

## **United Nations Industrial Development Organisation (UNIDO) establishes the International Hydrogen Energy Center (IHEC)**

To successfully transition to a hydrogen economy, the entire value chain must be included says IHEC.

- Experts gathered at inaugural IHEC Expert Group meeting to discuss how to accelerate large-scale production, transportation, storage and use of hydrogen
- Currently a lot of activities are aimed at producing hydrogen in the world, but developing hydrogen applications and their roll-out is lagging behind
- If not corrected, this will create a supply/demand imbalance.

Eminent experts in the field of hydrogen met on 10 November 2021 to discuss the topics and key focus areas for the recently established International Hydrogen Energy Center (IHEC). Alois Mhlanga of UNIDO, representing Tareq Emtairah, Director of Department of Energy and Qinxian Jin, Vice Secretary General of Tsinghua University and Director of Beijing Tsinghua Industrial Development Research Institute, the Institute that is hosting IHEC since its inception in July 2021, opened the meeting.

The IHEC aims to accelerate the development of solutions for the large-scale production, transportation, storage and use of hydrogen, as well as knowledge dissemination with the aim of enabling China and the rest of the world to transition to a net zero carbon emission society.

The following conclusions were agreed:

- There is a huge amount happening globally in the hydrogen economy. Representatives were able to give very impressive examples of companies, countries and consortia who are implementing integrated solutions based on a hydrogen infrastructure: from small to medium sized demonstration projects all the way to large commercial scale approaches. To build an extensive network around IHEC to ensure global learnings are shared and avoid duplication.
- In order for the transition to a hydrogen economy to be a success, the entire value chain(s) need to be covered. For example, currently a lot of activities are aimed at producing hydrogen, but the development of hydrogen applications and their roll-out is lagging behind, bringing a supply/demand imbalance if not corrected.
- The IHEC should not only focus on the technological developments and R&D but also on the other elements of an emerging value chain, for example policy, business planning, project finance, the development of holistic approaches and standards to promote hydrogen deployment.
- The production, distribution, storage and use of hydrogen needs to happen safely. The experts believed that a globally aligned approach to safety is important. The global supply chains that will be developed, need to be developed safely.

Quote: “We’re delighted that so many companies and countries were represented in the IHEC. Driving the development of globally harmonized technical and quality standards should be part of the scope of IHEC. Such harmonized approach will greatly facilitate the connection of countries around the globe around a hydrogen infrastructure. As climate change is a global problem, also the solution in the form of hydrogen deployment should be facilitated globally. In this context it was also discussed that globally harmonized trading platforms would be of great benefit to a rapid global deployment of hydrogen as energy carrier and chemical building block.”

One of the very important topics on the agenda of the UN is that the global energy transition should be “just”. Clean energy should be accessible and affordable for all. Hydrogen allows for that as it makes some developing countries less dependent on energy imports, and hydrogen can be generated and

used in a local-for-local business model. Such a just energy transition will also allow a higher participation level of girls and women in the developing economies.



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Expert Group Meeting to support the successful operation & development of  
the International Hydrogen Energy Centre (IHEC)



Maunits van Tol, CTO, Johnson	Alicia Eastman	Trygve Skjold	Barbara Jents	Knut Vaagsaether (USN)
Jørn Rosenlund	Jörg Gläsel	Xiaoping Li	Martin Börning	Julio Garcia
Andrew Clennett	Yasmin Ali	Joris Proost	Sara Vaica - UNIDO	LIU Heng - UNIDO
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