Republika Slovenija



Ministrstvo za infrastrukturo in prostor – Služba za mednarodne zadeve

OBZORJE 2020 »Smart, Green and IntegratedTransport«

dr. Fedor Černe, sekretar NKT za področje prometa



Nekaj uvodnih misli

- Kdor je začel danes je prepozen
- Kaj je mogoče povedati in česa ne?
- Česa NKT zanesljivo ne ve?
- Kje je lahko NKT koristen?
- Vsebina predstavitve
 - Kje so na voljo informacije
 - Glavne značilnosti H2020
 - Kje vse je še mogoče iskati priložnosti?
 - Kako brati razpise

Promet v EU

- > 1.9 mio. direktnih zaposlitev
- > 10 mio. indirektnih zaposlitev
- > 3% EU GDP





New Horizon 2020 web site

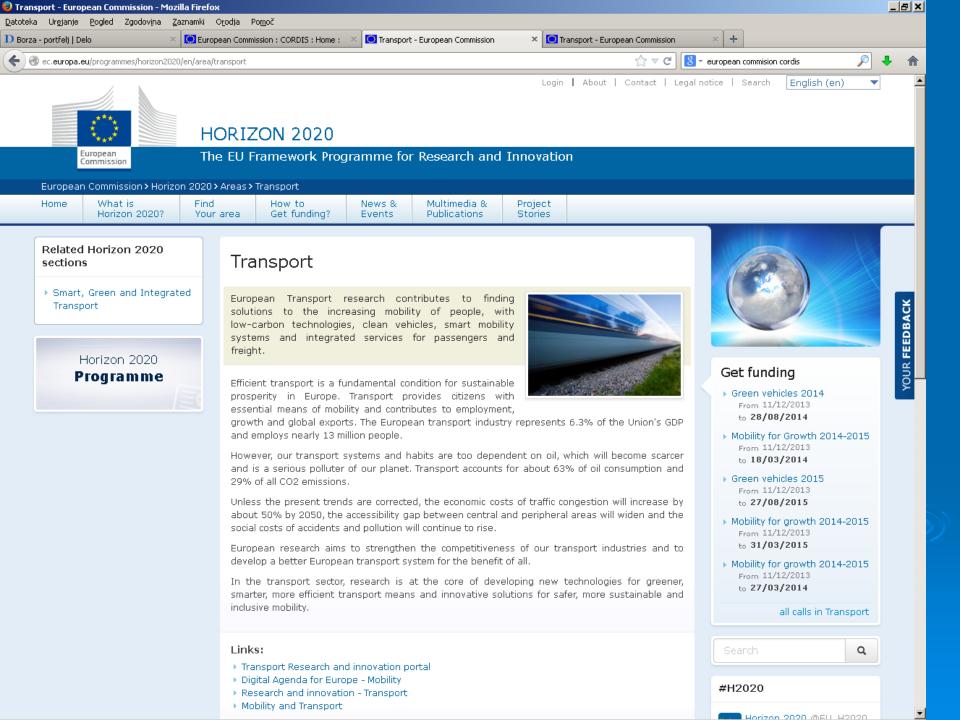
https://ec.europa.eu/programmes/horizon2020

