





Project development assistance for regions (PDA II)

Summary presentation on activities, outcomes and learnings 17.06.2024

An initiative delivered by



With support from the subcontracting consultancies



Where we started

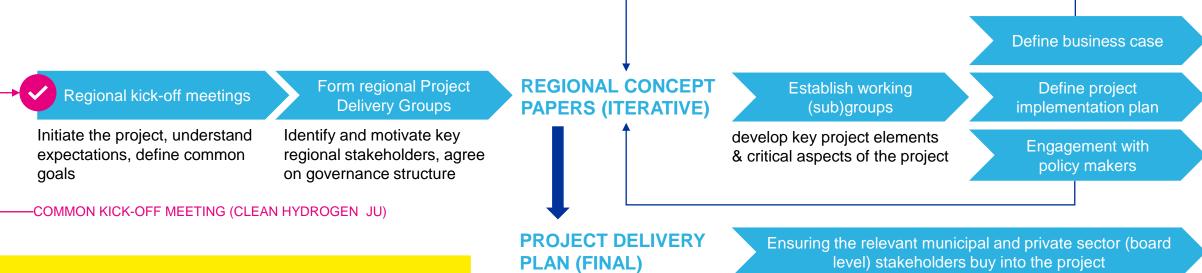
Aims and approach of the PDA support



To further widen the Clean Hydrogen JU geographical coverage by selecting and bringing a set of up to 15 projects from Cohesion Countries, Outermost Regions and Islands to a high level of preparedness.



To provide regions and cities the necessary technical, financial and legal services.

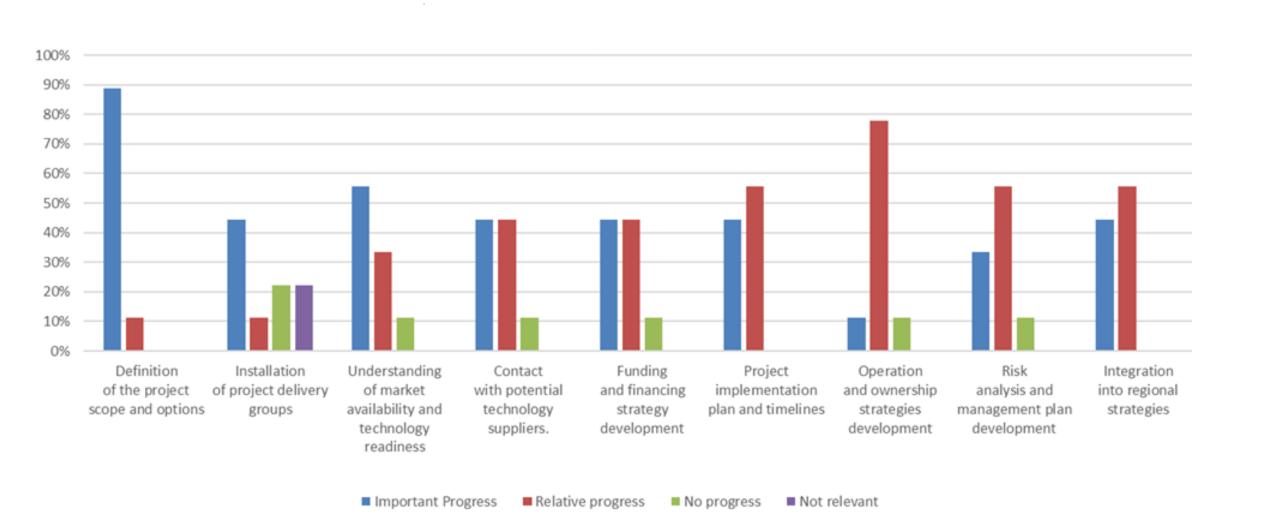


Approach was adapted to individual needs of the regions



How we progressed

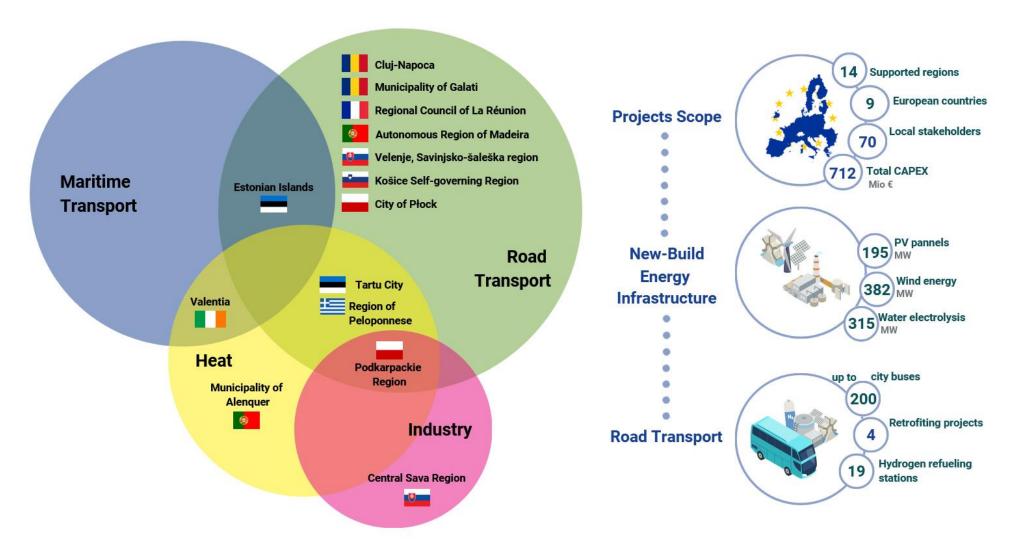
Estimates from the regions (questionnaire results from March 2024)





