

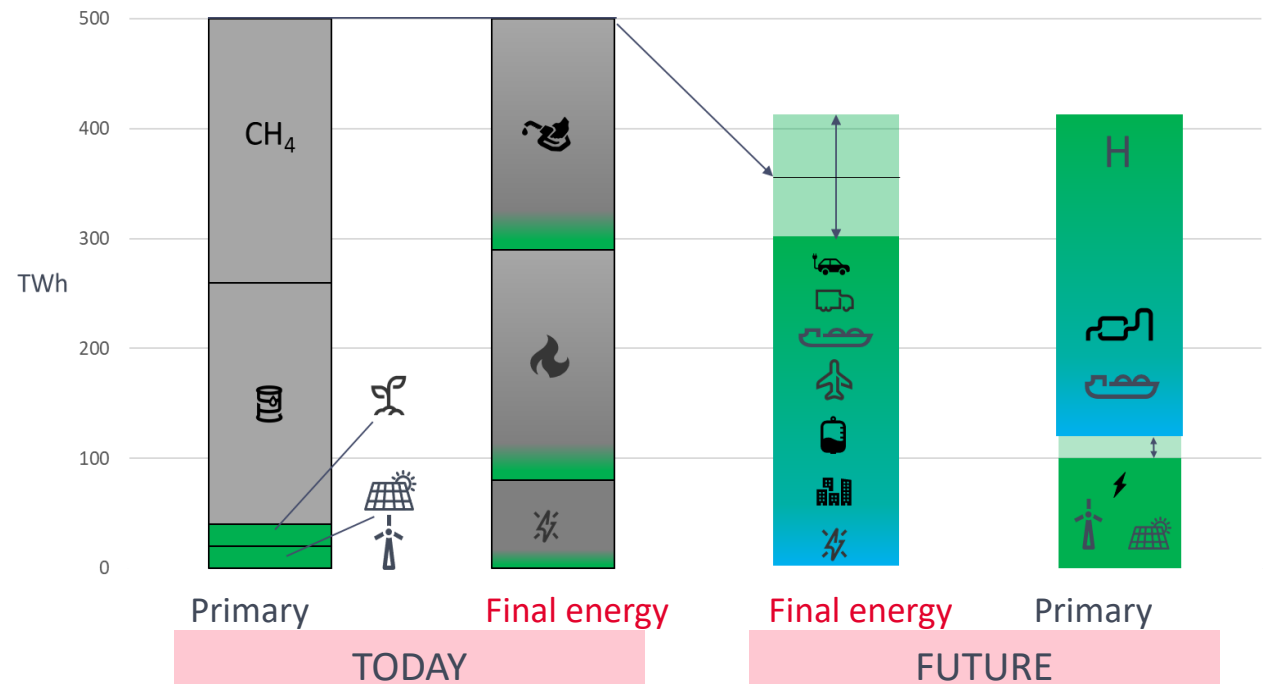
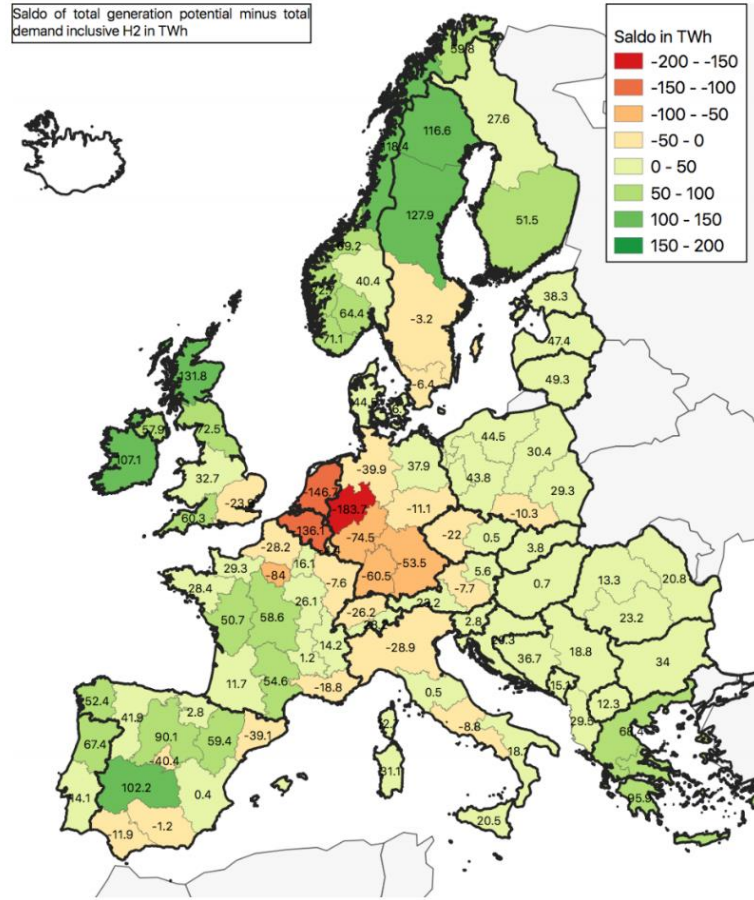
Hydrogen Import Coalition

