



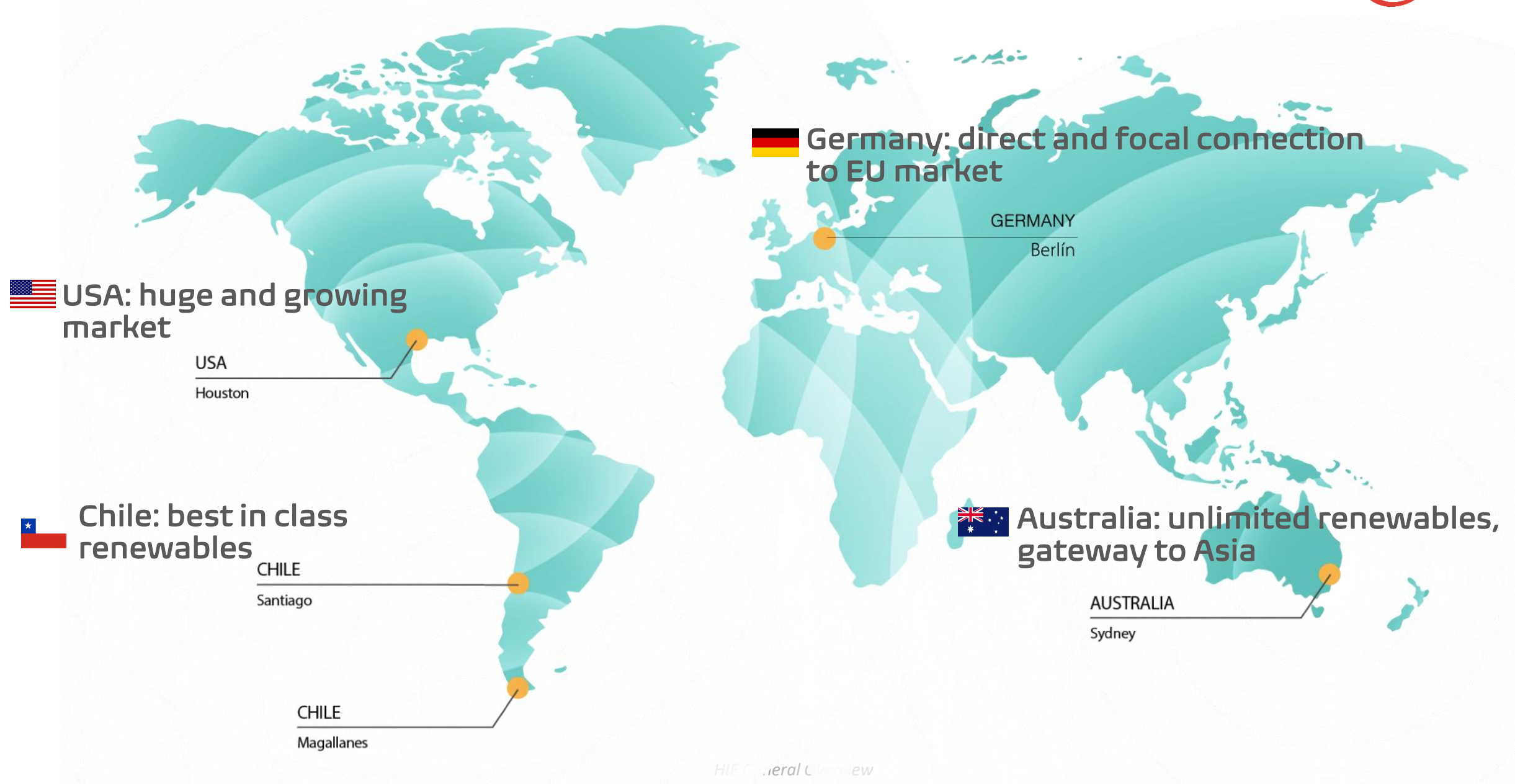
HIF Global eFuels: from vision to reality
May 2022

- 1 Introduction to HIF Global
- 2 Project technical and business concept
- 3 Progress up to date and global pipeline

