

Värmning av stål med vätgas med stora samhällssynergier

Presentation 2022-01-28, Göran Nyström

OVAKO

OVAKO:

A world leader in steel circularity and carbon-neutrality



High-performing clean steels that enable large energy and CO₂ savings



100% carbon-neutral production and products with leading carbon footprint

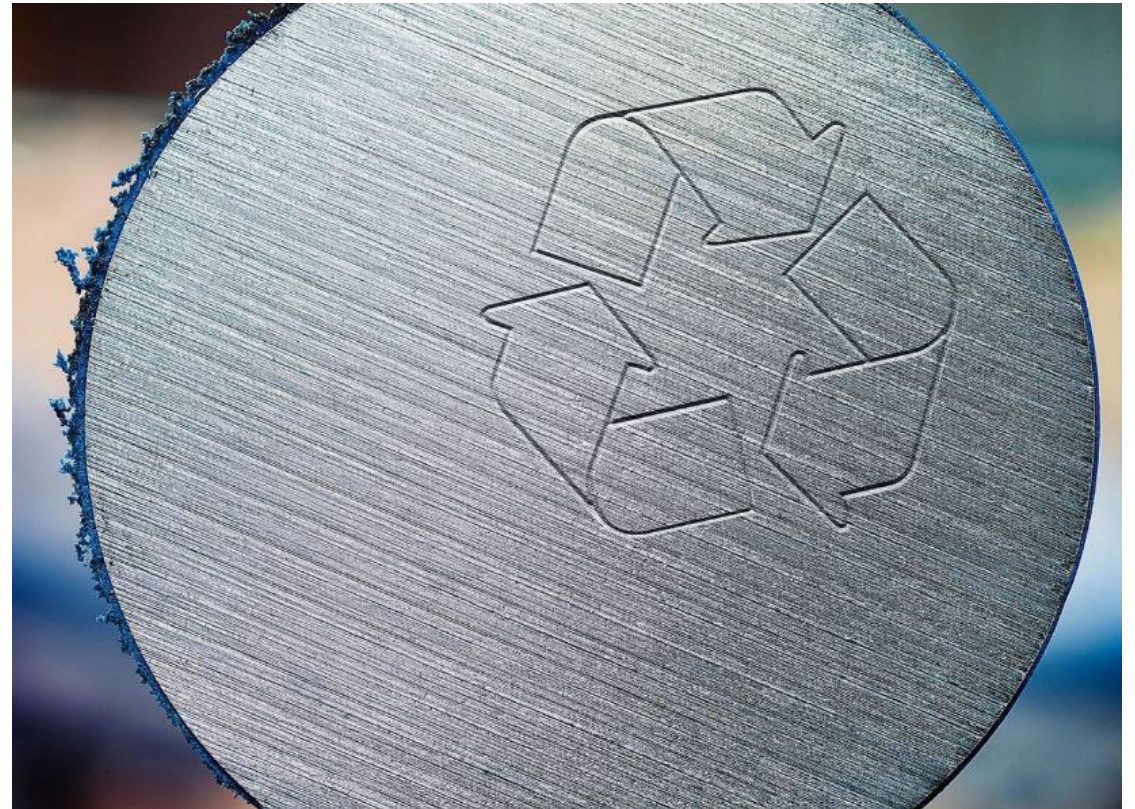
New from 2022








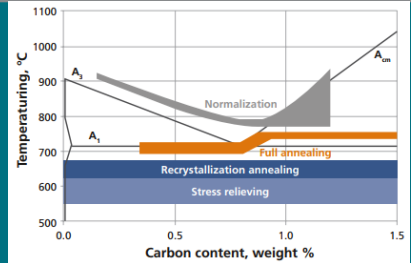
Products that are 97% scrap-based



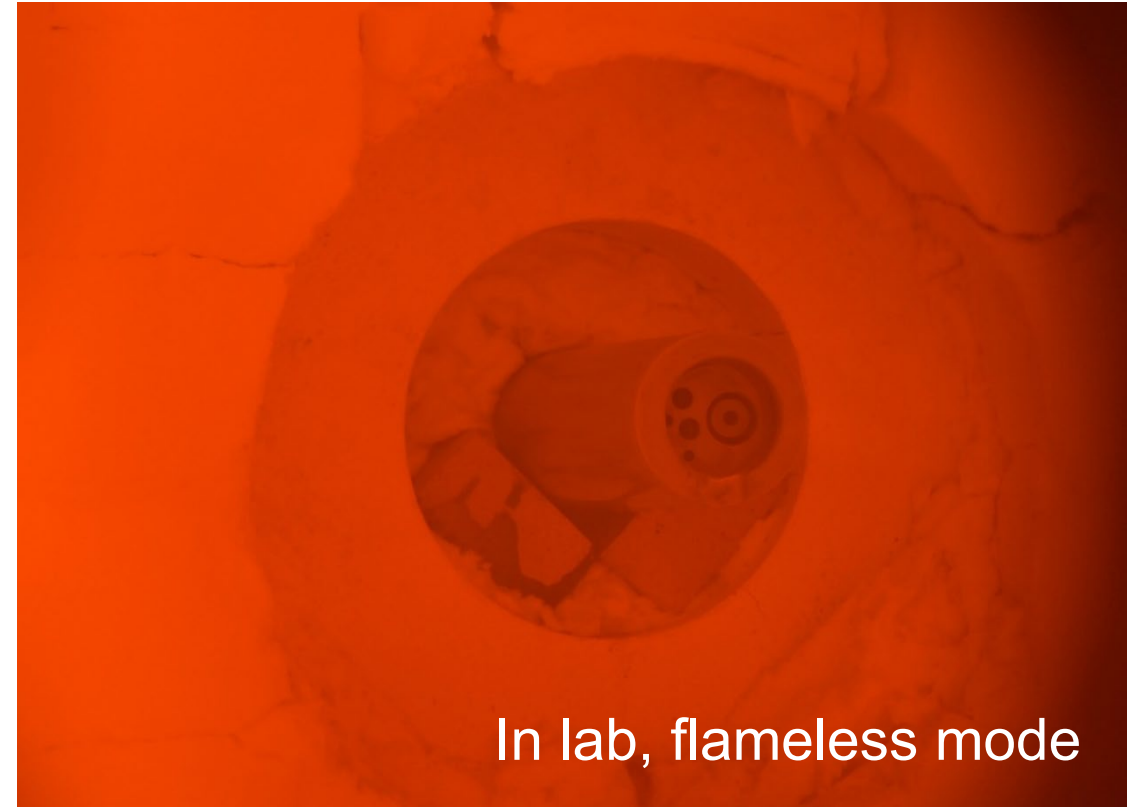
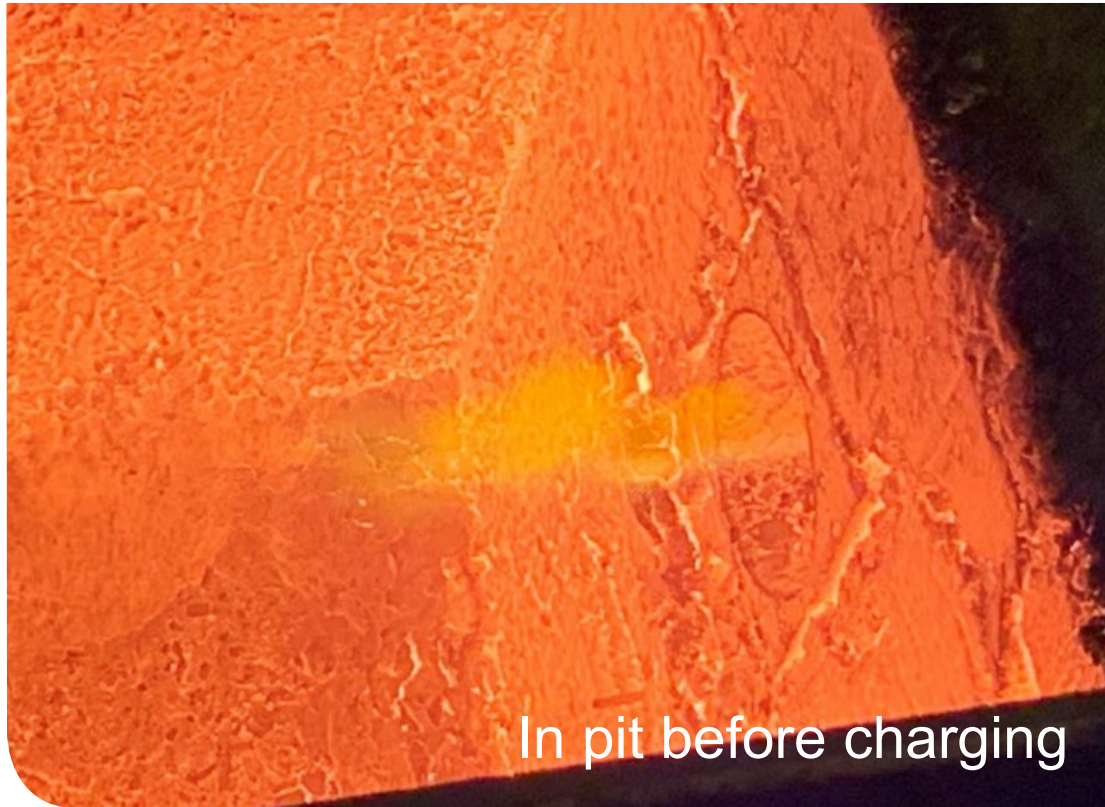
Leadership in projects to further improve sustainability position



