

SIA thematic factsheet on Urban Mobility

EIT Strategic Innovation Agenda (SIA) 2014 – 2020

EIT 2018 Call for KIC proposals

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1. The challenge

The theme of smart, green and integrated transport has been identified as one of the major societal challenges which will be addressed within the framework of Horizon 2020. The 2011 Transport White Paper further reinforces the importance of taking action in this domain during the next decade. Urban mobility is a particularly challenging task. It addresses a number of topics such as transport (including new mobility concepts, transport organisation, logistics, transport systems safety and security), environmental issues (reduction of greenhouse gases, air pollution and noise), urban planning (new concepts for bringing work and living closer together), and has an important impact both at the economic and social levels (new business creation, employment, social inclusion, housing and location strategies). The overarching aim is to improve the quality of life of European citizens who – in increasing numbers – live in large urban conglomerations where much of Europe's economic performance is generated¹.

Sustainable urban mobility can only be achieved if breakthrough innovations leading to greener, more inclusive, safer and smarter solutions are found. Failing to achieve this will – in the long run - result in high societal, ecological, and economic costs. However, new innovative mobility concepts – in particular when individual means of transportation are to be replaced by public and collective means of transport – should be accepted by citizens. Bringing about behavioural changes with no disadvantages for the quality of life and the cost of living in urban areas will be one of the great challenges to be addressed in this area.

2. Relevance and impact

The key objective of a KIC on urban mobility will be to ensure a greener, more inclusive, safer and smarter urban mobility system.

As already outlined above, the theme is highly relevant from a societal and public policy point of view. It also is highly relevant from a socio-economic perspective since it involves important economic sectors in GDP and employment terms, such as the automotive or the construction sectors. Urban mobility is, in addition, linked with environmental protection strategies and fully embedded in policies of social inclusion, location, housing and urban design.

A KIC on urban mobility is both in line with the priorities defined in Horizon 2020 and with Europe 2020 strategy objectives of achieving a smarter, more sustainable, low carbon and inclusive urban development. A KIC in this thematic area could contribute to each of

¹ More than 70 % of Europeans live in urban areas, which represent more than 25 % of the Union territory. Around 85 % of the Union's GDP is generated in urban areas. Urbanisation is expected to rise in Europe to some 83 % by 2050.

Europe 2020 strategy objectives by, for example, the promotion of ecoefficient solutions, intelligent ICT schemes for traffic management, and provision of more efficient and affordable transport services.

In fact, since urban mobility is by nature systemic, a KIC on this area could offer many possibilities for innovation along the innovation chain, such as the development of multi-modal transport systems, and smarter and more sustainable transport solutions.

A KIC on urban mobility draws on a solid technological and industrial base and offers a potential for new products and services², in particular in the fields of sustainable planning and eco-industries.

Furthermore, the development of innovative urban mobility models will also benefit from the strong policy attention and support that this thematic priority profits from. In addition, these innovative urban models can have a global impact if they are transferred as best practices to the massively growing urban conglomerations in other parts of the world, especially in Africa, Asia and Latin America.

A KIC in this area will put urban mobility and urban transport planning in the wider context of sustainable urban planning and spatial development at local and regional level. The KIC would thus have the advantage of working in a multi-disciplinary and cross-sectoral field and of contributing to overcome the current levels of organisational fragmentation the sector faces. It would create the opportunity to establish a closer cooperation between public authorities (mainly at local, regional levels), local associations, and the private sector (such as developers and infrastructure actors), research institutes and universities (integrating the knowledge triangle).

Bringing together world-class partners in new configurations will give the KIC on urban mobility the possibility of optimising existing resources and exploit the business opportunities created through these new value-chains.

The KIC on Urban Mobility will focus on those activities of the innovation triangle which can benefit from additional Union support specifically via the EIT. In reality, the major added value of a KIC in this area will be its role in integrating the three strands of the knowledge triangle and in bringing systemic change in the way the innovation players work together. Likewise, KIC focus

² Some examples of new potential markets: new services for travellers, maintenance, and management of traffic movements and road congestion; new applications in vehicles; immersive communication services to support communication and avoid travelling (JRC 65426 EN).

on people-driven innovation, which puts students, researchers and entrepreneurs at the heart of KIC efforts, will be fundamental to address the challenges outlined above. Consequently, there will be a strong emphasis on education/training, entrepreneurship and deployment of results, e.g. developing skills and knowledge of urban transport professionals in local and regional administrations (life-long learning / staff exchange programmes / professional training), proposing specific higher education programmes in Urban Mobility (summer schools / exchange schemes), taking innovative transport concepts successfully to the market (support for spin-offs and start-ups from universities and research institutions, etc.).