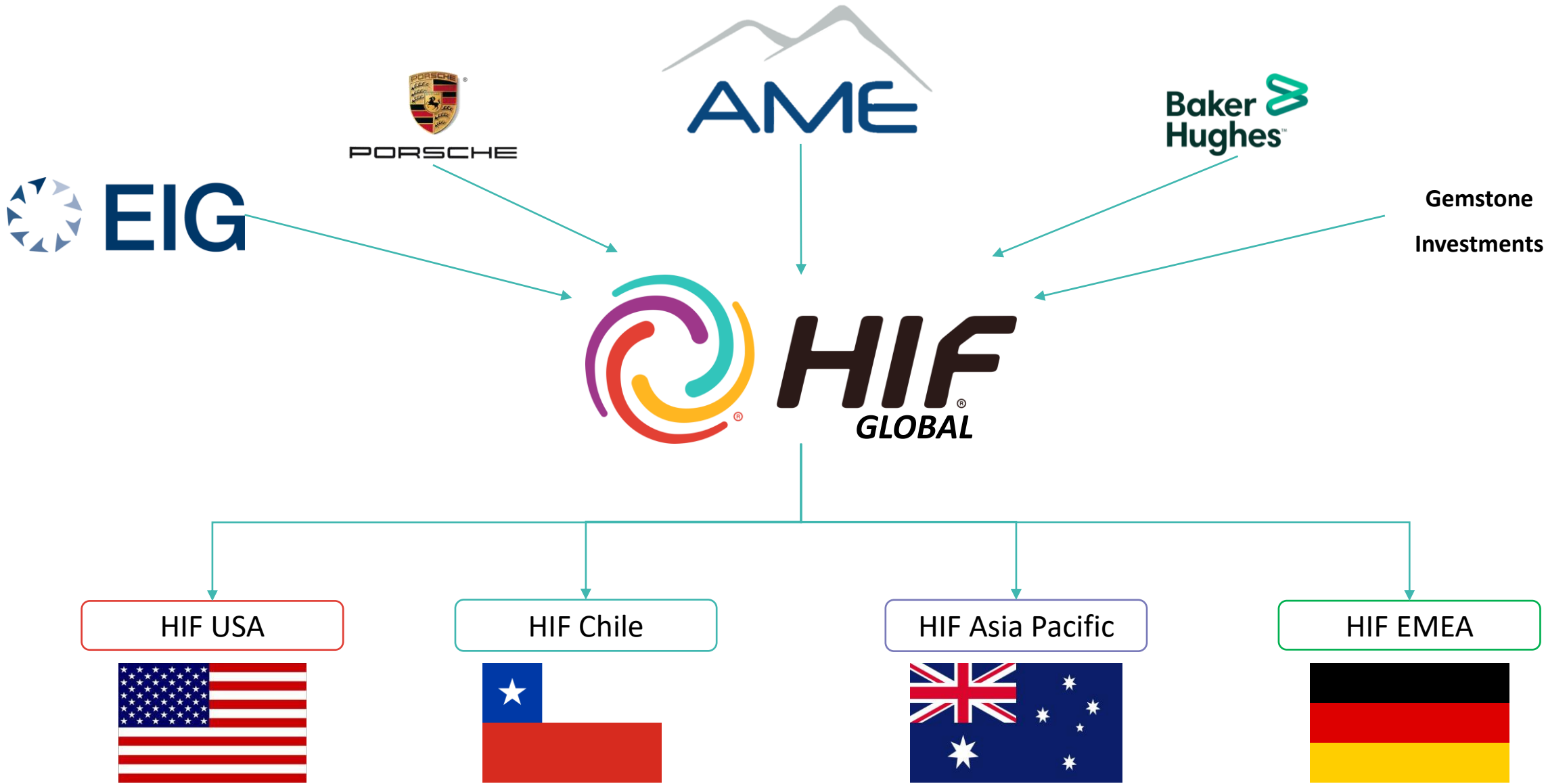


- The world is racing to decarbonize. To achieve net zero by 2050, **electrification alone is not enough**
- HIF Global is seeking to become the **world's first international, industrial scale e-fuels supplier**, producing at least 144,000 barrels per day by 2030
- First mover advantage is critical: first movers will take low-cost production sites with the most competitive renewable energy and reduce capex by repurposing existing fossil infrastructure
- Each world scale e-fuel production train requires approximately US\$3.5 billion of construction funding, together with the construction of between 2,500 and 5,000 MW of newbuild renewable energy generation projects, depending on load factor

