

Hydrogen economy development in the Usti region

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Sixth Business Forum of the Usti Region
23. – 24. 9. 2021



“Green hydrogen” phenomenon in Europe



European Green Deal = essential document of the EU

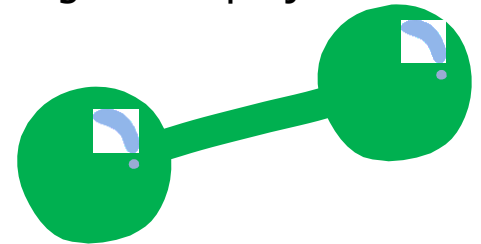
- Main objective = carbon neutrality before 2050

Hydrogen plays one of the key roles in the process

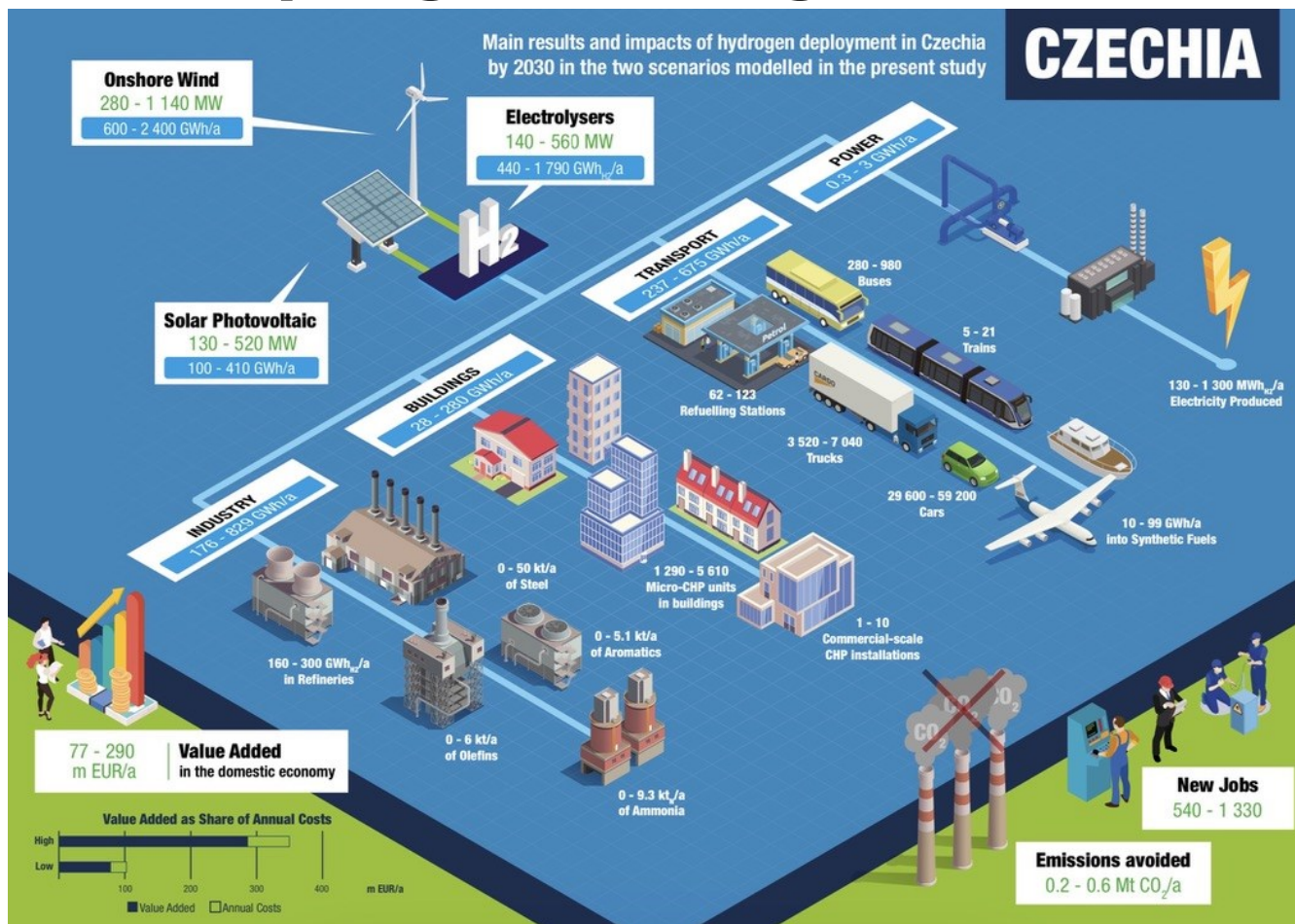
- Importance of hydrogen is repeatedly emphasized in all strategic documents of the Green Deal
- The EU published **“A hydrogen strategy for a climate-neutral Europe”**

“European Clean Hydrogen Alliance” plays a vital role in executing the plan

- Unifies the main hydrogen players and directly assists during large-scale projects formation

