

VÄT GAS SVERIGE

TRELLEBORG, 2019-11-29

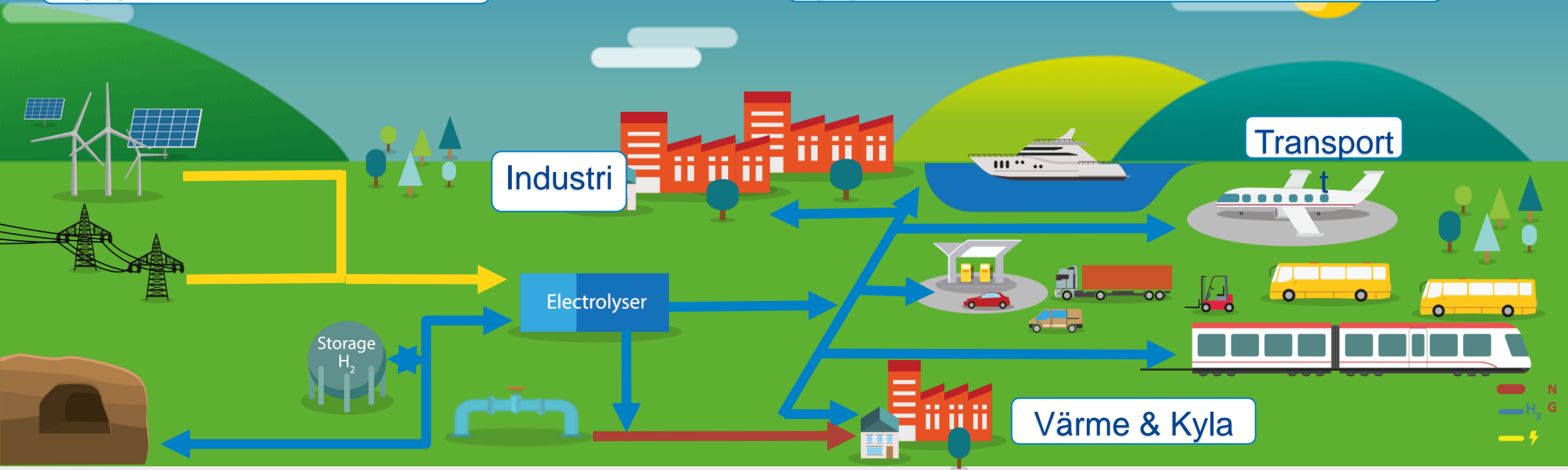


Vätgasens roll i vårt hållbara samhälle

Vätgas möjliggör mer förnybar energy i energisystemet genom lagring och branschöverskridande arbete.

(1) LAGRING (säsong)

(2) SECTORAL INTEGRATION



The Hydrogen Council

Our vision: The hydrogen economy in 2050



EU

Hydrogen Council (ca 60 globala företag)

