

【欧州】 【Common】

Common - Environmental issues: The European Commission's "EU missions" to tackle climate challenges and the possible inclusion of transport related tasks

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【概要 : Summary】

The European Commission considers ways forward for the next decade to confront the main challenges of the climate change and the COVID-19 pandemic with adequate measures and policies. On 29 September 2021, the European Commission launched so-called "EU missions" as a new, ambitious, and innovative tool to work together within Horizon Europe research and innovation programme to tackle the challenges related to the climate change and the COVID-19 pandemic.

The missions are considered being a new and innovative way to tackle big challenges also regarding climate change and the environment as a means for better achieving ambitious goals in several areas. The EU missions include a set of actions, such as research and innovation projects, policy measures and legislative initiatives, to also achieving the goal of the European Green Deal target of net-zero GHG emissions by 2050. Out of the five selected EU missions, at least three missions will have some connection and relations to the transport sector. The EU mission on the adaptation to Climate Change is intended to support at least 150 European regions and communities to become climate resilient by 2030. Another EU mission will be important for achieving the establishment of 100 Climate-Neutral and Smart Cities by 2030. These climate-

neutral cities are a key to reduce the cities' generally high share in producing CO2 emissions. The transport sector has a major part in this production of CO2 emissions in cities, besides housing and heating, among others. The climate neutral cities are expected to help achieving the EU's climate neutrality by 2050.

【記事 : Article】

1. The EU missions: Background and objectives
The climate and health crises, represented by the climate change and the COVID-19 pandemic pose great challenges at global level and in the EU. To confront both crises urgently with adequate measures as well as clear and ambitious policy goals, the EU and its 27 Member States must join forces and find new and innovative ways to change the society and economy.

Based on the Horizon Europe programme, the EU missions' implementation is expected to go far beyond research and innovation to develop new solutions (European Commission 2021a). In 2019, five mission Boards were formed to help specify, design, and start the implementation of missions for Horizon Europe. Their mandate ends at the end of 2021.

In summer 2020, the European Commission together with partners held 10 citizen engagement events to collect proposals from the public for the five

EU missions. 2 sessions per mission were organised in 10 different European countries and citizens could upload their ideas on a digital platform (European Commission 2021c).

On 29 September 2021, the European Commission launched five EU missions, which are expected to be a new, ambitious, and innovative tool and a new way to work together within Horizon Europe research and innovation programme (European Commission 2021e). The EU missions are a novelty of the Horizon Europe research and innovation programme for the years 2021–2027.

According to the European Commission's presentation, the five EU missions will aim to deliver solutions to key global challenges by 2030 (European Commission 2021a). They are considered being an innovative way to tackle health, climate, and the environment challenges in the EU. They include a set of actions, such as research and innovation projects, policy measures and legislative initiatives, to achieve concrete goals. Among others, they are expected to support Commission priorities of the European Green Deal. Regarding the funding of the EU missions, Horizon Europe provides initial funding to missions of up to €1.9 billion until 2023 (European Commission 2021a). Concerning the research and innovation component of the missions, the Horizon Europe legislation stipulates that during the first 3 years of the programme, a maximum of 10% of the annual budget of Pillar II (Global Challenges and European Industrial Competitiveness) shall be programmed through specific calls for implementing the missions (European Commission 2021e). Moreover, the missions are expected to draw in funding from various sources and levels including national and regional.

The missions will include several areas, firstly, the adaptation to Climate Change to support at least 150 European regions and communities to become climate resilient by 2030, secondly, to deliver solutions to Cancer by working with Europe's Beating Cancer Plan to improve the lives

of more than 3 million people by 2030 through prevention, cure and solutions to live longer and better, thirdly to find solutions to restore the Ocean and Waters by 2030, fourthly, to achieve the aim to have 100 Climate-Neutral and Smart Cities by 2030; and fifthly, to lead the transition towards healthy soils by 2030 by introducing a mission of A Soil Deal for Europe (European Commission 2021a).

