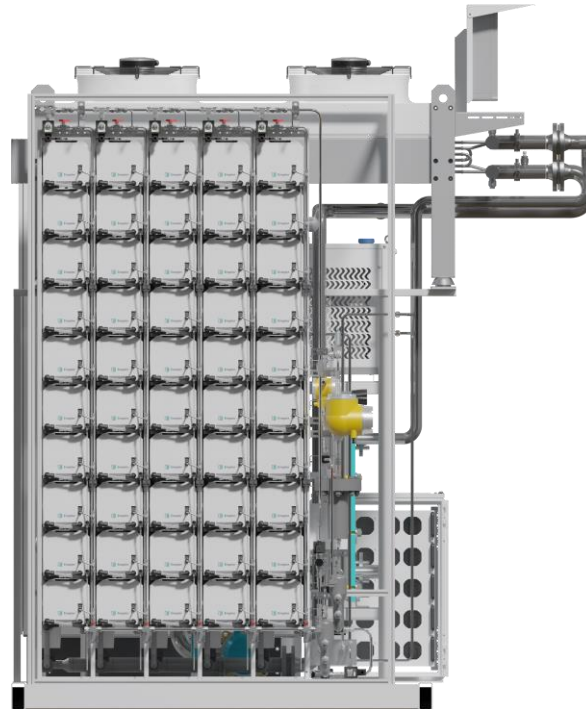
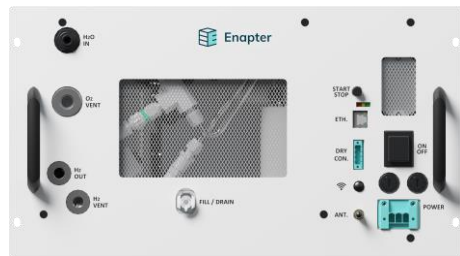




AEM Electrolysers

Smart. Simple. Scalable.



Our company

Enapter at a glance



Started in November 2017

Builds on technology with a >10-year track record at that time



Pioneer and commercial leader in AEM electrolysis.

With 4.7k+ electrolyzers ordered by 340+ customers across 50+ countries so far



Changing the paradigm for electrolyzers with a high-volume focus

>150 partners integrate Enapter products into solutions of all sizes



Hardware, electronics and software in harmony for a next-generation experience.

Smart, Connected, Adaptable



Scaling up from a handful of units per month to **for mass production.**



Registered office: Heidelberg, DE
Stock exchange: Frankfurt/Hamburg Regulated Market



Customers around the world

340+ customers in 50+ countries to date

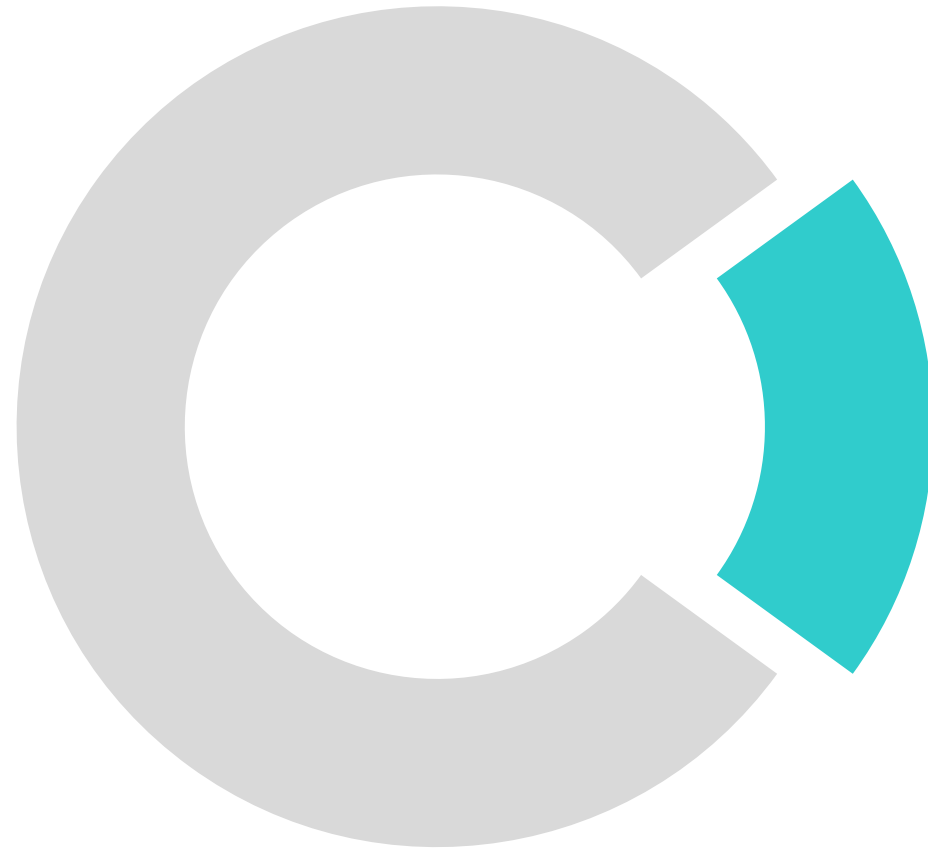


Many more [here](#)

The majority of global energy consumption is in molecules

Why do we need green hydrogen?

