

Horizon 2020 - Smart Green and Integrated Transport

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Part 1 – Background and structure

- Overview of Horizon 2020 Transport Programme
- Role of the National Contact Point
- UK Track record in 2014
- Some topics of interest to LowCVP Community

Part 2 – How to increase probability of success

- Influencing the shape of the Programme
- Getting on the right team
- Answering the Call for Proposals

What is Horizon 2020?

- The biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020)
- Emphasis on excellent science, industrial leadership and tackling societal challenges
- The goal is to ensure Europe
 - produces world-class science,
 - removes barriers to innovation
 - makes it easier for the public and private sectors to work together in delivering innovation.

What is a National Contact Point?

- Help, support, advise, guide, any potential participant thinking about or proposing to participate in Horizon 2020
- Support the UK delegation to the Programme Committee to shape the future work programme
- Team of UK based individuals to support particular areas e.g. Transport
- Register for updates at www.H2020UK.org

Smart Green and Integrated Transport

- Smart, Green and Integrated Transport is one of the Societal Challenges addressed in Horizon 2020.
- The specific objective is “to achieve a European transport system that is resource-efficient, climate- and environmentally-friendly, safe and seamless for the benefits of all citizens, the economy and society”
- The programme is structured into broad lines of activities:
 - Resource efficient transport that respects the environment
 - Better mobility, less congestion, more safety and security
 - Global Leadership for the European transport industry
 - Socio-economic and behavioural research and forward looking activities for policy making

Smart Green and Integrated Transport

- Mobility For Growth (€184 million for 2015)
 - Aviation
 - Rail
 - Road
 - Waterborne
 - Urban Mobility
 - Logistics
 - Intelligent Transport Systems
 - Infrastructure
 - Socio-Economic and Behavioural Research and Forward Looking Activities for Policy Making
- European Green Vehicle Initiative (€30 million for 2015)
- Small Business Innovation for Transport (€39 million for 2015) – not discussed today but [webinar still available](#)
- Also Clean Sky, Shift2Rail and SESAR Joint Undertakings

Mobility for Growth - 2014 Results

Ranked by funding allocation	Potential participation	Retained participation	% Participation success	EU contribution (€)	% funding allocation
Germany	505	160	31.7	77,728,252	19.9
France	299	100	33.4	38,773,408	9.9
UK	306	107	35.0	37,098,183	9.5
Netherlands	261	91	34.9	36,607,384	9.4
Italy	381	106	27.8	35,649,885	9.1
Spain	306	84	27.5	27,138,047	7.0
Grand Total	3345	1056	31.6	390,138,962	

Green Vehicle- 2014 Results

Ranked by funding allocation	Potential participation	Retained participation	% Participation success	EU contribution (€)	% funding allocation
Germany	190	50	26.3	43,621,800	32.3
Italy	101	36	35.6	24,399,476	18.1
France	75	27	36.0	17,489,236	13.0
Austria	45	24	53.3	14,898,476	11.0
Spain	73	24	32.9	12,025,153	8.9
UK	75	16	21.3	7,456,150	5.5
Grand Total	834	218	26.1	134,963,299	

Topics of interest to LowCVP in 2015

- Safe and connected automation in road transport
- Powertrain control for heavy-duty vehicles with optimised emissions
- Electric vehicles' enhanced performance and integration into the transport system and the grid

Timeline for formulation 2016-2017 Programme

April 2014 – Commission sought input from Advisory Groups (seven questions)

June 2014 – Transport Advisory Group and European Technology Platforms published their response

October 2014 – Commission produced draft Scoping Paper for discussion at Transport Programme Committee (TPC)

February 2015 – Commission produced draft Outline Work Programme 2016-2017 for discussion at TPC

April 2015 – Discussion of updated draft (continues)

July 2015 – TPC Formal decision

September 2015 – Adoption and Publication

Some potential Topics of interest in 2016-2017

Mobility for Growth

- Steps for more efficient and cleaner internal combustion engines in the market
- Technologies for the next generation of combustion engines with cutting edge efficiency
- Protection of all road users in crashes
- Supporting 'smart mobility and power' in cities

