Austrian Hydrogen Valley

HI2 – Hydrogen Industrial Inland Valley Austria

15/12/2025 – Margherita Matzer (WIVA P&G)

HI2 VALLEY
Clean Hydrogen Partnership
Co-funded by the European Union

How it all started

The Energy Model Region WIVA P&G

WIVA P&G

Hydrogen Initiative Energy Model Region Austria Power and Gas

- WIVA P&G is a research association

- Competence network for hydrogen - research and innovation:
  - Austria-wide, transregional, thematically focused

- Experience of more than 30 completed and ongoing projects
- Projects:
  - Sectorally integrated, multidisciplinary
  - Implementing an innovation structure
  - Demonstration and testing of intelligent system solutions in practice

- Goal:
  - Support transition to a sustainable energy system

WIVA P&G Members

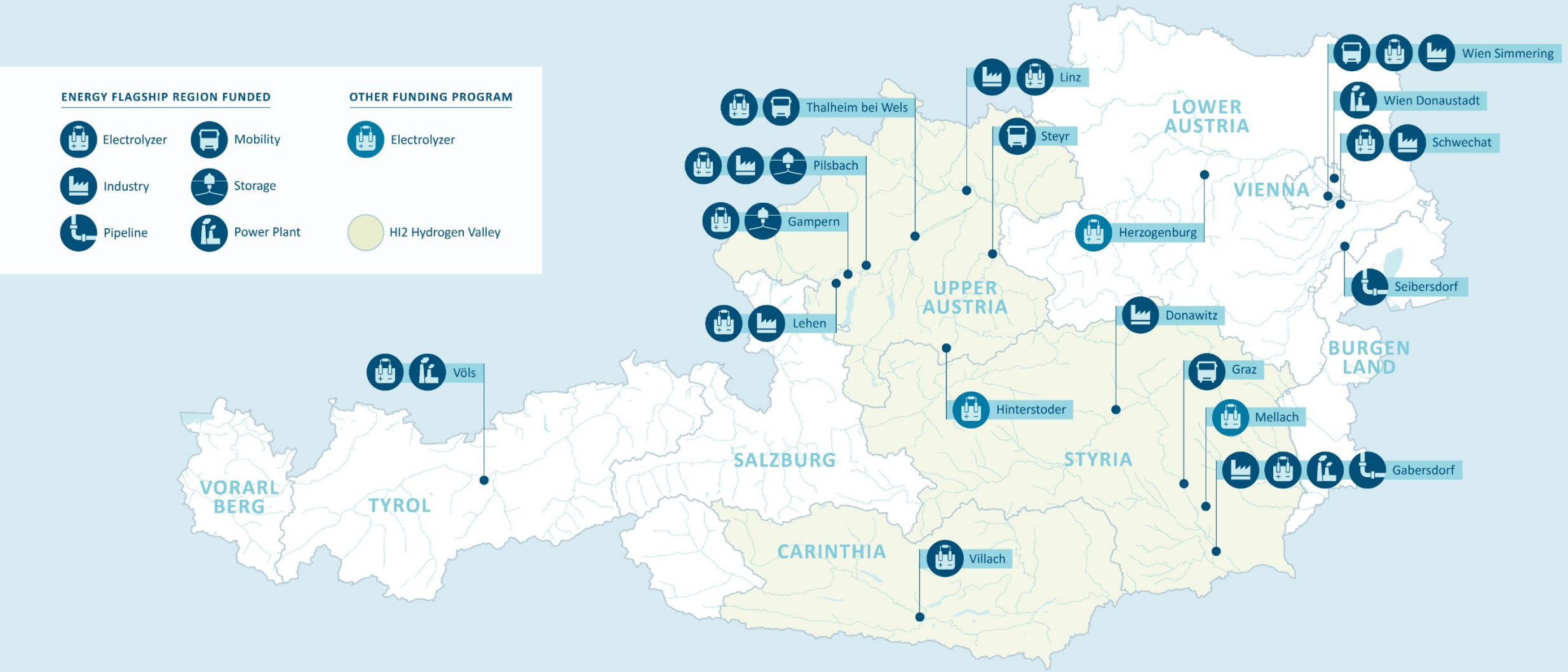
21 industry and 7 research

WIVAP&G
Hydrogen Flagship Region

With single projects to an Hydrogen Valley

HI2 VALLEY

WIVAP&G
Hydrogen Flagship Region



The HI2 Valley in Numbers