2030 milestones

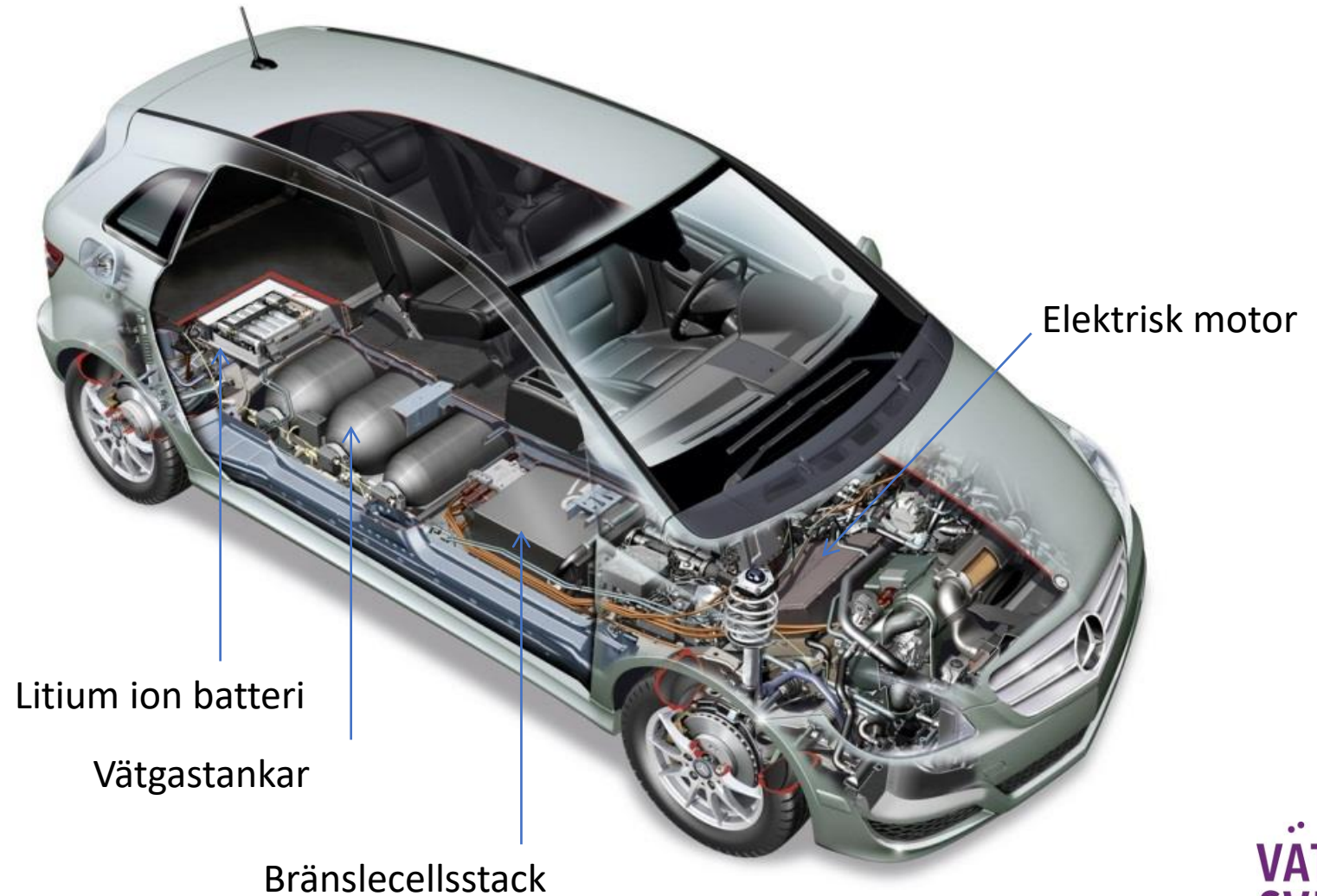
- 1 in 12 cars in Germany, Japan, South Korea, and California powered by Hydrogen
- Globally 10 to 15 million cars and 500,000 trucks powered by hydrogen
- Deployment of hydrogen-powered trains and passenger ships

2050 target picture

- Up to 400 million **passenger vehicles (~25%)**, 5 million **trucks (~30%)**, and more than 15 million **buses (~25%)** running on hydrogen
- **20% of today's diesel trains** replaced with hydrogen- powered trains
- 20 million barrels of oil replaced per day, 3.2 Gt CO2 abated per year

På insidan...

