Country

*Dependencies with other proposal participants*

<b>Character of dependence</b>	<b>Participant</b>	
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Proposal ID **723369-1**

Acronym **UDeliver**

Short name **UWE BRISTOL**

*Person in charge of the proposal*

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

Title

Sex  Male  Female

First name **Miriam**

Last name **Ricci**

E-Mail **miriam.ricci@uwe.ac.uk**

Position in org.

Department

Same as organisation

Same as organisation address

Street

Town

Post code

Country

Website

Phone 1

Phone 2

Fax

*Other contact persons*

<b>First Name</b>	<b>Last Name</b>	<b>E-mail</b>	<b>Phone</b>
Graham	Parkhurst	graham.parkhurst@uwe.ac.uk	+44 117 32 82133
Tom	Brossard	tom.brossard@uwe.ac.uk	
Neil	Phillips	neil.phillips@uwe.ac.uk	
Philippa	Shelton	philippa.shelton@uwe.ac.uk	



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **UNISS**

**PIC**

999465594

**Legal name**

UNIVERSITA DEGLI STUDI DI SASSARI

Short name: **UNISS**

*Address of the organisation*

Street PIAZZA UNIVERSITA 21

Town SASSARI

Postcode 07100

Country Italy

Webpage www.uniss.it

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... yes

Legal person ..... yes

Non-profit ..... yes

International organisation ..... unknown

International organisation of European interest ..... unknown

Secondary or Higher education establishment ..... yes

Research organisation ..... yes

**Enterprise Data**

SME self-declared status ..... 2014 - no

SME self-assesment ..... unknown

SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: 853 - Higher education



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **UNISS**

### Department(s) carrying out the proposed work

#### Department 1

Department name

not applicable

Same as organisation address

Street

Town

Postcode

Country

### Dependencies with other proposal participants

<b>Character of dependence</b>	<b>Participant</b>	
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Proposal ID **723369-1**

Acronym **UDeliver**

Short name **UNISS**

### Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

Title

Sex  Male  Female

First name **Arnaldo**

Last name **Cecchini**

E-Mail **cecchini@uniss.it**

Position in org.

Department

Same as organisation

Same as organisation address

Street

Town

Post code

Country

Website

Phone 1

Phone 2

Fax



Proposal ID **723369-1**      Acronym **UDeliver**      Short name **LIST**

**PIC**      **Legal name**  
934320200      LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY

Short name: *LIST*

*Address of the organisation*

Street 5 AVENUE DES HAUTS FOURNEAUX  
Town ESCH SUR ALZETTE  
Postcode 4362  
Country Luxembourg  
Webpage www.list.lu

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... yes      Legal person ..... yes  
Non-profit ..... yes  
International organisation ..... no  
International organisation of European interest ..... no  
Secondary or Higher education establishment ..... no  
Research organisation ..... yes

**Enterprise Data**

SME self-declared status ..... 2014 - no  
SME self-assesment ..... unknown  
SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: 721 - Research and experimental development on natural sciences and engineering



Proposal ID 723369-1

Acronym UDeliver

Short name LIST

### Department(s) carrying out the proposed work

#### Department 1

Department name IT for Innovative Services (ITIS)

not applicable

Same as organisation address

Street 5 AVENUE DES HAUTS FOURNEAUX

Town ESCH SUR ALZETTE

Postcode 4362

Country Luxembourg

### Dependencies with other proposal participants

Character of dependence	Participant	
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Proposal ID **723369-1**

Acronym **UDeliver**

Short name **LIST**

### Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

Title

Mr.

Sex



Male



Female

First name **Djamel**

Last name **Khadraoui**

E-Mail **djamel.khadraoui@list.lu**

Position in org.

Head of Unit

Department

IT for Innovative Services (ITIS)



Same as organisation

Same as organisation address

Street

5 AVENUE DES HAUTS FOURNEAUX

Town

ESCH SUR ALZETTE

Post code

4362

Country

Luxembourg

Website

Phone 1

+352 42 59 91 2286

Phone 2

+352 275 885

Fax

+XXX XXXXXXXXX



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **TNT Global Express S.p.a.**

**PIC**

996310766

**Legal name**

TNT GLOBAL EXPRESS SPA

*Short name: TNT Global Express S.p.a.*

*Address of the organisation*

Street CORSO LOMBARDIA 63

Town SAN MAURO TORINESE

Postcode 10029

Country Italy

Webpage www.tnt.com

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... no

Legal person ..... yes

Non-profit ..... no

International organisation ..... no

International organisation of European interest ..... no

Secondary or Higher education establishment ..... no

Research organisation ..... no

**Enterprise Data**

SME self-declared status ..... 2009 - no

SME self-assesment ..... unknown

SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: 5310 - Postal activities



Proposal ID 723369-1

Acronym **UDeliver**

Short name **TNT Global Express S.p.a.**

*Department(s) carrying out the proposed work*

**Department 1**

Department name

not applicable

Same as organisation address

Street

Town

Postcode

Country

*Dependencies with other proposal participants*

<b>Character of dependence</b>	<b>Participant</b>	
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Proposal ID **723369-1**

Acronym **UDeliver**

Short name **TNT Global Express S.p.a.**

### Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

Title

Sex  Male  Female

First name **Paola**

Last name **Chiadò**

E-Mail **pchiado@tntitaly.it**

Position in org.

Department

Same as organisation

Same as organisation address

Street

Town

Post code

Country

Website

Phone 1

Phone 2

Fax



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **BDS BUSINESS DEVELOPMENT SERVICES**

**PIC**

922915813

**Legal name**

BDS BUSINESS DEVELOPMENT SERVICES SRL

Short name: *BDS BUSINESS DEVELOPMENT SERVICES SRL*

*Address of the organisation*

Street Via Bertola 51

Town Torino

Postcode 10122

Country Italy

Webpage

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... unknown

Legal person ..... yes

Non-profit ..... unknown

International organisation ..... unknown

International organisation of European interest ..... unknown

Secondary or Higher education establishment ..... unknown

Research organisation ..... unknown

**Enterprise Data**

SME self-declared status ..... unknown

SME self-assesment ..... unknown

SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: -



Proposal ID 723369-1

Acronym UDeliver

Short name BDS BUSINESS DEVELOPMENT SERVICES

### Department(s) carrying out the proposed work

#### No departement involved

Department name

not applicable

Same as organisation address

Street

Town

Postcode

Country

### Dependencies with other proposal participants

Character of dependence	Participant	
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Proposal ID **723369-1**

Acronym **UDeliver**

Short name **BDS BUSINESS DEVELOPMENT SERVICES**

### Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

Title

Sex  Male  Female

First name **Guido**

Last name **Perboli**

E-Mail **guido.perboli@bds-group.eu**

Position in org.

