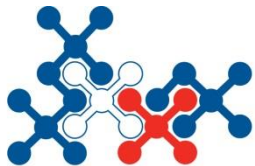


SMART, GREEN AND INTEGRATED TRANSPORT CALLS FOR PROPOSALS WITHIN H2020 FOR 2016

Zbigniew Turek



National Contact Point
in P O L A N D



BLACK SEA
HORIZON



Bi-regional STI Dialogue

Warsaw,
17 December, 2015



The project BLACK SEA HORIZON has received funding from Horizon 2020, the EU Framework Programme for Research and Innovation, under the Grant Agreement 645785 (H2020-INT-INCO-2014).

Black Sea Horizon (BSH) Project

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Overview

Funding:

- ❑ Horizon 2020, under the Grant Agreement 645785 (H2020-INT-INCO-2014).

Duration:

- ❑ February 2015 – January 2018

Project Partners:

- ❑ 19 organisations, 16 countries: AT, DE, GR, TR, HU, BG, FR, MD, PL, PT, RO, AM, RU, UA, GE, AZ

Coordinator:

- ❑ Centre for Social Innovation (ZSI GmbH), Austria

Black Sea Horizon (BSH) Project

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Project Partners

- ZSI, AT
- DLR, DE
- CERISS, GR
- TUBITAK, TR
- RCISD, HU
- ARC Fund, BG
- inno - inno TSD, FR
- ICBSS, INTL (GR)
- CIP, MD
- IPPT-PAN, PL
- SPI, PT
- UEFISCDI, RO
- NAS-RA , AM
- RFBR, RU
- HSE, RU
- IEF, UA
- ESIDG, GE
- SRNSF, GE
- SDF-AZE, AZ

Black Sea Horizon (BSH) Project

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Black Sea Horizon (BSH) Project

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Key objectives

- to support the **EU's external relations** with the **target region**
 - ▣ by significantly contributing to ongoing bi-regional and regional STI policy dialogues,
 - ▣ and by increasing the knowledge base about the EU's external environment;
- to stimulate **bi-regional STI cooperation** and to strengthen the EU's economic competitiveness;
- to contribute to the establishment of **supportive framework** conditions
 - ▣ by facilitating the pooling of resources
 - ▣ and by identifying challenging thematic areas for mutual STI cooperation.

Black Sea Horizon (BSH) Project

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Specific objectives

- Support the EU's external relations with the target region
 - ▣ EU Black Sea Cooperation Programme in STI (WP1)
 - ▣ Bi regional STI conference (WP1)
- Increase the knowledge base about EU's external environment;
 - ▣ Policy briefs (obstacles, drivers and opportunities; patterns of cooperation based on co publishing and co-patenting (WP1)
- Stimulate bi-regional STI cooperation;
 - ▣ Webinars on H2020 (WP3)
 - ▣ Grant scheme for brokerage events (WP3)
 - ▣ H2020 Summer school (WP3)

Black Sea Horizon (BSH) Project

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Specific objectives

- Strengthen the EU's economic competitiveness;
 - ▣ Cluster identification, cluster manager training (WP4)
 - ▣ Business contacts and training of entrepreneurs (WP4)
- Contribute to the pooling of resources
 - ▣ Group of funding parties (WP2)
 - ▣ ToR for a joint call (WP2)
 - ▣ Call secretariat set up (WP2)
- Contribute to the establishment of supportive framework conditions;
 - ▣ Reviewer database (WP2)
- Identify challenging thematic areas for mutual STI cooperation
 - ▣ Thematic research directions (WP4)

Budget for 2016-2017 calls

	2016 Budget EUR million	<i>2017 Budget EUR million</i>
Calls		
Mobility for Growth	210.10	<i>225.50</i>
1. Aviation	59	<i>87</i>
2. Waterborne	38	<i>40</i>
3. Safety	52	<i>14</i>
4. Urban Mobility	12	<i>24</i>
5. Logistics	14	<i>13</i>
6. ITS	30	-
7. Infrastructure	-	<i>38</i>
8. Socio-Economic and behavioural research	5,1	<i>9,5</i>
Automated Road Transport	64.00	<i>50.00</i>
European Green Vehicles Initiative	78.50	<i>128.00</i>
Contribution to Blue Growth	9.00	<i>8.00</i>
SME instrument	57.57	<i>61.23</i>
FTIPilot-2016	14.65	-
Other Actions	17,45	<i>14,55</i>
Estimated total budget	451.27	<i>487.28</i>

Budget for 2016-2017 calls

	2016 Budget EUR million	2017 Budget EUR million
Calls		
Mobility for Growth	210.10	225.50
1. Aviation	59	87
2. Waterborne	38	40
3. Safety	52	14
4. Urban Mobility	12	24
5. Logistics	14	13
6. ITS	30	-
7. Infrastructure	-	38
8. Socio-Economic and behavioural research	5,1	9,5
Automated Road Transport	64.00	50.00
European Green Vehicles Initiative	78.50	128.00
Contribution to Blue Growth	9.00	8.00
SME instrument	57.57	61.23
FTIPilot-2016	14.65	-
Other Actions	17,45	14,55
Estimated total budget	451.27	487.28