HIF Global activities focused on key markets

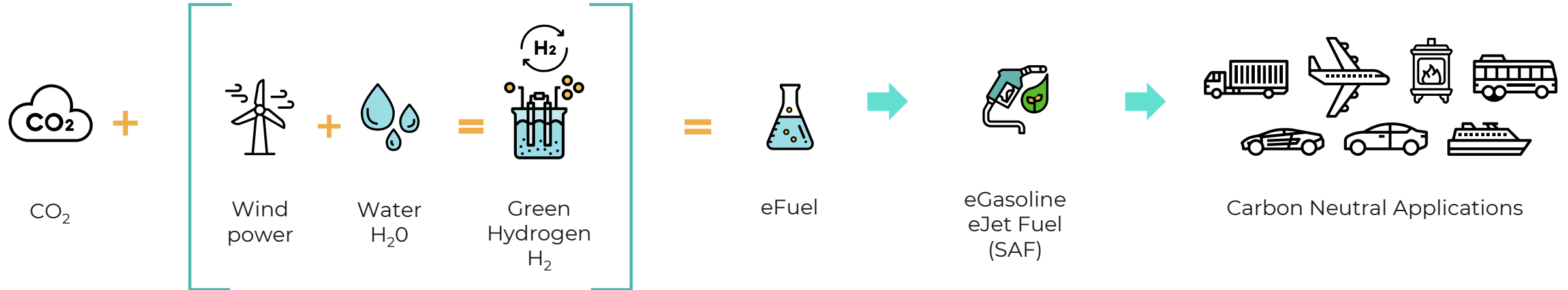


HIF Global corporate structure



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The e-fuel production process



1-CO₂ capture

CO₂ is **captured** directly from the atmosphere, from a biogenic or industrial source.

2- Green Hydrogen Production

Wind-generated energy is used to produce green hydrogen through a process called **electrolysis**, which separates the hydrogen from the oxygen in water.

3- eFuel Production

The green hydrogen is combined with the captured CO₂ to produce eFuel in a reactor through a process called **synthesis**.