Department

Same as organisation

Same as organisation address

Street

Town

Post code

Country

Website

Phone 1

Phone 2

Fax



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Interact S.A.**

**PIC**

941572793

**Legal name**

Interact S.A.

*Short name: Interact S.A.*

*Address of the organisation*

Street 21, rue de Pont-Rémy

Town Luxembourg

Postcode L-2423

Country Luxembourg

Webpage www.interact.lu

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... no

Legal person ..... yes

Non-profit ..... no

International organisation ..... no

International organisation of European interest ..... no

Secondary or Higher education establishment ..... no

Research organisation ..... no

**Enterprise Data**

SME self-declared status ..... 2012 - yes

SME self-assesment ..... 2012 - yes

SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is an SME (small- and medium-sized enterprise) for the call.**

NACE Code: -





Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Interact S.A.**

### Department(s) carrying out the proposed work

#### No departement involved

Department name

not applicable

Same as organisation address

Street

Town

Postcode

Country

### Dependencies with other proposal participants

<b>Character of dependence</b>	<b>Participant</b>	
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Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Interact S.A.**

### Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

Title

Mr.

Sex



Male



Female

First name **Pol**

Last name **Goetzinger**

E-Mail **pgoetzinger@interact.lu**

Position in org.

Administrator

Department

Management



Same as organisation

Same as organisation address

Street

21, rue de Pont-Rémy

Town

Luxembourg

Post code

L-2423

Country

Luxembourg

Website

Phone 1

+352 48 49 731

Phone 2

+XXX XXXXXXXXXX

Fax

+XXX XXXXXXXXXX



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **CIGL ESCH**

**PIC** 922575149  
**Legal name** Centre d'Initiative et de Gestion Local Esch-sur-Alzette

*Short name: CIGL ESCH*

*Address of the organisation*

Street rue Zénon Bernard 32A  
Town Esch-sur-Alzette  
Postcode L-4031  
Country Luxembourg  
Webpage www.ciglesch.lu

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... no  
Non-profit ..... yes  
International organisation ..... no  
International organisation of European interest ..... no  
Secondary or Higher education establishment ..... no  
Research organisation ..... unknown  
Legal person ..... yes

**Enterprise Data**

SME self-declared status ..... unknown  
SME self-assesment ..... unknown  
SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: -



Proposal ID 723369-1

Acronym **UDeliver**

Short name **CIGL ESCH**

### Department(s) carrying out the proposed work

#### Department 1

Department name Vël'OK

not applicable

Same as organisation address

Street rue Zénon Bernard 32A

Town Esch-sur-Alzette

Postcode L-4031

Country Luxembourg

### Dependencies with other proposal participants

Character of dependence	Participant	
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Proposal ID **723369-1**

Acronym **UDeliver**

Short name **CIGL ESCH**

### Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

Title

Mr.

Sex

Male

Female

First name **Carlos**

Last name **Breda**

E-Mail **carlos.breda@ciglesch.lu**

Position in org.

Coordinateur général

Department

Direction

Same as organisation

Same as organisation address

Street

rue Zénon Bernard 32A

Town

Esch-sur-Alzette

Post code

L-4031

Country

Luxembourg

Website

Phone 1

+352 544245200

Phone 2

+XXX XXXXXXXXX

Fax

+XXX XXXXXXXXX



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Expert Support Association /ESA/**

**PIC**

935370225

**Legal name**

Expert Support Association

*Short name: Expert Support Association /ESA/*

*Address of the organisation*

Street 39 Vitinya Street

Town Sofia

Postcode 1517

Country Bulgaria

Webpage www.esa.bg

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... unknown

Legal person ..... yes

Non-profit ..... unknown

International organisation ..... unknown

International organisation of European interest ..... unknown

Secondary or Higher education establishment ..... unknown

Research organisation ..... unknown

**Enterprise Data**

SME self-declared status ..... 2014 - no

SME self-assesment ..... unknown

SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: S - Other service activities



Proposal ID 723369-1

Acronym UDeliver

Short name Expert Support Association /ESA/

### Department(s) carrying out the proposed work

#### No departement involved

Department name

not applicable

Same as organisation address

Street

Town

Postcode

Country

### Dependencies with other proposal participants

<b>Character of dependence</b>	<b>Participant</b>	
--------------------------------	--------------------	--



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Expert Support Association /ESA/**

### Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

Title

Sex  Male  Female

First name **Petya**

Last name **Romanova**

E-Mail **petya.romanova@hotmail.com**

Position in org.

Department

Same as organisation

Same as organisation address

Street

Town

Post code

Country

Website

Phone 1

Phone 2

Fax





Proposal ID **723369-1**      Acronym **UDeliver**      Short name **Karakas**

**PIC**      **Legal name**  
 923239502      Karakas Graphic Communications sa

*Short name: Karakas*

*Address of the organisation*

Street 17 Rue Charles Legrelle  
 Town Brussels  
 Postcode 1040  
 Country Belgium  
 Webpage www.karakas.be

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... unknown      Legal person ..... yes  
 Non-profit ..... unknown  
 International organisation ..... unknown  
 International organisation of European interest ..... unknown  
 Secondary or Higher education establishment ..... unknown  
 Research organisation ..... unknown

**Enterprise Data**

SME self-declared status ..... unknown  
 SME self-assesment ..... unknown  
 SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: J - Information and communication



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Karakas**

*Department(s) carrying out the proposed work*

**Department 1**

Department name

not applicable

Same as organisation address

Street

Town

Postcode

Country

*Dependencies with other proposal participants*

<b>Character of dependence</b>	<b>Participant</b>	
--------------------------------	--------------------	--



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Karakas**

### Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

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Mr.

Sex

Male

Female

First name **Geoffrey**

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Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Comune di Crema**

**PIC**

923290039

**Legal name**

Comune di Crema

*Short name: Comune di Crema*

*Address of the organisation*

Street Piazza Duomo, 25

Town Crema

Postcode 26013

Country Italy

Webpage www.comune.crema.cr.it

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... yes

Legal person ..... yes

Non-profit ..... yes

International organisation ..... no

International organisation of European interest ..... no

Secondary or Higher education establishment ..... no

Research organisation ..... no

**Enterprise Data**

SME self-declared status ..... unknown

SME self-assesment ..... unknown

SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: -



Proposal ID 723369-1

Acronym UDeliver

Short name Comune di Crema

### Department(s) carrying out the proposed work

#### Department 1

Department name Pianificazione e Gestione del Territorio

not applicable

Same as organisation address

Street Piazza Duomo, 25

Town Crema

Postcode 26013

Country Italy

### Dependencies with other proposal participants

Character of dependence	Participant	
-------------------------	-------------	--



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Comune di Crema**

### Person in charge of the proposal

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Male



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Last name **Redondi**

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Department

Pianificazione e Gestione del Territorio



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Same as organisation address

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Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Comune di Sassari**

