

North Adriatic cross-border Hydrogen Valley (NAHV)

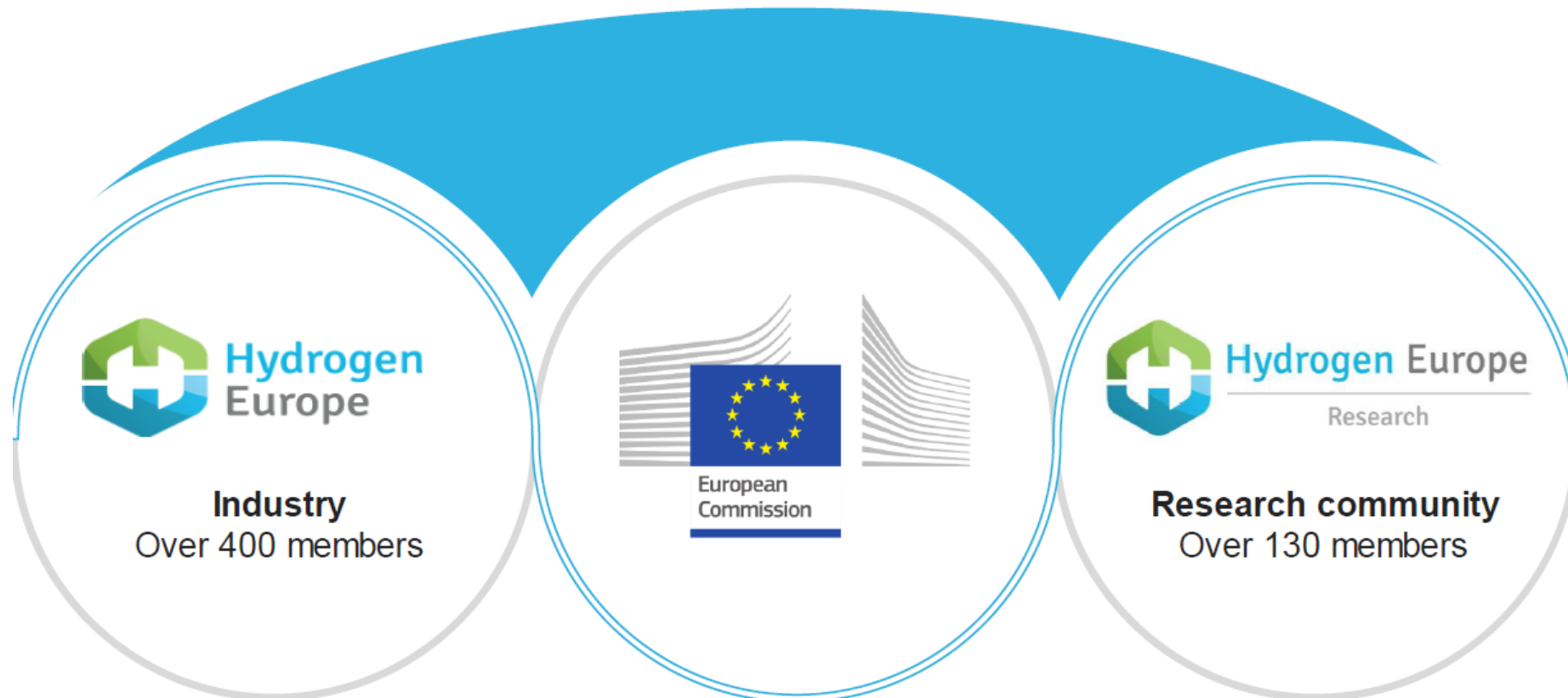
Holding Slovenske elektrarne, d.o.o.

