Press release

Benguerir, 2021

IRESEN, UM6P, and OCP Group have signed a cooperation framework agreement to set up the GREEN H2A technology platform, which is dedicated to R&D and Innovation in the field of Green Hydrogen and its Applications («Power-To-X»).

The Research Institute in Solar Energy and New Energies (IRESEN), Mohammed VI Polytechnic University (UM6P), and the OCP Group signed on November 25, 2021, at UM6P's main campus in Benguerir, a cooperation framework agreement aiming at setting up the technological platform GREEN H2A dedicated to the R&D and to the Innovation in the field of Green Hydrogen and its Applications («Power-To-X» - PtX).

This first-ever African infrastructure aims to play a major role in the industrial deployment of the green hydrogen sector and its applications in Morocco. It will allow the investigation, test, demonstration, adaptation to the local context. It will also scale up the innovative technologies of this promising sector.

Alongside the National Commission of Green Hydrogen, and the Cluster "Green H2 Morocco," Green H2A is a structuring link of the Green ecosystem in our country, and it has been strengthening its value chain. Green H2A will, in particular, accompany the academic and socio-economic worlds and contribute to the sector's growth by:

- Exploring of the PtX sector's potential, as well as R&DI and industrial opportunities for Morocco, through the development of pilot and demonstration projects on a pre-industrial scale.
- Supporting public policies and national and international industries in terms of technology and decision-making, notably in terms of standards and certification.
- Strengthening the production of knowledge and know-how for the public and private sector, through the transfer of technology and intellectual property.
- Providing a state-of-the-art training offer for the reinforcement of capacities and development of a high-value human capital for the benefit of our universities, research centers, and initial and professional training, as well as national and international industrialists.
- Positioning Morocco as a preferred international partner for technological solution suppliers, industrialists, project developers, and investors in this industry.

Abdelaziz EL MALLAH, OCP Group's Industrial Executive Director said that "Green hydrogen production adds value to renewable energy, particularly its transformation into products with increased energy density and high economic potential, meeting a significant global demand for green molecules as the world moves closer to carbon neutrality." He added, "This is a genuine opportunity for our country, as well as a potentially lucrative market for our industrial conglomerate."

IRESEN's General Manager, Badr IKKEN, noted: «Hydrogen is an important component of the energy transition." He clarified that "it's a high-potential energy source that plays a role in both economic growth and long-term development.Further noting that "this platform will help our country's industrial sector deploy and scale more quickly," IKKEN added that "Green H2A will also be a valuable ally for the national stakeholders interested in boosting innovation and maximizing industrial value localisation in our country.»

Meanwhile, Hicham EL HABTI, President of UM6P stated that « UM6P welcomes the implementation of this infrastructure, which will be a real tool for creating value and knowledge and a significant way to train and qualify our human resources, as well as an opportunity to promote the development of the university. He further explained that "this project is a great opportunity for Morocco, which was named among the six countries with the greatest global potential in 2018." The UM6P president noted that "Morocco's generation of green hydrogen will boost our economy, contribute to our' industry's decarbonization, and allow us to co-finance our transition and energy security."

It's worth noting that one of the Green H2A platform's initial projects, a pre-industrial pilot production of 4 tons per day of green ammonia, is equipped with a 4MW electrolysis capacity, including 2MW PEM and 2MW alkaline. The platform, which will be housed in the center of the OCP Group's Jorf Lasfar industrial park on an initial area of 5ha, will be equipped with future «outdoor» pilots and demos, as well as a building containing «indoor» laboratories and research offices.

About OCP Group:

OCP plays an important role in feeding a growing global population, by providing essential elements for soil fertility and plant growth, with a century of experience and revenues reaching US$ 5.9 billion in 2020. OCP is a leader in plant nutrition and the world's first producer of phosphate-based fertilizers. OCP provides a wide range of customized fertilizer products to enhance soil, increase agricultural yields, and help feed the planet in a sustainable and affordable way. Headquartered in Morocco and present on five continents, OCP works in close partnership with more than 350 customers across the world. Closer to home, OCP is committed to help drive forward Africa's environmental and social development and implement sustainable and prosperous agriculture through innovation. The Group is firmly convinced that leadership and profitability are necessarily synonymous with social responsibility and sustainable development. Its strategic vision is rooted in the meeting of these two dimensions.

Learn more: **www.ocpgroup.ma**

About UM6P:

Mohammed VI Polytechnic University is a hub of education, research, innovation and entrepreneurship, aspiring to become a solid bridge of knowledge between Morocco, Africa and the world. Located in the "Mohammed VI Green City" in Benguerir, near Marrakech, with branches in Rabat and Laayoune, UM6P applies a "learning by doing" approach and develops sound partnerships with world-wide class universities, to promote leadership and training in focused research areas. UM6P counts today more than 3.500 students, 10% of which are international, with in more than 30 programs and schools focusing on innovative applied research and education. By contributing to the training of a new generation of researchers, entrepreneurs and leaders, UM6P is committed to positioning Morocco and Africa at the forefront of technology and human Sciences..

About IRESEN:

The Institute of Research in Solar Energy and New Energies (IRESEN) was established in 2011 under the supervision of the Ministry of Energy Transition and Sustainable Development, with the help of several public and private energy sector actors. IRESEN is set to boost the national energy strategy through market-oriented research and innovation in the field of green technologies.

IRESEN is now a major supporter of the national energy policy, with a presence across the entire value chain of green innovation, thanks to a network of green technology research and innovation platforms, as well as funding for applied research and collaborative innovation initiatives.