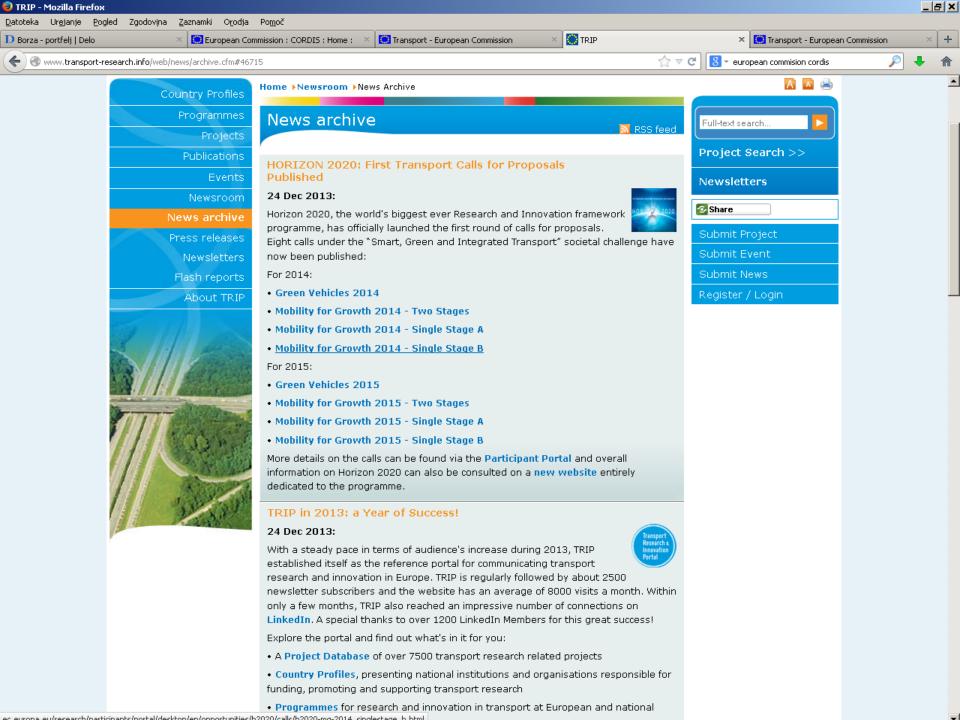


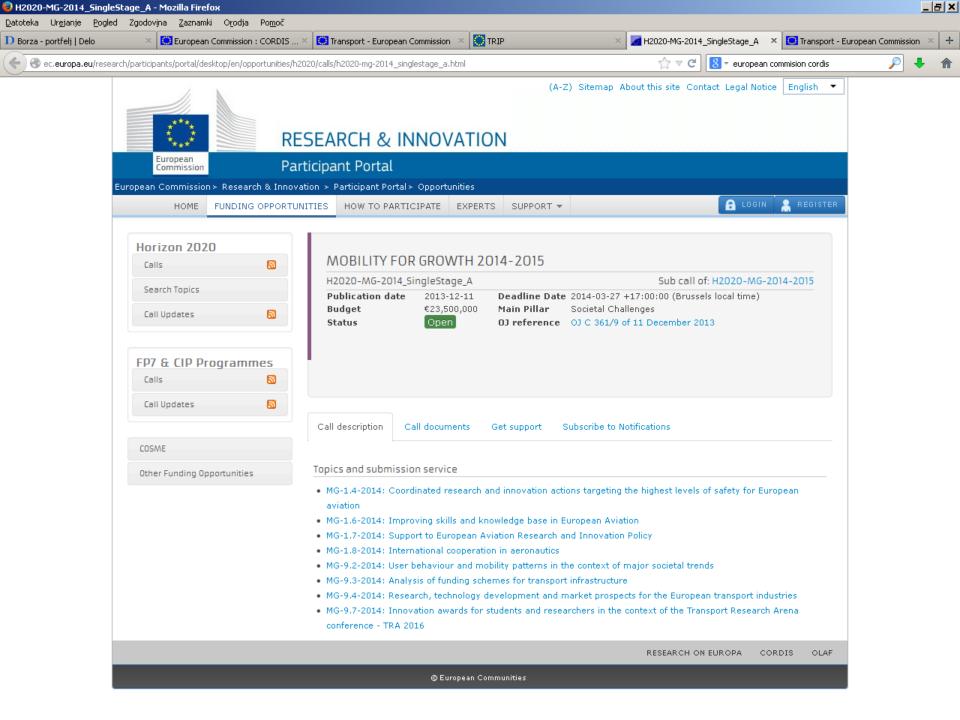
Horizon 2020 **Programme**

Find your area

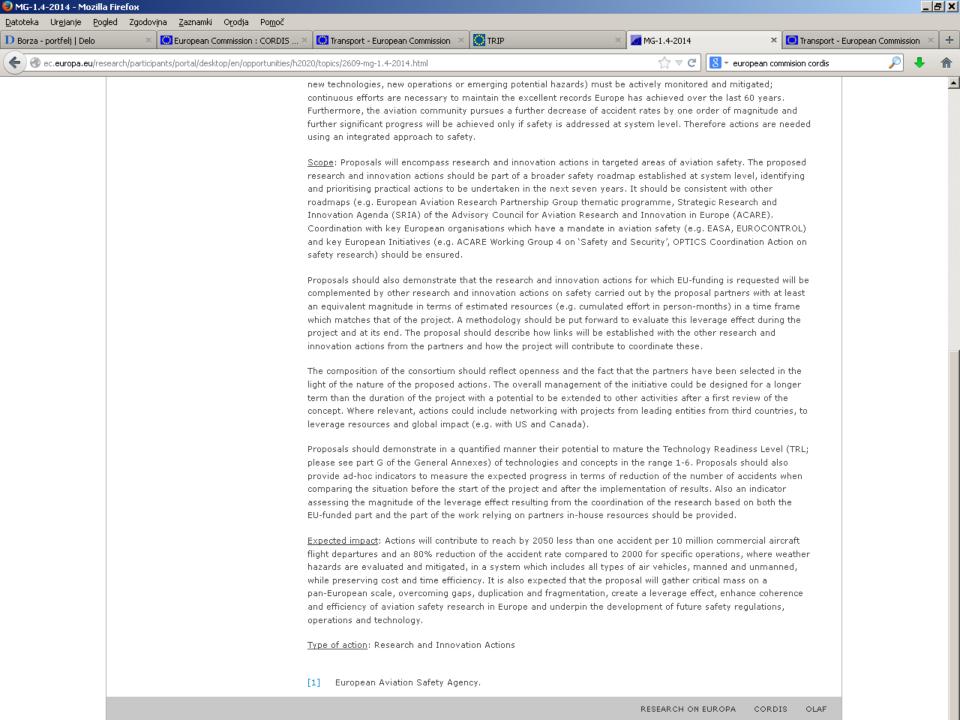
- Agriculture & Forestry
- ▶ Aquatic Resources
- ▶ Bio-based Industries
- ▶ Biotechnology
- ▶ Energy
- ▶ Environment & Climate Action
- ▶ Food & Healthy Diet
- ▶ Funding Researchers
- ▶ Health
- ▶ ICT Research & Innovation
- ▶ Industrial Technologies
- ▶ Innovation
- ▶ Partnerships with Industry and Member States
- ▶ Raw Materials
- ▶ Research Infrastructures
- Security
- ▶ SMEs
- Social Sciences & Humanities
- Society
- ▶ Transport













