



The EU Framework Programme for Research and Innovation

HORIZON 2020

Smart, green and integrated Transport

Transport Challenge 2019 Annual Work Programme

**Directorate Transport
Unit H-2
Frédéric Sgarbi**





H2020 Work Programme 2018-2020

H2020 Policy Priorities	Transport Policy Goals
<p>Increased investment in sustainable development and climate related R&I</p> <ul style="list-style-type: none">➤ <i>35% of budget to climate actions</i>➤ <i>60% of budget to sustainable development</i>	<p>Resource efficient transport that respects the environment</p>
<p>Integrating digitisation in all industrial technologies and societal challenges</p> <ul style="list-style-type: none">➤ <i>Digital Single Market Strategy</i>	<p>Better mobility, less congestion, more safety and security</p>
<p>Strengthening international R&I cooperation: <i>30 Flagships to ensure scope and scale in targeted areas</i></p>	<p>Global leadership for the European transport industry</p>
<p>Resilience to societal concerns: <i>security and migration</i></p>	<p>Socio-economic and behavioural research & forward looking activities</p>

Transport Work Programme 2018-2020

Main features in 2019

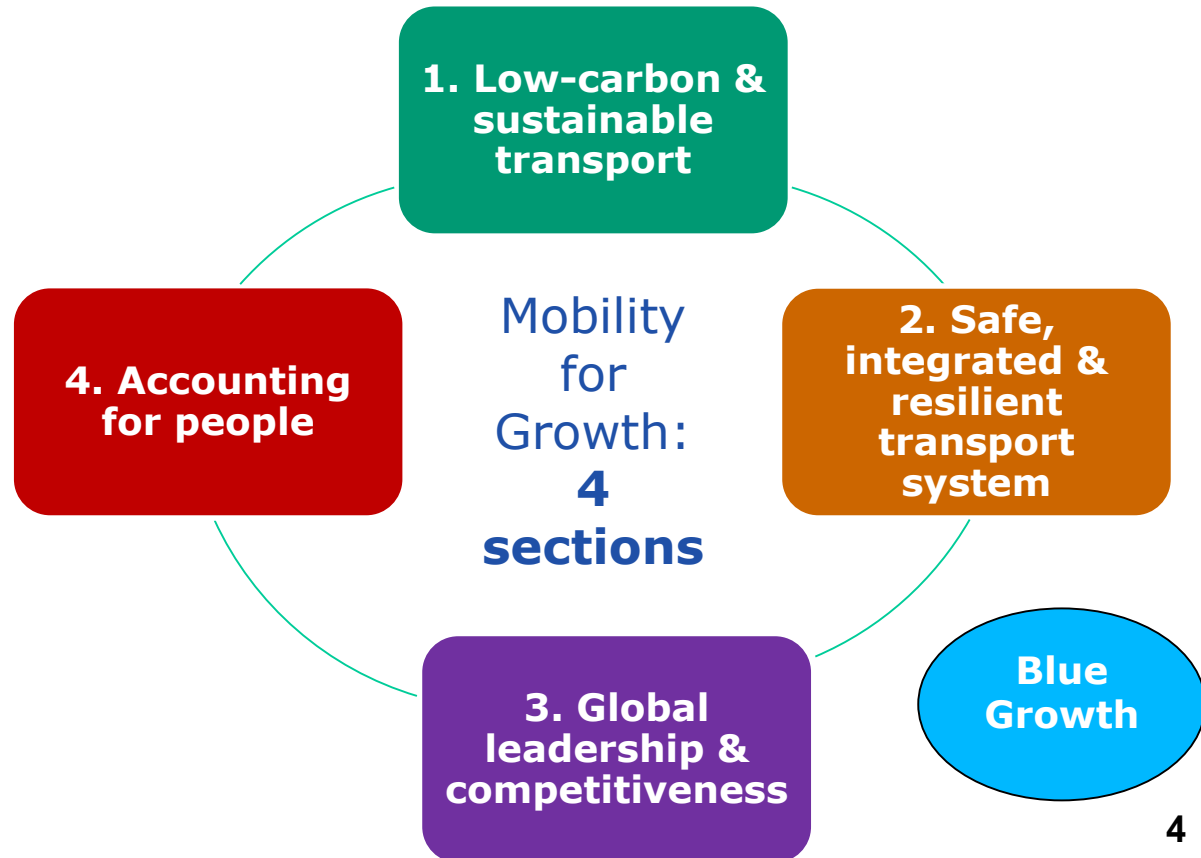
- Contribution to 2 key **Focus Areas** addressing global challenges cutting across sectors and programmes:
 1. Building a low-carbon, climate resilient future (LC)
 2. Digitising and transforming European industry and services (DT)
- **New call on Next-Generation Batteries (BAT)** cutting across different WP parts
- **3 International Cooperation flagship initiatives** of large scale and scope addressing global challenges in aviation and logistics and 4 more topics encouraging InCo
- **Budget 2019: EUR 386.01 mio** – EUR 945 mio in 2018-2020
- **4 main calls for proposals** and 24 topics open in 2019 / **3 types of action:** RIA, IA, CSA/Era-Net
- **Other actions:** Prizes, SME Instrument, FTI, experts and procurements
- Transport relevant topics in **other parts of the H2020WP:** NMPB, ICT, ENERGY, SECURITY, CROSS-CUTTING ACTIVITIES
- **Complementarities** with CleanSky, SESAR, Shift2Rail, FCH2

