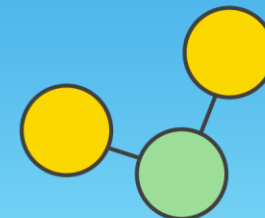
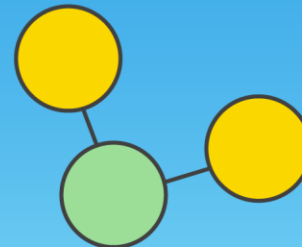


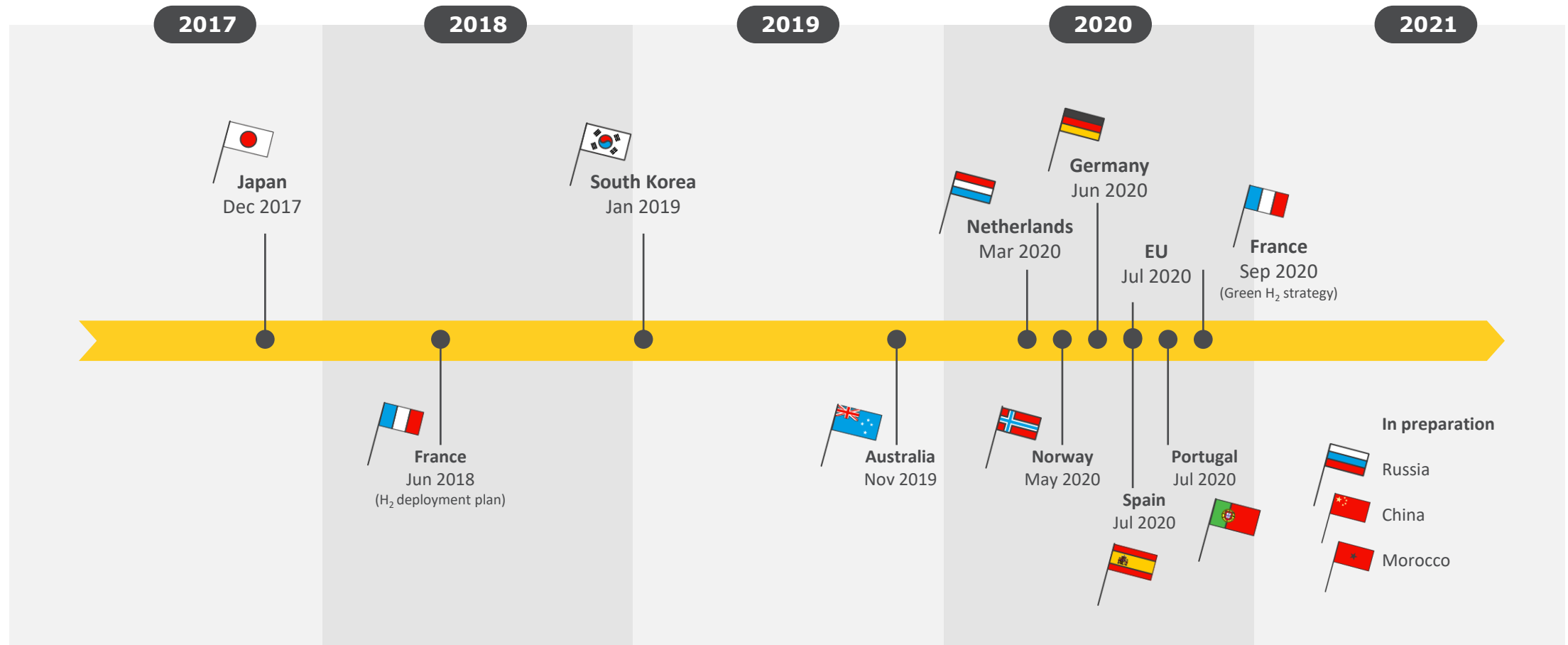
Setting the scene: TSO 2020

René Schutte

25 June 2021