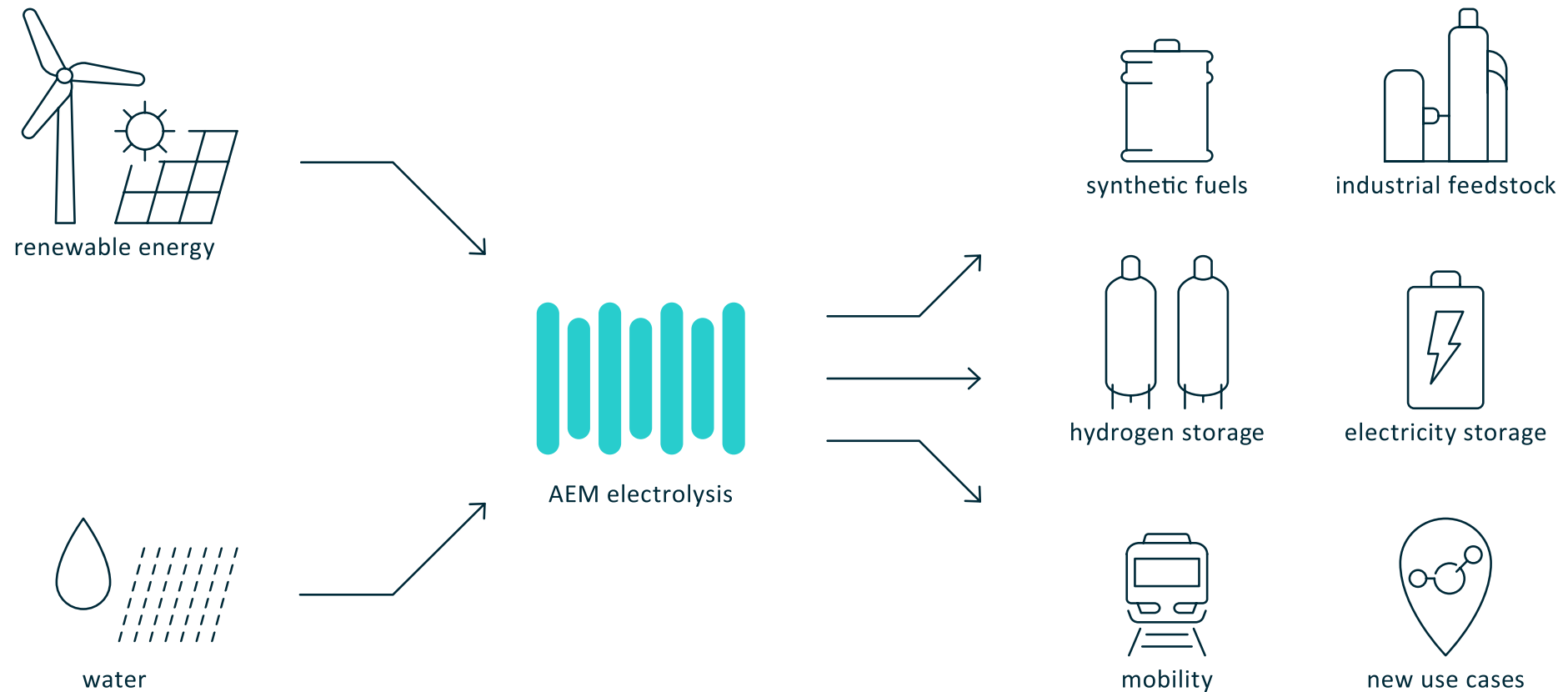
**> 80%
molecules**



**< 20%
electricity**

Multi-talent hydrogen

The decarbonisation molecule



Deeply ingrained

Our core principles: not an afterthought

Urgency

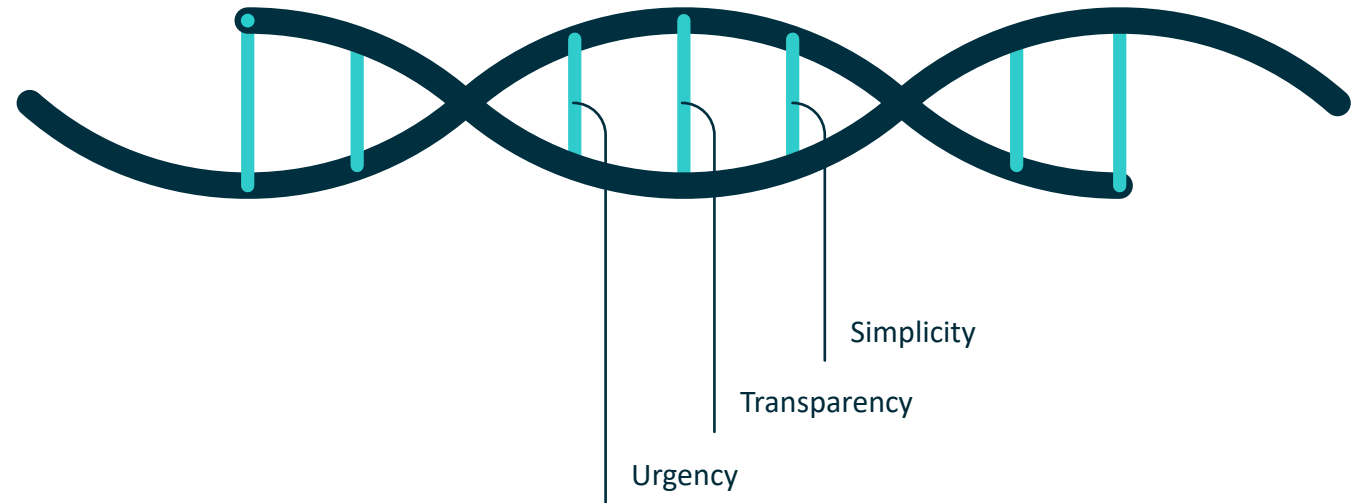
- ≡ There's zero time to waste. We can't stop global warming by just talking.

Simplicity

- ≡ We work with complex technology. Our daily job is to reduce this complexity to make it actionable.

Transparency

- ≡ Secrets and silos create barriers and slow us down. Transparency enables us to act fast.



Enapter Pisa, Italy

Enapter's foundations

- ≡ **2017** – Our first building (1). Now exclusively used for R&D
- ≡ **2019** – Building (2) for serial production of electrolyzers
- ≡ **2020** – Building (3) R&D extension for laboratories & testing
- ≡ **2021** – Building (4) for chemical and stack production
- ≡ **2022** – Major production capacity increase
- ≡ **2023** – Continued growth and a strong focus on R&D



Enapter Saerbeck, Germany