4-Further processing

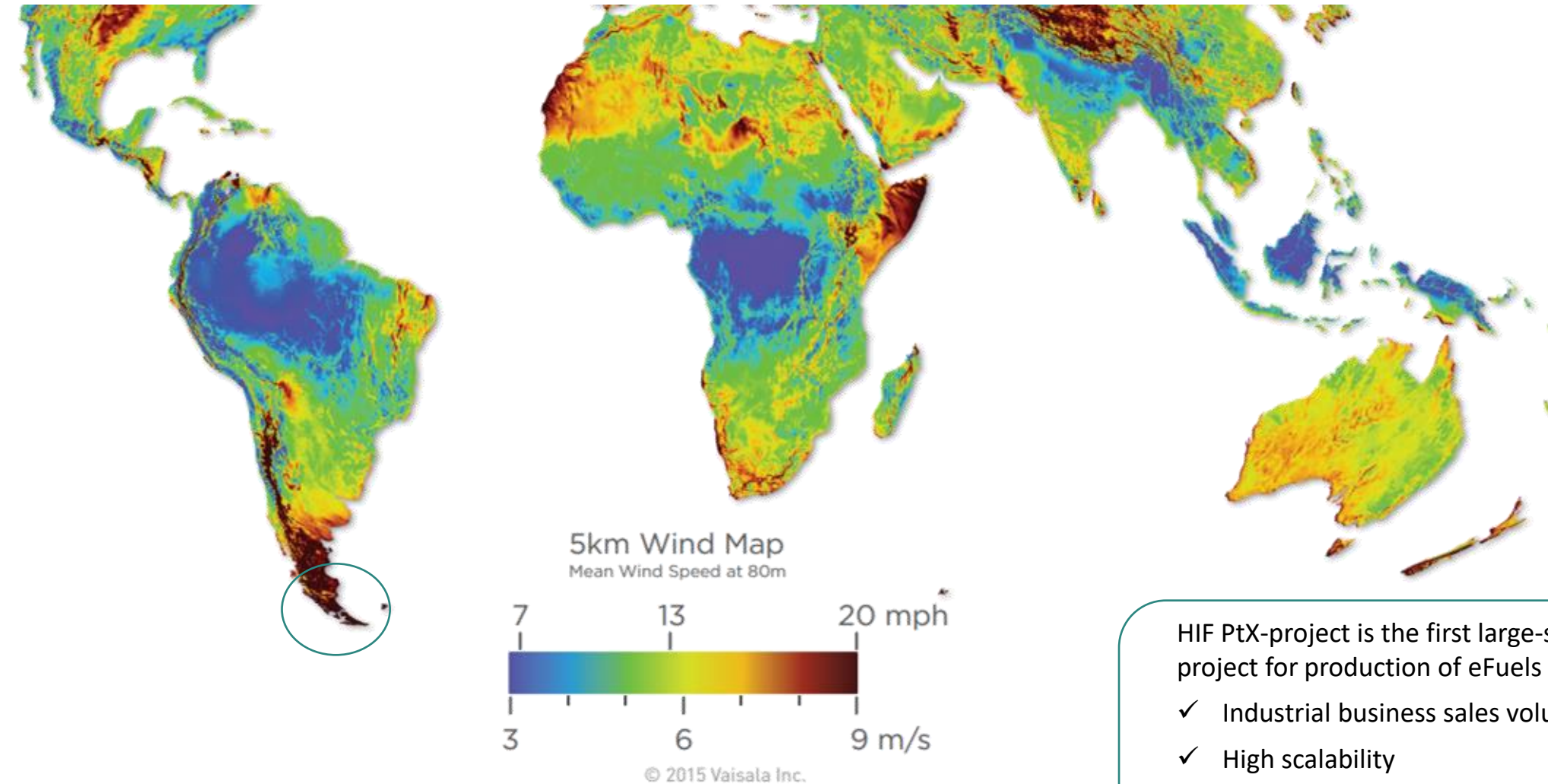
Further processing produces other **carbon neutral eFuels** that can be used for different purposes. For example: eGasoline for road transport, Sustainable Aviation Fuel for air transport, and LPG.

5-End Use by Existing Infrastructure

The **carbon-neutral eFuel** can be used by existing cars, trucks, ships, and airplanes as a complete replacement for its fossil fuel.

Releases the same carbon dioxide which was initially **captured** . . . and will be **recaptured** . . . a **carbon recycling system**.

Chile: The world's best renewable resource



- Due to the constant wind profile, HIF can have nearly continuous operation. HIF expects energy prices between \$0.01 - 0.02 / kWh

HIF PtX-project is the first large-scale commercial project for production of eFuels

- ✓ Industrial business sales volumes
- ✓ High scalability
- ✓ Competitive price
- ✓ Fuel with Extraordinary low Carbon Intensity

e-Fuels applications



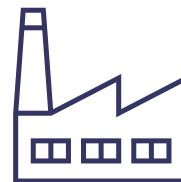
Road transport: even with aggressive electrification targets, more than 50% of US passenger cars are expected to be Internal Combustion Engine (“ICE”) in 2050¹. This will be higher in developing countries



Shipping: electrification is not an option for long distance shipping. Companies such as Maersk are positioning for a switch to clean, carbon neutral methanol as a shipping transport fuel²



Aviation: no clear technology path to move away from liquid fuels in aviation in the medium term. Insufficient supply availability from biofuels alone to meet global demand