Future Innovation and Vision Event Flux 50



NW-Europe will need import of carbon neutral energy

Belgium as a strategic hub connecting the world with central Europe



Hydrogen as vital part of a climate neutral Europe

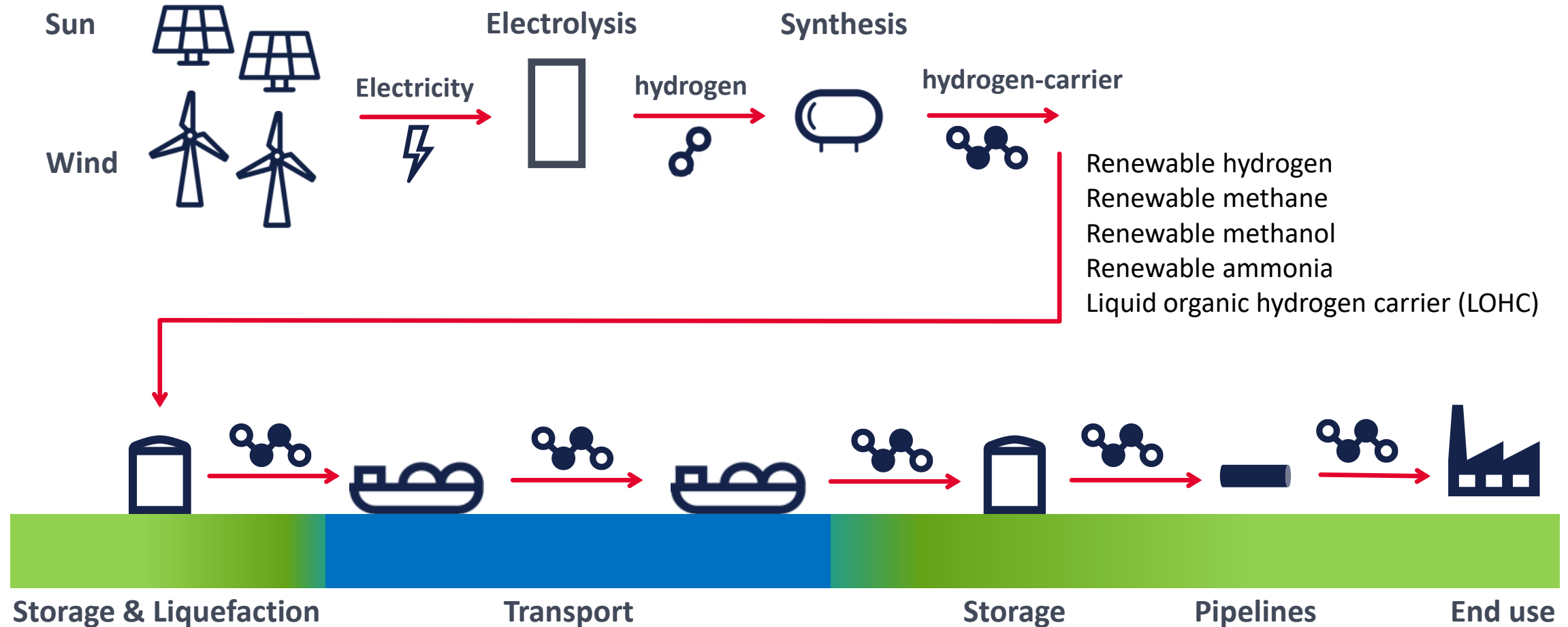
Today and tomorrow

- The **chemical cluster** in Port of Antwerp uses large amounts of different hydrogen molecules. Towards **a carbon-neutral port** clean hydrogen molecules will play an important role (feedstock, bunkerfuel,...)
- Hydrogen (and derivatives) play **a vital part** towards a reliable, affordable & robust energy system