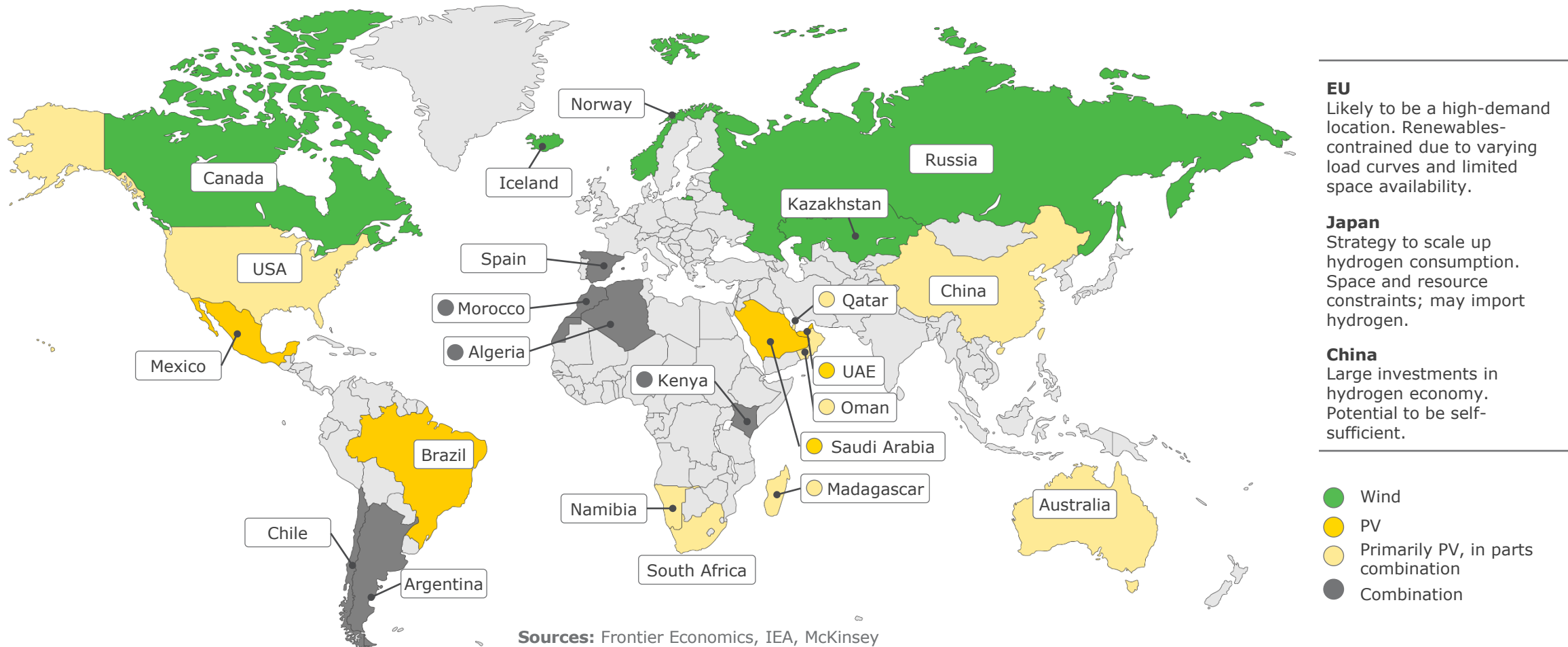


The hot strategic hydrogen summer of 2020



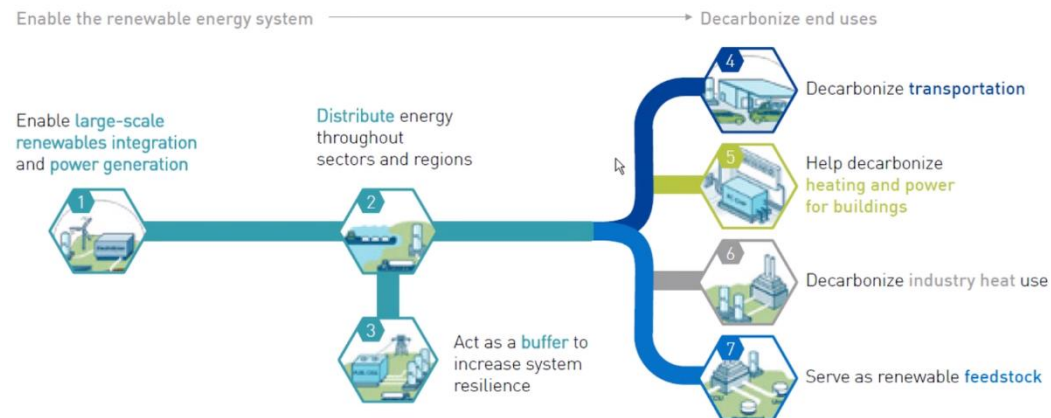
The hydrogen market will become a global market