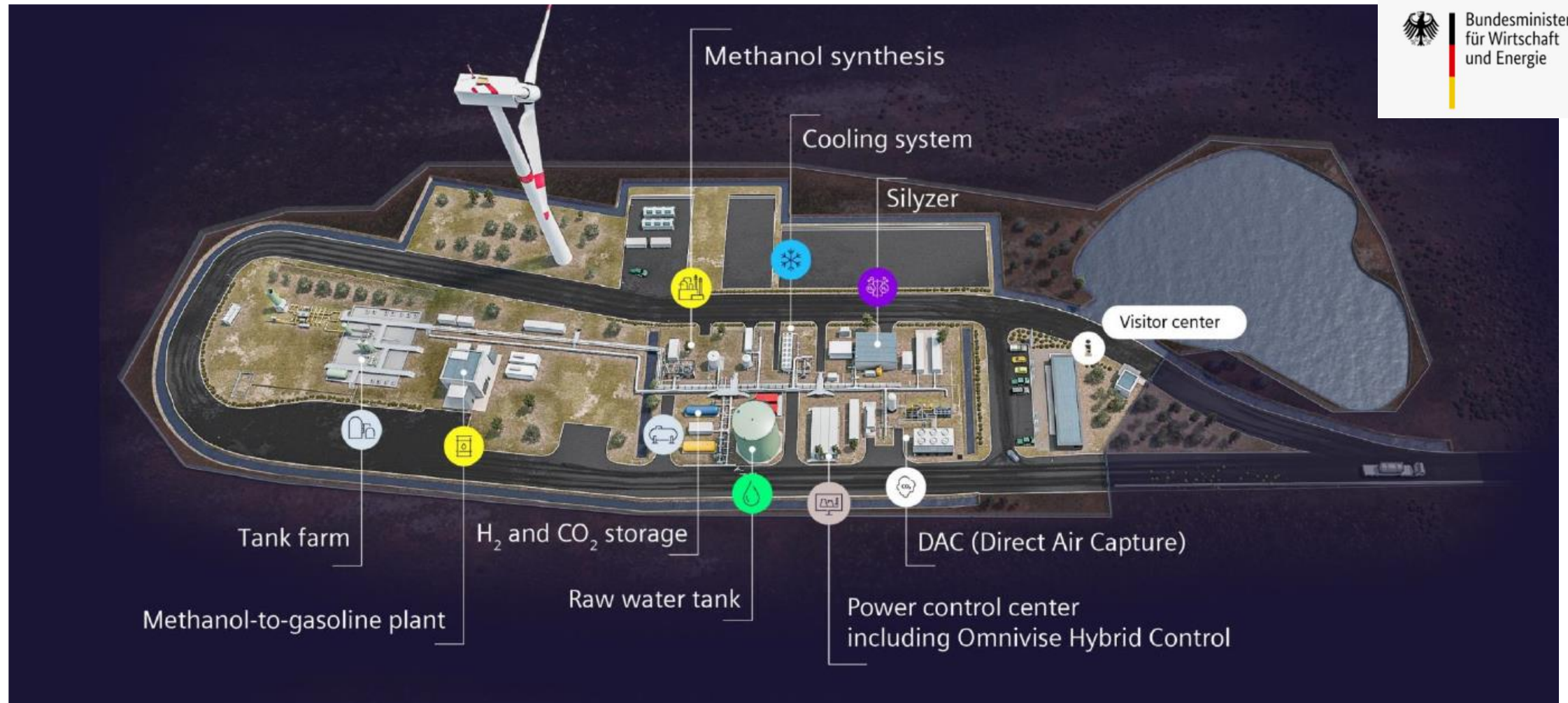
Petrochemicals: as pressure to decarbonize increases, solutions will be needed to replace petroleum-based products across the value chain, from plastics to fertilizers with low carbon alternatives

¹New York Times, 10 March 2021, “Electric Cars Are Coming. How Long Until They Rule the Road?”