- NW-Europe will need to import large parts of its energy demand
- Belgium is an energyhub, importing, storing, transforming and exporting energy flows. Around 400TWh is throughput every year



Renewable molecules – green hydrogen value chain

From remote wind and sun to end-user market



Hydrogen import coalition

Study 2019-2020: technological & economical feasible!

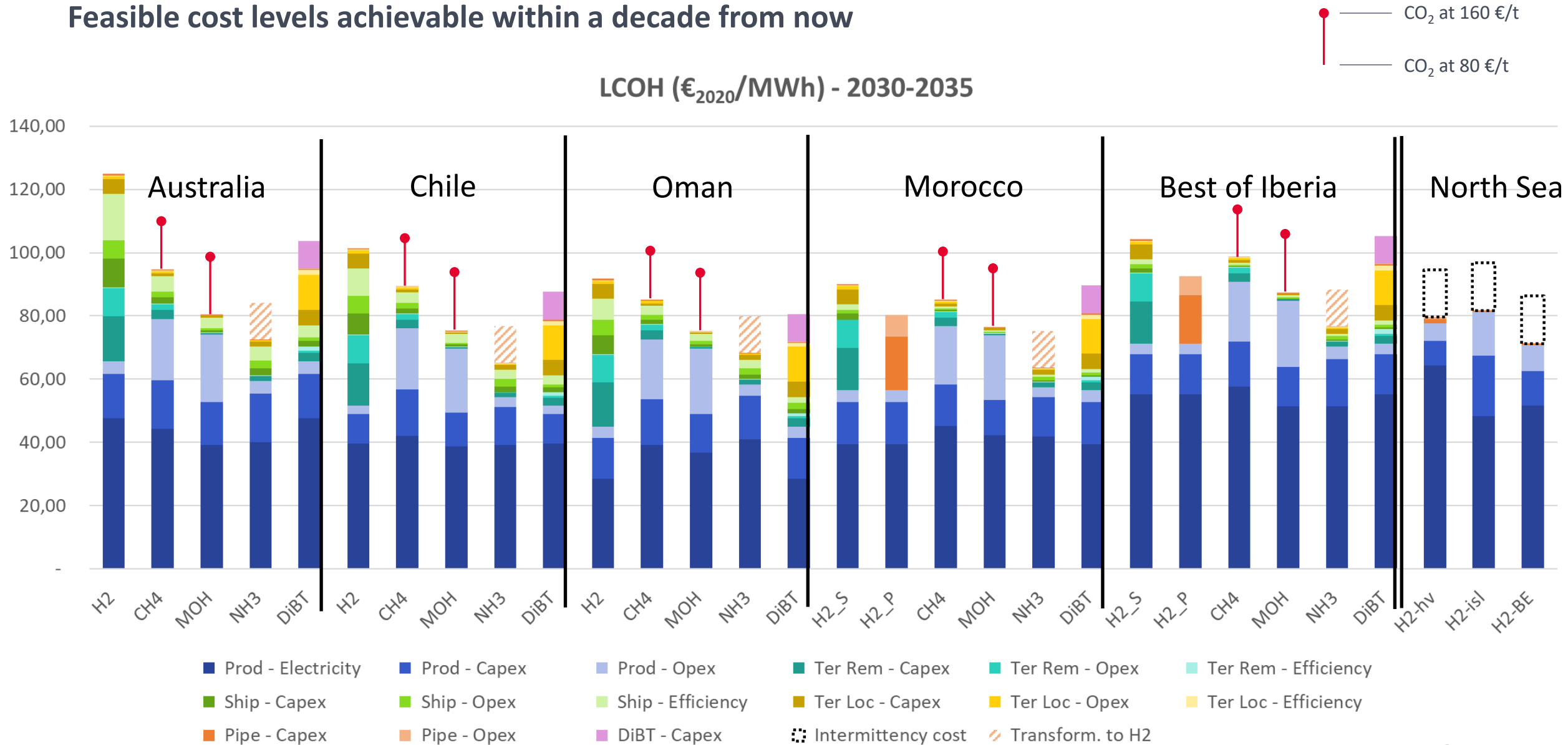
Integrated research of the value chain of importing over long distances renewable energy & feedstock in the form of H₂carriers (molecules)