Sustainable industrial production

Life Cycle Impact Zero

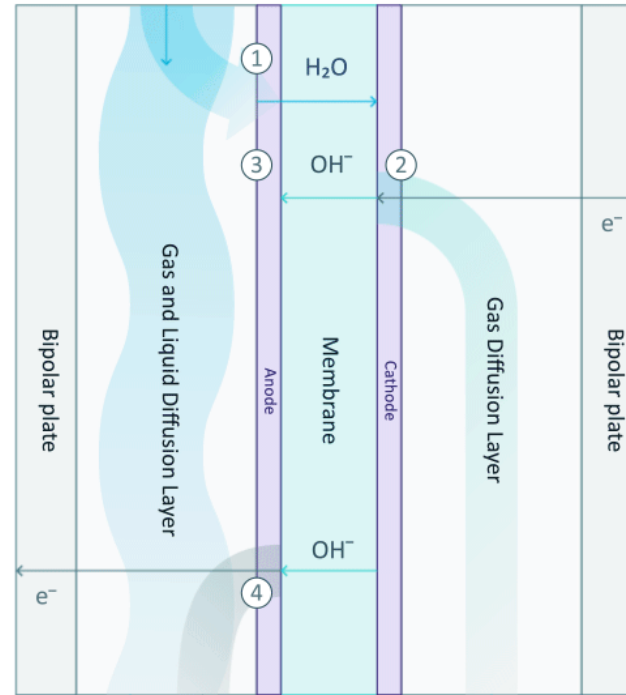
- ≡ 100% local renewable energy
- ≡ Minimal footprint throughout our products life cycles
- ≡ End-of-life electrolyzers recycling process



Patented AEM technology

Our secret sauce

- ≡ Combining the best of Alkaline and PEM technology
- ≡ Low-cost materials and setup
- ≡ Simple BoP
- ≡ Top efficiency
- ≡ High H₂ pressure
- ≡ Low maintenance
- ≡ Strong patents granted, more pending



- ① Water travels from the anode half-cell through the membrane.
- ② Hydrogen is produced at the dry cathode and released via the gas diffusion layer.
- ③ OH⁻ moves back to the anode via the membrane.
- ④ Oxygen is produced from OH⁻ at the anode and released via the gas and liquid diffusion layer.

Water Electrolyte Circulation Electron Transport Electron and Hydroxide Transport Hydroxide Transport

At scale, standardised modules outcompete made to order plants

We have seen it before...



