



International Partnership  
for Hydrogen and Fuel Cells  
in the Economy

## ***IPHE Outreach Forum***

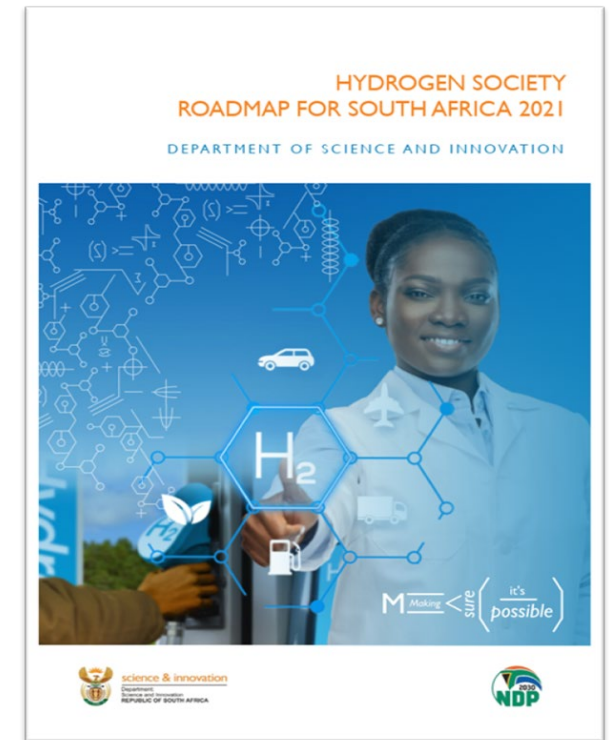
# ***South Africa: Hydrogen Vision and Goals***

28<sup>th</sup> November 2022

Centre for High Technology San José, Costa Rica

# Governance and Policies *South Africa*

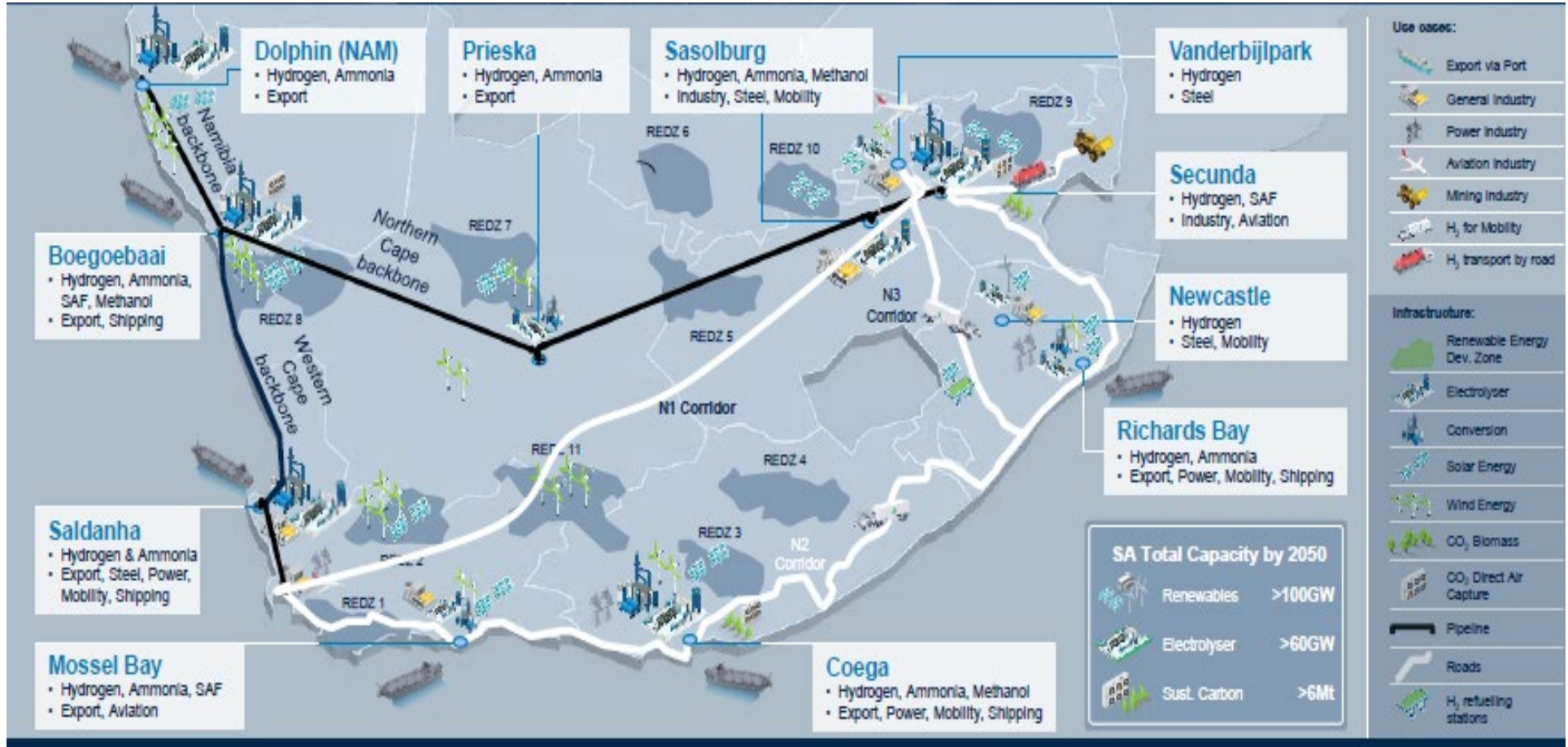
- **Hydrogen Society Roadmap - An inclusive, sustainable and competitive hydrogen economy by 2050 with the goal of achieving a Just and inclusive net zero carbon economic growth for societal wellbeing by 2050.**
  - **Just Transition Framework approved by Cabinet**
  - **South Africa presented its Just Energy Transition investment Plan (JET-IP) during COP27**
  - **The draft Green Hydrogen Commercialisation Strategy is currently being reviewed by key stakeholders**