Building Europe's Hydrogen Future

€588 Mio
Total Project Volume*

€20 Mio
*of which are granted by the EU

44
Partners

2,000
Jobs

6
Year Timeframe

101
MW new electrolyzer

10,000
tonnes/year planned H2 production

200,000
CO2-equivalent saved by 2030

What Will We Do?

Focus Areas

- Strengthening the entire hydrogen value chain from production, storage, and distribution to end use
- Each region will integrate open-access hydrogen pipelines, and a centrally managed tube trailer network, ensuring coordinated and efficient distribution
- HI2 Valley partners are committed to lowering emissions for the mobility sector but especially in some of the most energy-intensive industries, including steel, chemicals and cement

Consortium Partners

44 Austrian and international companies and institutions drive the HI2 Valley

Consortium

Consortiummeeting

February 2025, Graz

September 2025, Linz

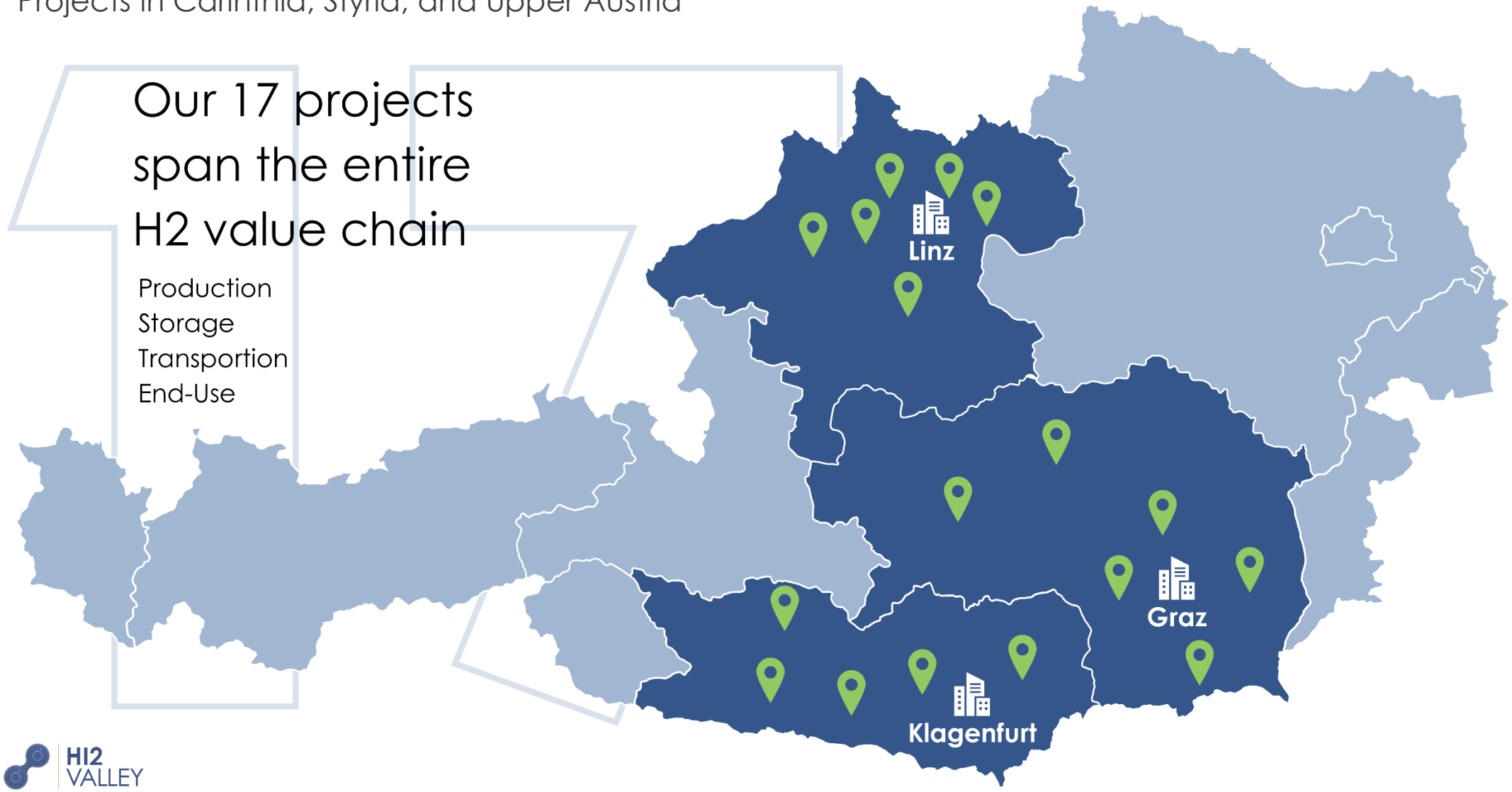
Public day of the next meeting: 2nd of March 2026, Carinthia
Excursion: DeCarB Project