1981



today



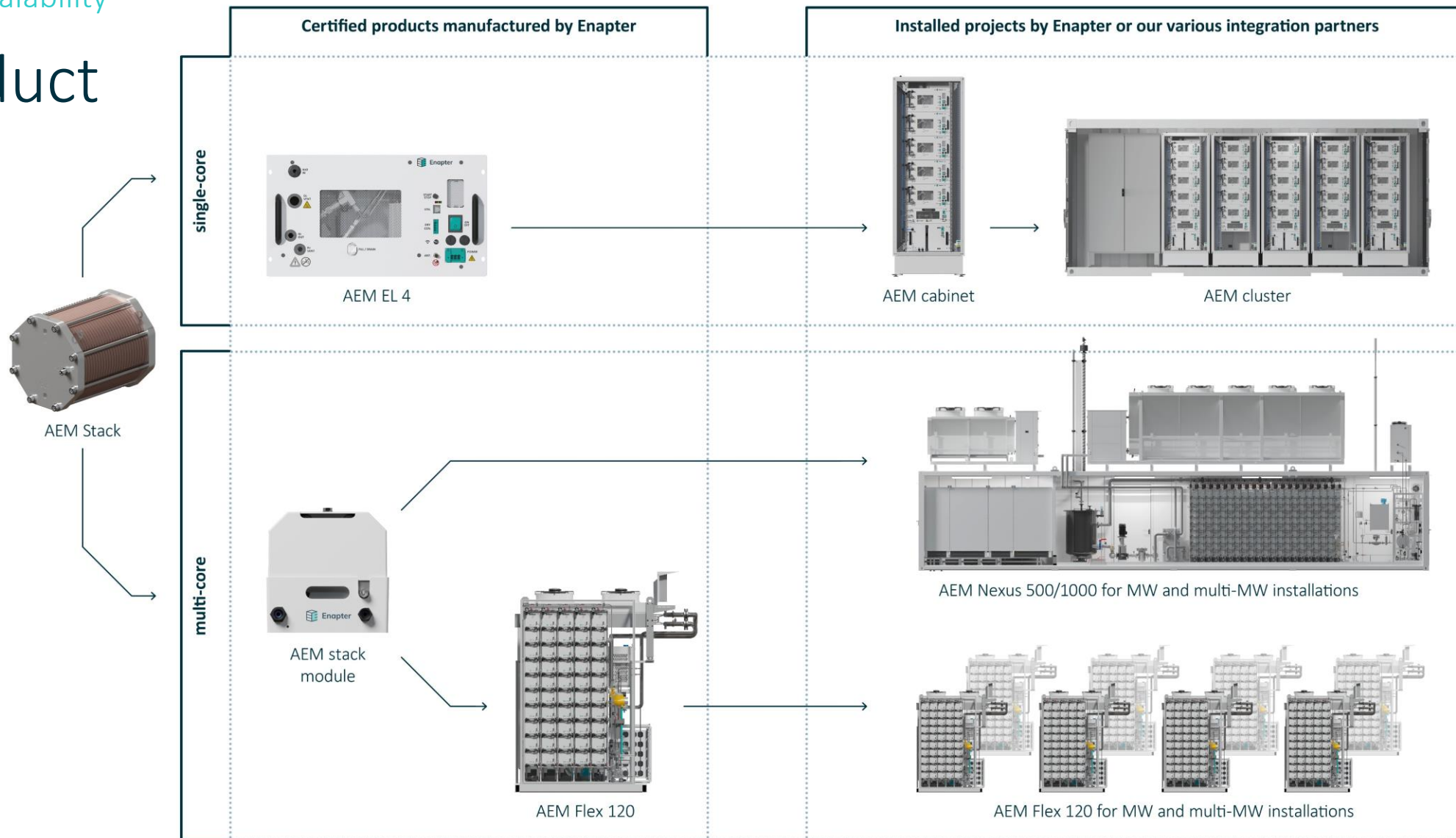
2000



today

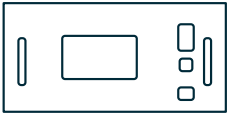
Enapter's AEM scalability

Our product platform



Single-core electrolyser series

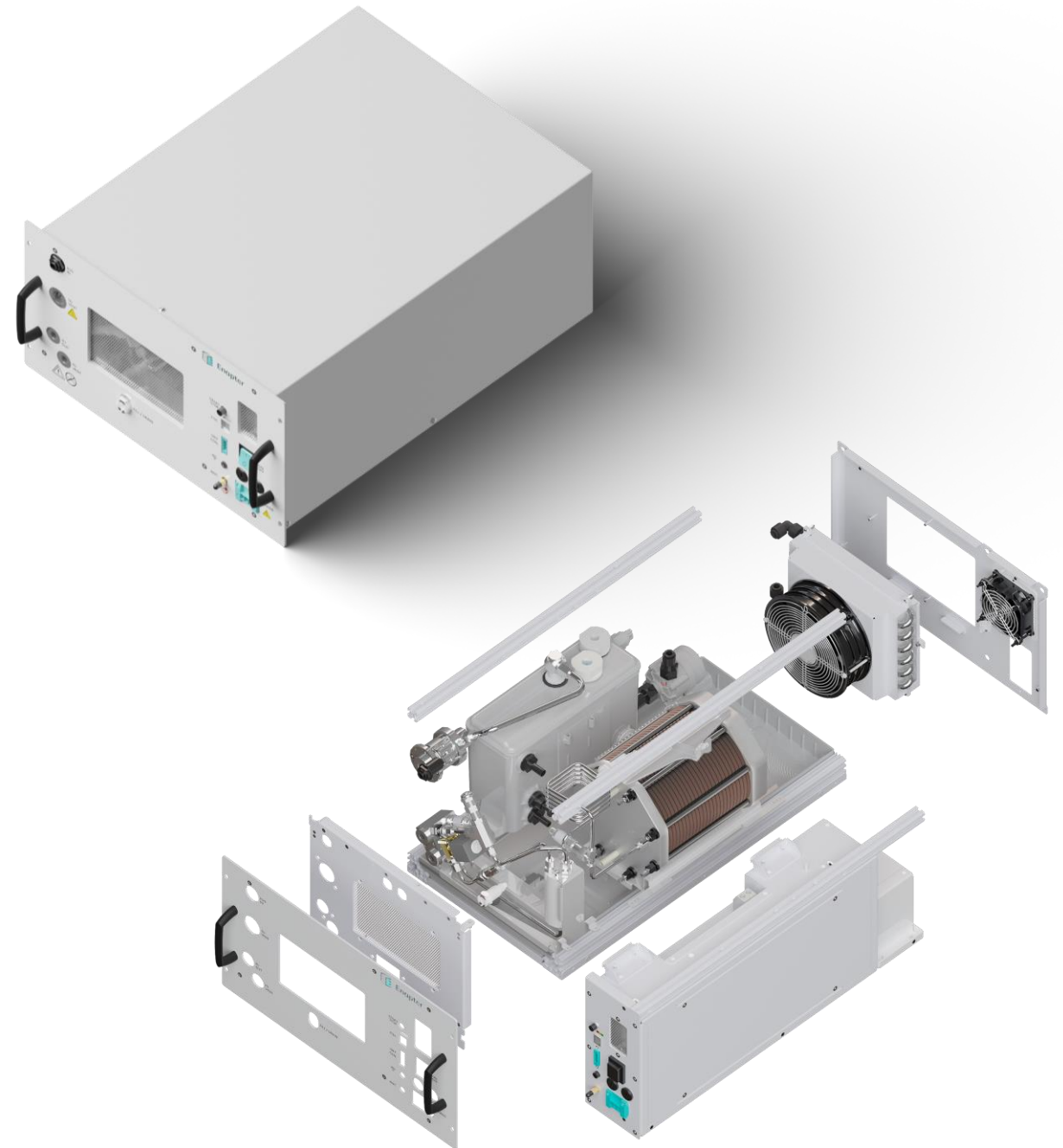
The Electrolyser EL 4



- ≡ Hydrogen Production: 500 NL/hr or 0.5 Nm³/hr
- ≡ Power Consumption: 2.4 kW
- ≡ Efficiency: 4.8 kWh/Nm³