Some potential Topics of interest in 2016-2017 Green Vehicles (1)

- Optimisation of heavy duty vehicles for alternative fuels use
- System and cost optimised hybridisation and range extenders for road vehicles
- Next generation electric drivetrains focusing on high efficiency and cost
- Electric vehicle interior redesign specific for optimised efficiency
- Multi-level modelling and testing of xEVs and their components

Some potential Topics of interest in 2016-2017 Green Vehicles (2)

- Physical integration of hybrid and electric vehicle batteries at pack level aiming at increased energy density and efficiency
- Super-fast and smart charging of electric vehicles
- Electrified heavy duty vehicles
- Aerodynamic and flexible trucks
- Affordable weight reduction of high-volume vehicles and components taking into account the entire life-cycle

Some potential Topics of interest in 2016-2017 Green Vehicles (3)

- Demonstration (pilots) for integration in urban transport system of electrified L-category vehicles
- Stimulating European research and development for the implementation and deployment of future road transport technologies

Some potential Topics of interest in 2016-2017

Automated Road Transport

- ICT enabled transition towards road transport automation
- Automation pilots for personal and commercial vehicles
- Support action for Field Operational Tests of Automation
- Safety and end-user acceptance aspects of road automation in the transition period
- Impact of automation in densely used areas and networks (automation in transport systems)

Part 2 – How to increase the probability of success

- Influencing the shape of the Programme
- Getting on the right team
- Answering the Call for Proposals

The (very) basic process

- Find (create) a suitable call for proposals
- Put together an idea for a project
- Find partners
- Write the proposal
- Submit
- Await glory and success
- Execute project

The Transport Programme Committee (TPC)

- Commission co-Chairs
 - Manuela Soares (Director, Directorate H – Transport, DG RTD)
 - Magda Kopczynska (Director, Directorate C – Innovative and Sustainable Mobility, DG MOVE)
- Other ‘Top Table’
 - Keir Fitch (Hd of Unit, Research and Innovative Transport Systems, Directorate C, DG MOVE)
 - Liam Breslin (Hd of Unit, Surface Transport, Directorate H, DG RTD)
 - Tiit Jurimae (Hd of Unit, Aviation, Directorate H, DG RTD)
 - Alessandro Damiani (Hd of Unit Strategy, Directorate H, DG RTD)

The Transport Programme Committee - UK

- UK Delegates

- Miles Elsdon (Chief Scientific Adviser, DfT)
- Neil Ebenezer (Hd of Science and Research, DfT)
- Ashley Roberts (Deputy Hd of Automotive, BIS)
- Peter Joyce (Deputy Hd of Aviation, Marine and Security, BIS)
- Jon Maytom (Automotive, BIS)
- Chris Aries (Aviation, BIS)

- UK National Experts

- Louise Mothersole (National Contact Point - Transport)
- Dora Meredith (National Contact Point - Business Support and Europe Liaison)

Official Sources of Advice to EC

- Transport Advisory Group
- European Technology Platforms (ETPs)
 - ACARE (Advisory Council for Aviation Research and Innovation in Europe)
 - ERRAC (European Rail Research Advisory Council)
 - ERTRAC (European Road Transport Research Advisory Council)
 - WATERBORNE
 - ALICE (Alliance for Logistics Innovation through Collaboration in Europe)

European Green Vehicle Initiative Association



European Road Transport Advisory Council

- Working Groups
 - Urban Mobility
 - Long Distance Freight Transport
 - Energy & Environment
 - Road Transport Safety & Security
 - Global Competitiveness
- Output
 - Technology Roadmaps



Specific calls for Proposals of Interest

- Road - [MG.3.6a-2015](#) Safe and connected automation in road transport
- Road - [MG.3.6b-2015](#) Safe and connected automation in road transport
- Green Vehicles – [GV.6-2015](#) Powertrain control for heavy-duty vehicles with optimised emissions
- Green Vehicles – [GV.8-2015](#) Electric vehicles' enhanced performance and integration into the transport system and the grid