Call

Mobility for Growth

Call 'Mobility for Growth'

AVIATION

- | | |
|-------------------|---|
| MG-1.1-2016. | Reducing energy consumption and environmental impact of aviation |
| MG-1.4-2016/2017. | Breakthrough innovation |
| MG-1.5-2016/2017. | Identification of gaps, barriers and needs in the aviation research |
| MG-1.2-2017. | Reducing aviation noise |
| MG-1.3-2017. | Maintaining industrial leadership in aeronautics |
| MG-1.4-2016/2017. | Breakthrough innovation |
| MG-1.5-2016/2017. | Identification of gaps, barriers and needs in the aviation research |

MG-1.1-2016. Reducing energy consumption and environmental impact of aviation

Challenge:

Reducing energy consumption to improve sustainability
Increasing resource efficiency, reducing CO₂ and NO_x emissions

Scope:

New technologies contributing to electric aircraft
Improving engine thermal efficiency
Development and demonstration of integrated aero-structures to reduce weight and improve aerodynamics
Optimising aircraft for alternative fuel use

Expected impact:

—Bringing measurable reduction of environmental impact towards the long-term goals of reducing CO₂ by 75% and NO_x by 90% (per passenger and per kilometre) by 2050 (baseline year 2000).
—Facilitating the introduction of alternative fuels in aviation towards the long-term goal of 40% biofuels share in aviation fuels by 2050.

Call budget for topic: 40 mln €

EC contribution requested (EC suggestion): 5-9 mln € per proposal

Type of action: Research and Innovation Action

Deadline: 20th Jan 2016 (1st stage) / 29th Sep 2016 (2nd stage)

MG-1.4-2016/2017.

Breakthrough innovation

Challenge

Explore breakthrough technologies to address long-term goals

Scope

Currently-not-in-use concepts for the medium run technologies up to TRL 3 with a potential to TRL 6 by 2030-2035

Innovative configurations and propulsion systems, novel multifunctional systems, autonomous systems

Expected impact

Develop innovative and exploitable technologies that enable in the medium term substantial decrease of environmental impact, increase in competitiveness, safety

Call budget for topic: 15 mln €

EC contribution requested (EC suggestion): 2-4 mln € per proposal

Type of action: Research and Innovation Action

Deadline: 20th Jan 2016 (1st stage) / 29th Sep 2016 (2nd stage)

MG-1.5-2016/2017. Identification of gaps, barriers and needs in the aviation research

Challenge

Facilitating achievement of Flightpath 2050 goals

Scope

identificating barriers to collaboration in aviation research; needs and gaps for strategic research infrastructure

Expected impact

Assess progress towards Flighpath 2050

Identify future needs, gaps, barriers and formulate recommendations to address them

Efficient use of research capabilities, stimulation of research cooperation

Call budget for topic: 4 mln €

EC contribution requested (EC suggestion): 1-2 mln € per proposal

Type of action: Coordination and support action

Deadline: 26th Jan 2016

Call 'Mobility for Growth'

WATERBORNE

- MG-2.2-2016.** **Development, production and use of high performance and lightweight materials for vessels and equipment**
- MG-2.3-2016.** **New and improved transport concepts in waterborne transport**

- MG-2.1-2017. Innovations for energy efficiency and emission control in waterborne transport
- MG-2.4-2017. Complex and value-added specialised vessels

Challenge:

- New lightweight materials for waterborne transport
- Related design, construction & production principles

Scope: proposals should address all the following aspects:

- Conception, production and use of advanced composites, high-performance materials
- performance analysis and simulation for new advanced materials and entire constructions
- Assessing risks and enhancing fire resistance properties and thermal and noise insulation qualities

Impact:

Introduce new lightweight high performance materials

Less maintenance and 30% lower life cycle costs

Inputs to relevant regulatory regimes as appropriate

Call budget for topics: MG-2.2-2016 & MG-2.3-2016 - 38 mln €

EC contribution requested (EC suggestion): 7 – 9 mln € per proposal

Type of action: Innovation Action

Deadline: 20th Jan 2016 (1st stage) / 29th Sep. 2016 (2nd stage)

Challenge:

Overcoming barriers between transport modes

Greening and optimising the transport chain

Contributing to EU "Energy Union" goals

Scope: proposals should address one or several of the following aspects

- New or much improved systems for waterborne operations
- New cost-efficient vessel concepts for the transport and distribution of natural gas
- Automation in all waterborne operations, including in short sea trades and in inland navigation, the urban environment

Impact:

- measurable contributions to a more efficient waterborne transport
- automation of waterborne transport operations will be proven, including an assessment of cost-benefits and the impact on the waterborne work environment