- Globala standards
- 3-5 min tankning
- 45-80 mil



SAMARBETEN OCH NYA BILMÄRKEN



Senaste FCEVs



HYUNDAI NEXO



MB GLC F-CELL



BMW NEXT

Tunga bränslecellsfordon



Hyundai signs deal to sell 1,600 hydrogen-powered trucks in Switzerland

Hyunjoo Jin

3 MIN READ



HOME NEWS PUBLICATIONS SPECIAL REPORTS STAKEHOLDERS EBOOKS SUBSCRIBE

Open Access News Energy News

Norway aims for 1000 hydrogen trucks by 2023

September 19, 2018

VÄTGAS
SVERIGE



- 18 ton / 34 ton
- 400 km
- 7 min
- 35 MPa
- 35 kg H₂
- 190 kW FC
- 350 kW peak
- 3400 Nm



VÄTGAS
SVERIGE



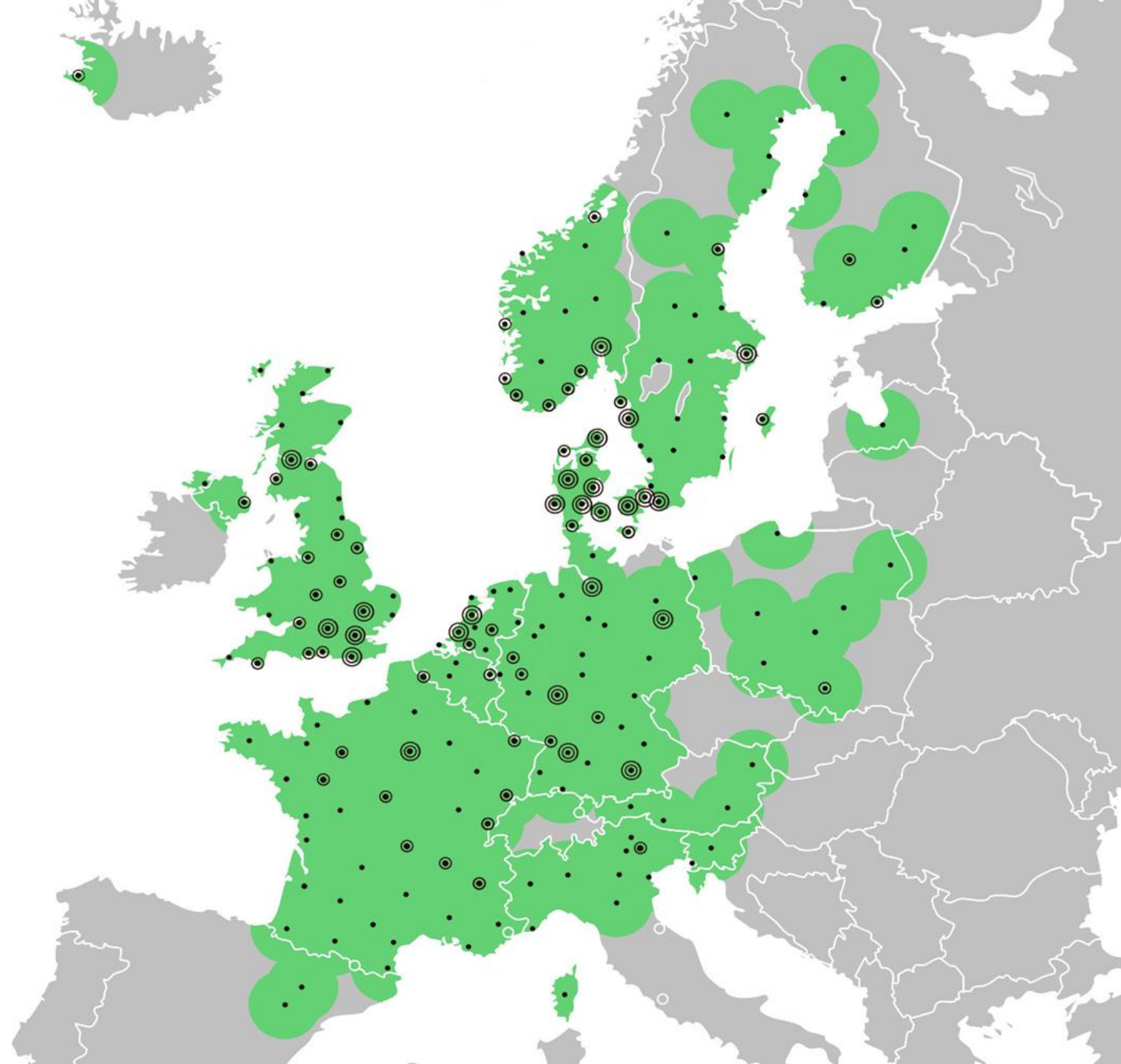
- Globala standards
- 350/700 bar
- 3-5 min tankningstid
- 45-80 mil räckvidd
- 1 kg H₂ => 10 mil

