

Workpackage 2, EMR H2-Booster Deliverable: Case paper;

‘Valorisation of R&D results’ / “Development of an EMR Regional Innovation System”

Project name: ***‘Green Hydrogen; Improving valorization of R&D results’***

Starting date: tbd: October 2023

End date: tbd: October 2027

Describe the problem and/or opportunity on which the project will focus and justify this problem statement or opportunity for the program area:

In the Euregio Maas-Rhein a number of leading knowledge institutions are working on advanced and next level Hydrogen technology. These knowledge institutions are an important part of the H2-technology development capability of the region.

Currently these knowledge institutions are mainly working on their own research and valorization agenda’s. However, when coordinated / aligned and connected to the industry this capability could allow EMR-businesses, both existing (incl. SME’s) and new, to accelerate sustainable hydrogen applications (acceleration of valorization).

NB: In this proposal the term “valorization” is used in the meaning of “Application of R&D and Technology by businesses, both existing as well as new businesses, c.q. start-ups and scale-ups”.

Indicate why cross-border cooperation is necessary for this project and what added value the cross-border cooperation has for this project:

To achieve the benefits of next level, regional, cross-border “Sustainable Hydrogen R&D capability”, aligned Research agenda’s and available Infrastructure are important.

For the participating Knowledge institutions the number of potential valorization partners (companies) increases significantly when adding those of the other regions in the EMR.

Also the collaborating knowledge institutions could potentially be more successful in the acquisition of larger EU projects.

For the potential industrial beneficiaries of advanced sustainable hydrogen technology (companies),

their knowledge / R&D supply base (the knowledge institutions) increases significantly. When companies face a technological / R&D problem they would have a much broader base of potential technical solution providers to choose from.

In short, the benefits are faster and better tailored, more successful valorization of sustainable H2 technology.

Project focus

1. Identification of the R&D agendas of the participating knowledge institutions
2. Potential alignment and “upgrading” of the regional H2 R&D agenda.
3. Identification of the regional R&D infrastructure (a.o. equipment etc)
4. Cross border h2 venture development
5. Potentially one or two accelerated valorization tracks
6. Potential combined application for EU projects
7. Determine whether there are different approaches needed per industry sector or application area

Work packages

WP1: Identification of the R&D agendas of the participating knowledge institutions

Risk factor

Participation of knowledge institutions of all EMR-regions involved

Mitigation

- * Engagement activities
- * Making sure the project is aligned with the respective institutional priorities
- * Developing a *Scientific Advisory Board* involving key stakeholders from all institutions involved (Scientific Advisory Boards are a known best practice)

WP2: Potential alignment and “upgrading” of the regional H2 R&D agenda.

WP3: Identification of the regional R&D infrastructure (a.o. equipment etc.)

WP4: Potentially one or two accelerated valorization tracks

WP5: Human Capital Agenda: Virtual H2 Academy & development of a ‘train-the-trainer’ approach for R&D result transfer to companies, including a valorization manual for teachers.

Attention to certification per member state

WP 6: Laws and regulations for cross-border valorization

Determine which are the differences between the EMR regions Be-Limburg/Vlaanderen, NL-Limburg/Nederland, NRW/Germany, especially with regard to standardization.

WP7: Communication

WP8: Project management

Budget

Indicative project budget: [overview of the indicative budgets per WP + sum for entire project] : total 1 M€

Requested EFRO-subsidy:

€ 500,000

Prospective Partners:

Brightlands - Brightlands Materials Center (BMC)

Fontys University of Applied sciences

FZ Juelich

GroenvermogenNL

KU Leuven

Maastricht University

RWTH Aachen

TU/e EIRES

UHasselt – IMO-IMEC

WaterstofCoalitie Limburg

WaterstofNet

Zentrum für BrennstoffzellenTechnik (ZBT), Duisburg

Zuyd University of Applied Sciences

Companies from the regions