HORIZON 2020 'Smart, green and integrated transport' Funding Borough Briefing
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1. Horizon 2020: The 2018-2020 work programme

Horizon 2020 is the EU's Funding Framework for Research and Innovation. It is part of the EU's drive to create growth and new jobs in Europe. It covers many policy fields addressing major concerns shared by all Europeans such as climate change, developing sustainable transport and mobility, making renewable energy more affordable and coping with the challenge of an ageing population. Calls for proposals are published every two years and are based on 3 overarching priorities: Excellent science, Industrial leadership and Societal challenges.

Part of the Societal challenges programme, the Smart, green and integrated transport challenge has been allocated a budget of €6,339 million for the period of 2014-2020. The programme aims to boost the competitiveness of the European transport industries and achieve a European transport system that is resource-efficient, climate-and-environmentally friendly, safe and seamless for the benefit of all citizens, the economy and society. Activities are addressed in the 2018-2020 Work Programme by three key topics:

- Mobility for Growth
- Digitising and Transforming European Industry and Services: Automated Road Transport and Building a Low-Carbon
- Climate Resilient Future: Green Vehicles

The current Mobility for Growth calls relevant for London boroughs are described in this document. They will open in September and December 2019. They are forward looking calls, all touching upon sustainability (Paris Agreement, UN Sustainable Development Goals) with a focus on new mobility services, urban air mobility and changes in public perception of transport.

This is the last round of Horizon 2020 funding, as the programme will be replaced in January 2021 by the next European Framework Programme for Research and Innovation, Horizon Europe.

2. Smart, green and integrated transport: Mobility for Growth

MG-1-12-2020 Cities as climate resilient, connected multimodal nodes for smart and clean mobility: demonstrating and testing innovative solutions sub-topic 1 (IA)

Focus area	Building a low-carbon, climate resilient future: low-carbon and sustainable transport		
Type of action	Innovative Action	**Bidding timescale**	Opens: 3 September 2019 First stage deadline: 9 January 2020 Second stage deadline: 8 September 2020
Financing rate	**100%**	**Expected budget**	€7-9 million
Aim	**Establishing living laboratories in three urban or inter-urban areas connected to the TEN-T network, each facing different socio-economic challenges or planning to host a large event (possibly sports). The aim is to develop a principal solution and complementary measures combining technologies and non-technological innovations around all modes of transport to achieve an optimal use of the network and cost-effective solutions for energy supply and storage.**		
Scope	The proposal should: • Support local Sustainable Urban Mobility Plan and urban planning • Pay special attention to vulnerable groups of citizens, gender and health impacts of mobility • Consider availability of data and its integration in a system • Have embedded monitoring with specific KPIs (modal share, emissions…) • Seek to establish cooperation models (financial + institutional) to enable seamless transport across the TEN-T urban node area The project may include research activities, replication actions and the development of planning support tools. It should last 48 months		
Expected impact	• Living laboratories to act as "lighthouses" across the EU to achieve transport decarbonisation • Development of reliable solutions for an inclusive and safe transport system (freight and passengers), especially during major events • Clear improvement of accessibility to TEN-T corridors (freight and/or passengers) • Positive effects on social cohesion, public perception and economic development expected • Contribution to the existing EU knowledge base on effectiveness of innovative mobility solutions • Contribution to Europe-wide take-up of developed solutions		
Notes	• London (GLA) is already a lighthouse city through the EU funded Sharing Cities project, which prevents it from being a full lighthouse partner for this call.		