I. Call MOBILITY FOR GROWTH (MG)



Overall objectives:

- ✓ Reconcile competitiveness & sustainability
- ✓ Ensure better and safer mobility for all
- ✓ Address socio-economic aspects and provide evidence for policy-making





1. Low-carbon and sustainable transport

Overall Objectives:

- Support the transition towards zero-emission and quieter mobility for all modes
- Improve tools and mechanisms for monitoring and detection of emissions & noise
- Provide evidence for decision making process and planning

Low-carbon & sustainable transport: topics and budget

Total EU contribution in 2019: EUR 81 m €

Topic	Title	Action type	Stages	Budget (M€)
				2019
LC-MG-1-5	Advancements in aerodynamics & innovative propulsion systems for quieter & greener aircrafts	RIA	2	15.00
LC-MG-1-6 InCo flagship	Aviation operations impact on climate change	RIA	1	10.00
LC-MG-1-7 InCo flagship	Future propulsion & integration: towards a hybrid/electric aircraft	RIA	1	15.00
LC-MG-1-8	Retrofit Solutions and Next generation propulsion for Waterborne Transport	IA	2	15.00
		RIA	2	8.00
LC-MG-1-9	Upgrading transport infrastructure in order to monitor noise and emissions	RIA	2	7.00
LC-MG-1-10	Logistics solutions that deal with requirements of the 'on demand economy' and for shared-connected and low-emission logistics operations	RIA	2	10.00
LC-MG-1-11	Structuring R&I towards zero emission waterborne transport	CSA	1	1.00



2. Safe, integrated and resilient transport systems

Overall Objectives:

- Increase significantly transport safety and contribute to the "*zero road fatalities*" goal in a changing environment
- Support innovative solutions to reduce congestion and ensure seamless, safe and sustainable mobility for people and freight
- Ensure a more resilient transport system and support network capacity

Safety: topics and budget

Total EU contribution in 2019: **EUR 67 Mio**

Topic	Title	Action type	Stages	Budget (M€)
				2019
MG-2-6	Moving freight by Water: Sustainable Infrastructure and Innovative Vessels	RIA	2	30.00
MG-2-7	Safety in an evolving road mobility environment	RIA	2	8.00
MG-2-8	Innovative applications of drones for ensuring safety transport	RIA	2	15.00
MG-2-9 InCo flagship	Integrated multimodal, low-emission freight transport systems and logistics	RIA	2	14.00



4. Accounting for the People

Overall Objectives:

- **Create an innovative, accessible & inclusive transport system**
- **Address behavioural issues and societal needs**
- **Develop appropriate regulatory frameworks and policies to support innovation and deployment**
- **Promote dissemination and exploitation of sustainable mobility solutions**

4. Accounting for the People: topics and budget

*Total EU contribution in 2019: **EUR 12.7 Mio***

Topic	Title	Action type	Stages	Budget (M€)
				2019
MG-4-4	Support for dissemination events in the field of Transport Research	CSA	1	0.70
MG-4-5	An inclusive digitally interconnected transport system meeting citizens' needs	RIA	1	7.00
MG-4-6	Supporting Joint Actions on sustainable urban accessibility and connectivity	ERA-NET-Cofund	1	5.00



Transport R&I contribution to the BLUE GROWTH action

Overall Objective:

