



Cleantech Capital Day

Fredrik Mowill

26 October 2022

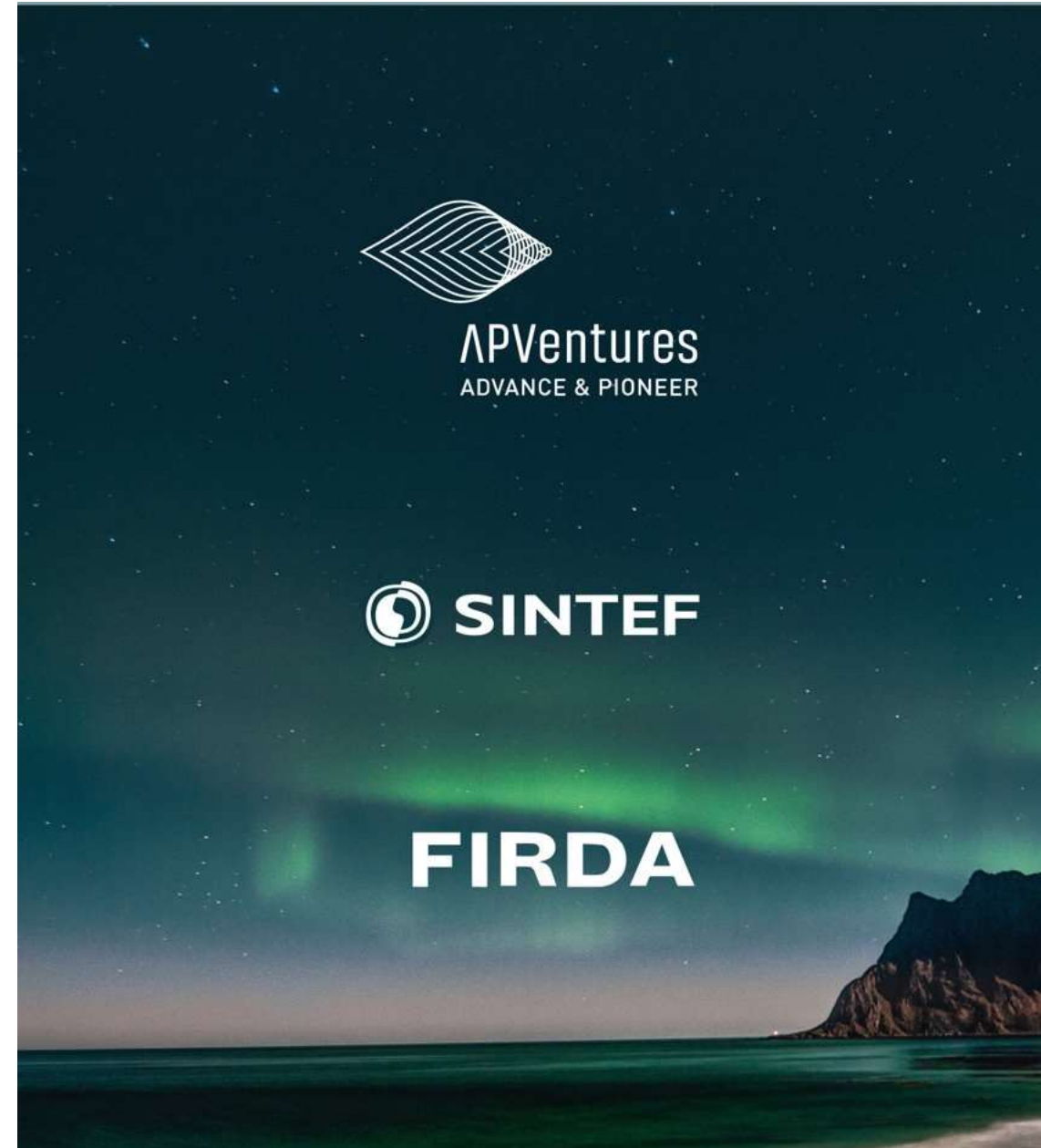
Executive summary

- Patented solution provides superior efficiency
- Available, high volume manufacturing processes
- GW scale production capacity in 2025
- Awarded 1 MW pilot project with Equinor/Yara/Gassco