# New Initiatives *South Africa*

## Creation of a Hydrogen Ecosystem in South Africa

Through leveraging existing infrastructure facilities, South Africa can create a green Hydrogen Ecosystem that is based on both local demand and exports.





# New Initiatives *South Africa*

## New Catalytic Projects

### Sasolburg Green Hydrogen Hub

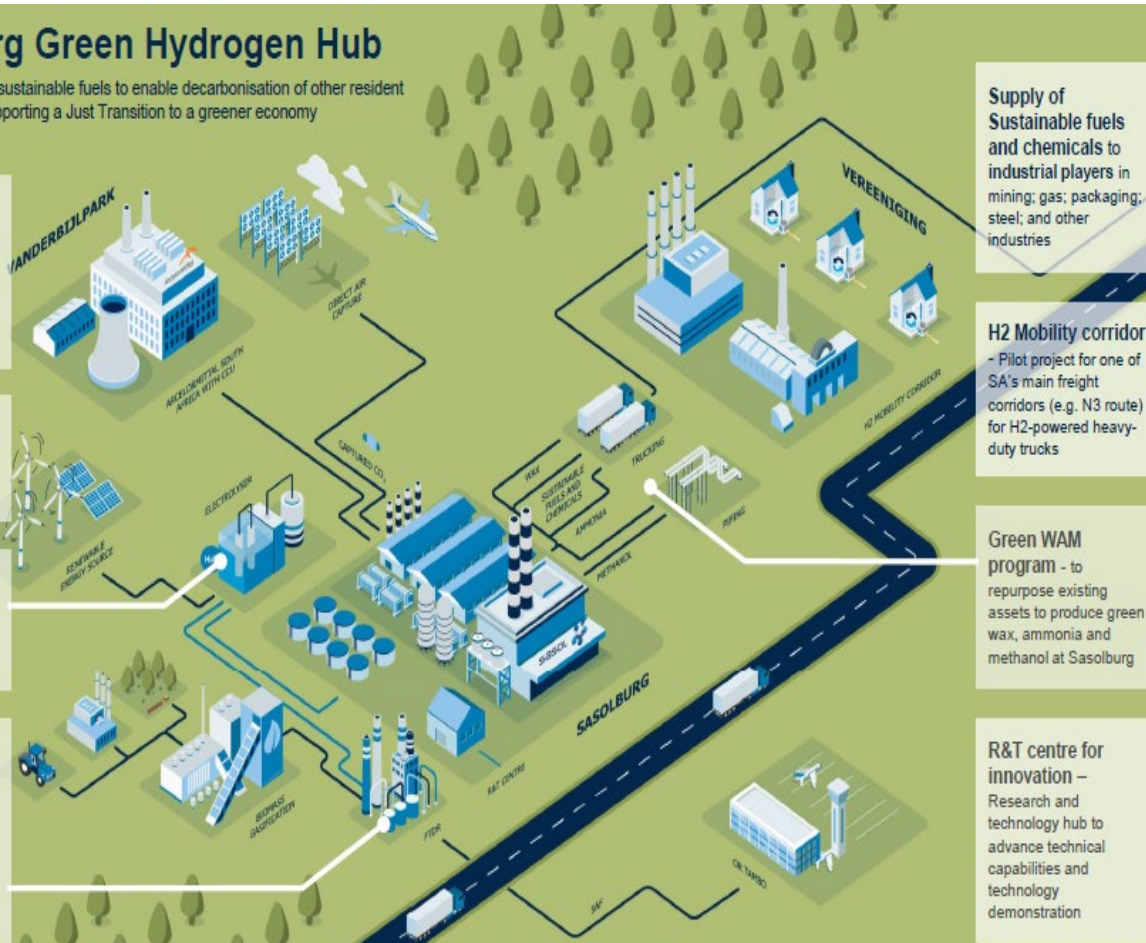
Converting CO2 into sustainable fuels to enable decarbonisation of other resident industrial players, supporting a Just Transition to a greener economy

