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EXPRESS Project partner meeting

Sustainable transport and hydrogen economy projects in Međimurje and Croatia

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SPOILER ALERT

Public transport is not our strong point!



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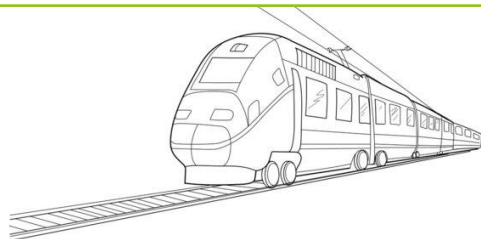
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History (and the present?) of mobility in Međimurje County

- In the last 50 or so years, traffic planning has been primarily based on a single mode of transportation – the car.
- It leads to a creation of significant pollution and noise.
- Unfortunately, public authorities contribute to such a situation – a lack of clear vision towards sustainability
- **Insufficient attention is given to the development of public transportation**
- Most trains and buses are old and unsuitable for the needs.
- The number of train and bus departures throughout the day is low (they are adjusted to accommodate student transportation)
- Awareness of departures, connections, ticket prices, and other information is very limited.



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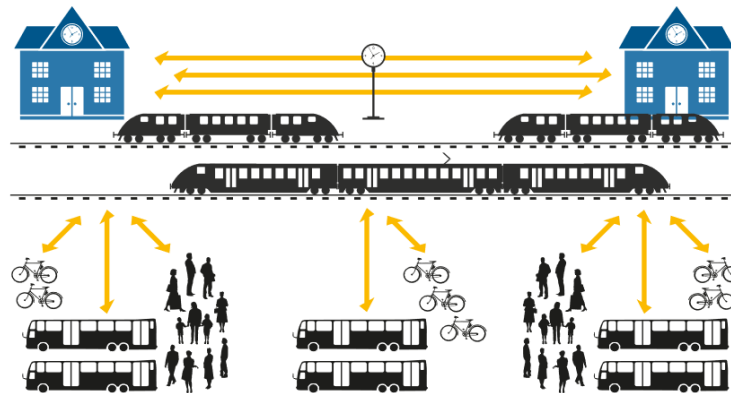
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Sustainable transport - projects

- Common project of the three North Croatia regions – Međimurje, Varaždin and Koprivnica-Križevci county = **integrated public transportation (signed on February 2019.)**
- It is based on advanced and optimal public transportation systems used by developed countries.
- The backbone of the system consists of rail-based systems (trains, trams...) due to their ecological, energy, and infrastructural advantages.
- However, the realization of integrated passenger transport in the Međimurje County area requires many steps, and it is realistic to expect that it will not become operational until 2027.

INTEGRIRANI PRIJEVOZ PUTNIKA - IPP



Sustainable transport - projects

- Railway EU project that can be realised in the Međimurje is „**Lepoglava connection**” (currently in a phase of preparation of study documentation)
- The project includes the renovation, modernization, and electrification of current sections and construction of a new electrified railway section.
- Estimated value of the project: 583 mil €

First diesel-electric train



Hydrogen economy projects in

Croatia

- Croatian strategy for hydrogen from 2021 to 2050.
- Four main pillars:
 1. Hydrogen production - enable the production of low -rotated hydrogen, which will primarily be oriented on renewable hydrogen with the aim of production of low -proportion products or without CO2 emissions.
 2. Storage (storage) and hydrogen transport - conversion of existing infrastructure to transport hydrogen from production site to consumption site in the long term period.
 3. Using hydrogen - encouraging the use of hydrogen in industry, traffic, construction and energy sector.
 4. International cooperation - establishment of international cooperation in the field of development of technologies and markets related to hydrogen.



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Hydrogen Valleys

- Republic of Croatia is included in the project of "Hydrogen Valley Northern Adriatic" together with the Republic of Slovenia and the autonomous region Friuli, Venezia Giulia from Northern Italy.
- In the period until 2026., hydrogen production in Croatia will originally bind to the traffic and the industrial sector. There are already high-stage projects in traffic, while the industrial sector has the highest level of readiness to start the use of a renewable hydrogen (e.g. refinery and petrochemical plants).

North Adriatic Hydrogen Valley - Territory



Brief report from EU Regions Week

- **Vanguard Initiative Regions Leading by Example in the Local Energy Shift**
The Vanguard Initiative contributes to the clean energy transition following a place-based approach based on smart specialisation strategies and the VI pilots. The event showcased decarbonisation activities in the VI pilots focusing on hydrogen, bioeconomy and offshore wind energy to provide other regions with the opportunity to connect for future endeavours: Lower Austria, Slovenia (Maribor), Scotland off shore renewable energy, Poland (Krakow)
- **Energy transition – making local and regional solutions replicable for Europe**
Energy transition is all about commitment to clean energy, but it is also about decentralising energy production. The workshop covered initiatives that are contributing to decarbonisation efforts at local/regional level and showcased projects that are establishing integrated local energy systems (on and off shore wind farms, energy islands concept - <https://h2020serene.eu/>, etc.).



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Javna ustanova za razvoj Međimurske županije REDEA

Thank you for your attention!

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