Snapshot of the variety and diversity of potential producing and consuming regions

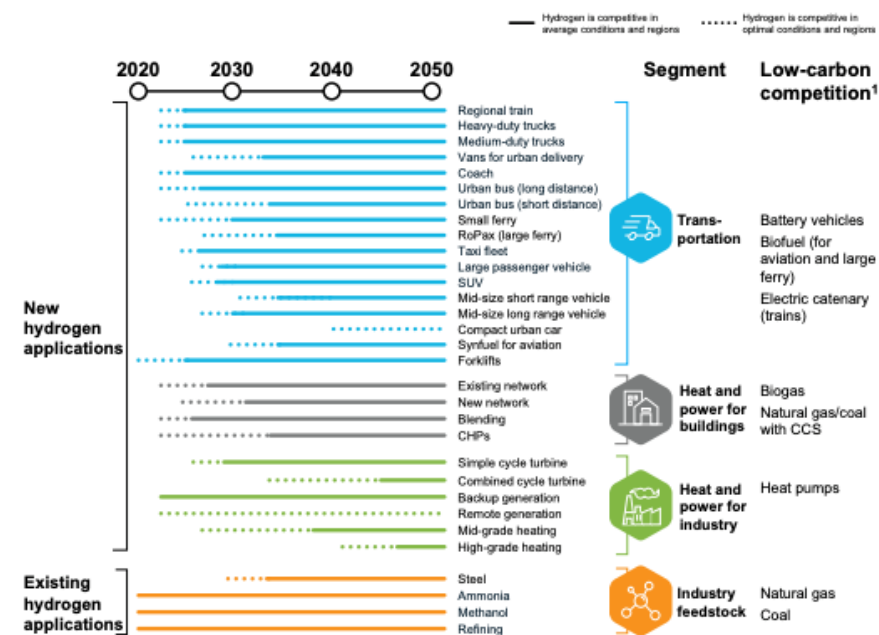


Industry is the initial hydrogen demand sector

Hydrogen as enabler of the energy transition in Europe

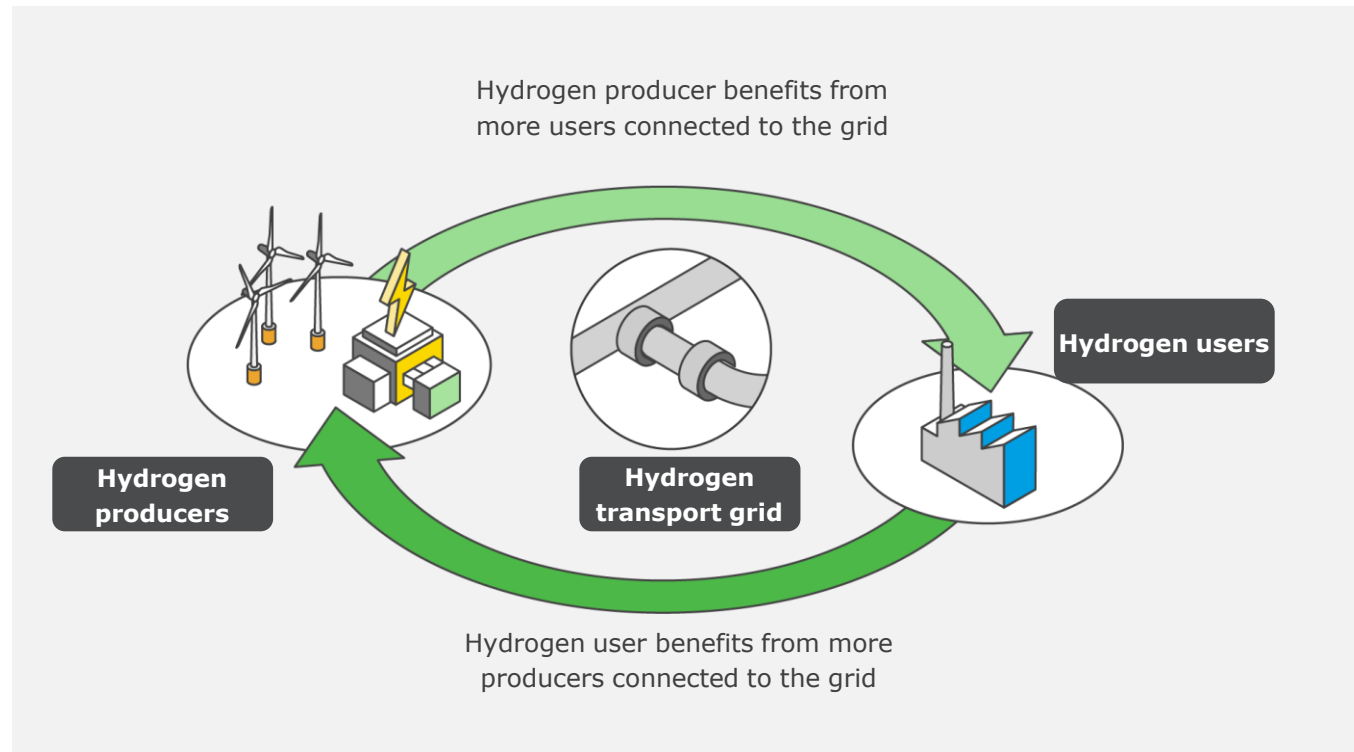


