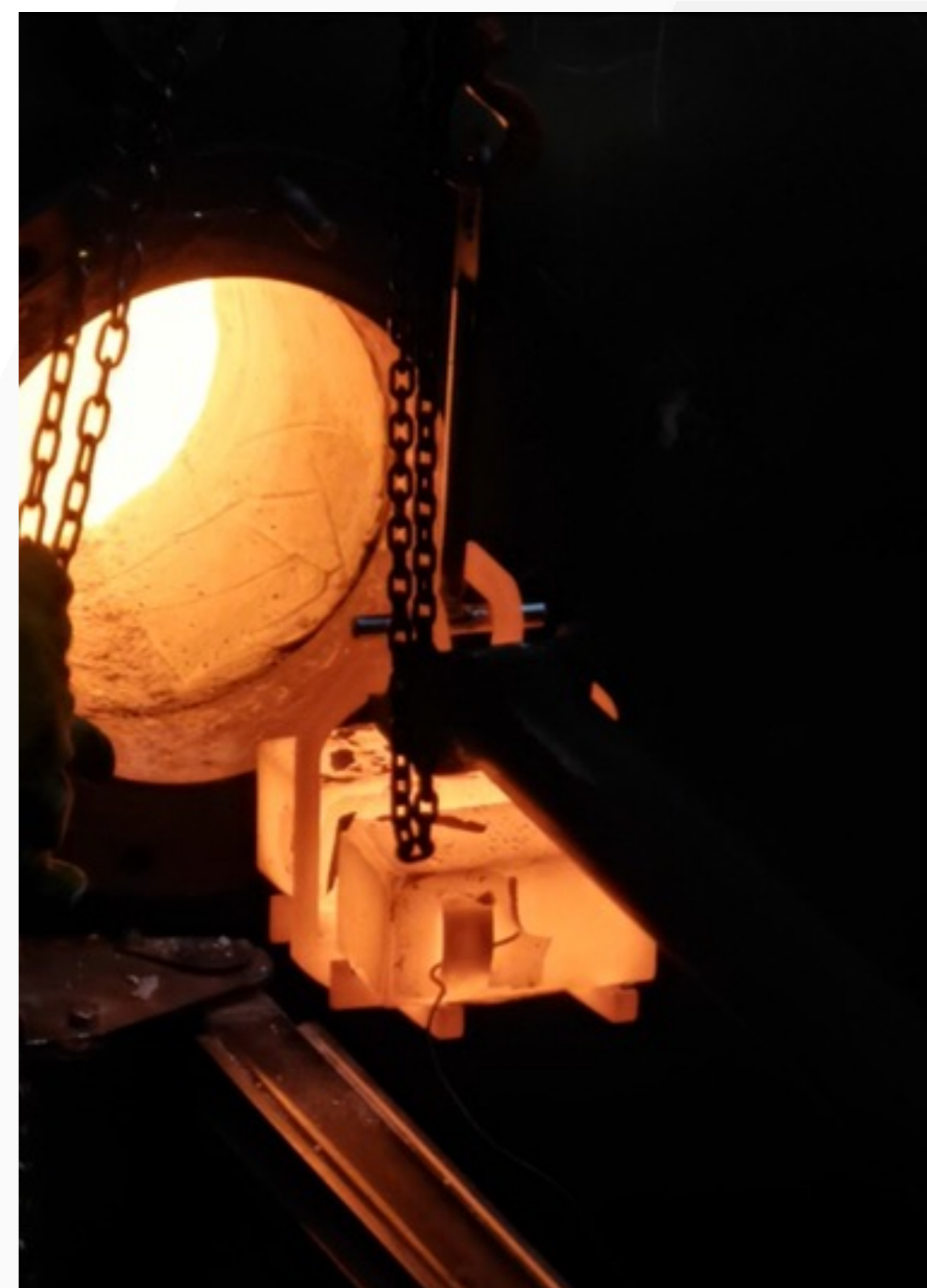


## Case study 2

# Recovery of H<sub>2</sub> from steel gases for reheating furnaces



Over a period of four years 19 researchers from ten countries have tested concepts and technologies that can reduce carbon dioxide emissions from steel production by 95 percent.

The EU project C4U (Advanced Carbon Capture for steel industries integrated in CCUS Clusters) concerns two different concepts and technologies that are being tested: to utilise blast furnace off-gases for heating furnaces in steel production, and to capture and store carbon dioxide.

- ▶ Capture of CO<sub>2</sub> from BFG
- ▶ Dedicated H<sub>2</sub> reheating furnace
- ▶ 4x steel types @ 1150-1200 °C
- ▶ Study of surface properties in new atmospheres

First Demonstration of recovered hydrogen for reheating furnaces.

### Acknowledgements

The gas processing projects have received funding from the European Union's Horizon 2020 and Horizons Europe research and innovation programs under grant agreements.

**€76m in projects and approx.  
€20m in equipment.**

▶ STEPWISE	No. 640709	2015-2019
▶ FReSMe	No. 72750	2017-2021
▶ C4U-project	No. 884418	2020-2024
▶ Initiate-project	No. 958318	2021-2025
▶ CaLby2030	No. 101075416	2022-2026

