

TOPIC : InCo flagship on “Urban mobility and sustainable electrification in large urban areas in developing and emerging economies”

**Topic identifier:** LC-GV-05-2019  
**Publication date:** 27 October 2017

**Types of action:** IA Innovation action

**DeadlineModel:** single-stage

**Planned opening date:** 04 December 2018

**Deadline:** 24 April 2019  
17:00:00

Time Zone : (Brussels time)

Horizon 2020

[H2020 websi](#)

Pillar: Societal Challenges

Work Programme Year: H2020-2018-2020

Work Programme Part: [Smart, green and integrated transport](#)

Call : [H2020-LC-GV-2018-2019-2020](#)

[Call budget overvie](#)

## Topic Description

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### **Specific Challenge:**

Climate change, energy security and local air pollution are some of the key questions for the 21st century. Urban areas in developing and emerging countries are major driving factors in growing global energy demand and Greenhouse Gas emissions.

Although cities cover only 2% of the earth's surface, 50% of the world's population lives in cities, but they are responsible for three-quarters of the global energy consumption as well as approximately 80% of the global greenhouse gas emissions. While the trend towards urbanisation and the associated increase of personal and freight transport creates massive challenges, in particular in developing and emerging economies, it also offers the unique opportunity to shape energy use especially in the transport and urban form towards a low carbon pathway. Moving towards sustainable mobility will also help addressing urban congestion, access to jobs and public services, and local air pollution.

This is why urbanisation requires integrated mobility solutions that bring together technology opportunities with local and national policy, including land use and mobility planning. Efficient transport and mobility, based on a balanced mix of public and private transport and dependent on the characteristics of each city, is and will continue to be the backbone of cities' growth and competitiveness.

Whereas environmental issues are very high on urban mobility agendas, the importance of transport in urban social and economic structures is often neglected in discussions. All three aspects of urban sustainability must be treated with equal importance and have to be examined in parallel.

### **Scope:**

Actions should bring together European, Asian (e.g. China), CELAC (Community of Latin American and Caribbean States) and African research partners, government agencies and urban authorities, private sector and civil society with relevant expertise and competence within the corresponding cooperation framework and foster participatory engagement in urban electrification in order to reduce air pollution and CO<sub>2</sub> emissions. All types of vehicle are considered under this topic (powered 2 wheelers, cars, buses, trucks and LDV).

- Development of a toolbox for advanced management strategies towards a more efficient private and public electric mobility: E-mobility management strategies, focusing on smart deployment and operation of vehicles, in particular electrified vehicle, to increase mobility and energy efficiency, emission reduction and user acceptance of electrified vehicles
  - A smart and cooperative management of the vehicle in urban operation, (intermodal route planning, ecorouting eco-driving charging and parking infrastructure availability...).
  - Deployment and operation of infrastructure use charging infrastructure (conventional and wireless) and network, availability of parking places. Adaptation and integration of existing/ adapted vehicles of different types if necessary.
  - Efficient integration of the operations of different electrified road public transport, from e-bike to bus rapid transit ( e- BRT) including mini-buses, taxi and mobility services on demand through smart navigation and routing, coordinated traffic management, demand-responsive service and dispatching
- Comparative demonstrations activities and pilots in cities in Europe, Asia, African and/or CELAC countries: Innovative concepts for electrified road public transport (passenger and freight), jointly designed through International Partnerships as a contribution to a wider sustainable mobility concept, from the perspective of a seamless mobility, taking in account the acceptance of users (travellers or freight operator). Comparative demonstrations activities and pilots (in European and Chinese's Cities, African, CELAC countries) of such jointly designed concepts developed by local partners.
- Implementation concepts to scale up the demonstration activities. Evaluation of the relative outputs and accordingly the development of implementation concepts to scale up the demonstration activities and exploration of the sustainable mobility planning in the city transformation process :
  - Sustainable planning of city and transportation infrastructure: link city planning with policy discussion and implementation solutions and city goals
  - Dedicated plans for financing solutions, including public and private operations.
  - Regional and international replication conditions to reach out to a larger number of cities and countries

Cooperation and synergies with ongoing activities undertaken with international initiatives such as Decarbonising Transport (International Transport Forum) and the Urban Electric Mobility Initiative (UN-Habitat) and other joint initiatives of European Member States international cooperation initiatives and the European Commission (e.g. Mobilise Your City) should be sought where appropriate.

In line with the strategy for EU international cooperation in research and innovation<sup>[1]</sup>, international cooperation is encouraged.

Applicants are invited to read the eligibility and admissibility conditions for this topic.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 15 and 18 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

**Expected Impact:**

Proposals are expected to contribute to:

- Capability to quantify the potential reduction of greenhouse gas and pollutant emissions as well as traffic congestion, by demonstrating improvements that can be achieved with new urban mobility systems and electrification, for each stakeholder in the value chain (in line with the objectives set by the COP21 and the New Urban Agenda)

- Reference models of the mobility system to provide a basis in order to assess the ability to replicate sustainable concepts by demonstrating the short- and long-term benefit for the stakeholders involved, and especially considering the relevant boundary conditions (i.e infrastructure, vehicle, usage needs and patterns, governance, financing schemes, urban organisation, etc) and how the result contributes to key EU policy goals ( including climate goals and competitiveness of European industry
- A basis for strengthening the collaboration of the European Union with Asia (e.g. China, India, etc), Latin America (CELAC) and Africa, which also offers both a common starting point for common future legislative efforts, as well a favourable setting for new business opportunities for innovative local and European entrepreneurs.