April 2023



Clean Hydrogen Joint Undertaking

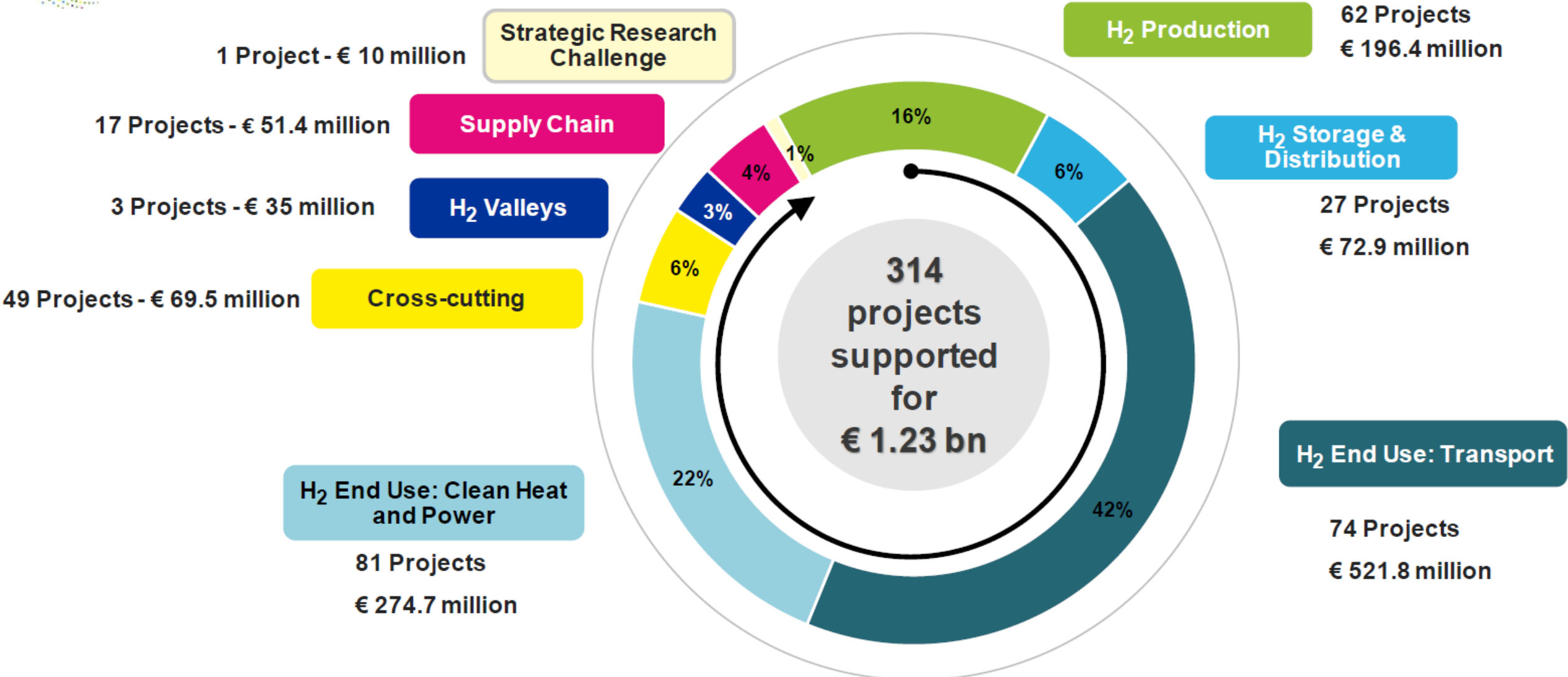
EU Institutional Public-Private Partnership (IPPP)