- ≡ Hydrogen Purity: 99.9% or 99.999%
(with optional dryer)
- ≡ Output Pressure: 35 bar
- ≡ Modular and scalable

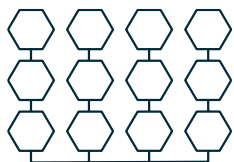
Datasheets:

- ≡ EL 4.1 AC ([Air cooled](#) / [Liquid cooled](#))



Multi-core electrolyser series

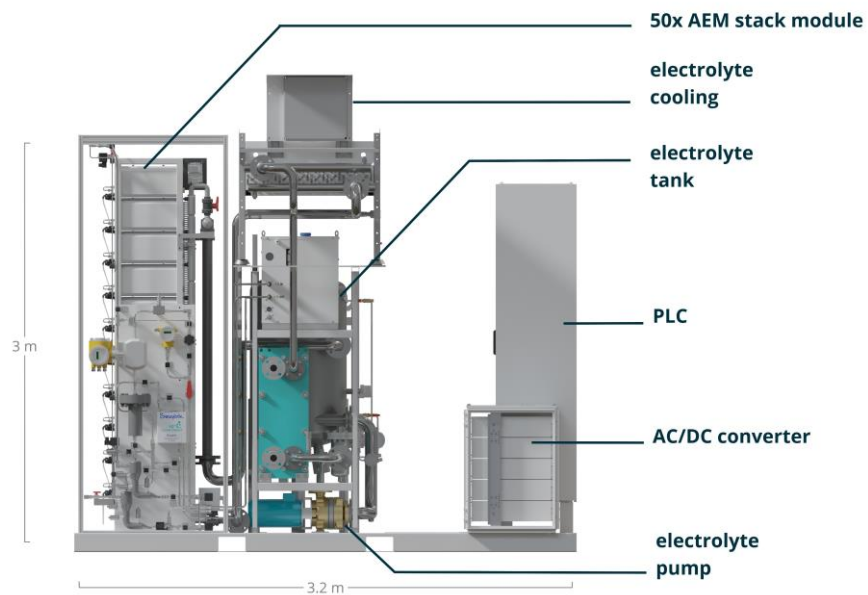
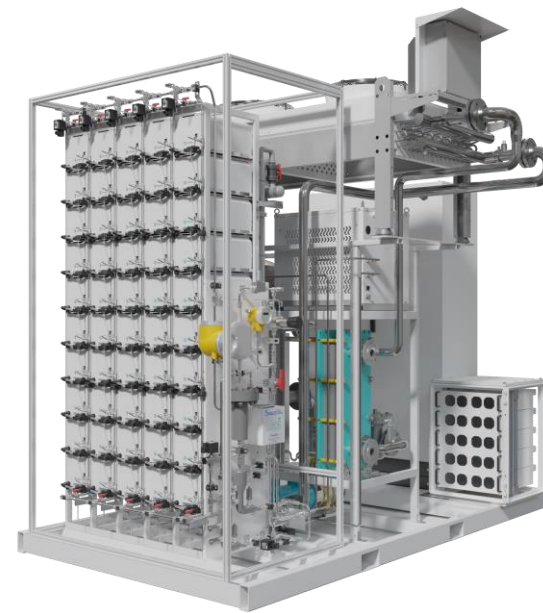
AEM Flex 120