- Different **carriers**: hydrogen, ammonia, methanol, syn-methane & dibenzyltoluene
- Analyse the **Value chain & thresholds** from remote production to final consumption through a partnership that bundles technological, market-economic & policy expertise across the entire chain
- **Assumption order of magnitude** : 110 TWh in 2035 and 750 TWh in 2050 (Belgium as European Energyhub)



Overall cost to deliver green energy to Belgium

Feasible cost levels achievable within a decade from now



Hydrogen import coalition

Next steps

The coalition wants **to continue the collaboration** and create the right framework for import pilots into Belgium and its hinterland.

- Develop intelligence and support **pilot projects** within the ecosystem of the coalition
- Continue the **advocacy mission** on the policy framework and possible support mechanisms
- **Industrial Stakeholder Committee**: dialogue with off-taker markets to gain insights, close the value chain and built projects

Oman announced start of Green Hydrogen Project in Duqm

December 18, 2020 SaudiGulf Projects Power, PPP 0



Belgian port lays out plans for 'massive' imports of green hydrogen

by Frédéric Simon | EURACTIV.com

28 Jan 2021 (updated 28 Jan 2021)



ENGIE to develop 2 GW renewable energy portfolio including hydrogen production and total exit from coal by 2025 in Chile



Port of Antwerp, Port of Zeebrugge and Chile join forces to foster hydrogen production

The Belgian ports and Chile sign Memorandum of Understanding (MoU) at COP26 in Glasgow and will intensify collaborate to make green hydrogen flows between the continents a reality.



@PortofAntwerp signed 2 agreements to explore and realize the Chilean-European hydrogen link together with partners @JCJobet, @ENGIE_EU, @Exmar_Shipman & @Port_Zeebrugge

#portofthefuture



Juan Carlos Jobet
Minister of energy
Republic of Chile

because we think it's one of the most important gateways

Political support for molecular import in Belgium

Federal Hydrogen Strategy (October 2021)

- Position Belgium and its ports as renewable hydrogen **import and transit hub** for Europe
- Create a **robust hydrogen market**
- Partnerships and collaboration: Chili, Oman, Namibia, ...
- **Backbones** (100-160 KM) between the industrial clusters by 2026
- Priority focus on **heavy industry**
- Ambition to import **3-6 TWh by 2030** to grow towards **100-165 TWh by 2050**.

Van der Straeten wants to make Belgium the hydrogen hub of Europe

belga Belga News - @ Belga



Thank you!