Ovako has one main area remaining for electrification

	✓ Melting steel >1400°C	
	→ Heating steel for hot-forming ~1200°C	
	✓ Heat treatment for product properties <1000°C	

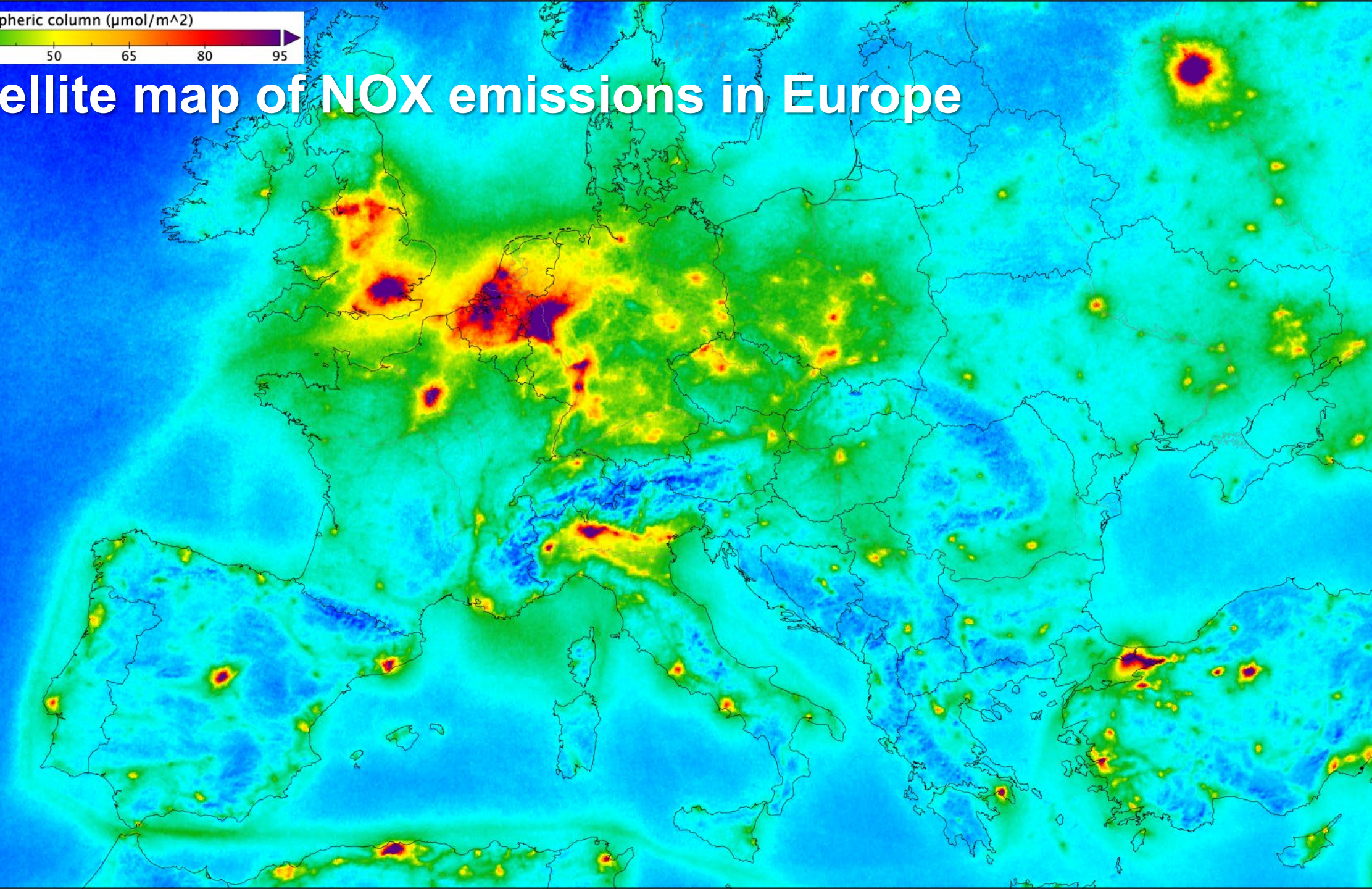
A key enabler for cost-efficient electrolysis: Oxyfuel – also energy efficient and reduces NOx emissions