² <https://lloydslist.maritimeintelligence.informa.com/LL1135807/Maersk-to-launch-first-carbon-neutral-ship-within-two-years>

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Haru Oni (demo plant): a world class global team



HIF Haru Oni plant in construction (May 2022)



HIF Haru Oni plant in construction (May 2022)



HIF Highlights to Date



The HIF project has been in development by AME since 2015, during which time significant progress has been made:



Land

- ✓ **Chile:** Over 500,000 acres (>10 GW) of long-term leases in areas screened for maximum wind resource and minor environmental impact
- ✓ US: Privileged site secured in Matagorda County, Texas



Partners

- ✓ JV with Enel Green Power for development of Chile energy assets
- ✓ Demonstration Plant in Chile in construction with participation of Porsche, Siemens Energy, ENAP and Gasco
- ✓ Inclusion of world class partners at HIF Global level



Offtake

- ✓ 100% of offtake of Demo Plant by Porsche
- ✓ MOU with Mabanaft for up to 500 million liters of green gasoline per year
- ✓ MOU with Porsche for offtake of up to 100% of Chile Phase 1 and Chile Phase 2 A
- ✓ MOU to be announced for up to 50% of Phase 1 and 2 Chile production



CO2

- ✓ Biogenic based solution in engineering phase in Chile
- ✓ Direct Air Capture (DAC) solution using Global Thermostat technology and other technologies
- ✓ Industrial CO2 sources identified



Permits

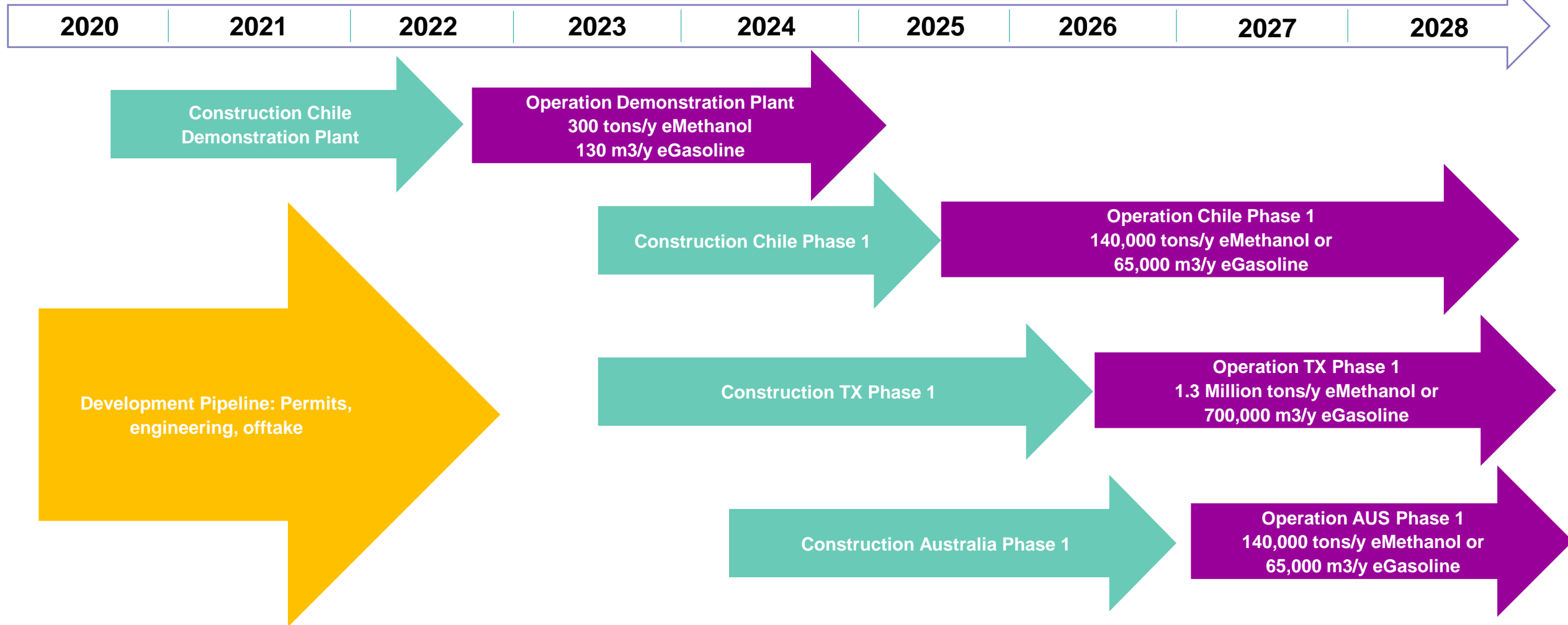
- ✓ Permit for Chile Demo Project received
- ✓ Chile Phase 1 permit documentation to be submitted in Q2 2022
- ✓ Pre-FEED studies with Siemens (Chile) and Bechtel (USA)



