

The EU Strategy for the Danube Region
Priority Area 1b: To improve mobility and Multimodality – road, rail and air links

Item 8:

Transport & Research in the Danube Region

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20th PA1b SG Meeting

2 June 2020 | Virtual (online tool Zoom):

Ljubljana (SI), Vienna (AT), Sarajevo (B&H), Sofia (BG), Zagreb (CRO),
Prague (CZ), Munich and Stuttgart (DE), Budapest (HU), Podgorica (ME),
Chişinău (MD), Bucharest (RO), Bratislava (SK), Kiev UA, Belgrade (SRB)
& Brussels (BE)

PA1b: Transport & Research

- Since start of the work in 2011 **PA1b** pays great attention to the **Transport & Research**
- Five (5) conferences “**Transport & Research in the Danube Region**“ were organised so far:
 - **1st:** „*Search for Synergies between EU Transport, Research And Regional Policies*“; 2 – 3 April 2014, Ljubljana
 - **2nd:** *H2020 »Smart, Green and Integrated Transport«*, 20 - 21 October 2015, Čatež ob Savi
 - **3rd:** „*New technologies in railways, The Future of Mobility, Potentials of air mobility in the region*“, 9 November 2016, Novo mesto
 - **4th:** “*Let the Future In*“, 6 - 7 November 2017, Ljubljana
 - **5th:** “*Batteries between Today and Tomorrow*“, 13 - 14 November 2018, Ljubljana
 - *(6th: Although planned in 2019, the Annual conference „T&R“ was not organised! Postponed!)*
- All were organised as **Info day** and the **Brokerage event** as well as aiming at **specific topics**. The floor was open for proposals, ideas and other suggestions concerning the transport research in the Danube region for the present and next EU framework programmes. The discussions were important part of conferences.
- ❖ *Their predecessor were three conferences „Transport & Research in the WB countries“ (1st in 2011). All were held in Slovenia, organised and financed by the Slovenian budget.*

Horizon Europe - Investing to shape our future

*Proposal for a DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on establishing the specific programme implementing **Horizon Europe – the Framework Programme for Research and Innovation (COM/2018/436 final - 2018/0225 (COD))***

*The Commission's **proposal** for **Horizon Europe** (adopted by the EC on 7 June 2018) is an ambitious **€100 billion** research and innovation programme (2021 – 2027) to succeed Horizon 2020.*

The proposal was made as part of the EU's proposal for the next EU long-term budget (2021-2027), the multiannual financial framework (MFF).

*The EU institutions have reached **a partial political agreement on key elements** (on March and April 2019), subject to formal approval by the European Parliament and Council, on Horizon Europe.*

*Horizon Europe will be structured in **three Pillars**, supported by activities aimed at widening participation and strengthening the European Research Area.*

*The proposal presents **two novel instruments and approaches** for maximising the targeted impacts: the missions () and Partnerships in Horizon Europe. The targeted impacts are presented in further detail in six annexes, corresponding to each Horizon Europe Cluster.*

The ambitious EU research and innovation framework programme aims:

- *to strengthen the EU's scientific and technological bases and the European Research Area (ERA)*
- *to boost Europe's innovation capacity, competitiveness and jobs*
- *to deliver on citizens' priorities and sustain our socio-economic model and values.*

Horizon Europe - Investing to shape our future

Horizon Europe supports EU policy priorities in line with Political Guidelines for the European Commission 2019 – 2024:

The six priorities of the Commission are:

- 1) **A European Green Deal,**
- 2) **A Europe fit for the Digital Age,**
- 3) An economy that works for people,
- 4) Promoting our European way of life,
- 5) A stronger Europe in the world,
- 6) A new push for European democracy.

At least **35 % of funding** of the Horizon Europe Programme will be targeted climate objectives. In order that Europe can take the lead on the transition to **sustainability**.

Horizon Europe & UN Sustainable Development Goals (SDGs)

*Investing in research and innovation through Horizon Europe will help address the global challenges described in the proposal as well as the **United Nations Sustainable Development Goals (SDGs)**. **Transport reflected in SDG 9 – Industry, Innovation and Infrastructure.***



Note: To address SDG 9, PA1b & UN ECE ITC organised joint WS on resilient infrastructure (Nov. 2017, Ljubljana).

Horizon Europe - Investing to shape our future

Initiatives under the Horizon Europe in the field of transport

Horizon Europe - Cluster 5:

Climate, Energy and Mobility:

- aims to **fight** **adapt to** **climate change** while improving the competitiveness of the energy and **transport industries as well as the quality of the services** that these sectors bring to society.
- establishing **a better understanding of the causes, evolution, risks, impacts and opportunities** of climate change, as well as making energy and **mobility systems** climate- and environment-friendly, smarter, safer, and more resilient, inclusive, competitive and efficient.
- Actions of this Cluster will contribute to **the technological, economic and societal transformations** required to achieve climate neutrality, **adapt to the locked-in changes that are coming to our climate, and to ensure a socially fair transition**, as outlined in the Commission's long-term strategy (adopted in November 2018).

Horizon Europe - Initiatives under the Horizon Europe in the field of transport – PRIORITIES

(1) Develop low-carbon and competitive transport solutions across all modes

(1.1) Achieve zero-emission road transport

✓ **Targeted impact:**

- The transformation of road transport to zero-emission mobility through a world-class European research and innovation and industrial system,
- ensuring that Europe remains world leader in innovation, production and services in relation to road transport.