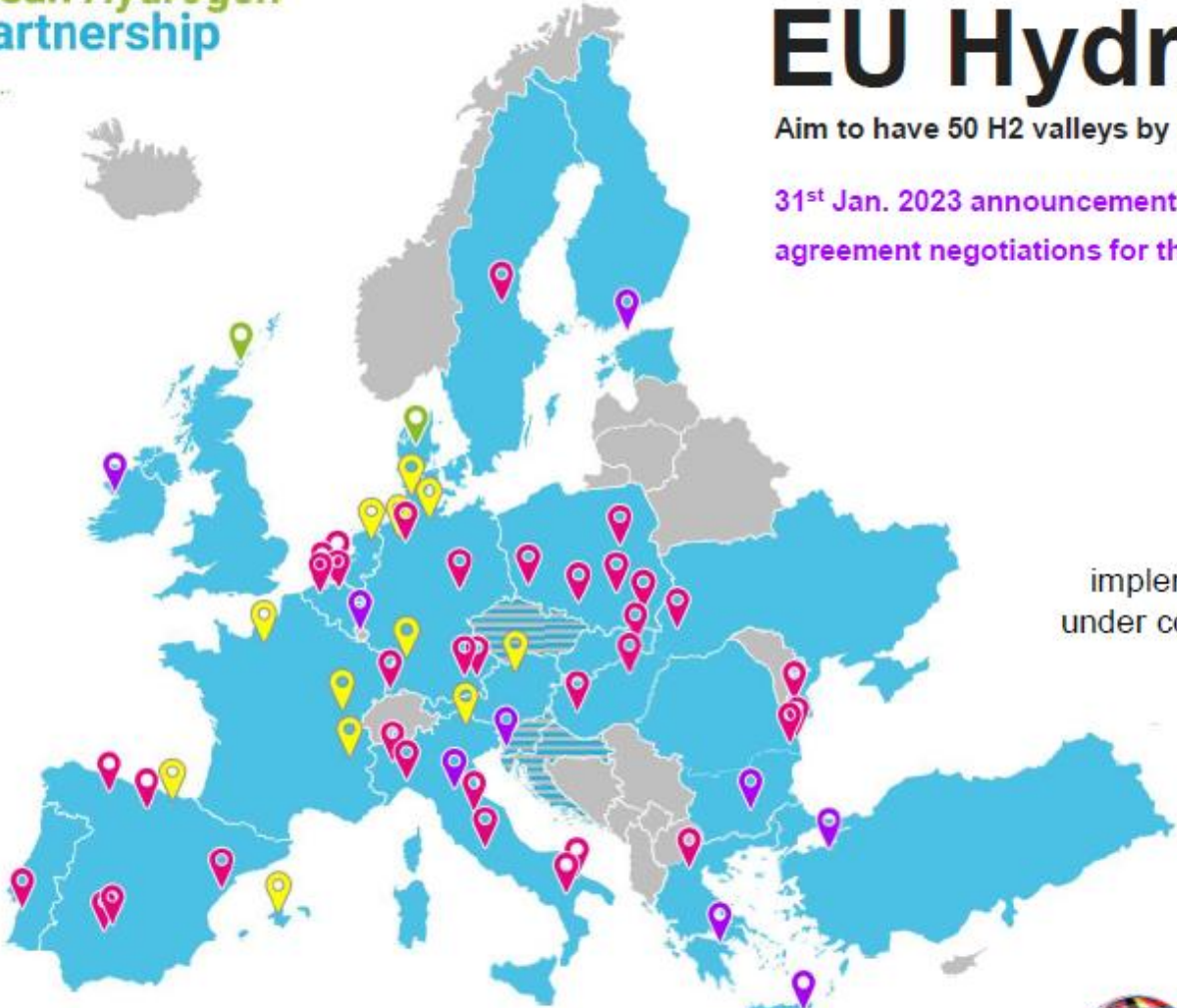
1 billion EURO from Horizon Europe* to implement R&I activities and facilitate the transition to a greener EU society through the development of hydrogen technologies
*** additional 200 million EURO for Hydrogen valleys (under RePowerEU)**



Clean Hydrogen JU Programme (implement until 2031)



Hydrogen Valleys



EU Hydrogen Valleys

Aim to have 50 H2 valleys by 2025 under construction in Europe

31st Jan. 2023 announcement of 9 hydrogen valleys that will start grant agreement negotiations for the EU funding



S

● Hydrogen valley located ● Member of the crossborder hydrogen valley ● No hydrogen valley located