Cost competitiveness trajectories of hydrogen applications

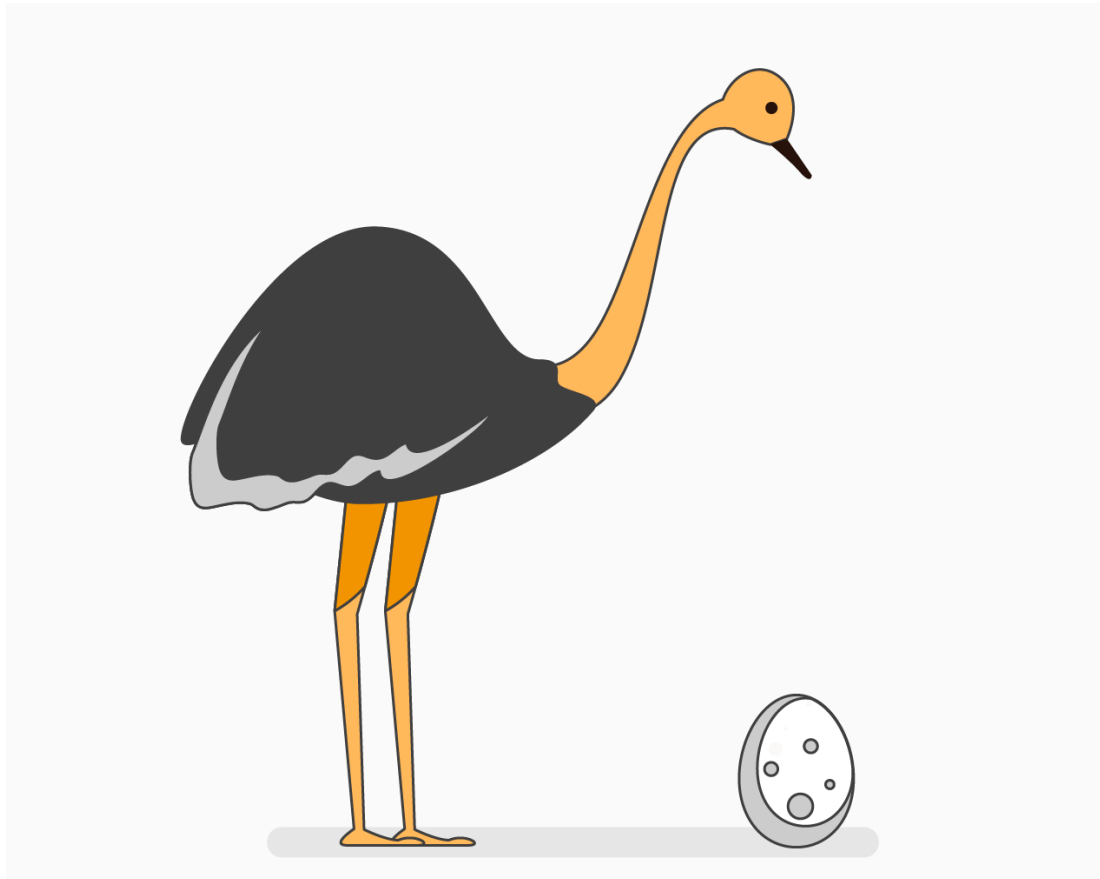


1. In some cases hydrogen may be the only realistic alternative, e.g. for long-range heavy-duty transport and industrial zones without access to CCS

