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#H2020TransportInfo

Horizon 2020 Work Programme for Research & Innovation 2018-2020

Transport Info Day

13 December 2017

Research and Innovation

International Cooperation (InCo) in the Transport WP 2018-20

Global challenges call for global solutions

- **Emissions**, pollution, climate impact
- Oil dependency, energy efficiency
- Transport safety and security
- Standardisation of services, products and procedures

Local issues benefit from exchange of best practices

- Traffic congestion
- Land use planning
- Behavioural issues

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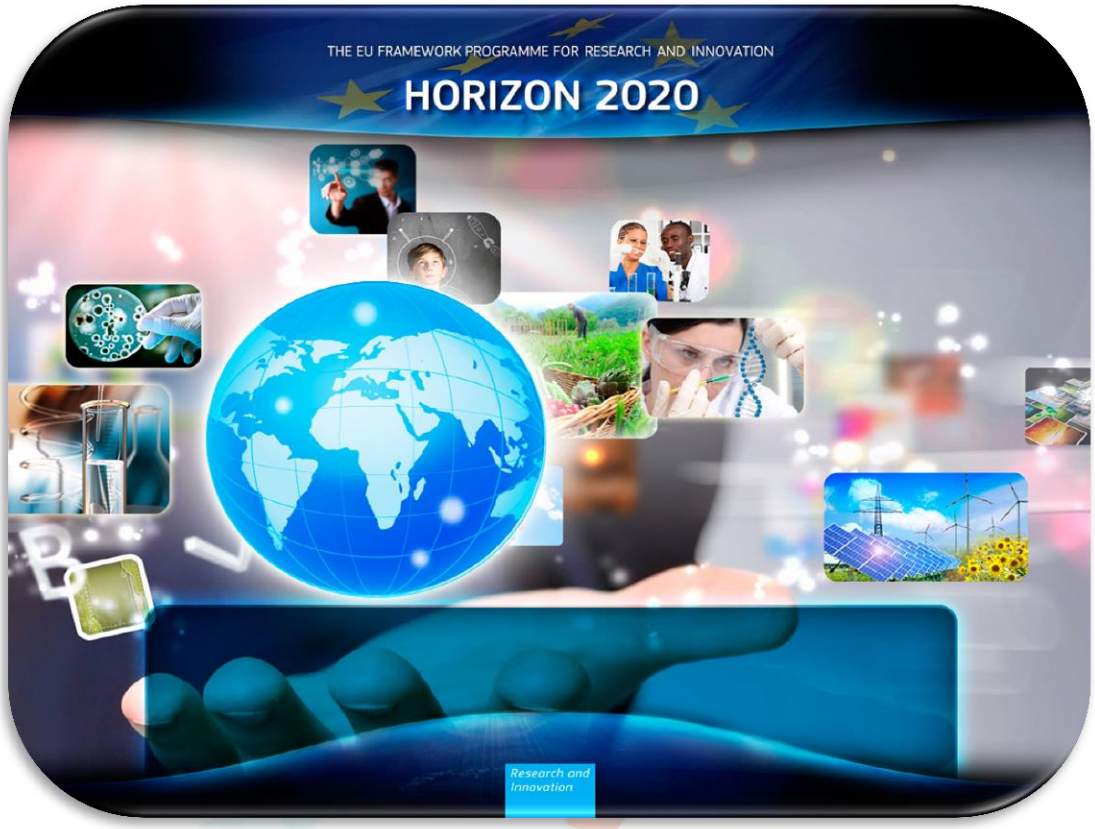
InCo general principles



- ✓ **General openness**: Projects can include international partners (participant or third party)
- ✓ **Targeted opening**: In certain topics, inclusion of international partners will be encouraged
- ✓ **5 Flagship initiatives** specifically devoted to InCo, large of scale & recognised in political dialogue
- ✓ **InCo is encouraged**: **No** eligibility and admissibility criterion

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Work Programme 2018-2020 – International Cooperation Flagships

Area	Topic	Title	Targeted opening
Cooperation on particles in relation to health and climate change			
Low-carbon and sustainable transport	*LC-MG-1-1-2018*	*InCo flagship on reduction of transport impact on air quality*	Asia (e.g. China), CELAC and the US
Aviation International Cooperation Flagship – Safer and Greener in a Smaller World			
Low-carbon and sustainable transport	*LC-MG-1-6-2019*	*Aviation operations impact on climate change*	China (bilateral)
	LC-MG-1-7-2019	*Future propulsion and integration – Towards a hybrid/electric aircraft*	Canada and Japan
Safe, integrated and resilient transport systems	*MG-2-5-2018*	*Innovative technologies for improving aviation safety and certification in icing conditions*	Australia, Brazil, Canada, Japan, Russia and the US
Integrated multimodal freight transport systems and (the last mile) logistics			
Safe, integrated and resilient transport systems	*MG-2-9-2019*	*Integrated multimodal, low-emission freight transport systems and logistics* *	Canada, China, Japan, Latin America and the US
* Proposals should foresee twinning with projects funded by US DOT			