Europa 2030

- DAFI: 18 länder med planer
- 4000-7500 stationer till 2030

Globalt

30 länder står bakom Japan

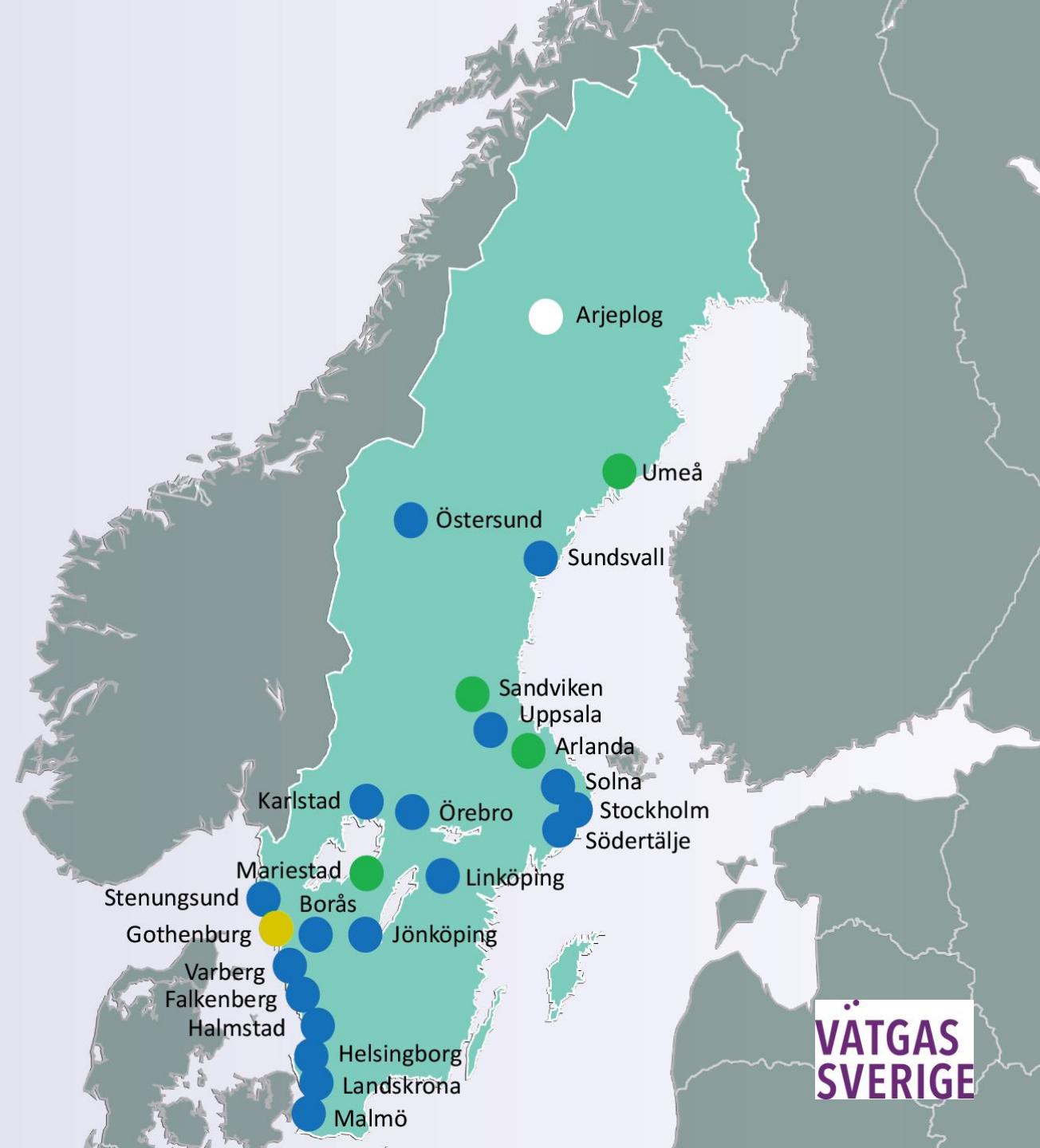


Initial plan för Sverige

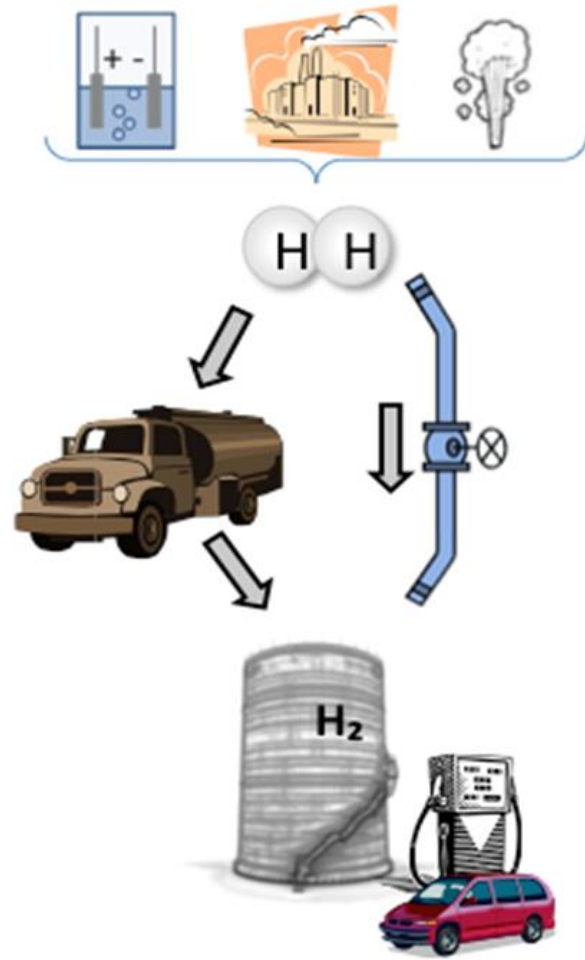
NHC-projektet:

- 8 vätgastankstationer
- 1 produktionsenhet
- Flera bränslecellsfordon

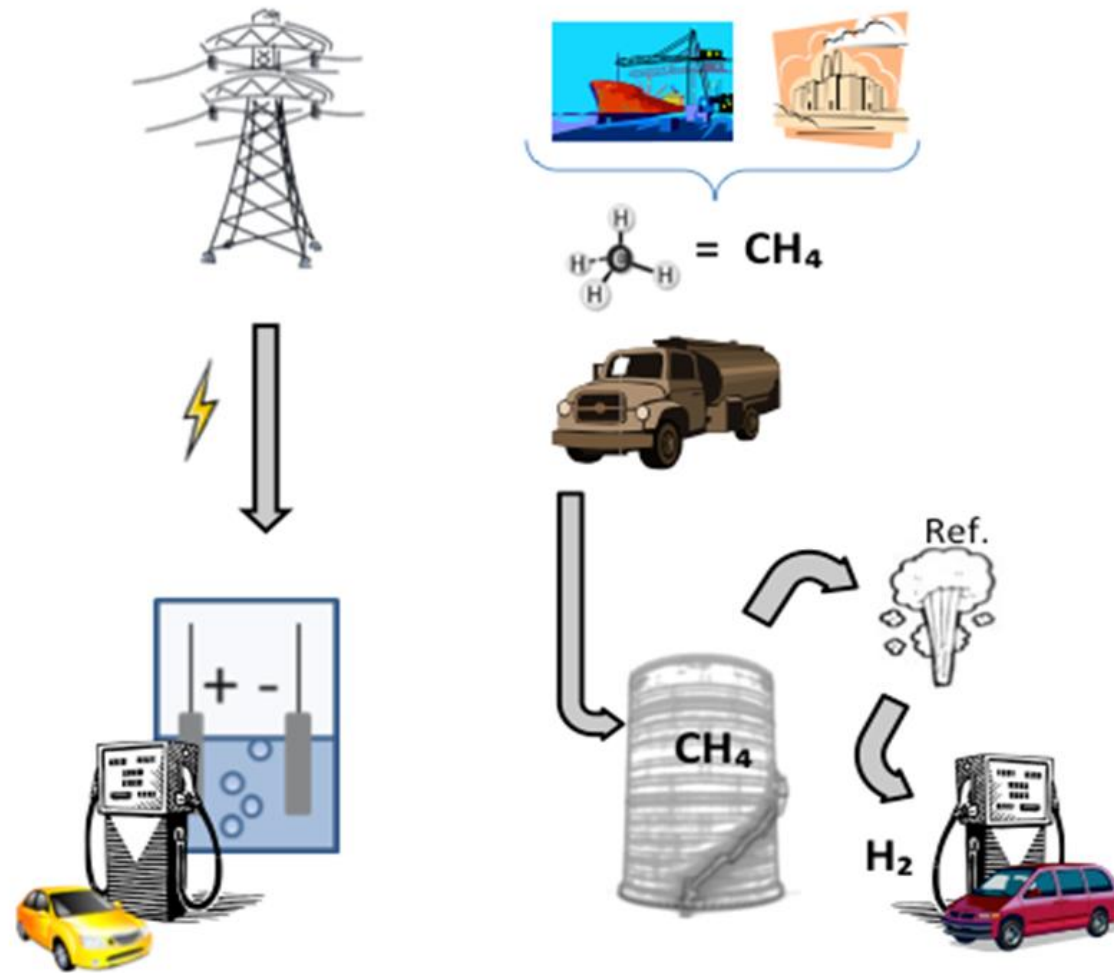
- I drift
- Etablerad, i väntan på drift
- Vintertest (säsong)
- Planerad 2019-2021