MG-1-12-2020 Cities as climate resilient, connected multimodal nodes for smart and clean mobility: demonstrating and testing innovative solutions sub-topic 2: fast track and mainstream the replication of innovative, urban, per-urban and rural mobility solutions (CSA)

Focus area	Building a low-carbon, climate resilient future: low-carbon and sustainable transport		
Type of action	Coordination and Support Action	**Bidding timescale**	Opens: 3 December 2019 Deadline: 21 April 2020
Financing rate	**100%**	**Expected budget**	€1-1.5 million
Aim	**The aim is for the project to support and offer services to 20 local authorities to fast-track innovative motorised and non-motorised mobility solutions.**		
Scope	The proposal should: • Support the development of innovative mobility solutions by supporting smart investment and management of the transport network; supporting modal shift for passengers and freight; develop new operating and business models for public and private transport; supporting the EU's actions on smart cities (current European Innovation Partnership on Smart Cities and Communities, EIP-SCC) • Deliver a clear action programme for capacity building and enhanced institutional networking by supporting staff exchanges, visits and training; support access to financial and legal expertise; provide matchmaking services for innovative solutions; deliver a set of recommendations to bridge the gap in research and innovation performance		
Expected impact	• Proposals should provide the expected number of people involved in the activities; information on how their capacity to develop innovative mobility solutions will be improved • Create new collaborations between organisations (public/private) across borders in sustainable mobility innovation		

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MG-1-12-2020 Cities as climate resilient, connected multimodal nodes for smart and clean mobility: demonstrating and testing innovative solutions sub-topic 3: Prepare for the deployment of Urban Air Mobility in urban and peri-urban areas (CSA)

Focus area	Building a low-carbon, climate resilient future: low-carbon and sustainable transport		
Type of action	Coordination and Support Action	Bidding timescale	Opens: 3 December 2019 Deadline: 21 April 2020
Financing rate	**100%**	Expected budget	€1-1.5 million
Aim	**To successfully prepare the integration of air traffic with wider surface multimodal transport options.**		
Scope	The proposal should: • Provide a knowledge base and deliver policy recommendations to integrate air mobility in the mobility mix, such as minimum required standards; foresight deployment scenarios taking into account public acceptance; tools to further knowledge exchange around urban air mobility • Provide support and planning for deployment of 10 use cases in locations where testing could start within 3 years (feasibility study, procurement strategy etc.) • Work closely with existing EU networks and agencies such as EIP-SC, CIVITAS, EASA etc.		
Expected impact	• Address the Amsterdam Drone Declaration (integration of urban air mobility) • Provide cities and regions with planning tools for successful integration OF UAM		

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MG-2-11-2020 Network and traffic management for future mobility (RIA)

Focus area	Safe, integrated and resilient transport systems		
Type of action	Research and Innovation Action	Bidding timescale	Opens: 3 September 2019 First stage deadline: 9 January 2020 Second stage deadline: 8 September 2020
Financing rate	100%	Expected budget	€4-5 million
Aim	**To design and optimize intelligent transport systems and operations to enable new dynamic mobility services for passengers and freight both in urban and interurban areas.**		
Scope	The proposal should address at least six of the following: • Analyse the requirements for a next-generation multi-modal network (smart infrastructures, connected and automated vehicles (CAV) etc.) • Design the network' and traffic management system's architecture • Assess the relevance of a centralised vs. decentralised approach to the network and traffic management system • Develop multi-actor organisation and business models with shared responsibilities • Develop tools for dynamic transport demand management and supply optimisation • Design arbitration models for complex scenarios • Perform simulations for traffic optimisation under a variety of scenarios • Develop and test traffic management systems for CAVs • Design a classification index for smart infrastructures		
Expected impact	• Accelerate the transition towards CAVs • Facilitate multimodal transport for freight and passengers • Improve safety, reduce emissions and time lost in transport • Reduce the cost of mobility for all		

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MG-2-13-2020 Coordination and support for an integrated freight transport and logistics system (CSA)

Focus area	Safe, integrated and resilient transport systems		
Type of action	Coordination and Support Action	Bidding timescale	Opens: 3 December 2019 Deadline: 21 April 2020:
Financing rate	100%	Expected budget	Up to €1 million

Aim	**To ensure the integration and harmonisation of transport modes for freight and logistics through efficient infrastructure management and a reduction of the environmental impact of all modes.**
Scope	The proposal should address all of the following: • Analyse the results generated by all EU projects dealing with freight and logistics since the 5th Framework programme (products, services, any other added value). Propose KPIs, examine impacts and assess the main barriers to deployment • Identify gaps in R&I that need to be tackled and develop clear recommendations for future R&I • Support a wider engagement of EU R&I with relevant stakeholders in that field • Engage with other relevant sectors beyond freight to support multidisciplinary projects
Expected impact	• Providing a reasoned and detailed mapping assessment of EU funded R&I project outcomes • Cooperation between a wider pool of stakeholders in transport R&I

