



HORIZON 2020

LE PROGRAMME DE RECHERCHE ET
D'INNOVATION DE L'UNION EUROPÉENNE





Présentation du programme de Travail Transport 2018 - 2020

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Sommaire



Le défi sociétal Transports intelligents, verts et intégrés Appels 2018-2020 orientés « ville innovante » Urban Mobility

Appels 2018-2020

**Publication par la Commission Européenne
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Document de travail provisoire:

<https://ec.europa.eu/programmes/horizon2020/en/shaping-work-programme-2018-2020-societal-challenge-4-smart-green-and-integrated-transport>

PROGRAMME DE TRAVAIL 2018-2020

Objectifs

Prise en compte :

- des besoins des citoyens, entreprises et marchés européens
- du développement durable au niveau international et lutte contre le changement climatique (COP 21 et objectifs fixés par l'ONU)
- de l'évaluation mi-parcours H2020 : importance accrue donnée aux activités d'innovation et de démonstration

4 domaines clés :

- Construire un avenir avec faibles émissions de carbone et résistants aux phénomènes climatiques
- Numériser et transformer l'industrie et les services
- Economie circulaire : relier les avantages économiques et environnementaux
- Renforcer l'efficacité de la sécurité

PROGRAMME DE TRAVAIL 2018-2020

Nouveautés

- Structure simplifiée
- Nombre de sujets réduits
- Complémentarité des appels
- Impact plus important

4 orientations stratégiques :

- Utilisation efficace des ressources et respect de l'environnement
- Meilleure mobilité, plus de sécurité et sûreté
- 'Leadership' et compétitivité au niveau international
- Recherche socio-économique et comportementale, soutien pour la prise de décision politique

PROGRAMME DE TRAVAIL 2018-2020

Nouveautés

Coopération internationale renforcée :

- fléchée dans le titre du sujet pour certains appels (INCO)
- encouragée dans les autres
- certains jumelages (twinning) : échanges sur les stratégies R&I et priorités d'investissement

Conseil Européen de l'Innovation (CEI)

- Instrument PME
- pilote Fast Track for Innovation (FTI)
- FET-Open

PROGRAMME DE TRAVAIL TRANSPORT 2018-2020

- **Ouverture des appels : 31/10/2017**
- **Budget : 944.98 M€**
 - dont
 - 298,61 M€ pour 2018
 - 315.51 M€ pour 2019
 - 330.86 M€ pour 2020
- **3 appels principaux**
- **54 topics (dont 21 pour 2018)**
- **d'autres activités**

APPELS 2018-2019 – DATES CLES

Années	Appels	Dates ouverture	Dates clôture		
			En 1 étape	En 2 étapes	
				Etape 1	Etape 2
2018	Mobilité pour la croissance	31/10/2017	04/04/2018	30/01/2018	19/09/2018
	Transport routier automatisé	31/10/2017	Non connu		
	Véhicules verts	31/10/2017	Non connu		
2019	Mobilité pour la croissance (AAP deux étapes)	05/09/2018		16/01/2019	12/09/2019
	Mobilité pour la croissance (AAP une étape)	04/12/2018	24/04/2019		
	Transport routier automatisé	04/12/2018	Non connu		
	Véhicules verts	04/12/2018	Non connu		

Call "Mobility for Growth"

(H2020-MG-2018-2019-2020)

Objectifs

Alliance de la compétitivité et du bien être des citoyens, dans un contexte de réduction des émissions de carbone et de sécurité.



- Transport durable à faible émissions de carbone
- Systèmes de transport sûrs, intégrés et résistants
- Leadership mondial et compétitivité
- Prise en compte des personnes

MOBILITE POUR LA CROISSANCE (1/2)

- **Transport durable à faible émissions de carbone**
 - Vision '0 émission' et mobilité plus silencieuse
 - Innovations technologiques, aspects socio-économiques et réglementaires, sensibilisation du public
 - Nouvelles formes de mobilité, outils et mécanismes améliorés de contrôle et détection des émissions de polluants
 - Conseils auprès des autorités locales, régionales et nationales
- **Systèmes de transport sûrs, intégrés et résistants**
 - Déplacements porte-à-porte pour les passagers et le fret
 - Moyens de transport plus performants et plus efficaces, systèmes de gestion du trafic
 - Aspects de la construction d'infrastructures et solutions innovantes de maintenance
 - Renforcement de la sécurité et de la qualité de vie des utilisateurs
 - Transport plus résilient et plus sûr