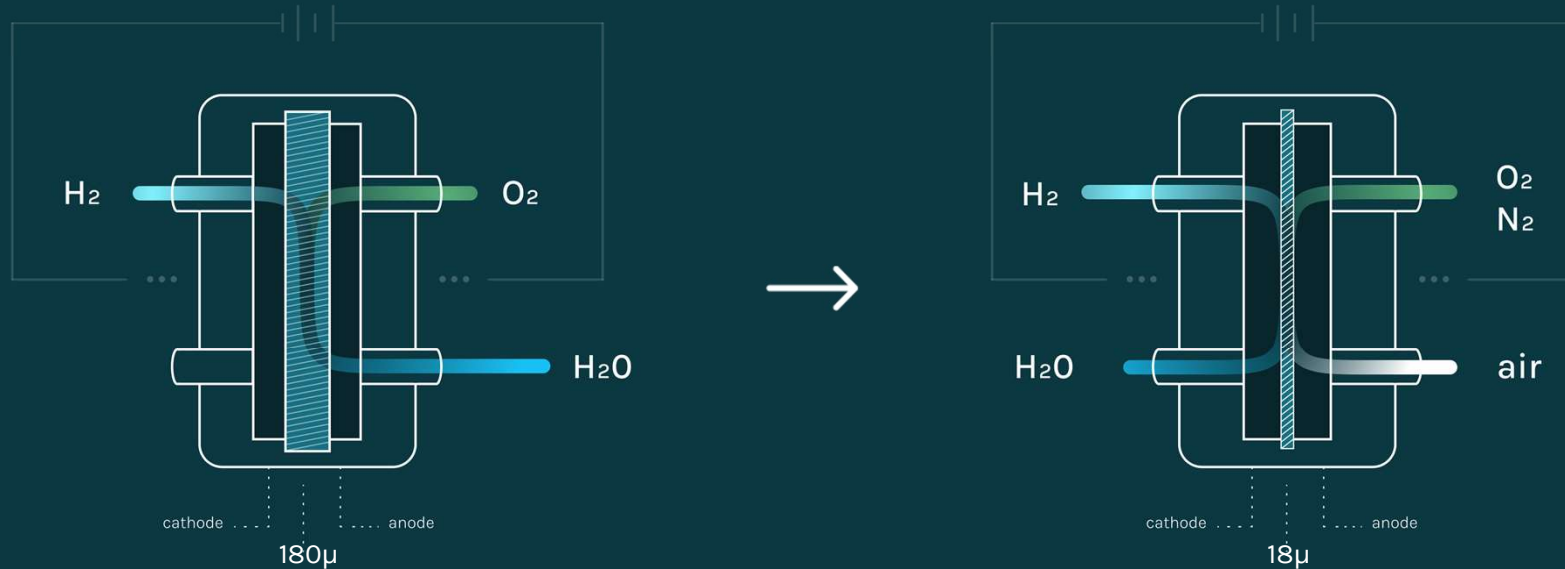


Hystar founded based on 15 years of R&D

- Founded in September 2020 as a spin-off from SINTEF
- Based on 15 years of PEM electrolyser research
- Key investors:
 - AP Ventures, SINTEF, Firda
- Three co-founders:
 - Fredrik Mowill
 - Magnus Thomassen
 - Alejandro Barnett



Hystar patented solution enables use of thin membranes for increased efficiency



Conventional PEM electrolyser

- ✓ Water (H₂O) is split into O₂ and H₂ by adding **electricity**
- ✓ **Thick membranes** account for majority of stack losses
- ✓ Thinner membranes will increase **explosion risk**

Hystar PEM electrolyser

- ✓ Thin membranes provide **game-changing efficiency**
- ✓ Air circulation on anode side **improves safety**
- ✓ Designed and optimized for **mass manufacturing**

Contract awarded for pilot project in 2023

- Funding from Norwegian government (Enova)
- Customer partners: Equinor, Yara, Gassco
- Total grant funding MNOK 38
- 1 MW installation
- Commissioning Q4 2023
- Equinor gas processing plant- Kårstø, Norway



Hystar facilities include HQ, R&D and production

We are headquartered at Høvik, by the beautiful Oslo fjord.

1. HQ and offices
2. R&D/test/pre-production
3. GW automated production facility

Photo: DNV