Moreover, the concept of co-location could be strengthened within a KIC focussing on this theme, since naturally this thematic area has a strong local and regional dimension.

3. Synergies and Complementarities with existing initiatives

Mobility related issues are strongly supported by many Union initiatives. The Union is fully engaged in this field.

Links with other Union activities exist and will be enhanced. A KIC on urban mobility will take into account the actions developed in the framework of the Action Plan on Urban Mobility and the Intelligent Transport System Action Plan.

It will, in particular, co-operate with the planned European initiatives on smart cities and communities, encompassing energy efficiency, ICT and urban transport.

A KIC would, in particular, create complementarity in educating key actors, but also in providing a structured network of practitioners well placed to identify framework conditions and best practise on policy and regulatory issues having an impact on the sector.

Coordination is also needed with the Joint Programming Initiative "Urban Europe", which will pool national research efforts to transform urban areas to centres of innovation and technology, realise eco-friendly and intelligent intrainterurban transport logistic systems, reduce the ecological footprint and enhance climate neutrality. A KIC in this area will speed up and foster the exploitation of excellent public research pooled together by these JPIs, and thereby address fragmentation in the innovation landscape.

The CIVITAS initiative which supports demonstration and research projects to implement innovative measures in clean urban transport, and the European Industrial Initiative on Smart Cities & Communities aiming at making the production and use of energy in cities more sustainable and efficient will also be natural cooperation initiatives of a KIC on urban mobility.

A KIC in this area could also establish links with the transport and energy related European Technology Platforms (ETPs), the Public Private Partnership (PPP) on European Green Cars, and the numerous Framework Programme (FP) projects in this area. The KIC would take into account the research priorities and action plans defined in the framework of the ETPs and the research work carried out so far by the PPP and FP projects to enhance and accelerate the take up and exploitation of these research outcomes.

Complementarities will be also sought with the "European Mobile and Mobility Industries Alliance". Co-funded under the Competitiveness and Innovation Programme, the European Mobile and Mobility Industries Alliance aims at bringing together regional and national policy makers supporting innovative service solutions in mobile and mobility industries in view to mobilise more and better support to innovative service SMEs in such industries.

It will also build on the Intelligent Energy Europe, the eco-innovation market replication, and the ICT based services and pilot projects for smart urban mobility under the Competitiveness and Innovation Programme (CIP).

A KIC in this area would be complementary to these activities since it would focus on transdisciplinary activities within the knowledge triangle with a strong focus on innovative products and services and entrepreneurial education.

A KIC focusing on urban mobility would also be complementary to some of the specific activities already pursued by two existing KICs. Namely, Climate KIC activities under the theme transitioning to low-carbon resilient cities, and EIT ICT Labs work under the focus areas of intelligent transportation systems and digital cities of the future. The KIC on urban mobility will take on board the work carried in the framework of these KICs and place it in the wider context of a greener, more inclusive, safer and smarter urban mobility system.

4. Conclusion

A KIC focusing on urban mobility is most suited to address the challenges outlined above. It also meets the criteria put forward for the selection of KIC themes:

- It addresses a major economic and societal relevant challenge (to achieve a European transport system that is resource-efficient, environmentally-friendly, safe and seamless for the benefit of the citizens, the economy and the society), and contributes to the delivery of the Europe 2020 agenda and its objectives on climate and energy, employment, innovation and education.
- This KIC focus is aligned with priorities defined in Horizon 2020 and complementary with other Union activities in the transport, environmental and energy areas.

- By strengthening entrepreneurial thinking it integrates emerging technologies with new value chains and supports the translation of academic research on into products and services.
- It will thus address the European paradox, since it will capitalise Union's strong research base and find new innovative approaches to ensure a greener, more inclusive, safer and smarter urban mobility system.
- It will blend a critical mass of excellent research, innovation, education and training stakeholders, which would otherwise not unite.
- It adopts a cross-sectoral approach and therefore connects the different levels of responsibility from private entities to public administration – in particular at local level – to the individual citizen.
- It requires transdisciplinary work involving different areas of knowledge, and the development of new types of education across the boundaries of disciplines.