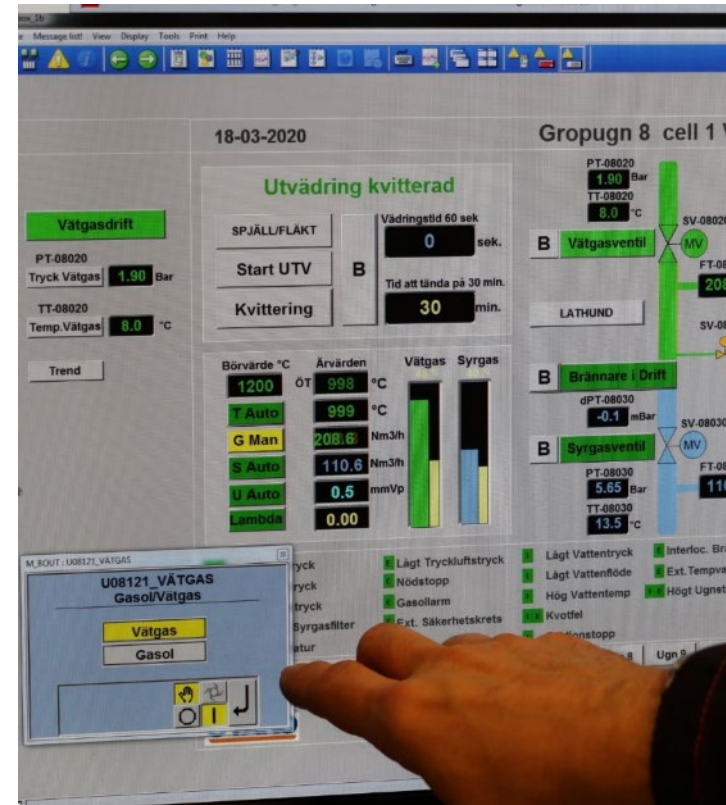
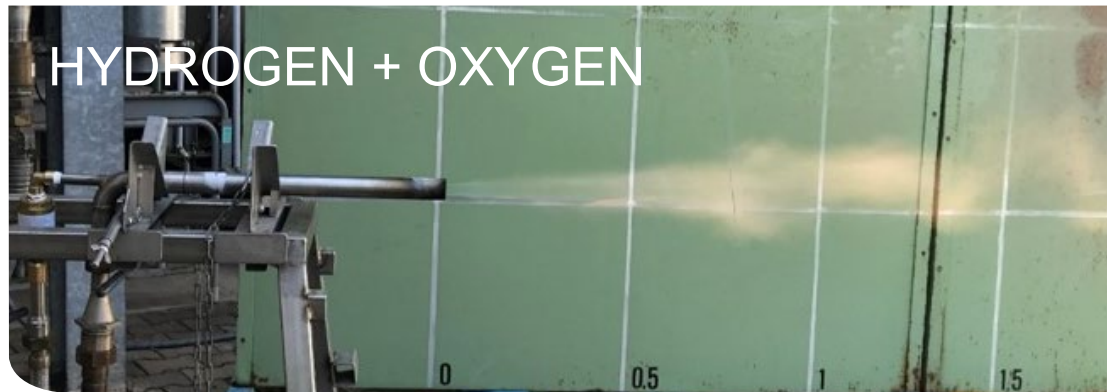
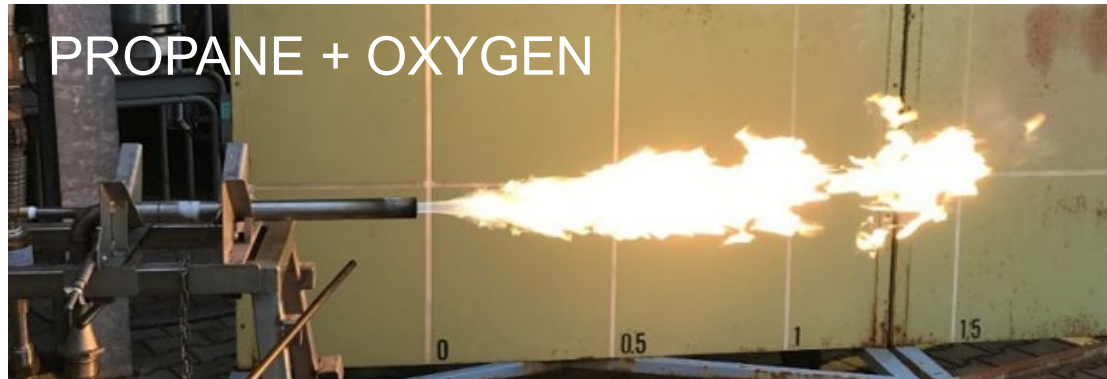
NO₂ tropospheric column ($\mu\text{mol}/\text{m}^2$)