**PIC**

944134757

**Legal name**

Comune di Sassari

*Short name: Comune di Sassari*

*Address of the organisation*

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Town Sassari

Postcode 07100

Country Italy

Webpage www.comune.sassari.it

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... no

Legal person ..... yes

Non-profit ..... no

International organisation ..... no

International organisation of European interest ..... no

Secondary or Higher education establishment ..... no

Research organisation ..... no

**Enterprise Data**

SME self-declared status ..... unknown

SME self-assesment ..... unknown

SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: 841 - Administration of the State and the economic and social policy of the community



Proposal ID 723369-1

Acronym UDeliver

Short name Comune di Sassari

*Department(s) carrying out the proposed work*

**Department 1**

Department name Strategic Planning and Integrated Policies

not applicable

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Street Piazza del Comune - Palazzo Ducale

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Postcode 07100

Country Italy

*Dependencies with other proposal participants*

<i>Character of dependence</i>	<i>Participant</i>	
--------------------------------	--------------------	--





Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Comune di Sassari**

### Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

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Post code

Country

Website

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Proposal ID **723369-1**

Acronym

**UDeliver**

Short name **Comune di Alghero**

**PIC**

936847632

**Legal name**

Comune di Alghero

*Short name: Comune di Alghero*

*Address of the organisation*

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Postcode 07041

Country Italy

Webpage www.comune.alghero.ss.it

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... unknown

Legal person ..... yes

Non-profit ..... unknown

International organisation ..... unknown

International organisation of European interest ..... unknown

Secondary or Higher education establishment ..... unknown

Research organisation ..... unknown

**Enterprise Data**

SME self-declared status ..... unknown

SME self-assesment ..... unknown

SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: O - Public administration and defence



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Comune di Alghero**

*Department(s) carrying out the proposed work*

**Department 1**

Department name

not applicable

Same as organisation address

Street

Town

Postcode

Country

*Dependencies with other proposal participants*

<b>Character of dependence</b>	<b>Participant</b>	
--------------------------------	--------------------	--



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **Comune di Alghero**

### Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

Title

Mr.

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Proposal ID **723369-1**

Acronym **UDeliver**

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DEPARTEMENT DE L'ISERE

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Town GRENOBLE

Postcode 38022

Country France

Webpage www.isere.fr

*Legal Status of your organisation*

**Research and Innovation legal statuses**

Public body ..... yes

Legal person ..... yes

Non-profit ..... yes

International organisation ..... no

International organisation of European interest ..... no

Secondary or Higher education establishment ..... no

Research organisation ..... no

**Enterprise Data**

SME self-declared status ..... 2012 - no

SME self-assesment ..... unknown

SME validation sme ..... unknown

**Based on the above details of the Beneficiary Registry the organisation is not an SME (small- and medium-sized enterprise) for the call.**

NACE Code: - - Not applicable



Proposal ID 723369-1

Acronym UDeliver

Short name DEPARTEMENT DE L'ISERE

### Department(s) carrying out the proposed work

#### Department 1

Department name   not applicable

Same as organisation address

Street

Town

Postcode

Country

### Dependencies with other proposal participants

Character of dependence	Participant	
-------------------------	-------------	--



Proposal ID **723369-1**

Acronym **UDeliver**

Short name **DEPARTEMENT DE L'ISERE**

### Person in charge of the proposal

The name and e-mail of contact persons are read-only in the administrative form, only additional details can be edited here. To give access rights and basic contact details of contact persons, please go back to Step 4 of the submission wizard and save the changes.

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Last name **Demond**

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Proposal ID 723369-1

Acronym **UDeliver**

### 3 - Budget for the proposal

Total requested EU contribution for the proposal/ €	3 850 000
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## COVER PAGE

**UDeliver - Innovating the last-mile freight delivery to influence and orientate the policy-making and planning of local districts in the direction of sustainable, active and people oriented mobility.**

### List of participants

Participant No	Participant organization name	Country
1 (coordinator)	Istituto Superiore Mario Boella sulle Tecnologie dell'Informazione e delle Telecomunicazioni.	Italy
2	University of the West of England, Bristol	United Kingdom
3	Università degli Studi di Sassari	Italy
4	Luxembourg Institute of Science and Technology	Luxembourg
5	TNT Global Express SPA	Italy
6	BDS Business Development Services SRL	Italy
7	Interact S.A.	Luxembourg
8	Centre d'Initiative et de Gestion Local Esch-sur-Alzette	Luxembourg
9	Expert Support Association	Bulgaria
10	Karakas Graphic Communications sa	Belgium
11	Comune di Crema	Italy
12	Comune di Sassari	Italy
13	Comune di Alghero	Italy
14	Departement de l'Isere	France

### 1. Excellence

UDeliver brings together a multi-disciplinary consortium and five local districts (in Crema, Sassari and Alghero, Isère, Esch-sur-Alzette and Bristol) in a strong and innovative learning community focused on innovating the way small parcels and other local goods (e.g. fresh produce) are delivered in the last mile, i.e. deliveries of goods from local depots to the home. The innovative last-mile freight delivery solutions implemented by the project will help shift current van-based deliveries to collaborative deliveries performed by the citizens for the citizens through sustainable transport modes, thus de-stressing local neighbourhoods. These innovative solutions will be:

- co-created with citizens, local authorities, organisations and businesses (all these are also referred to as 'stakeholders' in the rest of the proposal);
- people oriented, leveraging on citizens' participation and collaboration;
- promoting active mobility and resource sharing among the participating stakeholders;
- socially, financially and environmentally sustainable.

Since different districts are characterized by huge diversity in cultural backgrounds, demographic development, economic potential and social conditions, the UDeliver project will co-create the last-mile freight delivery solutions with local authorities, citizens, local organisations and businesses and will control the solutions with a gamification strategy. The co-creation process will also contribute to harmonize policy-making and urban planning supporting the local solutions with business models and value propositions to facilitate the scaling up, visibility, dissemination and replicability in other districts, in the EU and beyond.

#### 1.1 Objectives

UDeliver's main goal is to co-create with citizens, local authorities, organisations and businesses a set of sustainable mobility solutions performed by the citizens for the citizens for the delivery of small parcels and local goods (e.g. fresh produce). All solutions will be based on local delivery points (e.g. drop boxes, mobile depots, shared spaces offered by local businesses, etc.) and will aim at reducing the negative externalities associated with the access of delivery vans to the neighbourhoods or urban districts.