What PDA II has achieved

Overview and project scope per supported region





What PDA II has achieved

Overview and project scale per supported region

Velenje, Savinjsko-šaleška region Tartu City City of Płock Central Sava Region Estonian Islands 72 FCEBs, district heating H2 into gas grid, glass production 6 FCEBs and H2 export 34 FCEBs FC ferries, FCEBs, RCVs and LDVs, Heat 4,6 MW MW WE - 1 HRS 1 HRS 5 MW WE 2 MW WE-1 HRS 32 MW WE-3 HRSs €132 M CAPEX* €48 M CAPEX €29 M CAPEX €11 M CAPEX €11 M CAPEX Valentia Island Podkarpackie Region FC/HICE boats, commercial heat Hydrogen Valley development 0.61 MW WE - 1HRS 112 MW WE - 3 HRSs €180 M CAPEX** €43 M CAPEX Košice Self-governing Region Region of Peloponnese Building heating, LDVs & HDVs, 10 FCEBs gas grid injection 3 MW WE - 2 HRSs €38 M CAPEX 130 MW WE - 1 HRS €120 M CAPEX Cluj-Napoca Municipality of Alenquer 20 FCEBs Gas grid mixing, 2 to 4 HDVs 2,5 MW WE - 1 HRS €19 M CAPEX 5 MW WE €19 M CAPEX Municipality of Galati 20 FCEBs Autonomous Region of Madeira 5 MW WE - 2 HRSs 15 FCEBs, 2 HDVs, 10 LDVs, hybrid €34 M CAPEX coaches 1,5 MW WE - 2 HRSs Regional Council of La Réunion €15 M CAPEX 10 FCEBs H2 - Hydrogen 1MW WE-1 HRS WE - Water electrolysis €13 M CAPEX HRS - Hydrogen refueling station FC - Fuel cell Map source: Openstreetmap.org FCEB - Fuel cell electric bus RCV - Refuse collection vehicle *Only vehicles HDV - Heavy duty vehicle CAPEX are indicative and refer to the final phase of projects. **Only production LDV - Light duty vehicle HICE - Hydrogen internal combustion engine



Additional support to regions

Workshop series

27.06.2023

Seminar 1: Industry pitch - Green and clean H2 production

18.07.2023

Seminar 3: Overview on European policies and regulations related to hydrogen technologies

17.10.2023

Seminar 5: Best practices in project design & development

12.12.2023

Seminar 7: Proposal writing workshop

14.03.2024

Final meeting with regions

04.07.2023

Seminar 2: Islands Knowledge Sharing

12.09.2023

Seminar 4: Industry pitch - Hydrogen Refueling Technologies and Vehicles

27.11.2023

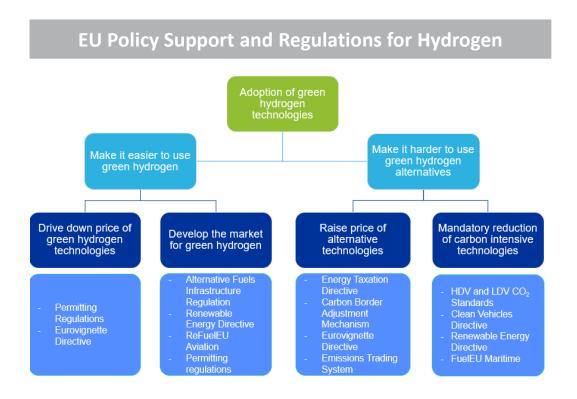
Seminar 6: Procurement and operatorship models

13.02.2024

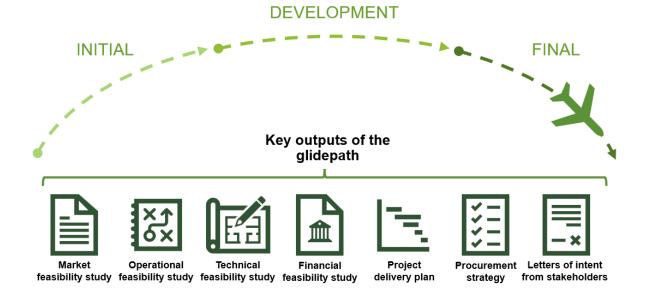
Seminar 8: Funding and financing strategies



Additional support to regions Publications



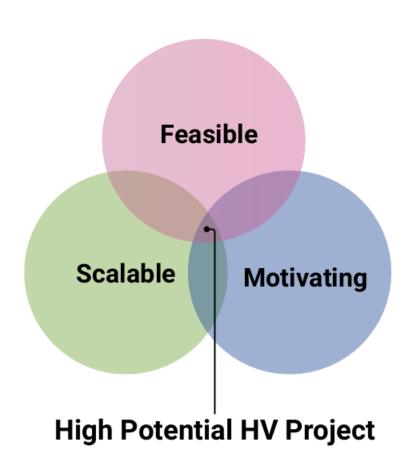
Glidepath for hydrogen project development





Lessons learned

How to scale and scope a hydrogen project



"You need to survive the transition phase to change the system"

- Right scale ≠ large scale
- Innovative ≠ new
- Successful ≠ high impact

It is important to find the right **scope**, **scale** and **timing** of the project to become a reliable building block of the future regional energy system.

Risks to project success:

- (1) Aligning scope and scale to external expectations
- (2) Expect / sell economic viability in the short run



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