**Cross-cutting Priorities:**

Open Innovation

Contractual Public-Private Partnerships (cPPPs)

EGVI

International cooperation

Socio-economic science and humanities

[1] (COM (2012) 497)

**Topic conditions and documents**

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**1. Eligible countries:** described in Annex A of the Work Programme.

A number of non-EU/non-Associated Countries that are not automatically eligible for funding have made specific provisions for making funding available for their participants in Horizon 2020 projects. See the information in the Online Manual.

**2. Eligibility and admissibility conditions:** described in Annex B and Annex C of the Work Programme.

Due to the specific challenge of this topic, in addition to the minimum number of participants set out in the General Annexes, proposals shall include at least two participants/cities from Asia (e.g. China, India, etc), at least two participants/cities from CELAC countries and two participants/cities from African countries.

**Proposal page limits and layout:** please refer to Part B of the proposal template in the submission system below.

**3. Evaluation:**

- **Evaluation criteria, scoring and thresholds** are described in Annex H of the Work Programme.
- **Submission and evaluation processes** are described in the Online Manual.

**4. Indicative time for evaluation and grant agreements:**

Information on the outcome of evaluation (**single-stage** call): maximum 5 months from the deadline for submission.

Signature of grant agreements: maximum 8 months from the deadline for submission.

## **Innovation Action:**

[Specific provisions and funding rates](#)

[Standard proposal template](#)

[Standard evaluation form](#)

[General MGA - Multi-Beneficiary](#)

[Annotated Grant Agreement](#)

## **6. Additional provisions:**

[Horizon 2020 budget flexibility](#)

[Classified information](#)

[Technology readiness levels \(TRL\)](#) – where a topic description refers to TRL, these definitions apply

Members of consortium are required to conclude a consortium agreement, in principle prior to the signature of the grant agreement.

## **7. Open access must be granted to all scientific publications** resulting from Horizon 2020 actions.

Where relevant, proposals should also provide information on how the participants will manage the research data generated and/or collected during the project, such as details on what types of data the project will generate, whether and how this data will be exploited or made accessible for verification and re-use, and how it will be curated and preserved.

### **Open access to research data**

The Open Research Data Pilot has been extended to cover all Horizon 2020 topics for which the submission is opened on 26 July 2016 or later. Projects funded under this topic will therefore by default provide open access to the research data they generate, except if they decide to opt-out under the conditions described in [Annex L of the Work Programme](#). Projects can opt-out at any stage, that is both before and after the grant signature.

Note that the evaluation phase proposals will not be evaluated more favourably because they plan to open or share their data, and will not be penalised for opting out.

Open research data sharing applies to the data needed to validate the results presented in scientific publications. Additionally, projects can choose to make other data available open access and need to describe their approach in a Data Management Plan.

Projects need to create a Data Management Plan (DMP), except if they opt-out of making their research data open access. A first version of the DMP must be provided as an early deliverable within six months of the project and should be updated during the project as appropriate. The Commission already provides guidance documents, including a template for DMPs. See the [Online Manual](#).

Eligibility of costs: costs related to data management and data sharing are eligible for reimbursement during the project duration.

The legal requirements for projects participating in this pilot are in the article 29.3 of the [Model Grant Agreement](#).

## **8. Additional documents:**

[1. Introduction WP 2018-20](#)

[11. Smart, green and integrated transport WP 2018-20](#)

[18. Dissemination, Exploitation and Evaluation WP 2018-20](#)

[General annexes to the Work Programme 2018-2020](#)

[Legal basis: Horizon 2020 Regulation of Establishment](#)

[Legal basis: Horizon 2020 Rules for Participation](#)

[Legal basis: Horizon 2020 Specific Programme](#)

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## Submission Service

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The submission system is planned to be opened on the date stated on the topic header.

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### Get support

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**[H2020 Online Manual](#)** is your guide on the procedures from proposal submission to managing your grant.

**[Participant Portal FAQ](#)** – Submission of proposals.

**[National Contact Points \(NCP\)](#)** - contact your NCP for further assistance in your national language(s).

**[Research Enquiry Service](#)** – ask questions about any aspect of European research in general and the EU Research Framework Programmes in particular.

**[Enterprise Europe Network](#)** – contact your EEN national contact for advice to businesses with special focus on SMEs. The support includes guidance on the EU research funding.

**[IT Helpdesk](#)** - contact the Participant Portal IT helpdesk for questions such as forgotten passwords, access rights and roles, technical aspects of submission of proposals, etc.

**[Ethics](#)** – for compliance with ethical issues, see the [Online Manual](#) and [Science and Society Portal](#)

**[European IPR Helpdesk](#)** assists you on intellectual property issues

**[CEN and CENELEC](#)**, the **[European Standards Organisations](#)**, advise you how to tackle standardisation in your project proposal. Contact CEN-CENELEC Research Helpdesk at [research@cencenelec.eu](mailto:research@cencenelec.eu)

**[The European Charter for Researchers and the Code of Conduct for their recruitment](#)**

**[Partner Search Services](#)** help you find a partner organisation for your proposal.