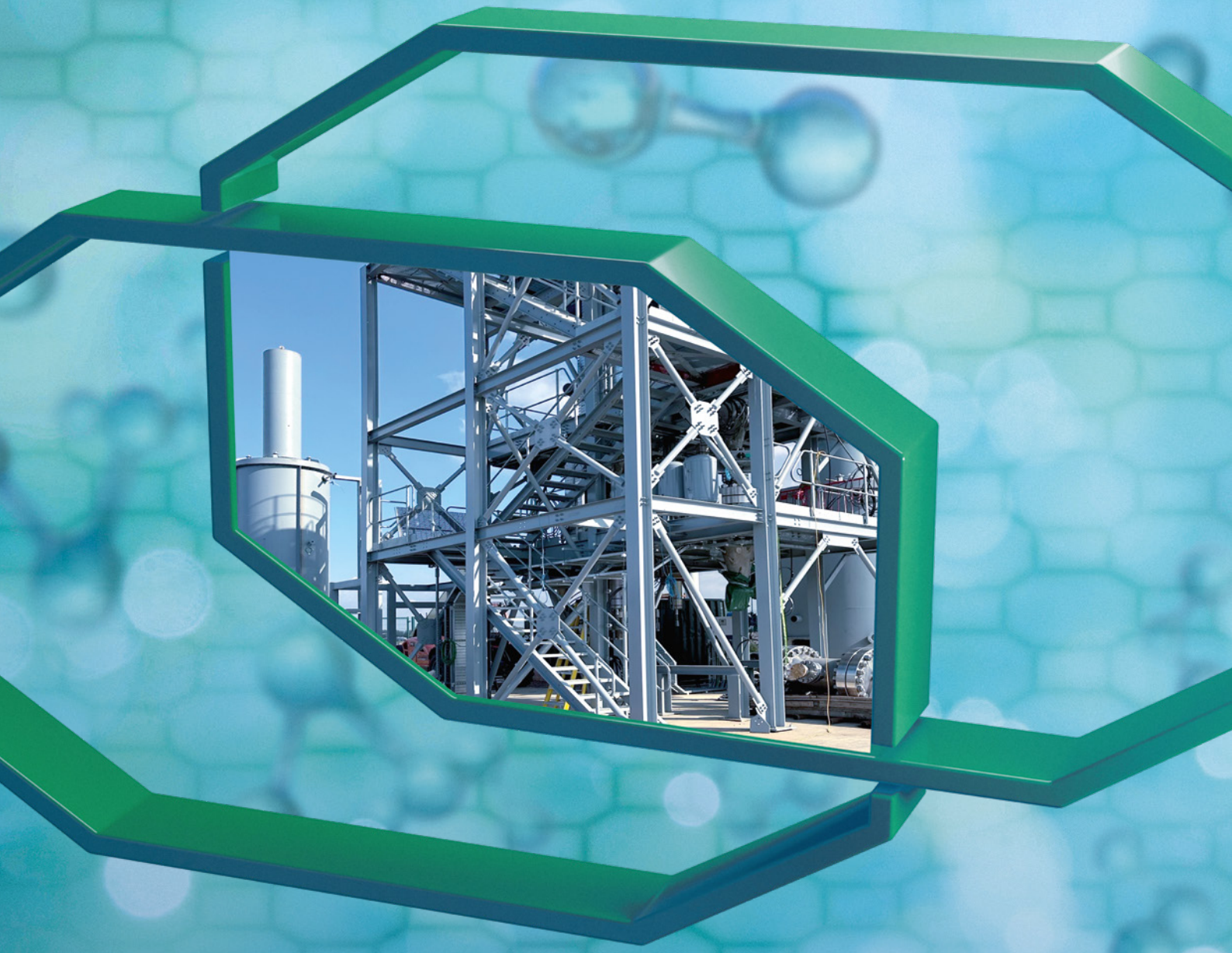
H_2 STEAM REFORMING



THE STRONGEST LINK.

STAHL

OUR PROJECT:
1 MWth PILOT PLANT FOR LOW-CARBON H_2 PRODUCTION

Cranfield University and project partners were tasked with designing, constructing and testing a pilot plant for HyPER – **Hy**drogen **P**roduction by Sorbent **E**nhanced Steam **R**eforming. This is a new technology that makes hydrogen production even more efficient while providing a 97% lower carbon footprint.

OUR CHALLENGE: FINDING THE PERFECT SYSTEM

HyPER uses a considerable number of different instruments, analogue transmitters, raw temperature signals, gas analysers, valves, flow meters and thermocouples. We had to establish a solution that reliably and safely transmits all measured data from the hazardous area to the control system.

OUR SOLUTION: EFFICIENT PLANNING IN A SMALL SPACE

In order to interface with the field devices, it was necessary to install our equipment exclusively in the Zone 2 hazardous area. For maximum efficiency, we decided to use a number of small modular field stations rather than a single large station. This meant that the equipment could be positioned as close as possible to the sensors and actuators.

Signal transmission

To ensure maximum flexibility for the project installation, we proposed to use five of our compact IS1+ Remote I/O stations. These have dimensions of 600 x 600 x 300 mm. Fewer larger IS1+ stations were considered but the client preferred the flexible option. This is because they can be installed directly in Zone 2, which means more premium free space for other equipment in Zone 1. The embedded system allows for the safe and reliable transmission of nearly 300 signals (temperature, digital and analogue).

For more information visit **r-stahl.com/en/h2**

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