The EU mission on the adaptation to Climate Change is intended to support at least 150 European regions and communities to become climate resilient by 2030. In particular, climate change manifestations have an impact especially on transport infrastructure and therefore transportation itself. It affects the transport sector in multiple ways, and most impacts relate to extreme weather and hydrologic events, like torrential rain, storms and flooding or heatwaves, which are expected to occur more frequently in future due to climate change. These climate change occurrences affect the transport sector's reliability and safety (Climate-ADAPT 2021).

The EU mission also includes the area to have 100 Climate-Neutral and Smart Cities by 2030. This will be important to achieve as cities with their high share in producing CO₂ emissions will be key to achieve climate neutrality by 2050. Within the cities, the transport sector has a major part in this production of CO₂ emissions in cities, besides housing and heating and others.

The EU missions are a coordinated effort by the European Commission to pool the necessary resources regarding funding programmes, policies, and regulations, as well as other activities to achieve the mentioned objectives. Starting from research and innovation, the missions bring together several Commission services and will support research to deliver on their main priorities. They will put research and innovation into a new role by combining it with new forms of governance and collaboration, as well as by engaging citizens. The missions also aim to

mobilise and activate public and private actors, such as EU Member States, regional and local authorities, research institutes, entrepreneurs, and investors to create a real and lasting impact. Their clear set goals are expected to be achieved by coordinating efforts across Europe to deliver on the main challenges by 2030. A critical element of the EU missions will be to engage with citizens to increase the acceptance of new solutions and approaches (European Commission 2021a).

According to the European Commission (2021a), the EU missions support Europe's transformation into a greener, healthier, more inclusive, and resilient continent and they are a coordinated effort by the Commission to pool the necessary resources in terms of funding programmes, policies, and regulations, among others.

2. The adaptation to Climate Change, the Climate adaptation strategy, and the Sustainable and smart mobility Strategy

The EU mission on the adaptation to Climate Change is already a concrete element of the Climate Adaptation Strategy, which was adopted on 24 February 2021 (European Commission 2021b). The Commission published its Communication on a new EU Strategy on Adaptation to Climate Change, building on the 2013 adaptation strategy and is one of the key actions identified in the European Green Deal (Council 2021). The Climate Adaptation Strategy sets out how the EU can adapt to the unavoidable impacts of climate change and become climate resilient by 2050. The strategy has principal objectives including smart, swift, and more systematic adaptation. It is also planned to step up international action on adaptation to climate change (European Commission 2021b).

Within the EU Strategy on Adaptation to Climate Change, adaptation action in transport will be implemented in an integrated manner with other European Green Deal initiatives such as Sustainable and Smart Mobility Strategy (Climate-ADAPT 2021). Regarding smarter adaptation,

actions must be based on robust data and risk assessment tools, which are available to all citizens, businesses, and farmers for their planning. Therefore, the strategy proposes actions that push the frontiers of knowledge on adaptation to gather more and better data on climate-related risks and losses, among others. (European Commission 2021b). Regarding the effects of climate change, adaptation solutions need to be developed and rolled out more quickly and comprehensively to help reduce climate-related risks and to increase climate protection, among others. Climate change will have impacts at all levels of society and across all sectors of the economy, so adaptation actions must also be systemic (European Commission 2021b). Considering the international action for climate resilience, the EU will increase support for international climate resilience and preparedness by global engagement and exchanges on adaptation, the provision of resources, prioritising action and increasing effectiveness (European Commission 2021b). On 10 June 2021, the Council of the European Union approved the conclusions on endorsing the new EU strategy on adaptation to climate change that outlines a long-term vision for the EU to become a climate-resilient society by 2050 (Council 2021). In its Conclusions, the Council emphasises also the importance of building climate-resilience into the measures for the economic recovery from the COVID-19 pandemic. The EU has set a target of at least 30% for climate action, including adaptation, in the Multiannual Financial Framework for 2021-2027, and of at least 37% under the Recovery and Resilience Facility. Regarding the international action on adaptation, the Council supports the strategy's aim to step up international action on adaptation, in line with the Paris Agreement, among others (Council 2021).

