

## Workshop "How can the Upper Rhine logistics sector cope with climate change and become more sustainable?"

Freiburg im Breisgau – July 6<sup>th</sup> 2022

On July 6, **HYDREOS**, the water cluster in the Grand Est region, organised a final workshop dedicated this time to the transport and logistics sector, within the framework of the **Clim'Ability Design** project.



A rich programme awaited the thirty Franco-German participants in the former Freiburg goods station, which has been transformed into a space dedicated to innovation and creativity.

Identified as the dominant mode of goods transport, road transport represents an important lever in strategies to combat climate change. The region's local authorities and scientists are experimenting and innovating to decarbonise the sector. Furthermore, the logistics sector is also affected by the consequences of climate change: floods, heat waves; in the face of these climatic stress factors, solutions exist for better adaptation of infrastructures.

Before starting the first part of the morning with energy issues related to road transport, Professor Rüdiger Glaser from the **University of Freiburg**, partner of the project, presented the various objectives and achievements of Clim'Ability Design, and Ava Moncozet from **HYDREOS**, gave a short introduction to the topic of the day.





## Between feedback and innovative projects: decarbonising road transport in the Upper Rhine

Nicolas Boidevezi from **ORT&L (Regional Transport and Logistics Observatory)** introduced the first part of the workshop devoted to alternative fuels and motorisations. After highlighting the links between road transport and climate change, Mr Boidevezi gave an overview of the solutions envisaged to improve the environmental performance of road transport, together with their respective advantages and disadvantages. Two of these solutions were addressed in the presentations following: conventional battery electric and hydrogen fuel cell electric.

The first project was presented by Marc Andre Schüler from the **Fraunhofer ISE**, a solar energy research institute. The project seeks to integrate photovoltaic panels on the roofs of trucks in order to supply the vehicles with energy directly, taking advantage of the available surface area.

Another project has been launched in the Land of Baden Württemberg to overcome the problem of the limited range of electric vehicles. eWayBW, or the electric road of the Land's **Ministry of Transport**, is one of the experiments being carried out in Germany on the electrification of roads, a system that allows the powering Tamara Engel from the ministry presented this pilot project, which is specific to Germany, one of only two European countries to experiment with this solution.



On the very current topic of hydrogen, Cara Schwark-Fiedler of the German **Fuel Cell BW** cluster presented the major challenges of hydrogen in terms of mobility, and particularly heavy mobility. This was an opportunity for participants to discover the hydrogen value chain, fuel cells and combustion engines, as well as the challenges and prospects of the automotive sector.

Finally, Pascal Rascalon from the **Grand Est Region** offered feedback on the hydrogen theme, with the installation of hydrogen boxes on service cars, as part of the region's strategy to green its vehicle fleet.

### Concrete adaptation solutions for storage facilities

The second part of the workshop was fully devoted to strategies for adapting storage activities to climate change. To introduce this new theme, Nicolas Scholze, geographer at the **University of Freiburg**, showed the consequences of climate change already present in the Upper Rhine region as well as climate projections, in particular through the climate tools of the Clim'Ability Design project. After conducting interviews with companies in the sector, the researchers identified vulnerabilities to climate hazards but also good practices already in place.



To present concrete measures for adapting to flooding and heat waves, two companies presented solutions that can already be implemented at storage facilities, warehouses and industrial sites.

Bernhard Maier from **Mall** emphasised the importance of rainwater harvesting, presenting the work and systems developed by his company. Such a rainwater harvesting system has been installed at the Grünhof, just a few steps from the workshop.

Regarding heat waves, Alicia Adrovic from **Soprema** presented green roofing solutions, which can be particularly suitable for warehouses with a large available surface and a need for cooling.





Finally, David Pelot from **Météo France**, a partner in the project, closed the workshop with a presentation of the climate tools developed by Clim'Ability Design.

Participants then headed for the lunch buffet, with the opportunity to continue the discussions over organic and local produce.



The replay of the workshop is available on the Clim'Ability Design [website](#) and [YouTube channel](#).

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