Welcome to the Valley

Projects in Carinthia, Styria, and Upper Austria

Our 17 projects span the entire H2 value chain

Production
Storage
Transportion
End-Use



Hydrogen Production

Some HI2 Valley Examples

H2Park Asten and Energiewerk Graz

- Project partner: Municipal energy supplier, approx. 5 MW electrolyzer next to a waste recycling plant. Hydrogen feed-in to the gas grid, oxygen utilization in the waste recycling plant, waste heat utilization for the district heating system.

H2UPSTAGE

- Project partners: Austrian gas storage service provider, several electrolysers in the range of 10 to 30 MW in neighbouring municipalities, direct connection to the H2Startnetwork hydrogen pipeline system, underground storage in porous rock from old gas storage facilities.

Green Refractory and CemChem

- Consortium: Composed of several industrial companies and the gas network operator, electrolysis plant on the premises of an industrial partner, distribution via pipeline to other industrial companies in the area.

Hydrogen Use

Some HI2 Valley Examples

Hy4Smelt

- **Sector**: Steel production, already in the final pilot phase, after which it can be used conventionally.
  Status: Plant currently under construction

Green Lime

- **Sector**: Cement production, test whether a mixture of hydrogen and natural gas can provide the heat needed for cement production.
  Status: still in planning

DeCarB

- **Sector**: Mobility, electrolysis and refuelling station to be built on the premises of a bus operator and 30 new hydrogen buses to be purchased.
  Status: Electrolysis currently being set up, two test buses already in operation.

Whats with the other projects?

Barriers

Technical barriers:

- **Technical readiness:** There is a lack of experience with the systems/technologies, so a plug-and-play approach is not possible
- **Power grid:** The size of electrolysers is often limited by the power grid

Legal barriers:

- **Regulations**: Changes and withdrawals of legal requirements
- **Safety requirements**: Some are still being developed
- **Certification**: Long-term planning not possible

Financial barriers:

- **Funding**: Planning uncertainty for existing and upcoming funding programmes
- **Price**: Price expectations of consumers and producers often vary widely

What's Next?

Timeline

- 2025 & 2026 – Planning Phase
- 2027 & 2028 – Implementation Phase
- 2029 & 2030 – Operational Phase

THANK YOU

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Margherita Matzer
Tel.: +43 660 35 242 10
matzer@wiva.at

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