Transport challenge budget

>6339 M € for 7 years 2014-2020

>50/50 JTIs/collaborative calls

- Clean Sky
- SESAR
- Fuel Cells & Hydrogen (contribution)
- [Shift2Rail]



>867 M € for WP 2014-15



WP 2014-15 Transport calls

Calls (publication 11 December 2014)	Budget (€ Mio) 2014	Budget (€ Mio) 2015
Call 'Mobility for Growth'	374,5 (+2)	184 (+10)
1. Aviation	70 (+2)	36
2. Rail	52	-
3. Road	66	23 (+5)
4. Waterborne	56	18
5. Urban	40	66,5
6. Logistics	32	18
7. ITS	31	-
8. Infrastructure	19	17,5
9. Socio-economic and behavioural research	8,5	5 (+5)
Call 'Green Vehicles'	129	30
Call Small business and Fast Track	35,87	38,69
Contribution to Smart Cities, Blue Growth	33.5	25.5



Work Programme: new features

- challenge-based approach: broad latitude for applicants to devise innovative solutions
- > broader topics, less prescription, focus on impact
- biennial WP, annual calls (in most cases)
- 1 topic = various projects (in most cases)
- no 'ringfencing' of topic budget/ranking (in most cases)
- > simplified types of actions/funding rates (research and innovation actions: 100%; innovation actions: 70%/100%;...)
- 2-stage evaluation for most topics
- > keywords and tags for easy access to information



Call 'Mobility for Growth'

SURFACE TRANSPORT

Areas addressing mode specific challenges:

- Rail, Road, Waterborne
- Call "Green Vehicles" H2020-GV-2014/2015

Areas addressing transport integration specific challenges challenges:

Urban, Logistics, Intelligent Transport Systems, Infrastructure

Areas addressing cross-cutting issues:

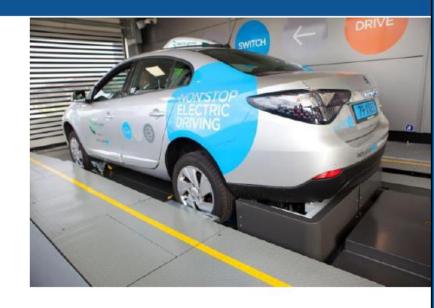
 Socio-economic and behavioural research and forward looking activities for policy making



Call 'Green Vehicles'

EGVI PPP:
'EUROPEAN
GREEN VEHICLES
INITIATIVE'

159 M €



The call on Green Vehicles is an essential component of road transport R&I, it supports:

- Improvement of energy efficiency of road transport vehicles
- Use of new types of non-conventional energies in road transport, such as electricity, CNG and LNG, bio-based fuels

Demonstration is essential to ensure timely deployment of the new technologies



Call 'Green Vehicles'

TOPICS:

They are all single stage



- Next generation of competitive Li-ion batteries to meet customer expectations GV1 2014
- Optimised and systematic energy management in electric vehicles GV2 2014
- Future natural gas powertrains and components for cars and vans GV3 2014
- Hybrid light and heavy duty vehicles GV4 2014
- Electric two-wheelers and new new light vehicle concepts GV5 2014
- Powertrain control for heavy-duty vehicles with optimised emissions GV6 2015
- Future natural gas powertrains and components for heavy duty vehicles GV7 2014
- Electric vehicles' enhanced performance and integration into the transport system and the grid - GV8 - 2015

in red: topics open in 2014



GV.1-2014. Next generation of competitive lithium ion batteries to meet customer expectations