Hydrogen transport network can create positive network effects



Energy transition - what is required for hydrogen?



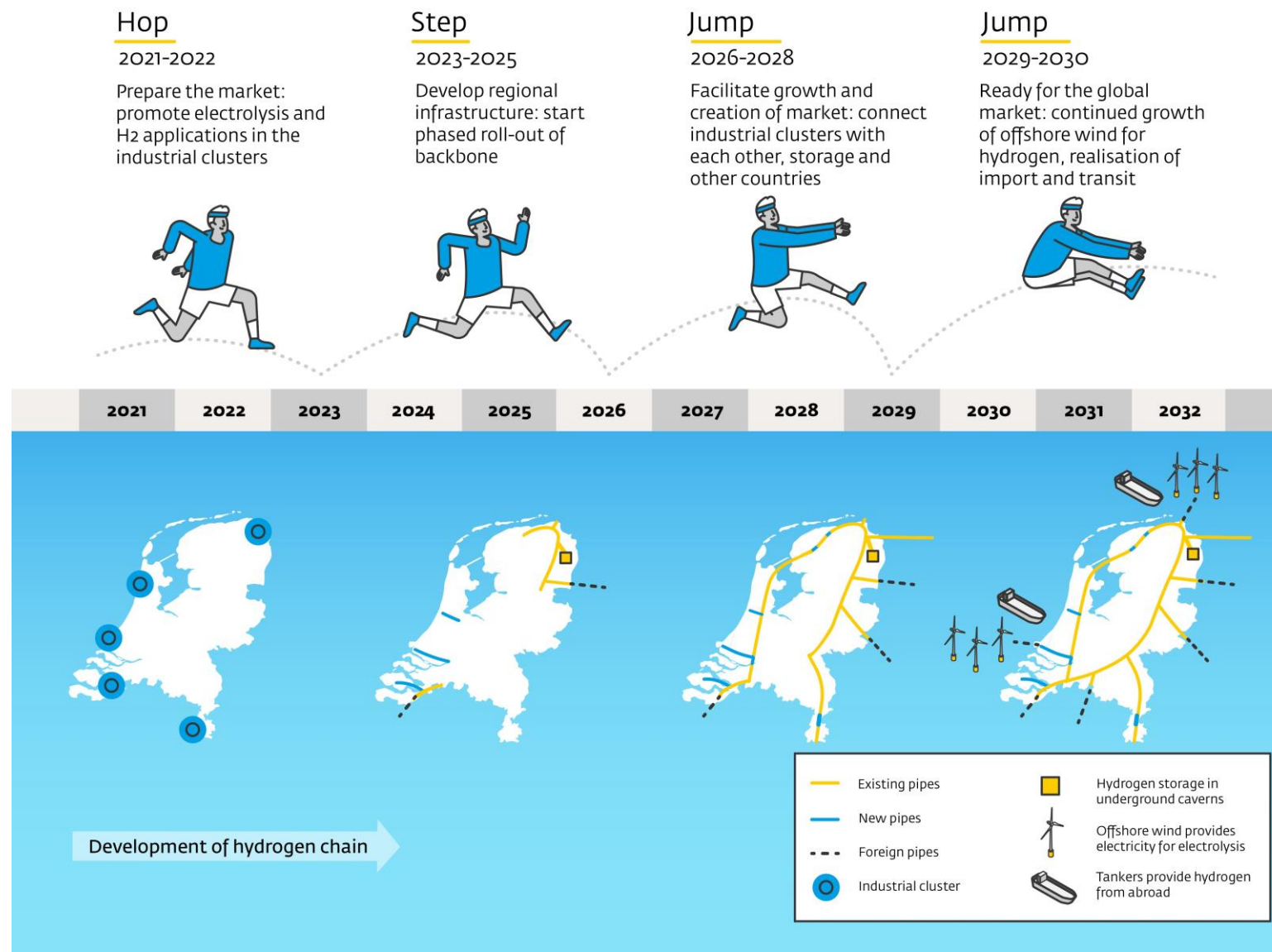
- Scaling up
- Renewable energy
- Phased roll-out
- Policy, norms, standards, law & regulation
- Funding & risk balancing