UDeliver will meet this overall goal by achieving the following objectives with a holistic and multi-disciplinary approach based on the wide range of competences of the partners (social sciences, stakeholders' engagement, urban and transport planning, logistics, marketing, business development and ICT innovation):

- **To understand the needs and preferences** of all the stakeholders involved regarding personal mobility and freight delivery;

- **To co-create** with the relevant stakeholders in each participating local district the best solution for last-mile freight delivery based on local delivery points (e.g. drop boxes, mobile depots, shared warehouses offered by local businesses, etc.). These points allow the couriers to deliver and collect parcels without entering the local district, as well as to consolidate and facilitate exchanges of local goods while reducing the negative externalities associated with last-mile freight delivery;
- To encourage **active participation of citizens** in the last-mile freight delivery process, strengthening the community cohesion and trust;
- To translate the co-created solution into a **gamification strategy** with the proper incentives and rewards schemes provided by local authorities (e.g. free access to public transport, etc.) or local business (e.g. discounts, etc.) to boost the participation of citizens and control the process;
- To support the local authorities, within and beyond the timeframe of the project, with methods and tools to **design policies and urban planning practices** that support the delivery solutions, incentivize participation of all the stakeholders with the proper reward schemes and foster achievement of sustainability targets (to be identified through the co-creation process);
- To create an original **open-source multi-sided platform** enabling the real-world implementation of the gamification strategy. This platform:
  - Connects with the systems of couriers to manage and control the freight delivery workflow;
  - Enables the citizens to pick up freights from and take them to local delivery points, hence becoming available to deliver goods to other citizens and/or to delegate freight pick up to another citizen;
  - Collects data, monitors and tracks the progress of each participating local district towards the sustainability targets. The analysis of the results is based on a comprehensive **evaluation framework** that assesses the social, economic, and environmental impacts, allowing for comparison across all participating local districts. The evaluation framework will be developed by building on the indicators widely used in the CIVITAS projects<sup>1</sup>;
  - Implements simple but effective visualization of the results with the purpose of disseminating and fostering awareness of the progress to all stakeholders. This will include, amongst other information, specific data monitoring the beneficial effects of the collaborative deliveries (e.g. savings on CO<sub>2</sub> and other air pollutants, noise reduction, calories burned, etc.);
- To develop and make widely available an **application for smart devices**, to inform, advise and influence citizens to adopt green/public/shared alternatives for their collaborative delivery tasks and to support the implementation of the gamification strategy. UDeliver will focus on small parcels (up to 5 kg) which cause the largest number of deliveries. In a geographically limited area such as neighbourhoods and urban districts, last-mile delivery of these parcels is compatible with **active mobility** that will be the most incentivized mode, because in addition to the physical benefits, walking and biking can provide economic and environmental benefits;
- To identify and test on the field the **business models** that make the solution viable and replicable in other EU countries;
- To create a comprehensive, **sustainable and durable business development plan** so that the innovative last-mile delivery solutions implemented by the project can be scaled-up and replicated.
- To disseminate the projects' results (impacts, processes and policies).

## 1.2 Relation to the work programme

The European Commission sets the basis for the e-commerce to flourish through the Digital Single Market initiative<sup>2</sup>. Moreover, it sets tough sustainability targets through the Transport White Paper<sup>3</sup>: reduce transport sector greenhouse gas emissions by at least 60% by 2050, cut use of conventionally fuelled cars in urban transport by half by 2030 and phase them out entirely by 2050, and make city logistics CO<sub>2</sub> free in major urban centres by 2030. UDeliver addresses Call Topic MG-4.5-2016: “New ways of supporting development and implementation of neighbourhood-level and urban-district-level transport innovations” and it will

<sup>1</sup> [http://www.eltis.org/sites/eltis/files/trainingmaterials/civitas\\_wiki\\_d4\\_10\\_evaluation\\_framework.pdf](http://www.eltis.org/sites/eltis/files/trainingmaterials/civitas_wiki_d4_10_evaluation_framework.pdf)

<sup>2</sup> European Commission. (2015). A Digital Single Market Strategy for Europe, COM(2015) 192 final, Brussels 2015.

<sup>3</sup> European Commission. (2011). Roadmap to a single European transport area - Towards a competitive and resource-efficient transport system, Luxembourg 2011.

demonstrate that these targets can realistically be met also by innovating last-mile freight deliveries by means of a combination of social and technological innovation as described below:

<b>WP Challenge and Scope</b>	<b>UDeliver response</b>
<i>People oriented transport and mobility encompasses both new ways of translating people's (both passenger and freight) needs into mobility solutions and new ways of delivering (co-creating) these solutions.</i>	UDeliver adopts the principles of co-creation in the whole process of design, testing, use and improvement of a set of last-mile freight delivery solutions.
<i>Despite the huge diversity in cultural backgrounds, demographic developments, economic potential and social conditions, neighbourhoods and urban districts ... could be an appropriate scale to pilot mobility innovations that address some common sustainable urban mobility issues.</i>	UDeliver co-creates and tests the delivery solutions in five neighbourhoods and urban districts.
<i>... sustainable lifestyles; behaviours, reducing greenhouse emissions from mobility, reducing noise, increasing the use of alternative fuelled vehicles and public/shared transport ...</i>	UDeliver reduces the negative externalities (greenhouse emissions, pollution, noise, congestion and safety issues) of actual last-mile freight delivery by involving citizens into the delivery process and by fostering and rewarding the use of green/public/shared transport modes as well as active modes (walking, cycling) that are the most incentivized ones.
<i>Also new uses of public space for different mobility users could be developed and tested at neighbourhood level.</i>	Public spaces are the target places where to create the local delivery points. These places become meeting points where to demonstrate and test innovative mobility services.
<i>... development, testing and comparison of initial results of sustainable mobility solutions that are targeted to at least five European neighbourhoods or urban districts... located in urban areas of different densities and sizes, such as in small towns, peri-urban areas or scarcely populated urban neighbourhoods.</i>	UDeliver co-creates and tests the delivery solutions in five heterogeneous areas in terms of type, position, density, size, population, social conditions and economic potential, paving the way for its replication in a whole set of diverse urban environments.
<i>New approaches to involve end-users, consumers and citizens, both women and men, to validate the needs of the neighbourhoods involved, to assess the potential impact of the solutions, and to better understand the needs and preferences of the end-users whose problems are meant to be solved in the project.</i>	UDeliver will use the principles and processes of co-creation to involve stakeholders and better understand their needs and preferences, to validate the needs of the neighbourhoods involved and assess the potential impact of the solution (in conjunction with the use of the evaluation framework). Co-creation in UDeliver is an active, creative and social process, which entails: connections and interactions between people; collaboration, rather than just involvement; and co-creativity, not simply co-construction or co-production. Co-creation allows the development of mobility solutions that are more responsive and appropriate to the involved stakeholders' cultural, emotional, spiritual and practical needs.
<i>New types of innovations (technological and non-technological) such as: social innovation, workplace innovation, design, creativity, public sector innovation, open innovation or co-creation or gamification processes.</i>	UDeliver is a seed of social innovation based on a gamification strategy co-created to innovate the last-mile delivery process, foster active mobility of people, create cohesion and trust among people, increase opportunities for local businesses and reorient the organisational, governance and planning processes of urban districts. The social innovation is

	assisted by a technological innovation that makes the implementation of the game possible and viable.
<i>New forms of tools and approaches for measuring take-up, support, and impact of the innovative approaches so that results can be scaled up and disseminated to address common issues in neighbourhoods located in other EU countries.</i>	UDeliver develops a comprehensive evaluation framework to assess the social, economic, environmental impacts of the whole innovative approach, to enable the comparison, dissemination and scaling up of results among the pilots and beyond them. This is used in conjunction with the co-creation approach. Moreover, identification and testing of viable business models by real couriers and businesses will foster the scalability and replicability of the solution.