5 20 35 50 65 80 95

Satellite map of NO_x emissions in Europe



2019-2020: Technical proof of concept



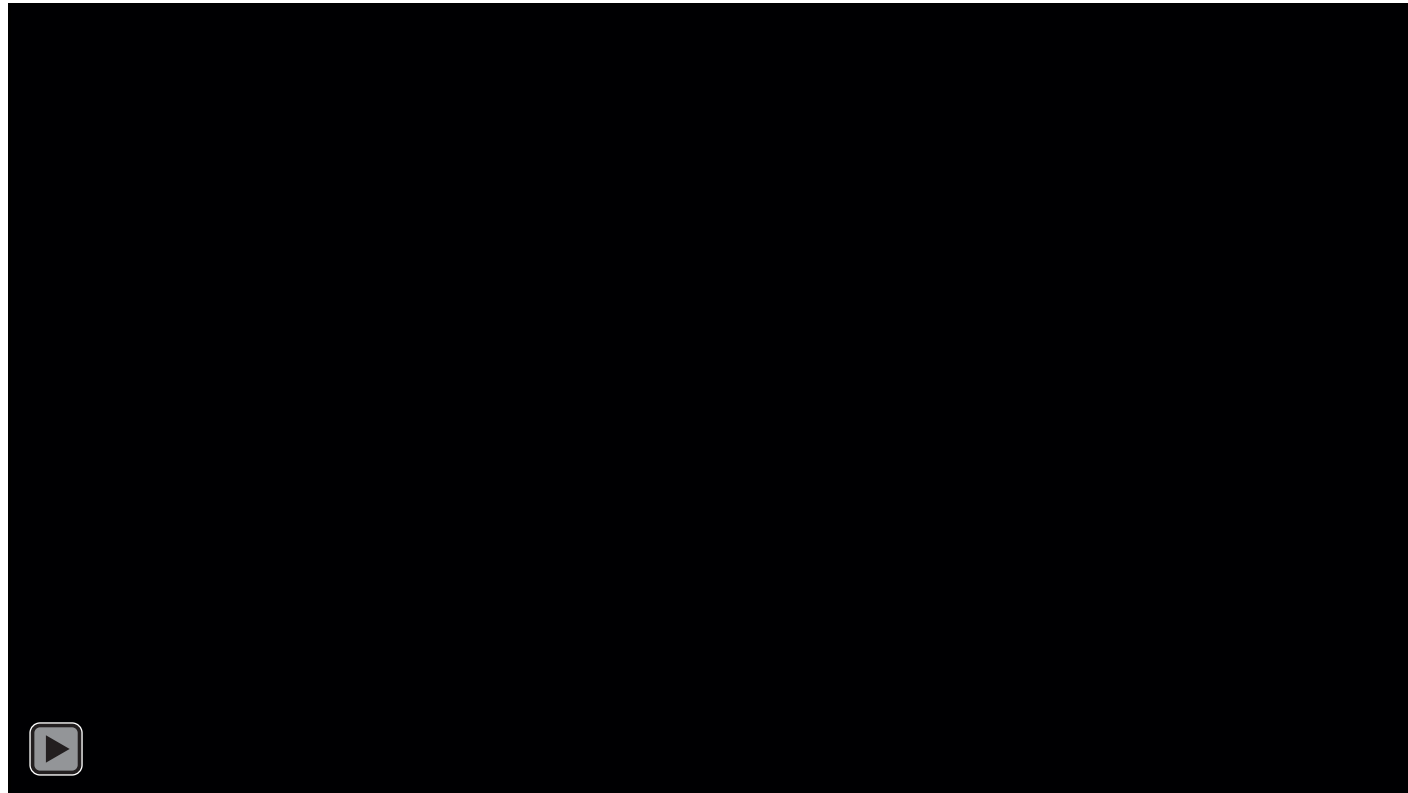
2021-2023: First implementation of H2 for steel heating



[OVAKO.COM/H2](https://ovako.com/h2)



MED FINANSIELLT STÖD FRÅN  Energimyndigheten



June 2021: First full-scale hydrogen project launched



**We're doing this because we have
the road map, technology, the
possibility and it's the right thing to do.**

And we're doing it now!