MOBILITE POUR LA CROISSANCE (2/2)

- **Leadership mondial et compétitivité**
 - Dans le domaine de la conception et de la construction
 - Technologies de transport innovantes : matériaux, procédés, technologies de pointe (automatisation & numérique)
 - Nouveaux modèles économiques
 - Environnement, confort et sécurité des transports
 - Outils pour l'analyse et le stockage d'une masse importante de données
- **Prise en compte des personnes**
 - Ecosystème de transport numérique innovateur et inclusif pour le bien-être des citoyens
 - Adoption des solutions de transport et mobilité novatrices
 - Équité et accessibilité, changements démographiques, acceptation
 - Conseils pour la prise de décision politique

APPELS CONCERNANT LA VILLE INNOVANTE

Topic	Titre	Action type	Budget (M €)	
			2018	2019
BUILDING A LOW-CARBON, CLIMATE RESILIENT FUTURE: LOW-CARBON AND SUSTAINABLE TRANSPORT				
LC-MG-1-1-2018	InCo flagship on reduction of transport impact on air quality	RIA	30	
LC-MG-1-2-2018	Sustainable multi-modal inter-urban transport, regional mobility and spatial planning	RIA	12	
LC-MG-1-3-2018	Harnessing and understanding the impacts of changes in urban mobility on policy making by city-led innovation for sustainable urban mobility	CSA RIA	3 11	
LC-MG-1-8-2019	Retrofit Solutions and Next Generation Propulsion for Waterborne Transport	IA RIA		8 15
LC-MG-1-10-2019	Logistics solutions that deal with requirements of the 'on demand economy' and for shared-connected and low emission logistics operations	RIA		10

APPELS CONCERNANT LA VILLE INNOVANTE

Topic	Titre	Action type	Budget (M €)	
			2018	2019
GLOBAL LEADERSHIP AND COMPETITIVENESS				
MG-3-2-2018	The Autonomous Ship	IA	20	
MG-3-3-2018	"Driver" behaviour and acceptance of connected, cooperative and automated transport	RIA	12	
ACCOUNTING FOR THE PEOPLE				
MG-4-6-2019	Supporting Joint Actions on sustainable urban accessibility and connectivity	ERA-NET Cofund		6

Call “Mobility for Growth”

InCo flagship on reduction of transport impact on air quality

Topic LC-MG-1-1-2018 (RIA)

Challenge

Improvement of air quality (road vehicles, airports, ports)

Scope

- Low-emission oriented driving, management and assistance → *China/Asia/CELAC*
- Support to informed consumer choice
- Sensing and monitoring emission in urban road transportation system → *China*
- Measurement of the airborne emissions of pollutants from a vessel → *Asia*
- Measurement of airborne pollutants emissions from aircraft → *USA/Asia/CELAC*
- Understanding the biological processes leading to acute genotoxic and systemic effects of ultrafine nanoparticles

Estimated EC contrib. per proposal: EUR 2-5 Moi

Call “Mobility for Growth”

*Sustainable multi-modal inter-urban transport,
regional mobility and spatial planning.*

Topic LC-MG-1-2-2018 (RIA)

Challenge

Assessing new forms of mobility in all transport modes, their infrastructures, travel flux evolution, spatial-economic development, environmental and quality-of-life issues...

Scope

Identification of new forms of mobility, comprehensive planning for the entire functional area, sustainable policies with proven environmental impact
→ *International cooperation - Twinning with US DOT*

Expected Impact

Evidence of long term impacts of innovative transport technologies and business models

Estimated EC contrib. per proposal: EUR 5-8 Moi

Call “Mobility for Growth”

Harnessing and understanding the impacts of changes in urban mobility on policy making by city-led innovation for sustainable urban mobility.

Topic LC-MG-1-3-2018 (RIA+CSA)

Challenge

Understanding of the impacts of new urban mobility solutions on policy making.