### 1.3 Concept and methodology

#### (a) Concept

UDeliver innovates the process of last-mile parcel and other local goods delivery while promoting active mobility and designs a framework of policies, urban plans, incentives and business models to support the local solutions. In turn UDeliver reduces the negative externalities of state-of-the-art last-mile freight deliveries and contributes to the achievement of the local sustainability targets. The benefits coming from the UDeliver solution will be reached jointly by the local authorities, citizens and businesses in a strong learning environment. The concept includes the following elements:

- Engaging the community of citizens leveraging on their environmental attitude and on a mix of policy/economic incentives co-defined by the local authorities and the other stakeholders.
- Understanding the real needs and preferences of the communities and co-create with the relevant stakeholders the delivery solutions.
- Fostering cooperation and trust among citizens and between the communities and the local authorities. This builds on the concept of the so-called collaborative economy (sometimes also referred to as the peer-to-peer, mesh, sharing economy, or collaborative consumption) a socio-economic system built around the sharing of human and physical resources. These systems often leverage innovation in ICTs to empower individuals, businesses and other organisations with information and tools that enable distribution, sharing and reuse of excess capacity in goods and services<sup>4</sup>.
- Making connections between citizens, data and delivery services by designing, developing and testing the technological innovations that make the UDeliver solution viable while responding to the needs and preferences of the citizens.
- Measuring, monitoring and evaluating the results to (i) help the local authorities change or refine the mobility policies, urban planning choices and reward schemes to faster and better reach the targets, (ii) create awareness of the results among the citizens to reinforce their commitment to the UDeliver solution and (iii) support the scaling up and the replicability in other EU countries.
- Testing and refining the co-created UDeliver solutions.

#### Positioning of the project

The project will co-create with citizens, local authorities and businesses a set of last-mile freight delivery solutions and will test them on the real world districts. Every delivery solution will be part of a comprehensive gamification strategy, implemented by means of the open-source multi-sided platform and the app, to transform real delivery actions into a gameful experience. Both the platform and the app will be developed and tested to reach TRL 7 - *system prototype demonstration in operational environment*. UDeliver will go even further in the collaboration with the local authorities as it will co-design with them a set of real policies and urban planning practices that will support the delivery solutions, by co-creating the better reward schemes that incentivize the participation of all the stakeholders and foster the achievement of social, economic and environmental sustainability targets. UDeliver will also identify and test on the field the

<sup>4</sup> Morgan J. (2014) Why the collaborative economy is changing everything, Forbes. Retrieved from: <http://www.forbes.com/sites/jacobmorgan/2014/10/16/why-the-collaborative-economy-is-changing-everything/#2715e4857a0b106216f24fc1>

business models and marketing strategies that will assure the appropriate scale and visibility for these new forms of urban mobility solutions and foster their replicability in other EU districts.

### **Interdisciplinary Considerations and Use of the Stakeholder Knowledge**

The UDeliver consortium is strongly interdisciplinary (world-wide courier, city authorities, experts in urbanism, transportation, social research and inclusion, monitoring & evaluation, business modelling, ICT and graphic communication & marketing) to bring together all the relevant skills required to successfully implement the UDeliver concept. The consortium will be organized in a *core team*, made by experts from the research and business sector, providing new approaches, methodologies and tools and a *leadership team* for each pilot, made by experts working with the local authorities providing the essential local knowledge. The leadership teams will also be key for the collaboration and knowledge exchange among the pilots.

### **National/International Research Activities Linked with the Project**

<b>Project Name</b>	<b>Foundations for UDeliver</b>
CityLab [H2020]	Basic knowledge and understanding on areas of freight distribution in urban areas
SynchroNet [H2020]	Framework for destressing the delivery network and designing business models for freight transportation at EU level.
MyNeighbourhood [CIP PSP]	Sustain and expand participation and cooperation between people and between people and their places.
Opera [H2020]	Low power heterogeneous architecture for next generation of cloud infrastructure and platforms.

## **(b) Methodology**

### **The pilots' sites**

1) The **City of Crema** (34,000 inhabitants) in the Lombardy region of Italy is a convenient site where to co-create and test UDeliver innovations. The pilot will be located in the central neighbourhood of the city, bordered by the Venetian Walls. This is a residential and a commercial area with many offices and local businesses and it is characterized by a substantial number of parcel deliveries. A part of the neighbourhood is a low emission zone. The local authorities, citizens, local businesses and the courier (TNT) will be involved in the research and innovation action.

2) **Fertilia** is a small town in the agricultural region of Nurra in the North-West of Sardinia, Italy. Fertilia with its hamlets is a single functional area with sparse and spread out population that is administered by the authorities of both Alghero and Sassari. The geographical peculiarities of this area pave the way to make a strategic and distributed site of service & delivery of local agriculture products contributing to the economy and quality of life of the population. The UDeliver innovations will be applied to parcels and to agricultural products delivery co-creating the solution with both the local authorities (Alghero and Sassari), citizens, local farms and firms, schools and health services and the courier (TNT).

3) The Trièves and Matheysine areas in the **District of Isère** (France) are rural and tourist areas as well as living areas near the city of Grenoble. In this site we will test UDeliver innovations applied to the last-mile delivery of parcels and local, fresh and seasonal products from a group of farmers to schools, recreation facilities, institutions for disabled and elderly people and businesses. The local authority (Departement de l'Isère), citizens, businesses, farmers and the courier (TNT) will be involved in the pilot.

4) The pilot in Luxembourg targets the centre of the city of **Esch-sur-Alzette** and the near area of **Belval**. In these two neighbourhoods we will apply the UDeliver innovative concept to delivery of parcels across the area and from outside it. This pilot addresses the active mobility component by also leveraging on the expertise of Centre d'Initiative et de Gestion Local Esch-sur-Alzette (CIGL), the intercommunal association that operates the Vël'Ok bike-sharing service (250 bikes, half of which electric) for the citizens of 6 municipalities of the region. The Vël'Ok scheme has about 4000 registered users, 10% of which are expected to be involved in the co-creation and pilot phases of UDeliver together with other citizens, local businesses and authorities. Moreover, CIGL has in place a strategic collaboration agreement with POST Luxembourg, the delivery and IT operator of the Grand-Duchy, which will be involved in the co-creation phase.