Finance

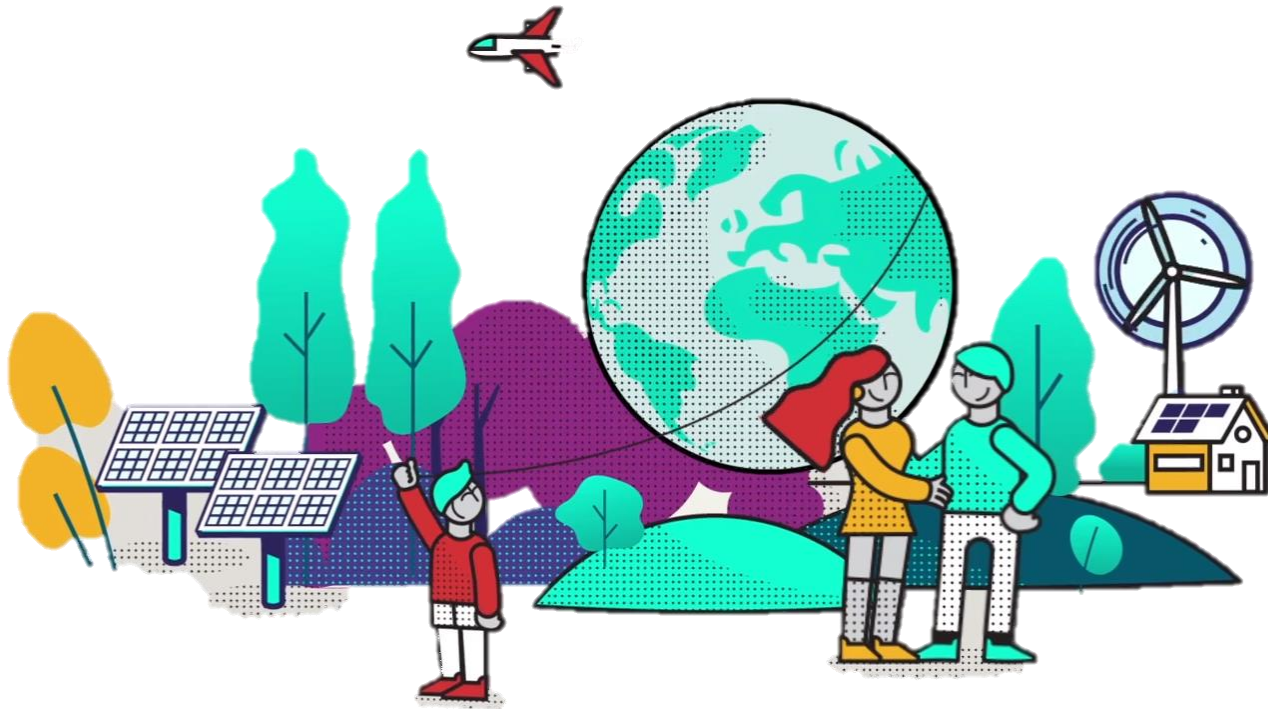
- ✓ US\$10 m German Government financing of Demonstration Plant
- ✓ US\$17 m Chilean Government financing for Phase 1
- ✓ US\$260 m capital investment with strategic partners

Progressive roll out of commercial phases



Indicative timetable, subject to change

Thank You



For additional information please contact:

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