Scope

- Impacts of new mobility solutions, addressing the changing mobility patterns and set up of mobility services (RIA)
- Knowledge exploitation and support to the cooperation between projects and stakeholders → CIVITAS 2020 + *international cooperation USA, China, India* (CSA)

Expected Impact

Support mobility policies + CIVITAS support activities

Estimated EC contrib. per proposal: EUR 2-4 Moi (RIA) max EUR 3 Moi (CSA)

Call “Mobility for Growth”

Retrofit Solutions and Next Generation Propulsion for Waterborne Transport

Topic LC-MG-1-8-2019 (RIA+IA)

Challenge

Reduction of emissions from waterborne transport

Scope

- Develop and validate a concept for a passenger ship powered primarily by high power fuel cells (RIA)
- Develop and validate the next generation high efficiency propulsion systems for ships using electrification and or clean fuels and or renewable energy sources - cost effective retrofit solutions for marine shipping / Inland waterways (IA)

Expected Impact

Retrofit solutions will reduce SO_x, NO_x and PM pollution from waterborne transport

Estimated EC contrib. per proposal: EUR 3-5 Moi (RIA) / EUR 4-6 Moi (IA)

Call “Mobility for Growth”

Logistics solutions that deal with requirements of the 'on demand economy' and for shared-connected and low-emission logistics operations

Topic LC-MG-1-10-2019 (RIA)

Challenge

Prioritize/combine competing interests from the private side and public (policy) side relative to shared, connected and low-emission logistics operations

Scope

- Value cases for integrated systems of logistics/ freight operations in urban areas
- Integration of low-emission, and possibly connected delivery vehicles in urban logistics.

Expected Impact

Understanding of cost effective strategies, measures and tools to achieve essentially zero emission city logistics in major European urban centres by 2030

Estimated EC contrib. per proposal: EUR 2-4 Moi

Call “Mobility for Growth“

The Autonomous Ship

Topic MG-3-2-2018 (IA)

Challenge

Develop and demonstrate integrated automation technologies within a real environment.

Scope

Demonstrate a fully autonomous vessel within a realistic environment including collision avoidance, interaction with waterway and/or port infrastructure, interaction with waterborne traffic, connectivity, control, navigation and docking, condition monitoring, smart maintenance, fail safe operation... (TRL7)

Expected Impact

Establishment of the first commercial automated water transport services within 5 years.

Estimated EC contrib. per proposal: EUR 10-20 Moi

Call “Mobility for Growth”

"Driver" behaviour and acceptance of connected, cooperative and automated transport

Topic MG-3-3-2018 (RIA)

Challenge

Study of public acceptance of connectivity and automation, the development of user-friendly and appropriate HMI, "driver"/vehicle interaction and ethical decision making, to "driver" training and certification for new technologies/levels of automation..

Scope

Public acceptance of higher levels of connectivity/automation and different user-groups, analysis of driver behaviour/reaction, safety impacts, HMI analysis...

Expected Impact

Integration of higher levels of connectivity/automation / Increase of safety and security

Estimated EC contrib. per proposal: EUR 3-4 Moi

Call "Automated Road Transport"

(H2020-DT-ART-2018-2019-2020)

Objectifs

Accroître la sécurité, l'efficacité, le confort de l'utilisateur et l'habitabilité des villes.



ART est une action du domaine clé « numériser et transformer l'industrie et les services », en lien avec la navigation par satellite, Big Data, IoT, IA...

APPELS CONCERNANT LA VILLE INNOVANTE

Topic	Titre	Action type	Budget (M €)	
			2018	2019
AUTOMATED ROAD TRANSPORT				
DT-ART-02-2018	Support for networking activities and impact assessment for road automation	RIA CSA	6 2	
DT-ART-04-2019	Developing and testing shared, connected and cooperative automated vehicle fleets in urban areas for the mobility of all	IA		30

Call “Automated Road Transport”

*Support for networking activities and impact assessment
for road automation*

Challenge

Topic ART-02-2018 (RIA+CSA)

Deployment of connected and automated vehicles

Scope

- Assessment of impacts, benefits and costs of connected, cooperative and automated driving systems (RIA)
- Networking activities to support connected, cooperative and automated driving (CSA) → *US, Japan, South Korea, Singapore, Australia*

Expected impact

- Best implementation of the connected, cooperative and automated driving systems (socio-economic, environmental benefits, acceptability ...)

Estimated EC contrib. per proposal: EUR 4-6 Moi (RIA) and EUR 4-6 Moi (RIA)

Call “Automated Road Transport”

Developing and testing shared, connected and cooperative automated vehicle fleets in urban areas for the mobility of all

Topic ART-04-2019 (IA)

Challenge

Development of shared automated vehicle pilots

Scope

New business/operating models - Test robustness, reliability and safety of shared highly automated vehicle fleets - automated, smart mobility services, innovative fleet management concepts ...

