Traditional steelmaking vs hydrogen/HYBRIT manufacturing process

Blast furnace route

Iron ore pellets

Coke

Coal

Coke plant

Pelletising

Iron ore concentrate

IRON ORE

CONCENTRATE

Fossil fuels

Hot blast coal, Oxygen

Oxygen

Iron ore pellets

Non-fossil fuels

Hydrogen

and water

Hydrogen plant

Hydrogen storage

Pelletising

IRONMAKING

Hot metal

Sponge iron

STEELMAKING

Crude steel

Crude steel

Coke

Coke plant

Electricity

Chemical process under HYBRIT technology

Iron ore pellets + H2 = Sponge iron + H2O