- ≡ Hydrogen Production: 25 Nm³/h or 53.9 kg/d
- ≡ 99.95% or 99.999% purity, up to 35 barg
- ≡ Power consumption: 120 kW
- ≡ Efficiency: 4.8 kWh/Nm³
- ≡ Flexibility: 12% - 100%
- ≡ Hot Startup time: 0-100% in < 2 min
- ≡ Smart and fully automatic operation

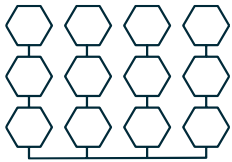
Datasheet:

- ≡ [AEM Flex 120](#)



Multi-core electrolyser series

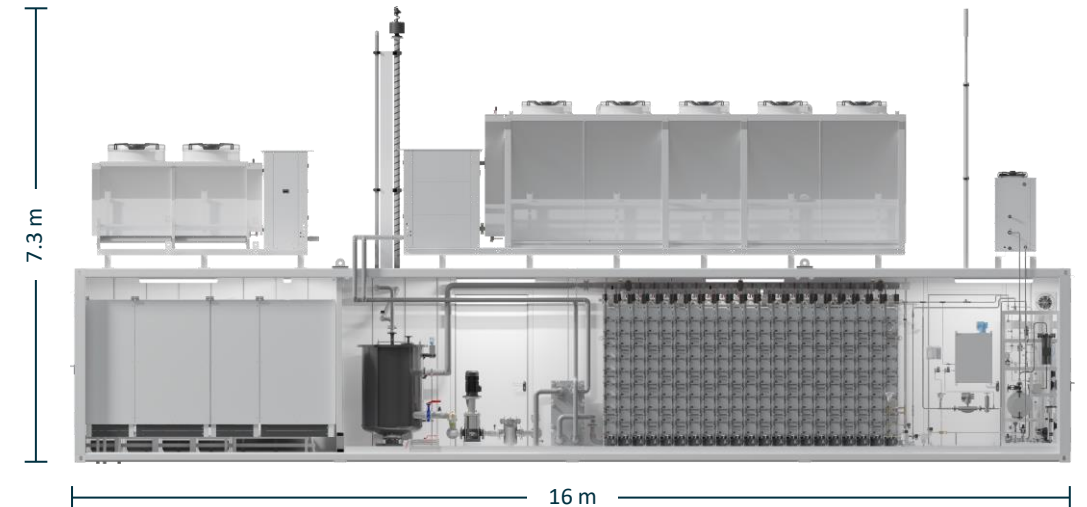
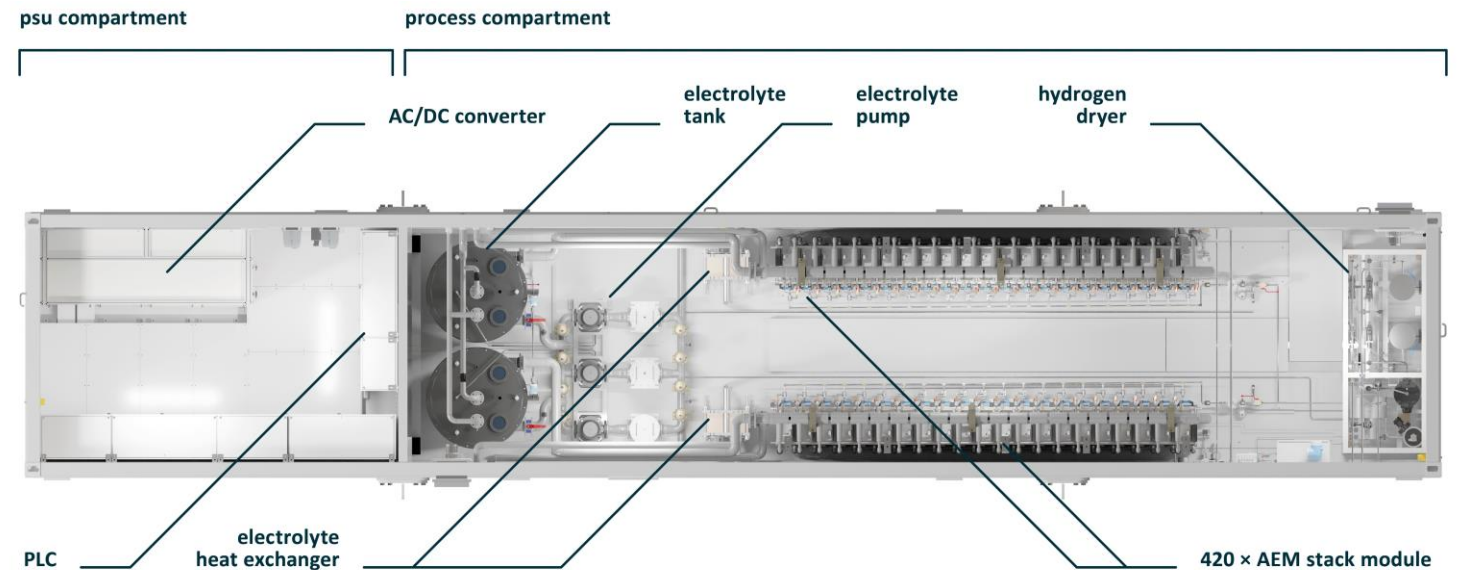
AEM Nexus