Work Programme 2018-2020 – International Cooperation Flagships

Area	Topic	Title	Targeted opening
EU-US Road vehicle automation and safety			
Automated road transport	*DT-ART-01-2018*	*Testing, validation and certification procedures for highly automated driving functions under various traffic scenarios based on pilot test data **	Australia, Japan, Singapore, South Korea and the US
	DT-ART-02-2018	*Support for networking activities and impact assessment for road automation **	Australia, Japan, Singapore, South Korea and the US
	DT-ART-03-2019	*Human centred design for the new driver role in highly automated vehicles **	Australia, Japan, Singapore, South Korea and the US
	DT-ART-04-2019	*Developing and testing shared, connected and cooperative automated vehicle fleets in urban areas for the mobility of all **	Australia, Japan, Singapore, South Korea and the US
* Proposals should foresee twinning with projects funded by US DOT			
Clean urban transport in medium/mega sized cities in developing and emerging economies			
Green vehicles	LC-GV-05-2019	InCo flagship on "Urban mobility and sustainable electrification in large urban areas in developing and emerging economies	Africa, Asia (e.g. China, India) and Latin America (CELAC)

WP 2018 Call: Mobility for Growth (MG)

17 topics

Overall objectives:

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

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WP 2018 Call: Mobility for Growth (MG)

AREA 1

Low-carbon & sustainable transport

Focus on

- The transition towards zero-emission and quieter mobility for all modes, for people and goods
- Tools and mechanisms for monitoring and detection of emissions & noise
- Scientific evidence for decision making process and planning
- Cross-modal/transport integration solutions in urban areas

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MG - AREA 1

Low-carbon & sustainable transport

2018 Total EU contribution: **EUR 61 Mio**

Topic	Title	Action type	Stages	Budget		
				2018	2019	2020
LC-MG-1-1 **InCo flagship 1**	Reduction of transport impact **on air quality**	RIA	2	30.00		
LC-MG-1-2	Sustainable **multi-modal inter-urban transport**, regional mobility & spatial planning	RIA	2	12.00		
LC-MG-1-3	Harnessing and understanding the impacts of changes in urban mobility on policy making by city-led innovation for **sustainable urban mobility**	CSA	1	3.00		
		RIA	2	11.00		
LC-MG-1-4	Hardening **vehicle environmental protection** systems against tampering	RIA	2	5.00		
LC-MG-1-5	Advancements in aerodynamics & innovative propulsion systems for **quieter & greener aircrafts**	RIA	2		15.00	
LC-MG-1-6 *InCo flagship 2*	**Aviation** operations impact on climate change	RIA	1		10.00	
LC-MG-1-7 *InCo flagship 2*	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		8.00	
		RIA	2		15.00	
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	

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Reduction of transport impact on air quality (1)

LC-MG-1.1-2018

(RIA)

Challenge: Understanding and reducing transport contribution to low air quality and health impact

Scope: several areas outside the reduction at the engine (covered elsewhere), in fact 6 subtopics on driver behaviour, monitoring, consumer information, aircraft/ship emissions and health. Each has specific description that needs to be carefully defined

Expected impact: reduction of emissions, consumer education, monitoring and enforcement, understanding of contribution to emissions and health effects, support regulation and risk assessments

Estimated EC contribution per proposal: proportional to complexity, from 2M for socio economic subtopics, up to 5M for more technical/scientific ones

Multilateral International Cooperation encouraged, in particular

Asia (e.g. China)

SELAC

US

(InCo Flagship "Cooperation on particles in relation to health and climate change")

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Reduction of transport impact on air quality (2)

Challenge: *A) Low-emission oriented driving, management and assistance*

Scope: Understanding how to reduce emissions (NOT consumption) by appropriate driving , including brake-tire emissions; disseminate by courses, campaigns, events (apps not enough). Study other user behaviours like maintenance, retrofitting and tampering and derive impact and ways of improving them.

InCo-related: China and Asia, CELAC

Challenge: *B) Definition of a green vehicle index*

Scope: Develop a holistic testing and scoring mechanism for conventional and electrified vehicles allowing to give a simple score to orient customer choice towards the greenest vehicles

InCo-related: no, but possible external coordination

Reduction of transport impact on air quality (3)

Challenge: *C) Sensing and monitoring emission in urban road transportation system*

Scope: Development of improved remote sensing of vehicles emissions for monitoring and repression purposes, with link with appropriate data infrastructure demonstration in different cities.