Road - [MG.3.6a-2015](#) Safe and connected automation in road transport

- Scope: Proposals requesting between €5m and €10m expected
- Expected Impact (should contribute to):
 - Reduction in development costs and raising competitiveness
 - Enhanced robustness and performance of sensor and data analysis systems and optimised HMI
 - Improves efficiency, safety and traffic flow through better use of existing infrastructure
- €22m available in total (i.e. 2 to 4 projects likely to be funded)
- Two Stage submission:
 - Stage 1 by 23rd April 2015
 - Stage 2 (if successful at Stage 1) by 15th October 2015
- Research and Innovation Action

Road - [MG.3.6b-2015](#) Safe and connected automation in road transport

- Scope
 - Dissemination and take-up of results, including the development and consensus building on business models to progress toward full automation in road transport
 - Liability and standardisation policy and regulatory framework recommendations could be formulated as appropriate
 - International cooperation is encouraged
- €1m available in total (i.e. only 1 project likely to be funded)
- Single Stage submission 15th October 2015
- Coordination and Support Action

Green Vehicles – [GV.6-2015](#) Powertrain control for heavy-duty vehicles with optimised emissions

- Scope
 - Proposals should focus on methods how to optimise the control of powertrains taking into account specific transportation tasks.
 - Proposals requesting between €5m and €7m expected
- Expected impact: A reduction of fuel consumption of at least 20% on the same vehicle with conventional control should be demonstrated comparatively, while not exceeding Real Driving Emissions limits set by the established Euro VI procedures
- €10m in total available (implies up to two projects)
- Single Stage submission – 15th October 2015
- Innovation Action

Green Vehicles – GV.8-2015 Electric vehicles' enhanced performance and integration into the transport system and the grid

- Scope: one of the following domains and could include interfaces between these domains (between €5m and €10m)
 - EV concepts featuring a complete revision of the electric and electronic architecture to reduce complexity and the number of components and interconnections, whilst improving energy efficiency, functionality and modularity
 - Battery Management System
 - Integration of the overall cycle of EV energy management into a comprehensive EV battery and ICT-based re-charging system management.
- €20m in total available (implies between 2 and 4 projects)
- Single Stage submission – 15th October 2015
- Research and Innovation Action

Types of Action

- Research and Innovation Actions (RIA)
 - 100% of all direct costs for all participants
 - Additional 25% to cover indirect costs
- Coordination and Support Actions (CSA)
 - 100% of all direct costs for all participants
 - Additional 25% to cover indirect costs
- Innovation Actions (IA)
 - 100% of all direct costs for non-profit legal entities
 - 70% of all direct costs for others
 - 25% indirect costs

Download all relevant documents

- Full [Call for Proposals](#) (rather than just the web page) as this contains budget and time information relevant to all Mobility for Growth calls on pages 72 to 78 and for Green Vehicles on pages 87 to 88
- [General Annexes](#) apply to all calls and have useful definitions such as what are the evaluation criteria
- [Frequently Asked Questions](#) on Mobility For Growth are updated regularly so check every now and then
- Read through the [Guidance for Evaluators](#) so that you can see what they are being asked to look for, it's only 8 pages
- Be aware of the [Model Grant Agreement](#) and that it might have the answer to many of your questions