Call budget for topics: MG-2.2-2016 & MG-2.3-2016 - 38 mln €

EC contribution requested (EC suggestion): 6-12 mln € per proposal

Type of action: Research and Innovation Action

Deadline: 20th Jan 2016 (1st stage) / 29th Sep. 2016 (2nd stage)

Call 'Mobility for Growth'

SAFETY

- MG-3.1-2016: Addressing aviation safety challenges
- MG-3.3-2016. Safer waterborne transport and maritime operations
- MG-3.4-2016. Transport infrastructure innovation to increase the transport system safety at modal and intermodal level (including nodes and interchanges)
- MG-3.5-2016. Behavioural aspects for safer transport
- MG-3.6-2016: Euro-African initiative on road safety and traffic management

MG-3.2-2017: Protection of all road users in crashes

Challenge:

Identifying and mitigating new risks

Keeping Europe's excellent record in aviation safety

Scope: Proposals should address one or several of the following areas

- More robust, cost-efficient solutions of the air transport system for the whole life-cycle, based on novel methodologies and technologies
- Novel systematic identification of hazards
- An improved understanding of environmental phenomena, their detection and the protection of aircraft

Impact:

- enhanced level of safety to reach the objective of having less than one accident per 10 million commercial aircraft flights by 2050
- deliver more holistic approaches to aviation safety that enables higher performance, better regulation and higher resilience

Call budget for topic: 15 mln €

EC contribution requested (EC suggestion): 5-9 mln € per proposal

Type of action: Research and Innovation Action

Deadline: 26th Jan 2016

Challenge:

Improving technologies, designs and procedures for safe, environmentally sound waterborne operations

Scope: proposals should address one or several of the following aspects

- Waterborne transport operations (including offshore operations), in complex traffic fairways and in extreme environments,
- New and improved vessel and equipment design concepts that offer a clear risk reduction
- A comprehensive safety assessment for low flash point and volatile fuels

Impact: improve waterborne safety

- through proof of concept for new operational and traffic management approaches
- through a validated safety analysis for fuels with higher intrinsic risks which can be applied in practice

Call budget for topics: MG-3.3-2016 & MG-3.5-2016 - 22 mln €

EC contribution requested (EC suggestion): 5-7 mln € per proposal

Type of action: Research and Innovation Action

Deadline: 20th Jan 2016 (1st stage) / 29th Sep. 2016 (2nd stage)

MG-3.4-2016: Transport infrastructure innovation to increase the transport system safety at modal and intermodal level (including nodes and interchanges)

Challenge:

Improving transport safety through better infrastructure design and maintenance and its adaptation to connectivity

Scope: address several of the following aspects

- Infrastructure safety improvement by design and upgrading
- Efficient maintenance methods to ensure continuity of high safety performance
- Adaptation of the infrastructure to new vehicles characteristics, including V2I/I2V
- Improved safety in work zones and in links and interchanges at risk

Particular attention to links and interfaces between modes and integrated safety management systems is encouraged

SME active participation is strongly encouraged. Twinning with entities financed from US DOT

Impact: Actions will prove the effectiveness of long-term, predictive maintenance systems; outcome could include guidelines for infrastructure responsiveness to connectivity and novel vehicle characteristics

Call budget for topic: 12 mln. €

EC contribution requested (EC suggestion): 2-5 mln € per proposal

Type of action: RIA

Deadline: 26 Jan. 2016 (first stage), 29 Sep. 2016 (second stage)

MG-3.5-2016: Behavioural aspects for safer transport

Challenge: The challenge is to study those key factors that influence safe transport user behaviour (drivers, riders, pilots, cyclists, pedestrians etc.), both individually and collectively, taking into account demographic factors (gender, age, socio-cultural aspects, etc.) and societal framework conditions (changing living conditions etc.).

- Scope:**
- studying the parameters that influence user condition (fatigue, illness, use of drugs, medicines, alcohol, etc.), assessment of the psychological condition of those in charge of vehicles/vessels
 - variations in safety behaviour, socio-cultural issues, gender, age and disability
 - development of analysis and assessment methods for factors affecting the level of risk users are willing to take
 - Measures to modify transport user behaviour such as incentive schemes for high risk groups

Active participation of SMEs is strongly encouraged. International cooperation is encouraged, in particular with (i.e. US, Japan, Canada, Australia) and China, India, Brazil

Impact: reduction of fatal, serious and minor accidents, safer use of vehicles and increased awareness of other users, effective enforcement and training schemes based on reliable behavioural models

Call budget for topic: 22 mln € (with MG-3.3-2016 topic)

EC contribution requested (EC suggestion): 4-9 mln € per proposal

Type of action: RIA

Deadline: (20 Jan 2016 1st stage) / (29 Sep 2016 2nd stage)

MG-3.6-2016: Euro-African initiative on road safety and traffic management

Challenge: Road safety in Africa represents a dramatic problem per se – 300,000 fatalities and over 5 million injured per year – with vast negative social and economic impacts on the livelihood of African families, on the public health systems, on the very prospects of poverty reduction and economic development

