(HYGENESYS)- A challenged-based learning community for hydrogen development and application

Contact: Yashar Hajimolana | [*s.hajimolana@utwente.nl*](mailto:s.hajimolana@utwente.nl)

Main goal

Learning communities are the engine and land of innovative developments. That is why we focus on learning communities. Professionals from education and research, industry, government and the public-private sector work together, contributing to innovations and developing knowledge about the energy transitions.

The University of Twente, Saxion University of Applied Sciences, HAN University of Applied Sciences, ROC van Twente and the H2Hub Twente in which various companies [1] are involved, work together to shape a learning community for the development of innovative hydrogen technology integrated systems. The cooperation prepares company employees, researchers and students for the energy transition in a cross-chain collaboration. The aim is to address the following challenges:

1) How can the engineering of a green hydrogen production process be arranged such that, in a number of consecutive semesters, students and researchers from the educational institutions and company employees learn and innovate within an engineering challenge?

2) How can the methodology of challenge-based learning community be constructed, where all stakeholders can benefit?

The concept of the learning community is very beneficial for companies, for their overall knowledge on hydrogen systems, cooperation and connection with other companies but concurrent market position as well. For students the experience of the learning community brings good and easy contact with companies. And the cooperation with students from different disciplines broadens the view, which could not be obtained in a mono-disciplinary project.

FUNDING/PROGRAMME: NOW-SIA RAAK **SME**

Project PI: Yashar Hajimolana
project contributor(s): Abhishek Singh, Artur Pozarlik, Kelly Bachtiar
Project leader: University of Saxion Applied Sciences

Collaborators: H2HUB, HYMATTERS OPERATIONS BV, BOESSENKOOL, JOTEM, POWERSPEX, SCHRÖDER ENERGY TECHNOLOGY, DEMCON ENERGY SYSTEMS BV, VDL ENERGY SYSTEMS BV, KIWA, WATERSCHAP VECHTSTROMEN, COGAS, KIEMT, ARNHEM AND NIJMEGEN UNIVERSITY OF APPLIED SCIENCES, ROC VAN TWENTE, SAXION