ERTRAC Members

- ACEM - <http://www.acem.eu>
- ASECAP - <http://www.asecap.com>
- CLEPA - <http://www.clepa.eu>
 - Continental - <http://www.conti-online.com>
 - Robert Bosch GmbH - <http://www.bosch.com>
 - Valeo - <http://www.valeo.com>
- CONCAWE - <http://www.concawe.be>
- EAPA - <http://www.eapa.org>
- EARPA: - <http://www.earpa.eu>
 - AVL List GmbH - <http://www.avl.com>
 - FEV - <http://www.fev.com>
 - Hidria - <http://www.hidria.com>
 - IFP Energies Nouvelles - <http://www.ifpenergiesnouvelles.com>
 - Fraunhofer LBF - <http://www.fraunhofer.de/en>
 - Ricardo - <http://www.ricardo.com>
- ECTRI - <http://www.ectri.org>
- ERF - <http://www.erf.be>
- ERTICO - <http://www.ertico.com>
- ETRMA - <http://www.etrma.org>
- EUCAR - <http://www.eucar.be>
 - Centro Ricerche Fiat - <http://www.crf.it>
 - MAN - <http://www.man.eu>
 - Renault - <http://www.renault.com>
 - Scania - <http://www.scania.com>
 - Volkswagen - <http://www.volkswagen.com>
 - Volvo - <http://www.volvogroup.com>
- EUPAVE - <http://www.eupave.eu>
- EUROBAT - <http://www.eurobat.org/>
- FEHRL - <http://www.fehrl.org>
- FIA - <http://www.fiabrussels.com>
- IRU - <http://www.iru.org>
- POLIS - <http://www.polisnetwork.eu>
- UITP - <http://www.uitp.org>
- **Academia**
- KTH Royal Institute of Technology - http://www.kth.se/?l=en_UK
- Aristotle University of Thessaloniki - http://www.auth.gr/home/index_en.html
- Universidad Politecnica de Madrid - <http://www.transyt.upm.es>
- University of Florence - <http://www.unifi.it>

Some useful European Networks

- CLEPA – the European Association of Automotive Suppliers
- EARPA – the association of automotive R&D organisations
 - independent R&D providers in the automotive sector throughout Europe inc SMEs, RTOs and Universities
- ECTRI – the European Conference of Transport Research Institutes
 - RTOs and Universities
- EUCAR – the European Council for Automotive R&D
 - an industrial association owned by its members, which are the 15 major European manufacturers of cars, trucks and buses.

Other sources of partners

- European Enterprise Networks have regional offices [across the UK](#)
- [Transport Research and Innovation Portal](#) (TRIP) contains the details of all organisations that have won and undertaken transport research programmes in Europe. Therefore a positive track record of success more likely
- Official [EU partner search website](#) allows organisations to register that they are seeking partners and in what area, however, you will find that many organisations register themselves for every area.
- Brokerage sessions, LCV2015, LowCVP IWG, etc

Writing a winning proposal

- Remember that Evaluators are people too
 - Give them an enjoyable task when reading your proposal
 - Make their life easier by clearly sign-posting winning points
 - Parse out the topic description, requirement by requirement
 - Write one sentence that corresponds to every point and ensure these are included in your proposal
- **Pay attention to Impact**
 - Be specific, measurable and define how you intend to measure success
 - Do not make outlandish, unsupported claims

Stage 1 for two stage proposals

- Only 15 pages
 - Excellence and Impact only assessed (not Quality and efficiency of the implementation)
- Ensure ‘right’ number and type of partners
 - Ensure minimum eligibility conditions met (3 different legal entities from 3 different eligible countries)
 - Full team not required but state where you need capability not yet on board and that you know where to get it
- **Pay attention to Impact**

Stage 2 for two stage proposals and single stage

- Ensure 'right' number and type of partners
 - Ensure minimum eligibility conditions met (3 different legal entities from 3 different eligible countries)
 - Cover the full capability required
- **Pay attention to Impact**

Evaluation for all proposals

- Each section scored out of 5
 - Maximum for Stage 1 is 10
 - Maximum for Stage 2 is 15
- Every proposal scored independently by four different evaluators
 - Maximum of one from same country as Coordinator
- Proposals then ranked within each theme and top ones funded until budget allocation complete
- Consider [registering as an Evaluator](#) to get the training and experience for future potential projects

Summary

- Start your planning early and use all of the available resources
 - European networking organisations are the best ways to get involved and to find collaborators (and future customers)
 - National Contact Point, willing to read through draft proposals if sent early enough
 - Download all of the documents relating to a topic, not just the topic description
 - Read the General Annexes
 - Guidance given to evaluators is useful – explains what they're looking for (it's only 8 pages and is well worth reading)

PAY ATTENTION TO IMPACT!