5) The pilot in the **Bristol** area will involve the urban districts where the University of the West of England (UWE) students live, including halls of residence, neighbouring areas around the three UWE campuses (in the north and south fringes of Bristol – Frenchay, Glenside and Bower Ashton) and other neighbourhoods

with a high student concentration. In these districts we will apply the UDeliver innovative concept to delivery of parcels across the area and from outside it. The university students, business and retailers organisations and the courier (TNT) will be involved, together with the relevant local authorities, in an innovative pilot involving the 27,000-strong student population in one of the largest providers of Higher Education in the South West of England.

**Co-Creation of the last-mile delivery solutions** - The methodological approach to developing and testing the delivery solutions is based on the principles of co-creation, which involves the participation of the end users in the whole process of design, testing, use and improvement of the process, thus enhancing its value, meaning and viability. Co-creation can be defined as an active, creative and social process, which entails: *Connections*, interactions between people; *Collaboration*, rather than just involvement; and *Co-creativity*, not simply co-construction or co-production<sup>5</sup>. The co-creation involves elements of co-design to help ensure the result meets needs and preferences of the stakeholders. The aim of this participatory approach to design is to create processes that are more responsive and appropriate to their inhabitants' and users' cultural, emotional, spiritual and practical needs. In each of the participating districts, the project will facilitate a process of co-creation of the UDeliver solution that is more meaningful, relevant and appropriate to the local needs and aspirations but always considering the broad objectives of the project, namely to make parcel and other local goods delivery more sustainable from the social, economic and environmental point of view. This approach is also in line with the concept of Responsible Research and Innovation (RRI), supported by the European Commission in H2020<sup>6</sup>. RRI implies that societal actors (researchers, citizens, policy makers, business, third sector organisations, etc.) work together during the whole research and innovation process in order to better align both the process and its outcomes with the values, needs and expectations of society. The co-creation approach will involve the following methodological phases:

1. Understanding local environmental, economic and social needs and aspirations concerning mobility: this phase explores problem definition and problem owners. It involves a desk-based review and analysis of key local mobility strategies and policies, sustainability indicators concerning mobility (of passengers and freights) at district level, socio-economic outlook and trends.
2. Identification of key local stakeholders to be involved in the co-creation process in each urban district. This will include residents, local businesses, local authorities, community groups and logistics companies.
3. Co-Creation workshop 1: to validate needs of the urban district involved and understand the needs and preferences of the people that might be involved, to identify sustainability targets and to assess potential impacts of the different delivery solutions offered by the project. The output of this workshop will be the identification of a possible delivery solution that best meets local needs and preferences, using also the findings from phase 1, and a co-designed plan for implementation and ongoing engagement.
4. User & stakeholder engagement throughout project implementation: end users and other key stakeholders, identified in phase 2, will continue to be involved throughout the implementation of the co-created solution. Tools (explored and identified in phase 3) will include online forums and/or surveys, quantitative data and qualitative feedback collected through the app etc. The results from user and stakeholder engagement will be used in conjunction with the overall evaluation framework to identify, measure, monitor and evaluate the social, environmental and economic outcomes and impacts of the project.
5. Co-Creation workshop 2: to understand and assess the functionality and performance of the delivery solution and associated technological components and improve users' and stakeholders' experience and benefits. The output of this workshop will be a series of recommendations for further improvement of the co-created delivery solution.
6. Co-Creation workshop 3: this is focused on scaling up, transferring best practices, positive impacts and lessons learnt to other contexts.

**Gamification strategy** - The gamification strategy transforms the delivery actions into a gameful experience that fosters adoption of sustainable mobility choices, active participation and collaboration among citizens. Indeed, this is an attempt to improve user engagement and value creation for all the stakeholders through

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<sup>5</sup> Thorsten R., & Samson A. (2009). Co-creation: New pathways to value An overview, LSE Report, retrieved from [http://personal.lse.ac.uk/samsona/cocreation\\_report.pdf](http://personal.lse.ac.uk/samsona/cocreation_report.pdf)

<sup>6</sup> <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/responsible-research-innovation>

effective incentives and rewards. In order to achieve this, the strategy rewards the propensity of the user to perform parcel pick-up and delivery while using sustainable mobility modes (active mobility) and their inclination to put themselves at the disposal of others (collaboration). The gamification strategy also comprises monthly challenges and competitions (designed to be fun and engaging) with specific prizes and rewards. The users are ranked in accordance to their achievements and their reputation as well. Ranking groups users at local and global level (EU countries involved in the project) to foster competition. A comprehensive gamification strategy will be designed to support all the co-created delivery solutions and it will be operatively implemented through the open-source multi-sided platform and the UDeliver app.

**Open-Source Multi-Sided Platform and UDeliver App** - The needs and preferences of people might in principle be different, hence the platform will be designed to be simple, scalable and general enough to make the gamification strategies implementing the different solutions viable. The open-source platform will be implemented with existing cloud-based technologies and it will provide the following features:

- Interfaces the information and management systems of the couriers to manage the delivery workflow, performed by citizens, while satisfying the service requirements and liability issues;
- Informs and interconnects the participating citizens to allow them to perform parcel delivery while gaming (e.g. offer themselves to perform delivery on behalf of someone else or request the delivery to someone else);
- Collects the mobility data of the citizens during their delivery activities and compute the progress toward the sustainability targets by means of the evaluation framework;
- Provides statistics about achievements and manages the rewards of the users via the UDeliver app;
- Manages the reputation of the users involved; the reputation management is key to the game and it is used to foster cohesion and trust among the community.
- Analyses data through the implementation of the evaluation framework and provides by means of effective visualization techniques the feedback to
  - citizens to reinforce their commitment to the UDeliver solution;
  - local authorities to let them assess the effectiveness of their mobility policies and urban planning choices. In turn, the feedback provides decision-making support to refine the policies to better support the UDeliver solution.
- Integrates and aggregates existing solutions and services already in use by the cities providing a common framework of integration and acts as a backend of the UDeliver app.

The UDeliver app is a simple, fancy and enjoyable interface through which citizens perform the deliveries in accordance to the gamification strategy. The app:

- Presents to the user localised video tutorials to help them enter the game;
- Offers the convenient interface to pick-up parcels and other local goods at local delivery points and perform the delivery on behalf of others and/or request the delivery to other users (the reputation of the users plays a key role in this phase);
- Serves as an advanced trip planner, advising the user on all the mobility choices (e.g. walking, biking and green/public/shared transport) s/he can make to perform the entire delivery task; where possible, walking and biking will be the most incentivized and rewarded modal choices; the quality of walkability and bikeability is taken into account to provide suggestions;
- Leverages on the gamification strategy to raise the users' engagement and change their mobility behaviour while performing the deliveries and inform them about the achievements and the environmental and health benefits associated with their delivery tasks;
- Tracks the mobility choices of each and every user (origin, destination and modal choice of every trip) and anonymously sends them to the open-source multi-sided platform where the data are analysed to calculate the achievements;
- Allows the user to rate the quality of the delivery performed by other users, hence improve their reputation.