- ≡ Hydrogen Production: 210 Nm³/h or 453 kg/d
- ≡ Power consumption: 1,008 kW
- ≡ Efficiency: 4.8 kWh/Nm³
- ≡ Hydrogen Purity: 99.95% or 99.999%
- ≡ Flexibility: 3% - 100%
- ≡ Hot Startup time: 0-100% in < 2 min
- ≡ Output Pressure: Up to 35 barg

Datasheet:

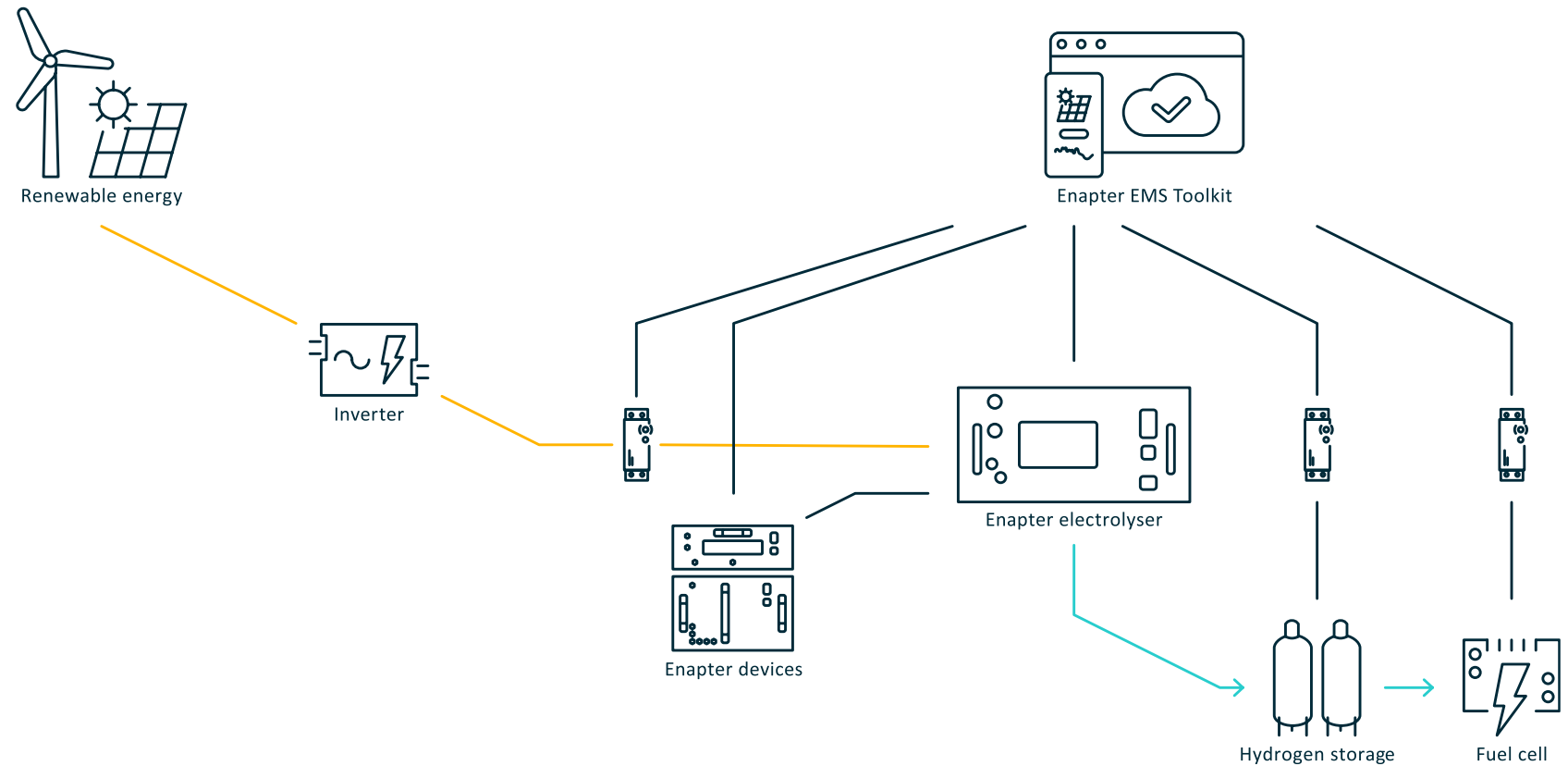
- ≡ [AEM Nexus 1000](#)