Repurpose of the natural gas grid



—HyWay27—

We see Gasunie's H₂ strategy as a Hop Step Jump Jump



Northern Netherlands Hydrogen Investment Plan 2.0



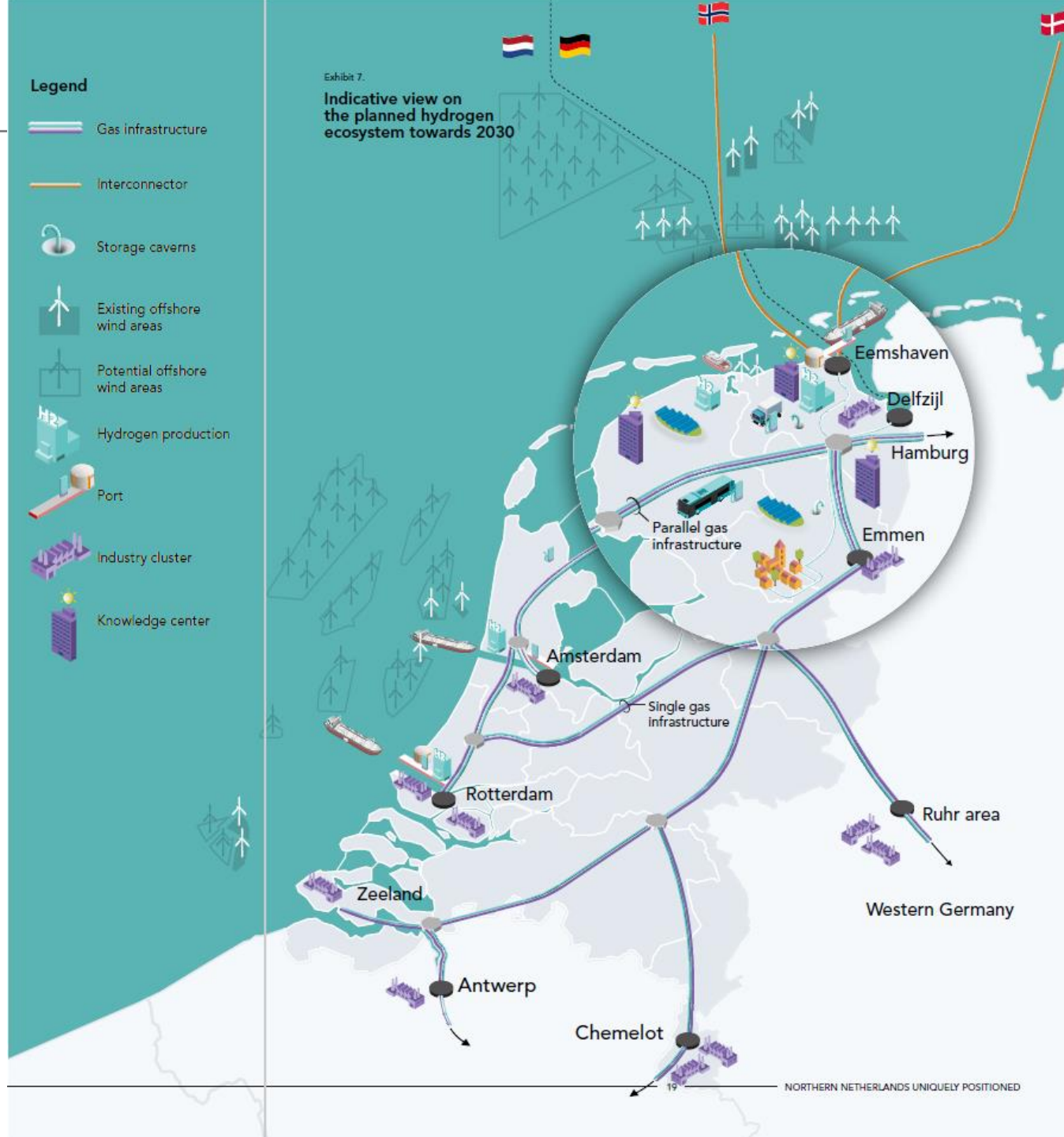
unique access to critical assets



systematic approach



existing project pipeline with