- Explore several possible scenarios for the wide scale adoption of different emission control technologies



Blue Growth: topics and budget

Total EU contribution in 2019: **EUR 8 Mio**

Topic	Title	Action type	Stages	Budget (M€)
				2019
MG-BG-02	Ship emission control scenarios, marine environmental impact and mitigation	RIA	1	8.00

II. Call Automated Road Transport (ART)



Overall Objectives:

- **Promote market introduction of highly automated driving systems**
- **Develop and test sustainable automated driving functions in real driving conditions, in various traffic scenarios and urban areas**
- **Contribute to regulatory framework, certification procedures and standards**
- **Develop new concepts for shared, connected and automated mobility**
- **Address cross-cutting issues (safety, users' needs, efficiency,...)**



Automated Road Transport: topics and budget

Total EU contribution in 2019: **EUR 38 Mio**

Topic	Title	Action type	Stages	Budget (M€)
				2019
DT-ART-03	Human centred design for the new driver role in highly automated vehicles	RIA	1	8.00
DT-ART-04	Developing and testing shared, connected and cooperative automated vehicles fleets in urban areas for the mobility of all	IA	1	30.00

III. GREEN VEHICLES (GV)



Overall Objectives:

Bring forward the activities of the EU Green Vehicle Initiative and prepare the ground for a potential massive introduction of electrified vehicles

- **Improve the charging experience from the view point of end-users (access, time, cost, payment systems, etc.)**
- **Develop new concepts to reduce energy consumption & emissions of long-distance vehicles**
- **Cooperate with developing and emerging economies for demonstration activities and pilots in large urban areas**

Green vehicles: topics and budget

Total EU contribution in 2018: **EUR 78 Mio**

Topic	Title	Action type	Stages	Budget (M€)
				2019
LC-GV-03	User centric charging infrastructure	IA	1	35.00
LC-GV-04	Low-emissions propulsion for long-distance trucks and coaches	IA	1	25.00
LC-GV-05	Urban mobility and sustainable electrification in large urban areas in developing and emerging economies	IA	1	18.00

IV. Call Next-Generation Batteries (BAT)



Overall Objectives: Support the activities of the EU Battery Alliance and the European industry through the development of competitive and sustainable battery storage solutions:

R&I on improved electrochemistry and new battery materials:

- short term research for advanced Li-ion electrochemistry and production processes
- short to medium term research for solid-state electrochemistry, modelling tools
- next generation and validation of battery packs and battery management systems
- networking of pilot lines and skills development and training

- **Cross-cutting call** addressing energy, transport, materials and industrial technologies areas
- **7 topics in 2019:**
 - ✓ 3 Energy-related topics (LC-BAT-2, LC-BAT-3 and LC-BAT-4)
 - ✓ 4 Transport-related topics (LC-BAT-1, LC-BAT-5, LC-BAT-6 and LC-BAT-7)
- **Total budget: EUR 114 Mio** (EUR 70 mio for transport-related topics)

Transport-related Topics	Title	Action type	Stages	Budget (M€)
				2019
LC-BAT-1	Strongly improved, highly performant and safe all solid state batteries for electric vehicles	RIA	1	25.00
LC-BAT-5	Research and innovation for advanced Li-ion cells (generation 3b)	RIA	1	30.00
LC-BAT-6	Li-ion Cell Materials & Transport Modelling	RIA	1	13.00
LC-BAT-7	Network of Li-on Cell pilote lines	CSA	1	2.00

Transport call deadlines

Work Programme 2018-2020	2019	
	Opening	Closing
Single Stage (MG, ART and GV calls) Exception MG-4-4	4/12/2018 5/09/2018	25/4/2019 16/01/2019
First Stage of 2-Stages (MG call only)	5/9/2018	16/1/2019
Second Stage of 2-Stages (MG call only)		12/9/2019
Batteries Call – single stage	24/01/2019	25/04/2019

- **Other actions:** Prize on the "*Cleanest engine of the future*" open till 20/08/2019 (EUR 3,5 mio) and on "*Improved mobility for older people*" open till 28/02/2019 (EUR 2 mio)
- **Elena facility** (in the Energy WP part)
- **Public Procurements and Expert Contracts for studies, monitoring/evaluation activities and policy making:** new mobility patterns in EU cities; dissemination and exploitation of results; joint activities with the JRC on transport modelling