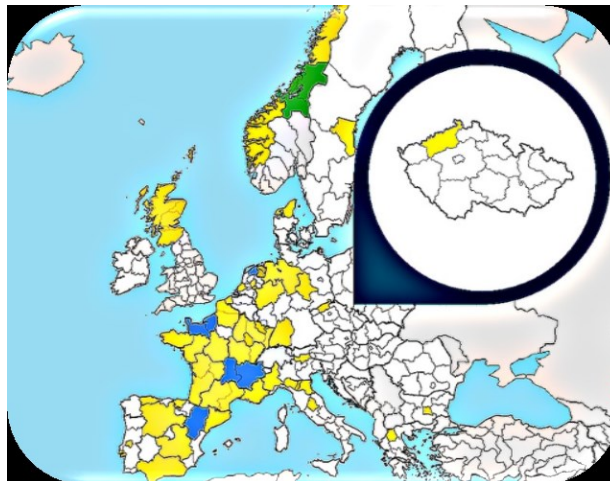


Green hydrogen – foresight for Czechia



Why Usti region

- **First Hydrogen Valley** in Central and Eastern Europe
- Current **petrochemical and energetic base for whole Czechia**, which undergoes a transformation towards green economy (end of coal mining before 2038)
- Possibility to **connect with the Saxon infrastructure**
- One of three “coal regions” = **extraordinary funding opportunities for innovative projects**
- **Extensive lands after coal mining** = opportunity for renewables and H₂ technologies installation



Renewables and green hydrogen potential in the Usti region

TODAY



Coal mining



Chemical industry



Energy industry

TOMORROW



Wind parks



Photovoltaics



Floating photovoltaics



Hydrogen economy development in the Usti region

- Ministry of Industry and Trade prepared, and Czech government accepted **Czech Hydrogen Strategy**
- Active regions = the Usti region and Moravian-Silesian region **search substitute programs for coal**, specific projects are being identified under Just Transition Fund
- Economic and Social Council of the Usti Region (HSR-ÚK) established **Hydrogen Platform of the Usti region** under the patronage of the Usti region government
- The Usti region declared official support for green hydrogen by becoming a **Hydrogen Valley**
- Several project proposals in various areas have been prepared, **projects admitted for realization** – two hydrogen refueling stations in Litvinov and Usti nad Labem
- Coordinated approach required with the objectives:
 - Development of the **The Usti Region Hydrogen Strategy** in the format of the European hydrogen strategy (MW in years 2025/2030/2050) with clearly declared support of the regional authorities for hydrogen as one of the key tools for a transition to clean technologies
 - **Realization and implementation of the The Usti Region Hydrogen Strategy**



Organizational structure for the hydrogen economy development in the Usti region

- “Matrix” organization reflecting the organizational structure in the European Clean Hydrogen Alliance
- Coordination team for regional “hydrogen” activities:
 - **ICUK** - regional overarching organization for the strategic projects and developmental activities
 - **Chamber of Commerce of the Usti region (KHK ÚK)** - technical guarantor for the hydrogen problematics in the region; delivers the required outputs to its members (70 % of regional entrepreneurs) in order to convince them about the field’s perspective; initiates „start-ups in the region
 - **Hydrogen platform of the Usti region (HSR-ÚK)** – overarching body for the regional hydrogen membership base



European Clean Hydrogen Alliance organizational structure



CEO-led Roundtables

Hydrogen production
Transmission, distribution
Mobility
Energy sector
Industrial applications
Residential applications



Hydrogen Forum

presentation of the projects from “pipeline”



High-level progress meeting

European Commission with
representatives of working
structures / Alliance
stakeholders



Organizational structure of hydrogen economy development in the Usti region



ICUK – coordination and support on behalf of the regional government

KHK ÚK – technical guarantor

Roundtables

Production

Distribution

Energy industry

Industry

Mobility, buildings

R&D, education



Regional authorities
High-level progress monitoring



Hydrogen platform of the Usti region

(under HSR-ÚK)

Membership base



Organizational structure - roundtables

PRODUCTION

Sev.en Energy
Spolchemie
Orlen Unipetrol
ČEZ
PKÚ
Cheminvest
Air Products

DISTRIBUTION

Air Products
Chart Ferox
ČEPRO
Český plynárenský
svaz
PETROTRANS

ENERGY INDUSTRY

Krajský energetik
Sev.en Energy
ČEZ

INDUSTRY

Orlen Unipetrol
Spolchemie
Sandvik
AGC

MOBILITY, BUILDINGS

ÚJV Řež
Ústí nad Labem
Děčín
Most
Vodní cesty
Cheminvest
DEVINN
Krajský Energetik
Linde Material Handling ČR
Air Products
České loděnice

R&D EDUCATION

UJEP
ČVUT
UniCre
VŠCHT
ÚJV Řež



Supporting activities for the hydrogen economy development in the Usti region

- Central monitoring of all funding opportunities in the EU and Czechia and their continuous updating
- Agencies, which can technically assist during applying for funding for hydrogen projects and are in touch with the government, Brussels and therefore will significantly support entrepreneurs in the Usti region
- Educational program for researchers, schools, public administration and entrepreneurs
- Coordinated approach and massive support by the regional government – financing of the preparation, negotiating with banks with respect to co-financing of the projects
- Business forum, Chemical forum of the Usti region and further active presentation of the field



Thank you for your attention!

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