InCo-related: China (with funding in Chinese WP)

Challenge: *D) Cost effective enforcement of shipping related emissions legislation and assessment of impact on health and air quality*

Scope: Develop, evaluate and demonstrate cost effective systems to measure airborne pollutants from vessels under real operational conditions and derive their impact in coastal, urban and port areas

InCo-related: Asian ports/authorities and through IMO

Reduction of transport impact on air quality (4)

Challenge: *E) Measurement of airborne pollutants emissions from aircraft*

Scope: Measure emission during parking, taxiing, take-off and climb-out conditions and derive their impact on air quality in neighbouring areas.

InCo-related: Asia, CELAC and US

Challenge: *F) In-vitro and in-vivo assessment of health effects of ultrafine nanoparticles*

Scope: Experimental studies of the health impact (in particular cancer) of VOCs and SVOCs absorbed on different combustion particles on lungs and, in particular, beyond

InCo-related: possible, no specific countries identified

WP 2018 Call: Green Vehicles (GV)
2 topics

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

- Support design and manufacturing of 3rd generation of electrified vehicles, components and new generation of batteries
- Improve the charging solutions to meet end-users needs (access, time, cost, payment systems, etc.)
- Develop new concepts to reduce energy consumption and emissions of long-distance vehicles
- Cooperate with developing and emerging economies for demonstration activities and pilots in large urban areas

WP 2018 Call: Green Vehicles (GV)

2018 Total EU contribution: **EUR 56 Mio**

Topic	Title	Action type	Stages	Budget		
				2018	2019	2020
LC-GV-01	Integrated, brand-independent architectures, components and systems for **next generation electrified vehicles** optimised for the infrastructure	IA	1	42.00		
LC-GV-02	Virtual **product development** and production of **all types of electrified vehicles** and components	RIA	1	14.00		
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 **InCo flagship 5**	**Urban mobility and sustainable electrification** in large urban areas in developing and emerging economies	IA	1		18.00	
LC-GV-06	Next generation and realisation of **battery packs BEV & HEV**					
LC-GV-07	**Advanced light materials** and their production processes for automotive applications					
LC-GV-08	Reducing the environmental impact of **hybrid light duty vehicles**					
LC-GV-09	Next generation **electrified vehicles for urban use**					

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LC-GV-05-2019 (IA)

Urban mobility and sustainable electrification in large urban areas in developing and emerging economies

Challenge: Urbanisation requires integrated mobility solutions that bring together technology opportunities with local and national policy, including land use and mobility planning.

Scope:

1) Develop tool box and models for policy-making to facilitate sustainable transport and mobility solutions in urban environments;

2) Comparative demonstration activities and pilots in the field of electro mobility in large urban areas in developing and emerging economies;

3) Implementation concepts to scale up the demonstration activities.

Expected impact:

1) Capability to quantify the potential reduction of greenhouse gas and pollutant emissions as well as traffic congestion including links and support to international initiatives SDGs, COP21, New Urban Agenda,…
2) Reference models of the mobility sytem for short and long term benefits
3) A basis for strengthening the collaboration of the EU with Asia, CELAC and Africa

Estimated EC contribution: EUR 18 Mio

InCo-related: proposals shall include at least two participants/cities from Asia, at least two participants/cities from CELAC countries and two participants/cities from Africa

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WP 2018-19 Call deadlines

Work Programme 2018-2020	2018		2019	
	Opening	Closing	Opening	Closing
Single Stage (MG -incl. BG-ART and GV calls)	31/10/2017	4/4/2018	4/12/2018	24/4/2019
First Stage of 2-Stages (MG call only)	31/10/2017	30/1/2018	5/9/2018	16/1/2019
Second Stage of 2-Stages (MG call only)	-	19/9/2018	-	12/9/2019

Evaluation criteria

Excellence

Clarity and pertinence of the objectives

Soundness of the concept, including trans-disciplinary considerations, where relevant

Extent that proposed work is ambitious, has innovation potential, and is beyond the state of the art (e.g. ground-breaking objectives, novel concepts and approaches)

Credibility of the proposed approach

Impact

The expected impacts listed in the work programme under the relevant topic

Enhancing innovation capacity and integration of new knowledge

Strengthening the competitiveness and growth of companies by developing innovations meeting the needs of European and global markets; and, where relevant, by delivering such innovations to the markets

Any other environmental and socially important impacts (not already covered above)

Effectiveness of the proposed measures to exploit and disseminate the project results (including management of IPR), to communicate the project, and to manage research data where relevant

Implementation

Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources

Complementarity of the participants within the consortium (when relevant)

Appropriateness of the management structures and procedures, including risk and innovation management

Stage 1/two-stage proposals: only the aspects of the criteria in red are evaluated

Thank you!

Participant Portal

Transport Challenge and the WP

Questions? Contact Research Enquiry Service

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