**Vaal carbon capture and utilisation (CCU) project** - to capture >1 mtpa of CO2 from Vanderbijlpark works

**Renewable energy** - to supply electrolyser for gH2 production

**Green hydrogen MVP project** - First commercial-scale gH2 producing ~3.5 tpd of gH2 at Sasolburg

**FDTR SAF production** - Fischer-Tropsch Demonstration Reactor (FDTR) to produce ~190 bbl/d SAF using next generation G4L Fischer-Tropsch catalyst



**Supply of Sustainable fuels and chemicals to industrial players** in mining; gas; packaging; steel; and other industries

**H2 Mobility corridor** - Pilot project for one of SA's main freight corridors (e.g. N3 route) for H2-powered heavy-duty trucks

**Green WAM program** - to repurpose existing assets to produce green wax, ammonia and methanol at Sasolburg

**R&T centre for innovation** - Research and technology hub to advance technical capabilities and technology demonstration

### Saldanha green hydrogen and derivatives hub

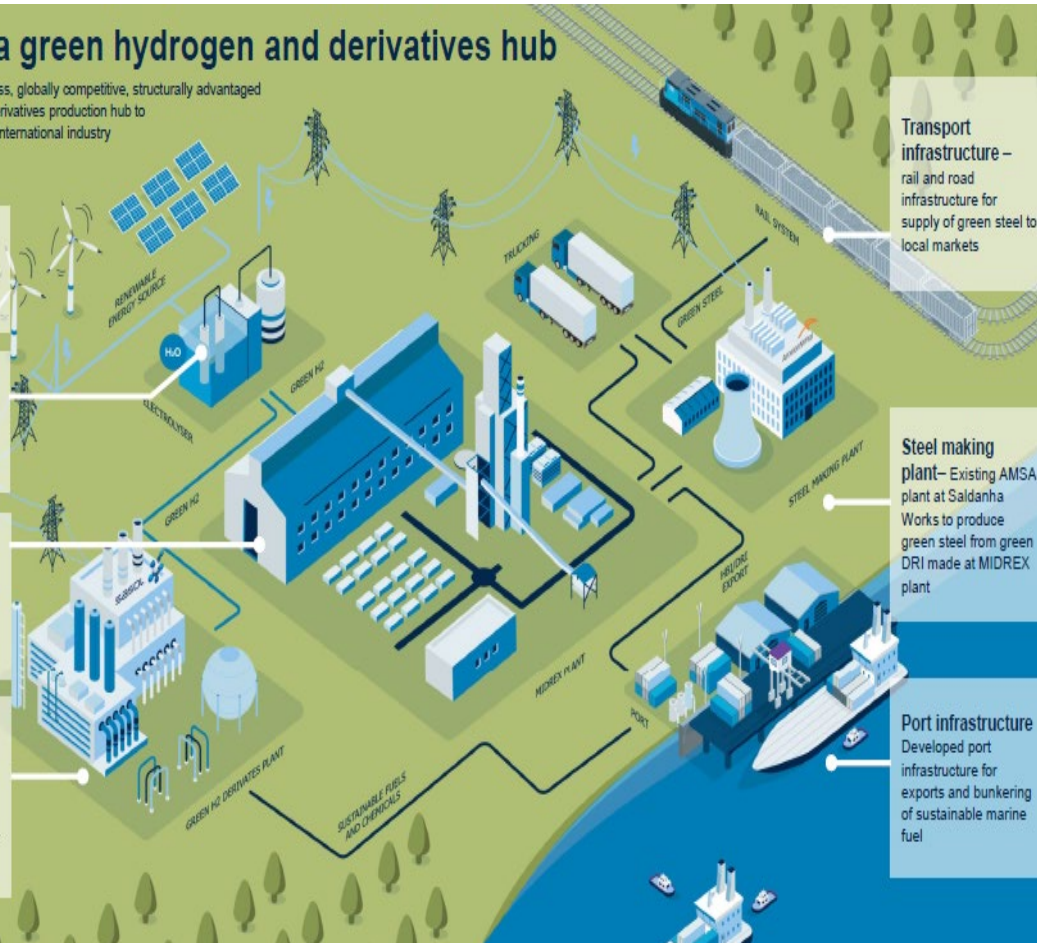
Developing a world-class, globally competitive, structurally advantaged green hydrogen and derivatives production hub to decarbonize local and international industry