Central

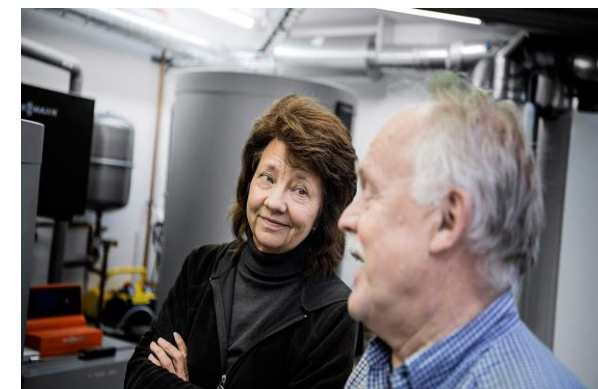
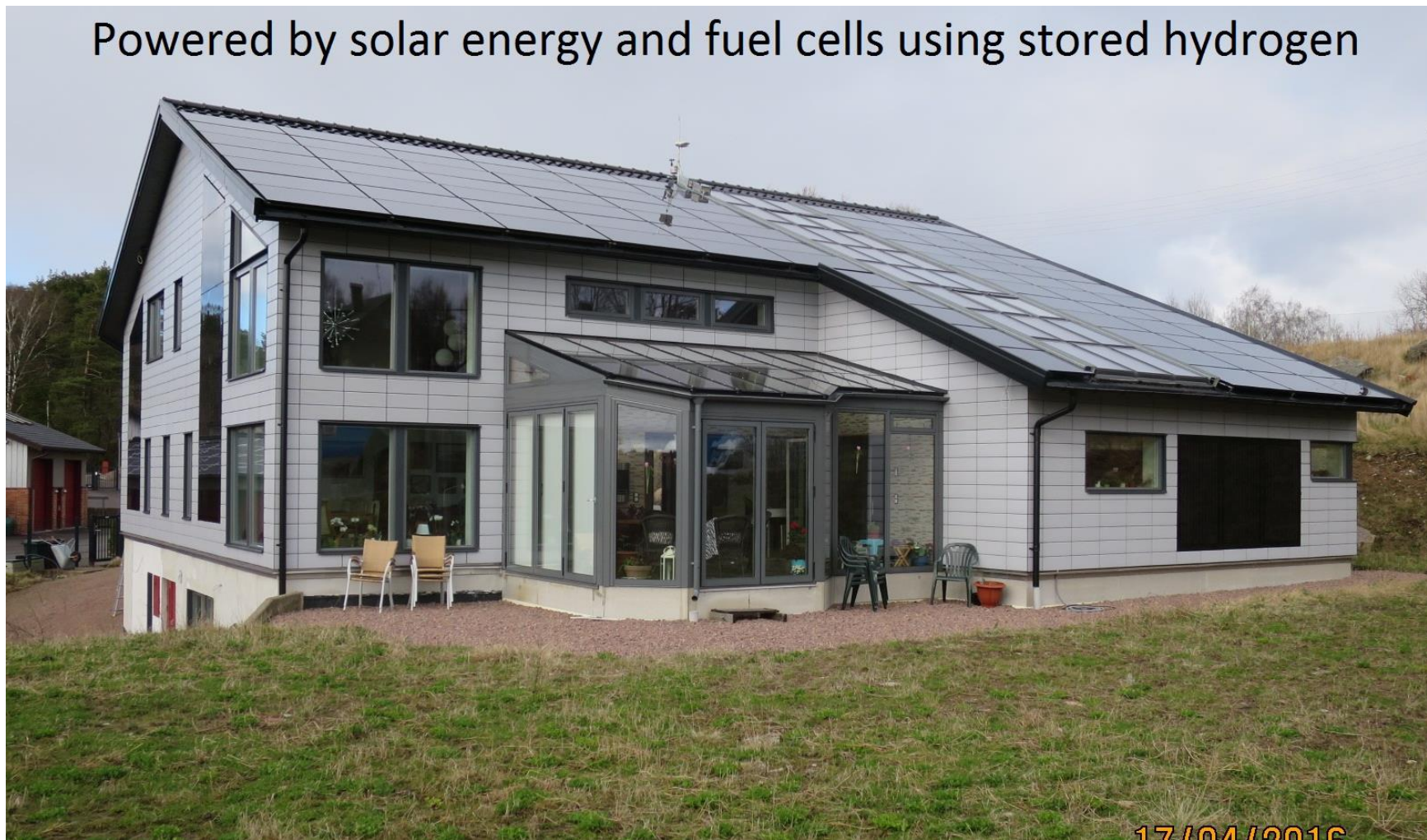


Decentralized



SMART HOME /OFF-GRID

Powered by solar energy and fuel cells using stored hydrogen



Mariestad



Vårgårda Bostäder



Hybrit

- ▶ Pre-feasibility study
- ▶ Feasibility study-pilot plant trials
- ▶ Demonstration plant trials

2016-2017

2018-2024

2025-2035



Status Sverige (befintligt och kommande)

- Ca. 45 bränslecells-bilar (FCEVs)
- 5 tankstationer (HRS)
- 10 bränslecells-bussar
- Nordic Hydrogen Corridor (NHC): +100 FCEVs, 8 HRS, 1 elektrolysör
- > 4 husprojekt med solceller och vätgaslagring
- Hybrit
- Preem i Göteborg
- 1-2 sopbilar i Göteborg f o m 2020

Potential med vätgas

EU2030:
13 miljoner
hushåll använder
vätgas och
850 000 nya
jobb skapas



TACK!

BJÖRN ARONSSON

bjorn.aronsson@vatgas.se