It is worth stressing that the multi-sided platform will be released in an open-source version and potentially compatible with all couriers' systems. A smart card based solution, will be also developed, together with the UDeliver app, because this solution is proven to be more attractive for the elderly and more affordable.

**Active Mobility Quality** - The UDeliver app serves as an advanced trip planner supporting the citizens to perform their deliveries. The app is therefore the convenient interface to advise them on all the mobility choices and to push a social and environmental responsible behaviour by incentivising walking or biking

over other modes. Differently from the other mobility modes, the route planning for walking will not only be based on the shortest path but also on a measure of the quality of walkability in the target area. A recognised methodology will be used to assess the quality of walkability<sup>7</sup> based on physical characteristics of the urban environment but also on some more qualitative factors, such as the sense of enclosure, imageability and liveliness. The methodology expresses the walkability score by combining three elements: (1) the number of destinations/urban opportunities reachable by foot from that point; (2) their distances; and (3) the quality perceived by citizens of the routes to these destinations. The quality of the routes is evaluated on several attributes relevant for walkability, related to the features of the streets and of the surrounding environment that may contribute to make the routes efficient, pleasant, secure and attractive. The methodology will be further developed to consider also the quality of the bikeability in the area.

**Policy-Making and Urban Planning** - Controlling and harmonizing the process of policy-making and urban planning is fundamental. Thus, UDeliver will specifically deal with these issues by considering the multi-objective and multi-actors nature of the problem to derive value for all the stakeholders. UDeliver will consider the actual strategic policies and urban plans in the co-creation phase and it will refine them or enrich them with new operative policies and urban planning decisions that (i) support the co-created delivery solutions based on citizen collaboration and active mobility, (ii) incentivize participation of all the stakeholders with the proper reward schemes and (iii) foster achievement of the social, economic and environmental sustainability targets. The entire process of designing a comprehensive framework of policies and planning activities will also take into consideration the business models since from the beginning.

**Business Models** - UDeliver will apply an ad hoc lean business methodology, called GUEST<sup>8</sup> to identify and test on the field the business models that make the delivery solutions viable and translate them into sustainable and durable businesses. The GUEST methodology is split into 5 simple steps (Go, Uniform, Evaluate, Solve, and Test). GUEST controls the process of the business model design from the value proposition definition to the factual implementation. It provides a conceptual and practical tool to the different stakeholders to connect their visions, issues, problems and opportunities in a common framework. The result of applying GUEST will be the identification and the control of the business models as well as a factual business plan in order to make the solution scalable and replicable in other EU contexts.

**Monitoring and evaluation of the Pilots** - The results of each pilot are evaluated, coherently with the co-creation workshops, at different stages of the project: ex ante, ongoing and ex post. The ex ante evaluation is instrumental to evaluate the baseline scenario, to drive the co-creation by means of evidences and to support the design of the gamification strategy. The ongoing evaluations (performed several times) are key to change or refine the strategies, policies and urban planning to better support the UDeliver solutions, thus to encourage the achievement of the sustainability targets. The ex post final assessment is specifically conceived to evaluate the effectiveness and the real impact of the overall approach and implementation, draw and recap the best practices that enable scale up and replication. The assessments are performed into the boundaries of the pilots via an evaluation framework that considers the three pillars of sustainability by means of a set of social, economic and environmental indicators (widely used in the CIVITAS projects). The evaluation framework will be applied to UDeliver in an innovative way (using the co-creation approach in conjunction) that will allow to measure:

- the level of social innovation<sup>9</sup> and specific issues as inclusivity and accessibility;
- the reduction of greenhouse gasses, pollutants, and noise and other health and environmental impacts to analyse the environmental sustainability of the delivery solutions;
- the economics of the solutions in order to analyse their financial sustainability; this analysis in the ex-ante and ongoing stage is also instrumental to create the database required to design the business models that transform the solutions into a sustainable and durable business.

The evaluation model will also interlay results from the pilots with heterogeneous open data from external databases (offered by local authorities and public entities), for example on wellbeing and health, to assess, in a broader view, the impact on the quality of life in the target areas.

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<sup>7</sup> Blečić I., Cecchini A., Congiu T., Fancello G., & Trunfio G.A. (2015). Evaluating walkability: a capability-wise planning and design support system. *International Journal of Geographical Information Science*.

<sup>8</sup> Perboli, G., & Gentile, R. (2014). The GUEST methodology manifesto. Technical Report, retrieved from <https://www.linkedin.com/pulse/guest-manifesto-guido-perboli>

<sup>9</sup> Murray R., Caulier-Grice J., & Mulgan G. (2010), *The Open Book of Social Innovation*, The Young Foundation.



**Gender issues** - UDeliver takes appropriate steps to incorporate gender perspectives in the co-creation phase to consider the different expectations of women and men regarding the support to active mobility (e.g. public lighting during evening and night, the ease of reaching local delivery points, etc.). The different safety needs of women and men will also be considered when defining the concept of users' reputation in the gamification strategy. Serious attention will be paid to assure that both women's and men's views are considered in policy-making, organisational, governance and planning processes. Finally, the pilots' assessment will consider specific indicators to understand whether the solution is inclusive of all social groups. UDeliver will also guide all the activities on the best ways to meet the needs of disabled people, addressing accessibility and inclusivity issues regarding mobility on the pilots as well as accessibility to website and app developed. All the project activities will be guided by UWE's Equality Policy. The University is committed to creating an inclusive environment for students, staff and the wider community. UWE is a member of and holder of a bronze award from the Athena SWAN Charter (gender equality in science, engineering, technology and other disciplines) and a Stonewall Top 100 Employer 2015 (for sexual orientation).

#### 1.4 Ambition

UDeliver aims high and wants to demonstrate how with the right mix of (i) citizens participation and cooperation, (ii) gamification strategies and clear incentives, (iii) a framework of policies, urban planning directives and business models, (iv) technological and non-technological innovation and (v) graphic communication & marketing it is possible to innovate the last-mile delivery process while promoting active mobility to achieve the social, economic and environmental sustainability local targets. Specific ambitions for creating high impact are to:

- involve large part of citizens in the neighbourhoods in living pilots;
- involve local authorities in the design of a framework of policies, reward schemes and urban planning activities supporting the delivery solutions;
- roll out a single, general enough and scalable technological platform and app that supports through a comprehensive gamification strategy, every different solution;
- demonstrate with scientific evidences that people oriented freight delivery solutions are socially, economically and environmentally sustainable and prone to systematic adoption across a wide range of urban contexts;
- transform the pilots into a sustainable and durable business that can be scaled up and replicated in other EU cities.