Scope:

- set up a dialogue platform involving African and European national road safety authorities and experts (comparing methodologies and disseminating best practice, promoting knowledge transfer and collaboration, and assessing progress towards the objectives of the African Road Safety Action Plan 2020)
- evidence gathering and data collection, as well as analysis of risk factors (speed, drinking, lack of user protection devices, etc.)
- analyse the most appropriate road safety assessment methodologies and management system
- identify requirements for skills development and training of staff, and research and innovation needs

Impact:

Help improve road safety in Africa

Reinforce local African capabilities

Disseminate EU know-how and deploy sound solutions

Call budget for topic: 3 mln €

EC contribution requested (EC suggestion): 2.5-3 mln € per proposal

Type of action: CSA

Deadline: 26 Jan 2016

Call 'Mobility for Growth'

URBAN MOBILITY

MG-4.4-2016: Facilitating public procurement of innovative sustainable transport and mobility solutions in urban areas

MG-4.5-2016: New ways of supporting development and implementation of neighbourhood-level and urban-district-level transport innovations

MG-4.1-2017: Increasing the take up and scale-up of innovative solutions to achieve sustainable mobility in urban areas

MG-4.2-2017: Supporting 'smart electric mobility' in cities

MG-4.3-2017: Innovative approaches for integrating urban nodes in the TEN-T core network corridors

MG-4.4-2016: Facilitating public procurement of innovative sustainable transport and mobility solutions in urban areas

Challenge:

Boosting market demand for sustainable urban mobility solutions

Increasing purchaser awareness about technologies used in implementing sustainable urban solutions

Scope:

- establishment of a number of cross-border networking activities that plan future public procurements of innovation (PPI) and/or pre-commercial procurements (PCP) of solutions that result in sustainable urban mobility
- new approaches for market consultations with suppliers, paying special attention to SME suppliers
- strategies to plan and implement joint, cross-border procurement of solutions

Impact:

Build knowledge and establishing practices in PP

Call budget for topic: 4 mln €

EC contribution requested (EC suggestion): 0.6-1.0 mln € per proposal

Type of action: CSA

Deadline: 26 Jan 2016

MG-4.5-2016: New ways of supporting development and implementation of neighbourhood-level and urban-district-level transport innovations

Challenge:

Neighbourhoods and districts as testing grounds for mobility innovations addressing urban mobility issues

Scope: Actions should include the development, testing and comparison of initial results of sustainable mobility solutions

- New approaches to involve end-users, consumers and citizens, both women and men
- New types of innovations (technological and non-technological) such as: social innovation, workplace innovation
- New forms of tools and approaches for measuring take-up, support, and impact of the innovative approaches

Impact: new innovation processes, new organisational and governance concepts, changes in planning processes, strategy to create scale and visibility, and to measure impacts of the innovative approaches

Call budget for topic: 10 mln €

EC contribution requested (EC suggestion): 2-4 mln € per proposal

Type of action: RIA

Deadline: (20 Jan 2016 1st stage) / (29 Sept 2016 2nd stage)

Call 'Mobility for Growth'

LOGISTICS

MG-5.1-2016: Networked and efficient logistics clusters

MG-5.3-2016: Promoting the deployment of green transport, towards Eco-labels for logistics

MG-5.2-2017: Innovative ICT solutions for future logistics operations

MG-5.4-2017: Potential of the Physical Internet

MG-5.1-2016: Networked and efficient logistics clusters

Challenge:

- Shift towards low-emission transport modes: Better integration needed across transport subsystems and hubs, TEN-T network, last mile delivery services
- Long distance and local areas: dedicated vehicles

Scope: Proposals should cover the development and integration of All the following issues

- identify opportunities to extend the role of hubs beyond transshipment (e.g. storage, handling, packaging, bundling and cleaning) and serve as seeds for smart specialisation and the formation of logistics clusters
- Develop governance and business models for such smart specialised logistics clusters
- Development of prototype Modular Load Units, optimised for automated handling
- Development of prototype automated loading and unloading systems
- Optimise environmental performance of logistics clusters

Impact:

- Contribute to more sustainable freight transport
- Increase the value of hubs, intermodality and resilience of the system

Call budget for topic: 12 mln €

EC contribution requested (EC suggestion): 4-6 mln € per proposal

Type of action: RIA

Deadline: (20 Jan 2016 1st stage) / (29 Sept 2016 2nd stage)

MG-5.3-2016: Promoting the deployment of green transport, towards Eco-labels for logistics

Challenge:

- Need for harmonised carbon footprint measurement along the transport supply chain

Scope:

- Liaison with standardisation organisations, shippers, transport operators etc.
- Develop, improve and/or harmonise guidelines for the measurement and reporting of emissions
- Develop mechanisms to facilitate and standardise data collection, handling, reporting
- Certification of methodology and accuracy of calculations
- Design educational tools, including training sessions on carbon foot printing