Enabling the AEM Electrolyser

Enapter's Energy Management Toolkit

- ≡ Artificial Intelligence simulations
- ≡ Monitoring and controlling
- ≡ Automations & rule-based engine
- ≡ Machine Learning ready
- ≡ Industry-grade data encryption



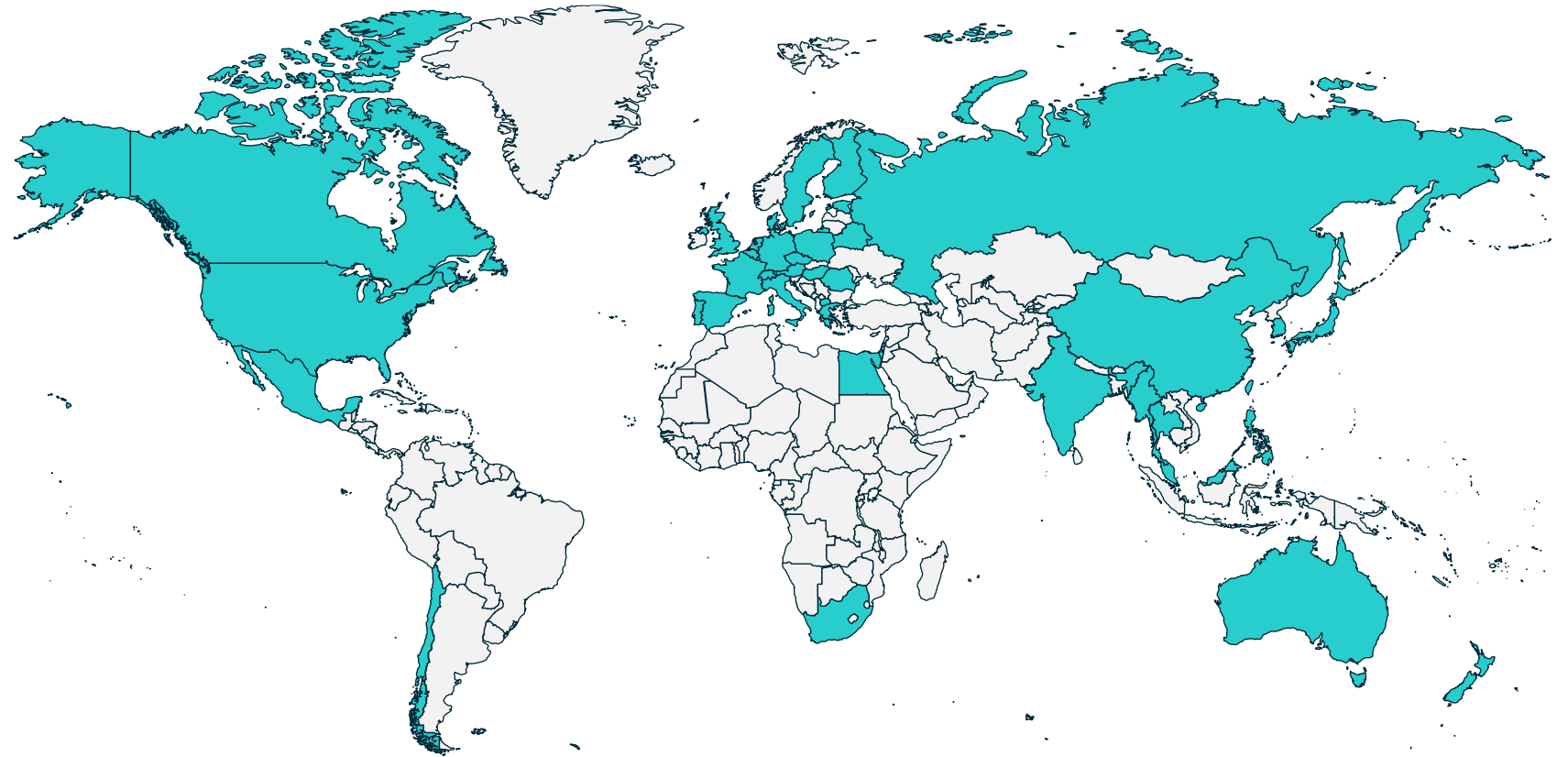
AEM electrolyser rollout

Enapter's global product traction

≡ 3,700+ electrolysers

≡ 340+ customers

≡ 50+ countries



Many references [here](#)

Smart.
Simple.
Scalable.



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 youtube.com/enapter

 @enapterenergystorage

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www.enapter.com