**Renewable energy (RE)** - 1.5-2GW RE to supply green electrons to electrolyser and AMSA steel plant

**Electrolyser** - to produce 105 kt of hydrogen per annum to support green steel development at AMSA's Saldanha Works

**AMSA Saldanha MIDREX plant** - to produce 1.5 mtpa of green direct reduced iron (DRI) for local green steelmaking and for export markets

**Green hydrogen and derivatives production hub** - integrated facility to produce green hydrogen derivatives for local and export markets



**Transport infrastructure** - rail and road infrastructure for supply of green steel to local markets

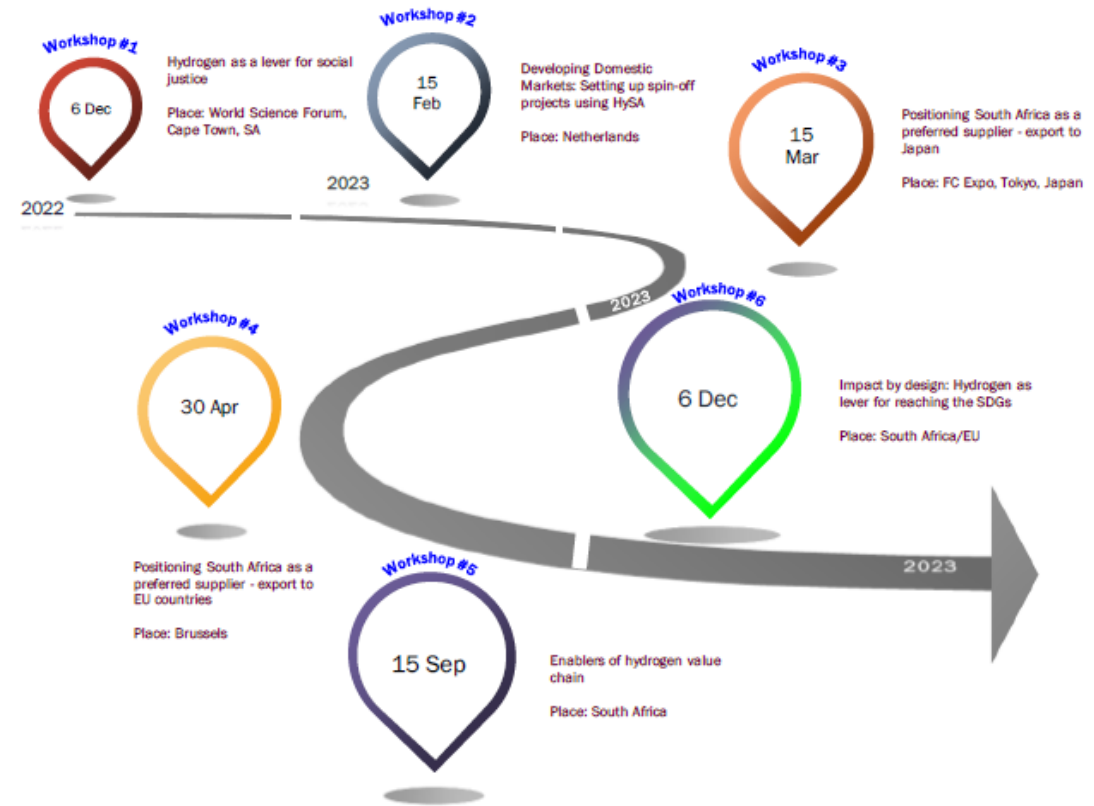
**Steel making plant** - Existing AMSA Works to produce green steel from green DRI made at MIDREX plant

**Port infrastructure** - Developed port infrastructure for exports and bunkering of sustainable marine fuel

# New Initiatives *South Africa*

## Science Diplomacy for Economic Development Initiative in Hydrogen

- The Science Diplomacy for Economic Development in Hydrogen (SDEDH) is a project that seeks to directly support the HSRM through a series of local and international roundtable workshops and follow up engagements.
- The inaugural roundtable workshop scheduled for the 5<sup>th</sup> December 2022 with the theme “Creating hydrogen valleys for South Africa” will unpack the progress that South Africa has made so far in terms of setting up its first Hydrogen Valley as per the recommendations in the HSRM



# Thank you



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