Impact: demonstrate how the following aspects will be achieved

- Collaborative strategies among industry and authorities for win-win solutions for transport
- Streamlined business processes and efficiency gains
- A sound proposal for introducing an eco-label for freight transport and logistics services

Call budget for topic: 3mln €

EC contribution requested (EC suggestion): 1-2 mln € per proposal

Type of action: CSA

Deadline: 26th Jan 2016

Call 'Mobility for Growth'

INTELLIGENT TRANSPORT SYSTEMS

MG-6.1-2016: Innovative concepts, systems and services towards 'mobility as a service'

MG-6.2-2016: Large-scale demonstration(s) of cooperative ITS

MG-6.3-2016: Roadmap, new business models, awareness raising, support and incentives for the roll-out of ITS

MG-6.1-2016: Innovative concepts, systems and services towards 'mobility as a service'

Challenge:

Analysis and development of coherent concepts, encompassing all elements, systems and services to bring Europe's transport system towards a more user-centric, digital and intelligent mobility model (ie. mobility as a service) to make advanced travel planning a reality

Scope: proposals should address several of the following aspects

- Multi-modal, cross-border traffic management, information and planning systems
- Analysis of the range of services to be made accessible under each interface
- Identification of the success and failure factors (e.g. economic) of the new concept
- Identification of the necessary framework (e.g. regulatory) to support the implementation of new services

Impact:

- Novel business models for (large scale) deployment of innovative intermodal/integrated mobility concept(s) and services
- Advanced, cross-border, multi-modal travel planning and booking/ticketing

Call budget for topics MG-6.1-Mg-6.2, 25 mln €

EC contribution requested (EC suggestion): 3-3.5 mln € per proposal

Type of action: RIA

Deadline: (20th. Jan. 2016-1st stage) / (29th Sep. 2016 - 2nd stage)

MG-6.2-2016: Large-scale demonstration(s) of cooperative ITS

Challenge:

Leverage the achievements of past and current pilots and perform large-scale, real-life demonstration in specific environment(s) to showcase the status of deployment of C-ITS

Scope: An integral part of this challenge is the demonstration of functioning partnerships of multiple stakeholders (e.g. infrastructure and transport service operators and service providers), public authorities, and other stakeholder groups and users

- Enable services based on appropriate access and sharing of data leveraging in-vehicle resources and 2-way V2V, V2I, I2I
- Enable interoperability across systems including testing and validating standards
- Demonstrating and validating cross-modal integration

Participation of SMEs with proven experience in these areas is encouraged, US

Impact: Improved level of performance for the entire transport system, Fully integrated C-ITS concepts in practical, real-life, Validated results and proven impact on user acceptance, safety

Call budget for topics MG-6.1-Mg-6.2, 25 mln €

EC contribution requested (EC suggestion): 11-13 mln € per proposal

Type of action: IA

Deadline: (20th. Jan. 2016-1st stage) / (29th Sep. 2016 - 2nd stage)

MG-6.3-2016: Roadmap, new business models, awareness raising, support and incentives for the roll-out of ITS

Challenge: A key challenge for ITS remains the "last-mover advantage", where many parties wait for others to deploy first, to maximise their own immediate benefits at lowest possible implementing cost

Scope: Proposals should address one or several of the following aspects

- Building upon the latest developments, raise awareness of the benefits of C-ITS
- Financing measures to support inter alia the development, purchase
- Market sizing, customer demand vs. production, project feasibility and financial returns

Participation of SMEs with proven experience in these areas is encouraged , US

Impact:

- Understanding of the dynamics behind the current status of ITS implementation across Europe
- Contributions that concretely support the development of more efficient policies for C-ITS
- New business models that are able to inform decision-making across a variety of stakeholders

Call budget for topic 5 mln: €

EC contribution requested (EC suggestion): 1- 2 mln € per proposal

Type of action: CSA

Deadline: 26th Jan 2016

Call 'Mobility for Growth'



INFRASTRUCTURE

MG-7.1-2017: Resilience to extreme (natural and man-made) events

MG-7.2-2017: Optimisation of transport infrastructure including terminals

MG-7.3-2017: The Port of the future

Call 'Mobility for Growth'

SOCIO-ECONOMIC AND BEHAVIOURAL RESEARCH AND FORWARD LOOKING ACTIVITIES FOR POLICY MAKING

MG-8.1-2016: Research, technology development and market trends for the European transport manufacturing industries

MG-8.3-2016: Assessing future requirements for skills and jobs across transport modes and systems

MG-8.6-2016: Innovation awards for students and researchers in the context of the Transport Research Arena conference - TRA 2018

MG-8.2-2017: Big data in Transport: Research opportunities, challenges and limitations

MG-8.4-2017: Improving accessibility, inclusive mobility and equity: new tools and business models for public transport in prioritised areas

MG-8.5-2017: Shifting paradigms: Exploring the dynamics of individual preferences, behaviours and lifestyles influencing travel and mobility choices

MG-8.1-2016: Research, technology development and market trends for the European transport manufacturing industries

Challenge: European transport manufacturing industries across different sectors are faced with new challenges stemming from the need to move to smart, green and sustainable transport technologies and systems within a relatively short period of time, the changing mobility demand, increasing international competition. The challenge is to provide an overview of research, technology development and innovation capacities, identify present and emerging market trends at a global scale

Scope: Proposals should address the following aspects

- Analyse the investment trends, productivity levels, industrial strategies etc.
- Assess the competitive advantages and disadvantages of those industries in relation to their main competitors world-wide
- Analyse the economic potential of new technologies, products and markets
- Consider the incidence of legislation and regulation at national and supranational level on industrial practices, innovation potential and global competitiveness.