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MG-3-6-2020 Towards sustainable urban air mobility (RIA)

Focus area	Global leadership and competitiveness		
Type of action	Research and Innovation Action	Bidding timescale	Opens: 3 December 2019 Deadline: 21 April 2020
Financing rate	100%	Expected budget	€4-6 million

Aim	**To make urban air mobility (UAM) safe, secure, green, affordable and publicly accepted through research and innovation.**
Scope	The proposal should address all the following by developing innovative concept and technology: - Allow for safe and secure UAM, especially near densely populated areas - Better UAM's environmental footprint (energy demand, emissions, noise and visual pollution) - Provide tools to enable public acceptance through socio-economic modelling and co-creation with citizens; develop policy recommendations (procurement and deployment strategies) based on those insights It should also address one or more of these: - New door-to-door or emergency services concepts - New conceptions of operations allowing for UAM traffic to be integrated into multi-modal urban transportation or emergency systems - Power plant/propulsion system development for UAM (high power/weight ration etc.) - Adaptation of infrastructure and energy networks to UAM Proposals should: - Ensure complementarities with the European U-Space Demonstrator Network and SESAR JU-U activities - Collaborate closely with local authorities, communities and industrial actors - Leverage synergies with other EU activities (EIP-SCC, CIVITAS, EIT-KIC, EU satellite-based systems) - Finally, explicit commitment from the European Aviation Safety Agency can be of added value
Expected impact	- Contribute to maintaining aviation safety levels and to developing EU standards for urban air mobility - Increased capability of local authorities to handle UAM regulatory processes Potential additional impacts: - De-risk the set-up of UAM services - Contribute to the creation of new planning tools that allow the integration of UAM services in SUMPs

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MG-3-8-2020 'First of a Kind' solutions for sustainable transport and mobility: EU initiative for accelerating EU-wide market access, scale-up and derisking (CSA)

Focus area	Global leadership and competitiveness		
Type of action	Coordination and Support Action	Bidding timescale	Opens: 3 December 2019 Deadline: 21 April 2020
Financing rate	100%	Expected budget	€1-1.5 million
Aim	**Facilitating access to innovative products and services for public authorities and favour increased competitiveness of EU R&I.**		
Scope	The proposal should address all following points: • Develop the concept of 'purchase aggregation' for innovative zero emission transport solutions (TRL 7 and above), involving main stakeholders • Match supply and demand through online and offline tools, create alerts for upcoming products and services • Stimulate dissemination of information and exchange of knowledge on innovative solutions, procurement processes and regulatory issues; build strong connections with ongoing and future instruments (European Innovation Council, CEF, EIB) • Financial sustainability of the system beyond the support offered by H2020 is to be demonstrated		
Expected impact	• Accelerate EU-wide market take up of innovative solutions • Enable market aggregation of multiple buyers		

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MG-4-7-2020 Digitalisation of the transport system: data sharing (RIA)

Focus area	Accounting for the people		
Type of action	Research and Innovation Action	Bidding timescale	Opens: 3 December 2019 Deadline: 21 April 2020
Financing rate	100%	Expected budget	€2-3 million

Aim	**To ensure that all stakeholders (manufacturers, operators, authorities) can take advantage of (harmonised) data to improve their services and performance. To provide connectivity and enable a real multimodal transport system through a cloud-based solution.**
Scope	The proposal should cover all of the following: • Analyse transportation data regulation across the EU • Identify transport data that would bring strongest impact by being digitalised • Identify requirements for a framework for data-sharing across the EU • Building on existing standards and specifications to propose standards for transport data sharing (propertarian/open source) • Analyse difference in data culture for private and public sector • Examine and evaluate the risk role of data sharing • Identify main privacy issues • Build upon previous EU projects
Expected impact	• Consolidate current knowledge on transport data • Pave the way for EU wide standards on transport data • Strengthen the digital transport ecosystem

