"Hydrogen plays a major role in creating green and emission-free energy for the future"

POWERING THE FUTURE THROUGH HYDROGEN EDUCATION

LAURA CURRID WRITES ON HYSCHOOLS - A PROJECT TO PROMOTE CAREERS IN THE USE OF HYDROGEN AS A CLEAN SOURCE OF ENERGY

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The big challenge for the 21st century is how we can create a sustainable future while meeting the demand for energy. Hydrogen plays a major role in creating green and emission-free energy for the future and hydrogen fuel cells are considered to be a viable way of addressing the decarbonising strategies of countries across the world.

This is an exciting time to be developing understanding of the practical applications of fuel cells and hydrogen as there will be many jobs created in this sector.

"Fuel cell and hydrogen technology could create 30 million jobs across Europe, and enhance the continent's economy by $2,000 billion in annual sales worldwide by 2050". *Fuel Cells and Hydrogen for Green Energy in European Cities and Regions Report*

What is HySchools?

HySchools is a 30-month, Erasmus+ project intended to deliver high-quality practical and online teaching resources to educate the next generation of technology talent about the use of hydrogen as a clean source of energy. It is a consortium of 8 partners including University of Lorraine (FR), Technifutur (BE), University of Franche Comte (FR), University of Perugia (IT), Patras Science Park (GR), Maramures Energy Agency (RO), Perugia/Abruzzo Region (IT), led by Manchester Metropolitan University (UK). Together we have already undertaken research to elicit the needs of teachers across Europe.

We are based at the Manchester Fuel Cell Innovation Centre (MFCIC), a £4m technology hub for the North West of England. The HySchools project benefits from access to the latest technology, world-leading academics and industry professionals.

I am using the results from this research to produce a range of resources to improve the quality of students' education, in turn improving the quality of graduates in the sector. Online resources - such as podcasts and videos of global fuel cell outreach – are also in development, using university expertise. We are continuing to engage with industry leaders to ensure that the resources will not only enable non-hydrogen experts to deliver a high-quality education on hydrogen energy but also address the skills that industries are looking for in their future employees.

How you can help

There are currently skills gaps in this rapidly-advancing area of science and engineering so to address this, one of the project's aims is to engage careers advisers to enhance the profile of jobs in hydrogen energy employment and expose students to them as viable and exciting career opportunities. We want guidance

professionals to be aware of the employment opportunities involved in hydrogen power and highlight these to their students.

The HySchools resources will enable teachers to focus on teaching the skills required. There is vast potential for careers in law and policy making, environmental studies, transport strategy, planning, project management, engineering- and science-based research and development amongst others.

The projects ends in February 2020 and resources will be rolled out across the partner countries for distribution to schools. This will include a flow chart outlining key skills required and what job opportunities development of those skills can lead to.

The unique aspect of this project is that the resources created will be free to access worldwide, ensuring that everyone has the access to high-quality materials and resources.

We are inviting careers advisers to take part in the testing of our resources. This will allow them to see the potential for each subject area and how hydrogen energy can fit with a variety of students' career aspirations. Contact l.currid@mmu.ac.uk for more information or if you wish to be involved.

Reference

www.fch.europa.eu/publications/fuel-cells-and-hydrogen-green-energy-european-cities-and-regions