Single stage: deadline 28/08/2014

SPECIFIC CHALLENGE:

Made in Europe Li ion batteries that are competitive and deliver better performance electrified vehicles (complementary to topic pursuing longer terms solutions in the Advanced Materials 2014 Work Programme)

SCOPE (1 or more issues):

Optimisation of cost, safety, resistance to high-power charging, durability, recyclability, hybridisation with other types of storage, scale-up Better knowledge on the ageing mechanism and its modelling to support test procedures and the development of standards (open for international cooperation)

EXPECTED IMPACT:

Facilitate the launch of production in Europe by demonstrating industrial scale prototypes showing cell-level energy densities at least 20%, and costs by 20% better than the best cell chemistries on the market

TYPE OF ACTION: Research and Innovation Actions



Horizon 2020: Smart, green and integrated transport

Topics of interest for the transport sector in other challenges of the 2014-15 work programme

Programme Committee Meeting 11 November 2013





The items listed after are topics or areas from the 17 work programmes (2014-2015) that either mention transport as a field of research or are relevant for transport applications.

Transport theme mentioned in thematic work programmes (1):

<u>Health</u>

Topic Understanding common mechanisms of diseases and their relevance in co-morbidities. Transport sector mentioned as an area to investigate.

<u>Food</u>

Call for Blue Growth: Unlocking the potential of Seas and Oceans.

Transport challenges present in the 3 following topics:

- >Innovative offshore economy,
- > Sub-sea technologies,
- > Response capacities to oil spills and maritime pollutions.

Transport theme mentioned in thematic work programmes (2):

<u>Energy</u>

Transport challenge is widely spread through the WP and mostly under the following entries:

- □Sustainable biofuels and alternative fuels for the European transport sector
- > Call for smart cities and communities: Smart Cities and Communities solutions integrating energy, transport, ICT sectors through lighthouse
- ► Energy storage
- >Bioenergy: engine tests with new types of biofuels

Climate action

Transport issues are found mostly under 2 entries:

- > Improving the air quality and reducing the carbon footprint of European cities
- >Ensuring the sustainable supply of non-energy and non-agricultural raw materials (transport as a component of the production chain).

<u>Transport theme mentioned in transversal work</u> programmes (1):

European research infrastructures (including e-Infrastructures)

Call 2 - Integrating and opening research infrastructures of pan-European interest mentions "Smart, green and integrated transport" research infrastructures.

<u>Leadership in enabling and industrial technologies</u>

- Information and Communication Technologies: Smart Cyber Systems and internet of things for transport applications
- Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing. Several entries for transport application of new materials. Detailed under the impact section as a field of possible deployment.
 - Materials for severe operating conditions, including added-value functionalities. Transport mentioned as field of application
 - Fibre-based materials for non-clothing applications. Transport as field of deployment.
- > Battery work in NMP work programme, topic 17: Post-lithium ion batteries for electric automotive applications.

<u>Transport mentioned in transversal work programmes (2):</u>

Access to Risk Finance

Transport is not mentioned but the transport related companies represent roughly 15% of RSFF funding under the FP7 period. This trend could be continued.

Innovation in small and medium-sized enterprises

Transport is a potential field of applications.

<u>Security</u>

Numerous references to transport issues through the WP.

- >Crisis management: Demonstration activity on large scale disasters' governance and resilience of EU external assets against major identified threats or causes of crisis
- > Crisis management: Crises and disaster resilience operationalizing resilience concepts
- > Critical Infrastructure Protection: Demonstration activity on tools for adapting building and infrastructure standards and design methodologies in vulnerable locations in the case of natural catastrophes
- Supply Chain Security: Technologies for inspections of large volume freight.



TRA 2014: 14-17 April 2014, Paris

- > TRA, European Conference on Transport Research, is an event that intends to be both:
 - A scientific conference with a full review process.
 - A networking event for the whole innovation chain: researchers, academia, practitioners, industries, users...



- Location: CNIT, Paris- La Défense, April 14-17, 2014
- Hosted by the French Ministry of Ecology, Sustainable Development, and Energy (MEDDE) - Organisation delegated to IFSTTAR



- Theme and slogan: "Transport Solutions: From Research to Deployment", "Innovate Mobility, Mobilise Innovation".
- About 3,000 participants are expected, 1800 m2 of exhibition space.
- Web site: http://www.traconference.eu

HVALA ZA VAŠO POZORNOST