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MG-4-8-2020 Advanced research methods and tools in support of transport/mobility researchers, planners and policy makers (RIA)

Focus area	Accounting for the people		
Type of action	Research and Innovation Action	**Bidding timescale**	Opens: 3 December 2019 Deadline: 21 April 2020
Financing rate	100%	**Expected budget**	€1-2 million

Aim	**To develop new methodological tools, databases and models for the analysis of the new and future mobility ecosystems, looking especially at data and big data.**
Scope	The proposal should address all the following: • Identify methodological needs to analyse new mobility solutions (NMS) • Examine the evolution of key conventional concepts of mobility in the face of those solutions (efficiency, reliability, comfort etc.) • Identify key new concepts and variables in mobility analysis and devise methods to evaluate them • Elaborate tools for monitoring of NMS • Review and assess a range of options for collecting and using new data Proposals can focus either on passenger or logistics sectors.
Expected impact	• Creation of new tools to create a better understanding of new mobility services that can support policy makers

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MG-4-9-2020 The European mobility culture of tomorrow: re-inventing the wheel? (CSA)

Focus area	Accounting for the people		
Type of action	Coordination and Support Action	Bidding timescale	Opens: 3 December 2019 Deadline: 21 April 2020
Financing rate	100%	Expected budget	€0.5-1 million

Aim	**To help develop a coherent and sustainable strategic transport vision for Horizon Europe, aligned with the Paris Agreement goals and the UN Sustainable Development Goals.**
Scope	The proposal should address all following aspects: • Critically examine current paradigms of mobility in the face of new main goals such as sustainability (eg. Speed, efficiency etc.) • Propose alternative mobility narratives for the future • Develop a strategy for the transport policy of the future (holistic and cross-sector) • Stimulate the creation of networks and structures with the main transport R&I stakeholders
Expected impact	• Contribute to shaping the Horizon Europe sustainable mobility goals • Contribute to building an innovative ecosystem

3. Additional information on Horizon 2020 funding

Funding and co-financing

Each call has an approximate budget foreseen by the EC which ranges from €1 million to €15 million. Horizon 2020 offers a funding rate of 100% on all costs for Research and Innovation projects and Coordination and Support projects or 70% for Innovation projects. In both cases an additional flat rate of 25% is added to cover overheads. This means that partners in some cases will not have to contribute match funding. You can find the full funding guide here.

Types of actions

1. **Research and Innovation Actions:** EU funding rate: 100% of costs, with additional 25% applied to cover partner overheads
   Projects should focus on establishing new knowledge or explore the feasibility of a new/ improved technology, product, process, service or solution. For this purpose they may include basic and applied research, technology development and integration, testing and validation on a small-scale demonstrations or pilot activities aiming to show technical feasibility.
   These projects are about developing new approaches to common challenges in different cities, and testing them. Academic institutions might lead on the research and innovation, whereas Boroughs/ TfL would be given demonstration roles to do the piloting.

2. **Innovation Actions:** EU funding rate: 100% of costs, with additional 25% applied to cover partner overheads
   Projects should focus on producing plans, arrangements or designs for new, altered or improved products, processes or services. For this purpose they may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication.
   Innovation actions are a lot more "hands on" with less emphasis on research and more on developing, delivery, testing and piloting innovative policies, approaches, and technologies in the field of sustainable urban mobility.

3. **Coordination and Support Actions:** EU funding rate: 100% of costs, with additional 25% applied to cover partner overheads
   Actions consisting primarily of accompanying measures such as standardisation, dissemination, awareness-raising and communication, networking, coordination or support services, policy dialogues and mutual learning exercises and studies, including design studies for new infrastructure and may also include complementary activities of networking and coordination between programmes in different countries.
   This type of action is primarily designed to share information and develop policy and infrastructure design.

Whilst pure research is not normally a priority for boroughs, the demonstration and pilot component actions will be of interest, as will the results and testing of the research.

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