Impact: The work is expected to provide a comprehensive picture of the research and technology development capabilities, innovation challenges, demonstrate how the knowledge produced will enable stakeholders and policy makers to identify possible gaps in the research, technology development and innovation

Call budget for topic: 1,5 mln €

EC contribution requested (EC suggestion): 0.5-1.5 mln € per proposal

Type of action: CSA

Deadline: 26th Jan. 2016

MG-8.3-2016: Assessing future requirements for skills and jobs across transport modes and systems

Challenge: The specific challenge of this topic will be to identify and assess future requirements for skills and training tools/methods across transport modes and systems, in order to improve the potential of the workforce and improve the gender balance in the field of transport.

Scope: Proposals should address all the following aspects:

- Explore the impact of the deployment of new technologies on employment profiles
- Identify existing innovative training and learning methods and tools with a view to address the needs of the workforce in transport modes
- Identify critical issues to be addressed and subjects to be taught in order to meet the future needs of transport across all skills levels
- Define the competences of trainers and design new profiles of teams

Issues of gender and age are important and should be appropriately considered

Impact: In the mid-term, work under this topic is expected to contribute to a better qualified labour force in the various transport sectors, in the longer term is expected to contribute to improved transport services as well as the employment prospects and gender balance of the sector.

Call budget for topic: 3 mln €

EC contribution requested (EC suggestion): 2-3 mln € per proposal

Type of action: RIA

Deadline: 26th Jan. 2016

MG-8.6-2016: Innovation awards for students and researchers in the context of the Transport Research Arena conference - TRA 2018

Challenge: To promote the interest of students and researchers on research and innovation in the transport sector, by rewarding the best innovative ideas and research achievements in this field.

Scope: The action should focus on organising two competitions for transport research and innovation awards to be assigned at the TRA conference in 2018

- A competition for students and young researchers with the goal of stimulating the interest among young researchers/students in the field of transport
- A competition for senior researchers in the field of innovative transport concepts based on results from EU-funded projects only

The action should give particular attention to gender issues

Impact: This action is expected to increase the attractiveness of transport related studies and reinforce the pursuit of excellence in European transport research and innovation

Call budget for topic: 0,6 mln €

EC contribution requested (EC suggestion): 0.4-0.6 mln € per proposal

Type of action: CSA

Deadline: 26th Jan 2016



Call

AUTOMATED ROAD TRANSPORT

Call „Automated Road Transport”

- ART-02-2016. Automation pilots for passenger cars
- ART-04-2016. Safety and end-user acceptance aspects of road automation in the transition period
- ART-05-2016. Road infrastructure to support the transition to automation and the coexistence of conventional and automated vehicles on the same network
- ART-06-2016. Coordination of activities in support of road automation

- ART-01-2017. ICT infrastructure to enable the transition towards road transport automation
- ART-03-2017. Multi-Brand platooning in real traffic conditions
- ART-07-2017. Full-scale demonstration of urban road transport automation

Challenge: It is expected that automated vehicles at automation level 3 (Conditional Automation) will enter the market by 2020 to 2025.

Scope: The action will integrate and test enabling technologies for automation level 3 (Conditional Automation) and evaluate the benefits in Field Operational Tests (FOTs) for passenger cars

- Demonstrate the robustness and reliability of technologies, systems and functions
- Evaluate effects of automated driving systems (e.g. on traffic flow, communication, etc.)
- Analyse user acceptance and behaviour
- common catalogue on necessary characteristics of cooperative decision, planning and control algorithms

Impact: Actions are expected to demonstrate the technological readiness, reliability and safety, - User acceptance and the interaction between the driver, the vehicles

- Uptake of new automated transport business models
- Benefits resulting from the interaction between automated driving technologies and V2X communication (connected driving).

Call budget for topics: ART-02 i ART-04, 48 mln €

EC contribution requested (EC suggestion): 18-36 mln € per proposal

Type of action: IA

Deadline: (20th Jan 2016 - 1st stage) / (29th Sept. 2016-2nd stage)

ART-04-2016. Safety and end-user acceptance aspects of road automation in the transition period

Challenge: A key challenge is to ensure safe vehicles handling with reduced driver attention. Moreover, the automated driving systems should be resilient to both system and driver failures and guarantee sufficient reliability and robustness in each and every situation in real world traffic

Scope: activities should address one or several of the following domains

- Analyse user requirements, expectations and concerns
- Design safe human-machine interface and driver monitoring strategies to maximise the intuitiveness and situation awareness
- Safety of automated driving in mixed traffic situations

international cooperation is encouraged (US)

Impact: Actions are expected to develop safe automated driving systems

- Reducing the number of accidents caused by human errors
- Proper validation procedures for automated driving systems to assess and test functional safety and performance.
- Integrating user requirements, expectations and concerns related to the use of automated driving systems.