→ *US, Japan, South Korea, Singapore, Australia*

Expected impact

Test the overall mobility impact

Estimated EC contrib. per proposal: EUR 15-30 Moi

Call "Green Vehicles"

(H2020-GV-2016-2017)

Objectif

Transport propre et société décarbonée



Les appels sont ciblés sur les aspects critiques de l'introduction massive des véhicules électriques:

- Avancées sur les batteries électriques
- Supports pour la 3^{ème} génération des véhicules électriques (concepts, composants, architectures ...)
- Amélioration de l'alimentation électrique
- Amélioration de la compétitivité des entreprises européennes
- Dimension urbaine de l'introduction des véhicules électriques

APPELS CONCERNANT LA VILLE INNOVANTE

Topic	Titre	Action type	Budget (M €)	
			2018	2019
GREEN VEHICLE				
LC-GV-03-2019	User centric charging infrastructure	IA		35
LC-GV-05-2019	InCo flagship on “Urban mobility and sustainable electrification in large urban areas in developing and emerging economies”	IA		18
LC-GV-09-2020	Next generation electrified vehicles for urban use	To be defined		

Call “Green Vehicules”

User centric charging infrastructure

Topic LC-GV-03-2019 (IA)

Challenge

Support the accelerated deployment of recharging infrastructure

Scope

Charging options - Attractive and convenient charging infrastructure access with connected vehicle systems avoiding waiting times – payment systems – parking habits – superfast charging systems – scalable charging infrastructures – cheap lower power DC charging ...

Expected impact

Wide user acceptance – legal gaps relative to infrastructures – integration of high-power charges - standardisation

Estimated EC contrib. per proposal: EUR 8-15 Mio

Call “Green Vehicules”

InCo flagship on “Urban mobility and sustainable electrification in large urban areas in developing and emerging economies”

Topic LC-GV-05-2019 (IA)

Challenge

Integrated mobility solutions

Scope

Engagement in urban electrification with European, Asian (e.g. China), CELAC (Community of Latin American and Caribbean States) and African research partners, government agencies and urban authorities, private sector and civil society

Expected impact

Quantification of the potential reduction of greenhouse gas / pollutant emissions / traffic congestion - Reference models of the mobility system

Estimated EC contrib. per proposal: EUR 15-18 Mio

OTHER ACTIONS

Support to the development, implementation, monitoring and evaluation of transport research and innovation policy activities

3 actions

- Technical assistance, and economic and policy analysis to support various aspects of the research and innovation policy relevant in transport and related sectors in urban mobility area.
- Communication activities, such as events and publications, that could support dissemination of knowledge and information to interested organisations
- Supporting new forms of innovation in the transport and mobility sector

Type of Action: Public Procurement - One or several service contract(s)

Indicative timetable: Along 2018-2019

Indicative budget: EUR 1.00 million from the 2018 budget and EUR 1.00 million from the 2019 budget

KIC URBAN MOBILITY



3 Piliers du triangle de la connaissance

- Formation
- Recherche pour l'innovation
- Entrepreneuriat: maturation et création de start-up

Parution AAP: 12/01/2018

Date limite de soumission: 12/07/2018

KIC URBAN MOBILITY

Urban mobility: a cross-cutting 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.
- Urban mobility 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)
- Urban mobility has an important **impact** both at the **economic and social** levels (new business creation, employment, social inclusion, housing and location strategies).

KIC URBAN MOBILITY

Urban mobility: a cross-cutting challenge

- 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 generated.
- Sustainable urban mobility can only be achieved if **breakthrough innovations** leading to greener, more inclusive, safer and smarter solutions are found.

The urban mobility theme for the 2018 Call is presented in a factsheet annexed to the EIT's Strategic Innovation Agenda 2014 - 2020 (SIA):
https://eit.europa.eu/sites/default/files/urban_mobility_sia_factsheet.pdf

Contacts utiles

Recherche de partenaires:

➤ EEN

➤ ETNA 2020: EU Horizon 2020 – Transport Partner Search

<http://transport.ideal-ist.eu/partner-search/pssearch>



Informations utiles

Sites internet :

- <http://www.horizon2020.gouv.fr/>
- http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=h2020-documents
- <https://ec.europa.eu/programmes/horizon2020/en/shaping-work-programme-2018-2020-societal-challenge-4-smart-green-and-integrated-transport>

Contacts au PCN Transport

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Merci de votre attention