>50 committed projects



Moving towards 2030 and 2050 with hydrogen

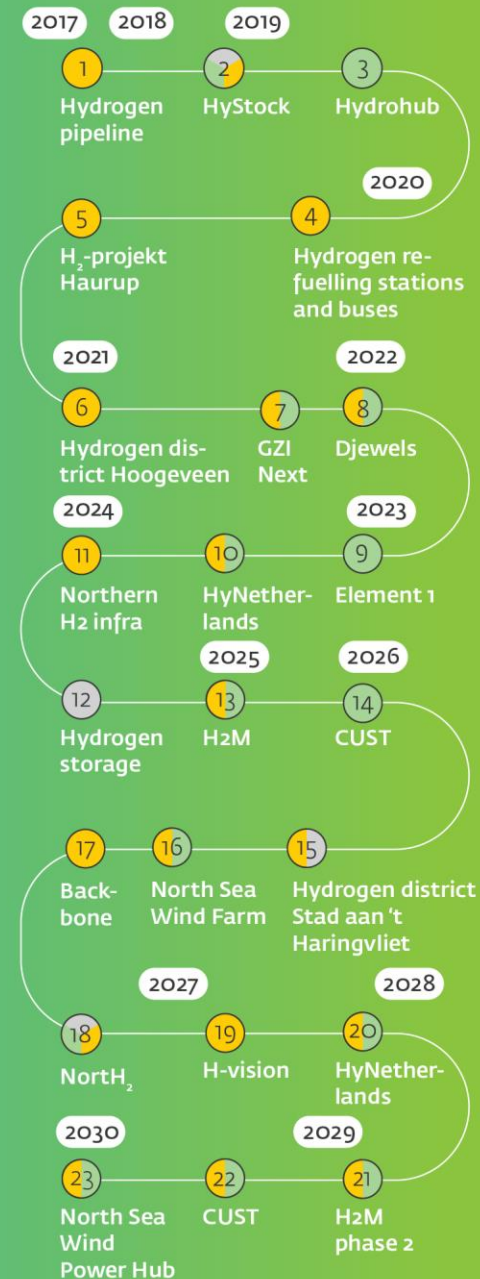
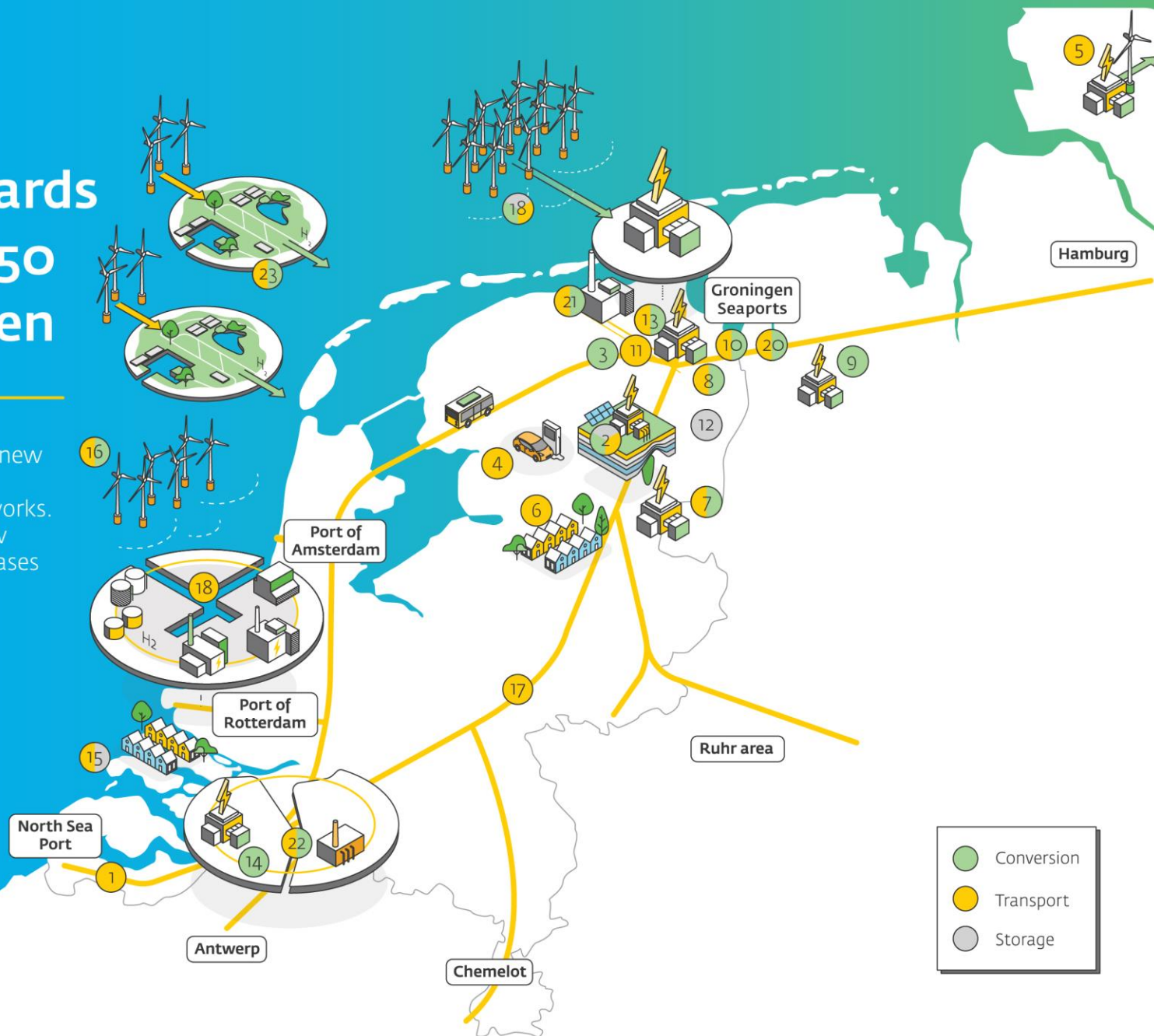
The energy transition requires new forms of infrastructure and intelligent use of existing networks. Gasunie wants to invest in new infrastructure for renewable gases such as hydrogen.

2016 Paris Agreement:

Global warming set at a max. 2°C. This requires CO₂-reduction in the Netherlands of:

- 40-50% in 2030
- 85-100% in 2050

Hydrogen as a fuel and as a raw material can help to achieve CO₂-reduction targets.



gasunie

crossing borders in energy