Call budget for topics: ART.-02, ART.-04; 48 mln €

EC contribution requested (EC suggestion): 3-6 mln € per proposal

Type of action: RIA

Deadline: (20th Jan 2016 - 1st stage) / (29th Sept. 2016 - 2nd stage)

ART-05-2016. Road infrastructure to support the transition to automation and the coexistence of conventional and automated vehicles on the same network

Challenge: step-wise introduction of automated vehicles in traffic will face a transition period where the coexistence of conventional and highly automated vehicles will have to be managed in order to ensure an uninterrupted level of safety and efficiency

Scope: Proposals should address several of the following aspects

- New methods of traffic flow modelling
- Design, upgrading and adaptation of “hybrid” infrastructure
- Required forms of visual and electronic signalling and optical guidance
- Best ways to enlarge the electronic road horizon for automated vehicle
- New safety performance criteria for road infrastructure

international cooperation is encouraged (US)

Impact: Actions are expected to demonstrate how innovative modelling, design and engineering of road infrastructure will facilitate the step-wise introduction of automated driving systems

Call budget for topic: 13 €

EC contribution requested (EC suggestion): 2-5 mln € per proposal

Type of action: RIA

Deadline: (20th Jan 2016 - 1st stage) / (29th Sept. 2016 - 2nd stage)

ART-06-2016.
automation

Coordination of activities in support of road

Challenge:

More coordinated approach of Automated Vehicles testing

More efficient sharing of data and experiences of different FOTs

Scope:Proposals should address one or two of the following areas

Area 1: Monitor the status of progress, coordinate and create a knowledge base, Identify and gather a knowledge base on different automated driving scenarios, Create a forum for National and European stakeholders of road automation, Cooperation with US and Japan

Area 2: Establish a platform of data exchange, A strategy for sharing and exploiting collected data in National, European and international FOTs should be developed

Impact:

Provide comprehensive picture of the state of the art in terms of R&D in automated road transport

Better visibility, comparability and transferability of available results and data from FOTs

Foster better cooperation between researchers and other stakeholders in Europe and beyond

Call budget for topic: 3 mln €

EC contribution requested (EC suggestion): 0.5-3 mln € per proposal

Type of action: CSA

Deadline: 26th Jan 2016



Green Vehicles 2016

Call „Green Vehicle Initiative”

GV-02-2016.	Technologies for low emission light duty powertrains
GV-03-2016.	System and cost optimised hybridisation of road vehicles
GV-11-2016.	Stimulating European research and development for the implementation of future road transport technologies
GV-12-2016.	ERA-NET Co-fund on electromobility
GV-01-2017.	Optimisation of heavy duty vehicles for alternative fuels use
GV-04-2017.	Next generation electric drivetrains for fully electric vehicles, focusing on high efficiency and low cost
GV-05-2017.	Electric vehicle user-centric design for optimised energy efficiency
GV-06-2017.	Physical integration of hybrid and electric vehicle batteries at pack level aiming at increased energy density and efficiency
GV-07-2017.	Multi-level modelling and testing of electric vehicles and their components
GV-08-2017.	Electrified urban commercial vehicles integration with fast charging infrastructure
GV-09-2017.	Aerodynamic and flexible trucks
GV-10-2017.	Demonstration (pilots) for integration of electrified L-category vehicles in the urban transport system

Challenge:

Increasingly stringent emission standards, but real driving emissions not sufficiently reduced

Scope: Proposals should address one of the following domains

- New generation of non-hybrid engines based on existing engine technologies
- Future combustion engines for electrified powertrains
- Development of the related measurement procedures down to 10nm, providing a contribution to future regulation on particle emissions, in particular in real driving conditions

Cooperation with US and Japan

Impact:

- For ICE reduction CO₂ emissions respectively of 5% for diesel and 15% for gasoline
- For electrified power-trains 50 g/km CO₂
- For particle measurements, support the understanding, measurement and regulation of particle emissions below 23 nm

Call budget for topics: GV-02 i GV-03 65 mln: €

EC contribution requested (EC suggestion): 5-10 mln € per proposal

Type of action: RIA

Deadline: 26th Jan 2016

GV-03-2016.
vehicles

System and cost optimised hybridisation of road

Challenge:

Reducing cost and complexity of pure hybrid, plug-in hybrid and range extended electric vehicles

Scope: Proposals should address all the following aspects in light-duty and/or heavy-duty vehicles