Path passed till today and Current position

- **24.11.2021** - **Hydrogen Ecosystem North Adriatic 2021, 1st Conference**
- **14.03.2022** - **Letter of intent, Mzi (SLO), MGior (CRO), Reg.Council (FVG) and formation of JWG**
- **31.03.2022** - **Call HORIZON-JTI-CLEANH2-2022**
- **11.04.2022** - **Formation of JWGs in each of three regions**
- **18.05.2022** - **JWG has appointed AREA Science park as technical assistance**
- **08.06.2022** - **MoU, President of the Italian Government and the President of the Region Friuli Venezia Giulia, financing of the Hydrogen Valley**
- **04.08.2022** - **JWG has appointed HSE as Lead partner** 
- **20.09.2022** - **Application submission date**
- **27.09.2022** - **Hydrogen Ecosystem North Adriatic 2022, 2nd Conference**
- **13.01.2023** - **Evaluation Summary**
- **Current** - **Grant Agreement / Consortium Agreement Preparation phase**
- **23.05.2023** - **Grant Agreement signature**



North Adriatic Hydrogen Valley

- A **Hydrogen Valley** is a defined geographical area where hydrogen serves more than one end sector or application in **mobility, industry** and **energy**.
- Hydrogen Valleys are starting to form **first regional "hydrogen economies"**.
- **Develop, deploy and demonstrate** a large-scale hydrogen valley with interlinkages to other places of hydrogen production and/or consumptions outside its boundaries.
- Showcase the ability of hydrogen and its associated technologies **to decarbonise different sectors** in EU through this renewable hydrogen flagship project;

North Adriatic Hydrogen Valley - Consortium Partners



Territory	SLOVENIA	CROATIA	ITALY Regione autonoma Friuli-Venezia Giulia
Institutional Partners	Ministry of Infrastructure	Ministry of Economy and Sustainable Development	Regional Council of Friuli-Venezia Giulia
Research Community	University of Ljubljana	University of Rijeka	University of Trieste
Industrial Partners	Holding Slovenske elektrarne d.o.o. Termoelektrarna Šoštanj d.o.o. HSE Invest d.o.o. Ecubes d.o.o. Steklarna Hrastnik d.o.o. Salonit Anhovo d.d.	ACI Marine Active Solera Dilj Indeloop MCoE Gitone Kvarner d.o.o.	AREA Science Park ABS /Danieli Centro Combustion Snam S.p.A Ferriere Nord, Pittini Group ACEGAS Faber Industrie Meta Group Fondazione Bruno Kessler CTS H2 TPL FVG
Partners Outside Territory	Fundación para el Desarrollo de las Nuevas Tecnologías del Hidrógeno en Aragón		

Hydrogen production and consumption

Territory	Company	Supply Chain position	Sector	H2 Production (t/a)	H2 Consumption (t/a)		
					Industry	Energy	Transport
SLOVENIA 	Holding Slovenske elektrarne 	producer/end user/distribution	energy/transport/ grid balance	3.000	1.000	1.000	1.000
	Steklarna Hrastnik 	producer/end user/distribution	hard to abate/ industry	608	608		
	Salonit Anhovo 	end user/ producer	hard to abate/ industry	50	50		
	Ecubes 	Producer/distribution	Energy/transport	50			50
CROATIA 	ACI Marine 	end user/ producer/ distributor	transport	22			22
	Active Solera	producer	energy	900	500		400
	Dilj 	end user	hard to abate/ industry	/			
	Indeloop 	producer	hard to abate/ industry	80			80
	MCoE 	end user	transport	/			
ITALY Regione autonoma Friuli-Venezia Giulia 	Danieli Centro Combustion 	end user	hard to abate/ industry	/			
	SNAM/ Halo Industry SpA 	end user/producer	hard to abate/industry	850	850		
	Ferriere Nord, Pittini Group 	end user/producer	hard to abate/industry	/			
	ACEGAS 	producer/distributor	energy	300	100		200
	CTS H2 	distributor	energy	2			2
	Cimolai 	producer/end user	energy/transport	72		72	
	Faber Industrie 	producer/distributor	energy				
	TPL FVG 	distributor	transport	55			55
TOTAL				5989	3108	1.072	1809

Conclusions

- Project NAHV is first cross-border regional hydrogen valley with 34 partners
- GA and CA agreement preparation phase → take into consideration approval process at every partner
- 17 testbeds were selected for the proposal with bottom-up approach
- Institutional partners have a huge role in finding additional funds for NAHV

Thank you!

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