While addressing the last-mile freight delivery theme UDeliver aims at being a seed of social innovation and a framework for reorienting the organisational, governance and planning processes of local districts in the direction of sustainable, active and people oriented transport and of greater urban quality and liveability.

#### Advances beyond the State of the Art

UDeliver leverages on well established methodologies and technologies mixed in an innovative way to co-create a sustainable and scalable last-mile delivery and create social, economic and environmental impact.

Topic	State of the art	UDeliver innovation
Last-mile delivery	Several competing couriers or local producers entering the neighbourhood or urban district to reach every single customer.	People oriented and collaborative delivery destressing the urban district.
Active mobility	Delivery performed with dedicated high environmental impact fleets per courier or local producer.	Gamificated solution fostering active mobility of the citizens involved in the delivery process.
Policy-making and urban planning	Policy-making and urban planning hierarchically defined disregarding the network effect and interplay among the stakeholders	Multi-actor and multi-objective integrated policy-making and urban planning.
Business Models	Business models are usually developed only at the ending phase of the innovation process.	Business models developed side-by-side with policy-making and urban planning since from the beginning of the co-creation phase in order to minimize time to market and fit the users' value proposition.

## 2. Impact

### 2.1 Expected impacts

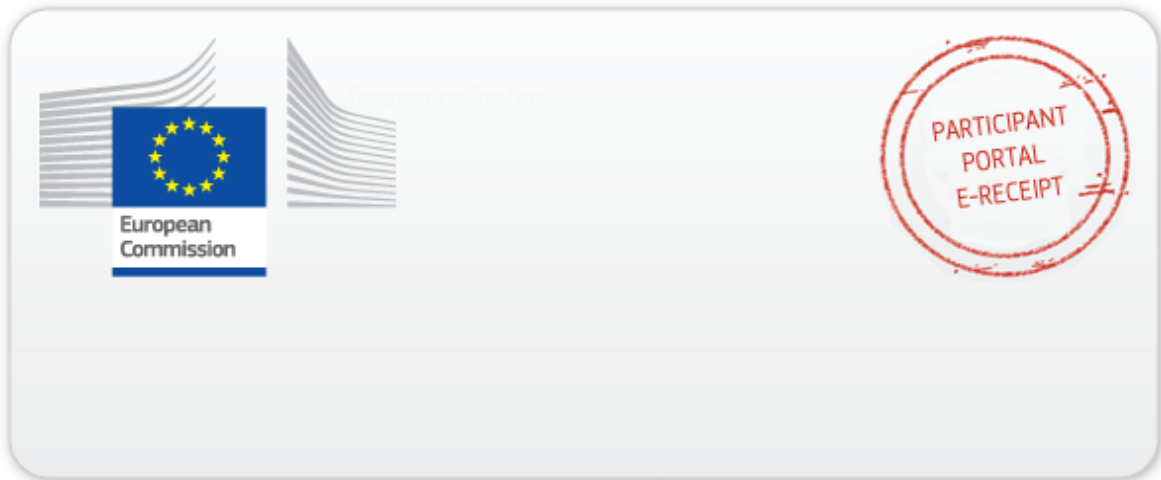
UDeliver will result in a new form of people and freight mobility in a variety of European neighbourhoods and urban districts. This is achieved by the development and testing of both technological and social innovation, which will contribute towards meeting the targets set out in the Transport White Paper and making the European transport system more efficient, sustainable, safe, resilient and competitive. In addition, the project will also foster stakeholder trust and enhance community cohesion in the urban districts where the UDeliver pilot initiatives will take place, by leveraging on the ever growing collaborative economy. The UDeliver project will lead to:

- **New innovation processes:** this encompasses both technological and social innovation. The project will develop an open-source multi-sided platform, a gamification strategy and an app in collaboration with stakeholders. The innovative co-creation process will enable the involved stakeholders to have their needs, preferences and ideas included alongside those of the designers and developers, to create a solution that uses the best available technology and fully meets the needs and preferences of the users while maximising the positive outcomes for the UDeliver project. These new innovation processes and technologies will also strengthen the competitiveness and growth of the involved businesses.
- **New organisational and governance concepts:** the UDeliver project solutions at the neighbourhood level for local parcel delivery is built upon a new concept of last-mile delivery organisation and governance, by bringing together local stakeholders, citizens and businesses in identifying local delivery points in new locations that better meet citizens' needs and foster local economic development.
- **Changes in planning processes:** in each participating neighbourhood and urban district, the UDeliver solutions will help demonstrate where the planning process concerning the logistics associated with local delivery on one hand and active mobility on the other (e.g. location of local delivery points, access restrictions, enhancements to pedestrian and cycling infrastructure etc.) can be changed and improved to better serve the community and achieve environmental, economic and social benefits.
- **New forms of urban mobility solutions at district/neighbourhood level:** The rationale underpinning UDeliver is the need to reduce the negative environmental, social and economic impacts associated with urban freight deliveries to homes and local businesses, while at the same time encouraging the uptake of sustainable transport modes for personal mobility. The last-mile delivery poses the greatest challenges for the environment, customers, citizens and logistics service providers<sup>10</sup>. Moreover, UDeliver seeks to mitigate the problem of failed home deliveries. A study in the UK<sup>11</sup> reported that failed first-time home deliveries accounted for approximately 12% of all first-time deliveries. These failed deliveries cost companies and customers approximately £850 million (€1.11 billion) in 2012. However, while addressing the last-mile freight delivery theme, UDeliver will result into a new form of active and people oriented mobility at district/neighbourhood level.
- **Implement a strategy to create scale and visibility, to measure impacts of the innovative approaches, and how these can be embedded and mainstreamed in practice amongst providers, funders and policy-makers across Europe:** building on the diversity of the districts involved, the project will be able to identify best practices and recommend how to scale these up and transfer them to other locations across Europe with different characteristics and local needs. UDeliver adopts an evaluation framework to measure the social, economic and environmental impacts of the solutions and will implement, thanks to the graphic design and communication competences in the consortium, a comprehensive (graphic, social, online and onsite) communication and marketing strategy to enhance the visibility of the results. The local authorities in the consortium will be the key actors in disseminating the solutions, the framework of policies and plans and the impacts through the international networks (e.g. Eurocities, ICLEI, Polis) and relations. Moreover the know-how of a world-wide courier as TNT strengthens the consortium and increase visibility and the opportunity of scale and replicability across Europe. Since from the beginning UDeliver aim at identifying the actors, funders and the business models that make the solutions viable businesses.

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<sup>10</sup> CIVITAS WIKI team. Making urban freight logistics more sustainable.

<sup>11</sup> Visser J. et al.( 2014 ) Procedia - Social and Behavioral Sciences 125, pp.15 – 27



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