- For range extended electric vehicles, development of novel high efficiency and high power density energy generators and close integration with electric systems
- For pure and plug-in hybrids, power-train system integration and optimisation through the re-use of waste heat, advanced control

For all applications, identify potential for cost reduction by technical simplification of engine and/or transmission systems and lower cost energy storage

Impact: Reduction of cost at system level to a 5% (for non-hybrid), 15% for 30 km range plug-in solutions, Contribution to climate action, Reduction of combustion engine raw emissions

Call budget for topics: GV-02 i GV-03 65 mln: €

EC contribution requested (EC suggestion): 7-10 mln € per proposal

Type of action: IA

Deadline: 26th Jan. 2016

GV-11-2016. Stimulating European research and development for the implementation of future road transport technologies

Challenge: this topic is to define and promote research priorities for sustainable road transport in Europe. It calls for a Coordination and Support Action to assist ERTRAC, the European Technology Platform for road transport, the European Green Vehicle Initiative PPP, the European Commission and Member States in defining the research needs for their strategies and programmes

Scope:

- Updating of research agendas and roadmaps as developed by ERTRAC and EGVI.
- Monitoring of road transport research projects and their impacts from relevant European programmes (Horizon2020, ENT, JU)
- Definition of multi-annual and more precise annual implementation plans
- Identification of barriers for the deployment of research results
- Fostering of the links between ERTRAC and the national technology platforms
- Organisation of dissemination activities for ERTRAC and EGVI
- Facilitating exchange between cities in Europa, Asia and Latin America

Impact: It will contribute to a further harmonisation of research and innovation, accelerate time to market of new mobility solutions, contribute to climate action and sustainable development objectives

Call budget for topic: 3.5 mln €

EC contribution requested (EC suggestion): 2-3.5mln € per proposal

Type of action: CSA

Deadline: 26 Jan 2016

Challenge: The sound deployment of electric mobility in European cities and the realisation of a certain degree of alignment require the involvement of stakeholders at national, regional and even local authority level, who are in charge of the legislative and regulatory framework

Scope: Proposals will aim at the innovation and deployment needs for 2020 and the years after

- demonstrating and validating solutions that have already reached sufficient maturity for deployment
- Appropriate user and general public acceptance, regulatory, market up-take, social, environmental and resource efficiency aspects should be included
- all modes of surface transport are relevant , Urban freight and logistics is in scope, car sharing with EVs

Impact: Acceleration of the time to market , Reduction of the environmental footprint, Contribution to climate action and sustainable development objectives

Call budget for topic: 30 mln €

EC contribution requested (EC suggestion): 10 mln € per proposal

Type of action: ERA-NET- Cofund

Deadline: 26th Jan. 2016

”Other activities”

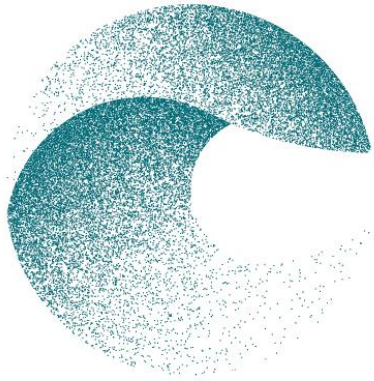
- Two inducement **prizes** for “**the cleanest engine**”
 - **Challenge:** Helping the development of technologies to reduce emissions of pollutants in real driving conditions
 - **Scope**
 - 1) the existing fleet (retrofittable technology) - **EUR 1,5 mio**
 - 2) future vehicles – **EUR 3,5 mio**
 - **Target audience:** individuals, SMEs, research centres, universities, suppliers of components, car manufacturers
 - **Timing:** specific rules published early in 2016 (opening); deadlines: 2nd quarter 2017 for 1) and 4th quarter 2019 for 2)

”Other activities”

- ❑ Schemes to promote **close-to-market innovation**
- **SME Instrument:** Same approach as in 2014-2015
 - **Open in scope and fully bottom-up:** all technologies and innovative solutions for transport and mobility
 - **Open call:** several cut-off dates per year
 - **Transport dedicated budget:** EUR 118.8 mio (57.5 mio 2016)
- **Fast Track to Innovation:** Pilot action
 - Open in scope: **all areas** covered by all H2020 programmes
 - Open call: **3 cut-off dates in 2016** (15/03; 01/06; 25/10)
 - 2016 Budget: **EUR 100 mio** (no Transport dedicated budget)
 - See **Part 18** of the H2020 WP

”Other activities”

- Relevant topics in **other parts of the H2020 WP:**
NMPB, ICT, SPACE and in the SCs (Energy, Security, Climate, Smart cities)
- **Call Blue Growth** - *Demonstrating an ocean of opportunities*: see SC2 'Food' WP
 - Topic on *Specialised vessels for coastal activities (2016) and for offshore activities (2017)* – EUR 15 mio – IAs;
 - ERANET on *Marine technologies*



BLACK SEA HORIZON



Bi-regional STI Dialogue

Thank you for your attention!

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