

## Circular Economy (CE)



## Carbon Direct Avoidance (CDA)

### H<sub>2</sub>-based metallurgy



### Electricity-based metallurgy



## Smart Carbon Usage (SCU)

### Process Integration



### Carbon Valorisation/CCU



## Carbon Capture and Storage CCS<sup>2</sup>

(not included in SCU, CDA or CE)



- H<sub>2</sub> pipelines by conversion of existing natural gas pipelines (repurposed)
- UK 2030 pipelines depends on pending selection of hydrogen clusters
- Newly constructed H<sub>2</sub> pipelines
- Export/Import H<sub>2</sub> pipelines (repurposed)
- Subsea H<sub>2</sub> pipelines (repurposed or new)

- ▲ Potential H<sub>2</sub> storage: Salt cavern
- ▲ Potential H<sub>2</sub> storage: Aquifer
- ◆ Potential H<sub>2</sub> storage: Depleted field
- Energy island for offshore H<sub>2</sub> production
- ★ City, for orientation purposes

### SOURCES:

EUROFER for steel low-CO<sub>2</sub> projects  
European Hydrogen backbone, Guidehouse report 2021