✓ **Potential research challenges and topics:**

- This priority will address both
- 1) **clean road vehicles technologies** (lightweight materials, drive trains, brakes, tyres, emissions after-treatment systems, power electronics, vehicle management systems and advanced and digital manufacturing technologies) and their infrastructure, including their interfaces, and
- 2) technologies of a more systemic nature, which will address the integration of clean vehicles and new affordable system services into the transport system. All types of road transport vehicles are included (e.g. two-wheeler, passenger cars, vans, trucks and buses), as well as system integration with infrastructures and services.

Horizon Europe - Investing to shape our future

(1) Develop low-carbon and competitive transport solutions across all modes (1.2) Enhance the competitiveness of rail as a low-carbon mode of transport

✓ Targeted impact:

- Achieve the Single European Railway Area as the backbone of an integrated and sustainable mobility in Europe and towards a globally competitive transport system, generating growth and jobs in Europe.
- Strengthen the EU leadership role in producing innovative rail transport solutions, and their integration into digital service chains, leveraging EU satellite navigation / positioning technologies.

Horizon Europe - Investing to shape our future

(1) Develop low-carbon and competitive transport solutions across all modes

(1.3) Make aviation cleaner and more competitive

- ✓ Targeted impact: To pave the way towards a transformative clean aviation. To strengthen European aero-industry collaboration and maintain a global leadership position. To develop innovative, cutting edge research and innovation projects accelerating the reduction of all aviation impacts and emissions (CO₂ and non-CO₂, including manufacturing and end-of-life, noise). To develop enabling and integrated aircraft technologies for deep decarbonisation transformation, as well as enable and promote the use of sustainable aviation fuels.
- The research and innovation activities will be based on a transformative decarbonisation roadmap that encompasses impactful solutions for different platforms at appropriate time frames in line with the transition to a climate neutral economy by 2050. It is envisaged that new technologies will provide for a substantial fuel efficiency improvement for next generation aircraft technology, a substantial decrease in aviation non-CO₂ emissions and major progress towards cost-competitive sustainable alternative fuels¹²⁸.

Horizon Europe - Investing to shape our future

(1) Develop low-carbon and competitive transport solutions across all modes

(1.4) Enable low-carbon, smart, clean and competitive waterborne transport

- ✓ **Targeted impact:** Accelerate the development and prepare the deployment of low-carbon and clean solution in the shipping sector, improve its system efficiency, enhancing digital and EU satellite-navigation solutions and contribute to the competitiveness of the European waterborne sector. Reduce environmental impact (on biodiversity, noise, pollution and waste management).

(1.5) Reduce the impact of transport on the environment and human health

- ✓ **Targeted impact:** Improved scientific knowledge on the impacts of existing and new transport emissions, while at the same time devising ways of reducing emissions and their impacts, by technological or regulatory means, both at the source and once these emissions are in the environment.

Horizon Europe - Investing to shape our future

(2) Develop seamless, smart, safe, accessible and inclusive mobility systems

(2.1) Make automated and connected road transport safe and competitive

- **Targeted impact:** The objective is to bring societal benefits, strengthen the competitiveness of European industry and to manage properly the long transition phase towards a highly connected and automated transport system in a safe and secure way, favouring social inclusion, low emissions and overall efficiency (allowing for personal mobility while reducing overall environmental impact).

(2.2) Develop efficient and innovative transport infrastructure

- **Targeted impact:** Develop and validate new solutions to increase efficiency, inter-modality, resistance, safety and security of the transport system, for passengers and freight. At the same time, reduce greenhouse gas emissions from transport operations and improve the environmental performance of transport maintenance and modernisation works, over the entire lifecycle of the infrastructure. The infrastructure will have to withstand more frequent severe weather events by adapting to the climate change.

Horizon Europe - Investing to shape our future

(2) Develop seamless, smart, safe, accessible and inclusive mobility systems

(2.3) Develop the future transport network and integrated traffic management

- Targeted impact: Develop and prepare for deployment of an advanced multi-modal network and integrated traffic management system, in order to enable seamless door-to-door mobility, increase safety, reduce congestion and transport related emissions.

(2.4) Enable multimodal freight logistics and passenger mobility services

- Targeted impact: Ensure European competitiveness in logistics and mobility services, while decreasing climate and environmental impact in line with the Paris Agreement. Develop and validate new, low-carbon approaches for the freight transport system and logistics operations over the entire lifecycle. Develop and validate people-centred, smart public transport and sustainable mobility services in all modes in rural and urban areas.

Horizon Europe - Investing to shape our future

(2) Develop seamless, smart, safe, accessible and inclusive mobility systems

(2.5) Increase transport safety – per mode and across modes

- **Targeted impact:** Contribute to drastically reduce accidents and incidents, fatalities, injuries and environmental damage and ensure that the EU is a world leader in safety in all modes of transport by furthering knowledge and awareness, and by developing technologies, products, services, and solutions that reconcile safety with efficiency and user-friendliness.

Discussion, conclusion

**Transport & Research,
EUSDR & PA1b Role: Is there any?**

If yes, HOW TO CONTINUE?

Thank you very much!

Please visit:
www.transport.danube-region.eu



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