3. The EU missions' possible impact on the transport sector

In the transport sector, climate change impacts relate to extreme weather and hydrologic events, like storms and extreme wind, flooding or heatwaves. At European level, the policies aiming at climate change impact, vulnerability, and adaptation (CCIVA) of transport are mainly focused on measures regarding climate change mitigation and reducing environmental impact of transport on the one hand, and enforcement of measures that increase the transport sector's resilience to climate change effects on the other hand (Climate-ADAPT 2021).

The EU mission on Adaptation to Climate Change starts from the idea that complex societal challenges require a coordinated effort across Europe to deliver on the five main challenges by 2030 (European Commission 2021d). The EU mission on Adaptation to Climate Change is expected to turn the urgent challenge of adapting to climate change into an opportunity to make Europe resilient, fair, and prepared to deal with climate disruptions, such as extreme weather. The mission will support European regions to be prepared for the inevitable changes and extreme events and share experiences and solutions to prevent loss of lives and livelihoods.

The Adaptation to Climate Change mission plans to make available €100 million for large-scale demonstrations to address major climate induced hazards, such as flooding, fitted to local circumstances. The novelty in the EU missions is that they propose a new role for research and innovation to achieve climate and environment related positive results. The scope of the missions goes far beyond that of a single research project and will also include the aim to prepare the transport system to the climate change related hazards and to support the transport sector to become more environmentally friendly.

Regarding the EU mission to Restore the EU's Ocean and Waters by 2030, a systemic approach

will address the ocean and waters as one and play a key role in achieving climate neutrality and restoring nature (European Commission 2021d). The mission will protect aquatic ecosystems and biodiversity by protecting 30% of the EU's sea area as well as restoring marine eco-systems and 25.000km of free-flowing rivers, and to make the blue economy climate-neutral and circular with net-zero maritime emissions. This will also have an impact on maritime transport and vice versa, maritime transport must be taken into consideration if the EU's Ocean and Waters should be restored by 2030.

The mission's portfolio of research and innovation actions will include basic and applied research across sectors and domains. This could be an important step also regarding the research in maritime transport on new propulsion systems and new e-fuels. In this context, the missions could also help to mobilise and activate public and private actors, such as EU Member States, regional and local authorities, entrepreneurs, and investors to create real and lasting impact (European Commission 2021d).

The mission on having 100 Climate neutral and smart cities by 2030 points to the role cities are playing in the production of global CO₂ emissions, as cities produce more than 70% of global CO₂ emissions. Cities play a pivotal role in achieving climate neutrality by 2050. Through Climate City Contracts, at least 100 cities will be supported in their ambition to become climate-neutral by 2030. They will lead in climate and digital innovation, and they will demonstrate solutions that will enable all other cities to follow suit by 2050 (European Commission 2021d). The mission will engage with citizens to boost societal uptake of new solutions and approaches (European Commission 2021c). This could be an important step in recreating new transport means for cities that cause less air pollution.

Considering the way forward for the EU missions, they will now enter their full implementation

phase. The first Horizon Europe work programme for 2021–22, which was published in June 2021, includes already a set of actions for preparing the implementation of the missions (European Commission 2021e). It will now be updated with a full research and innovation agenda by the end of 2021 (European Commission 2021d).

4. Conclusion

The EU missions, which were launched by the European Commission as a new, ambitious, and innovative tool to work together within Horizon Europe research and innovation programme, aim to deliver solutions to tackle health, climate, and the environment challenges in the EU by 2030 (European Commission 2021a).

They include a set of actions, such as research and innovation projects, policy measures and legislative initiatives, among others, to support the Commission's priorities of the European Green Deal. The scope of some of the missions can be expected to include measures to prepare the transport system to the climate change, and to reduce its GHG emissions in cities. The EU missions have no fixed duration, but they should achieve measurable goals within a set timeframe as part of Horizon Europe programme and deliver results regarding their main tasks by 2030.

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