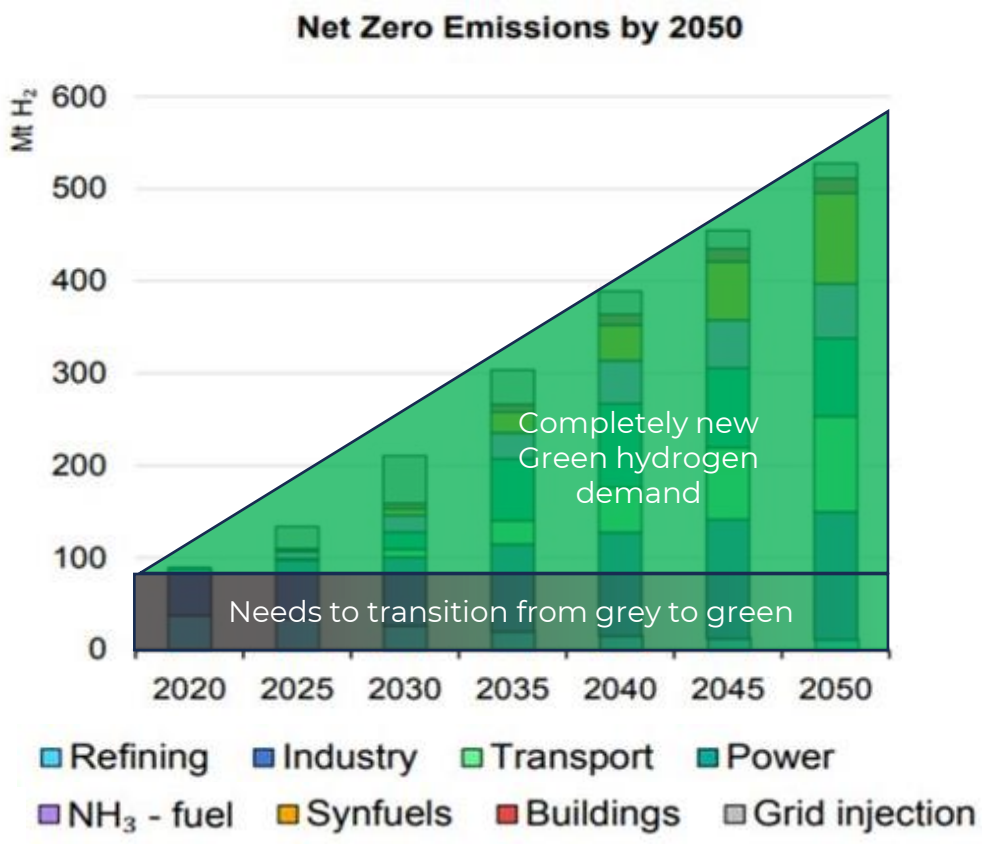
AVOXT

Making green hydrogen affordable for everyone

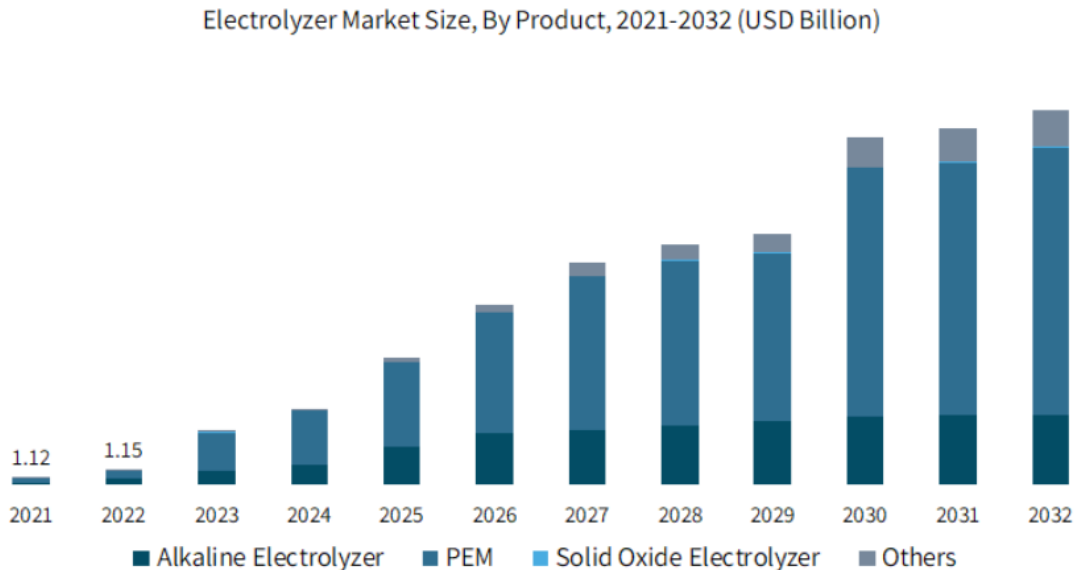
The demand for hydrogen and electrolysers

Hydrogen demand



Source: IEA

Electrolyser demand



Source: GM insights

The problems with conventional electrolysers

PEM

Expensive and pollutive PGM materials

~2MW

Alkaline

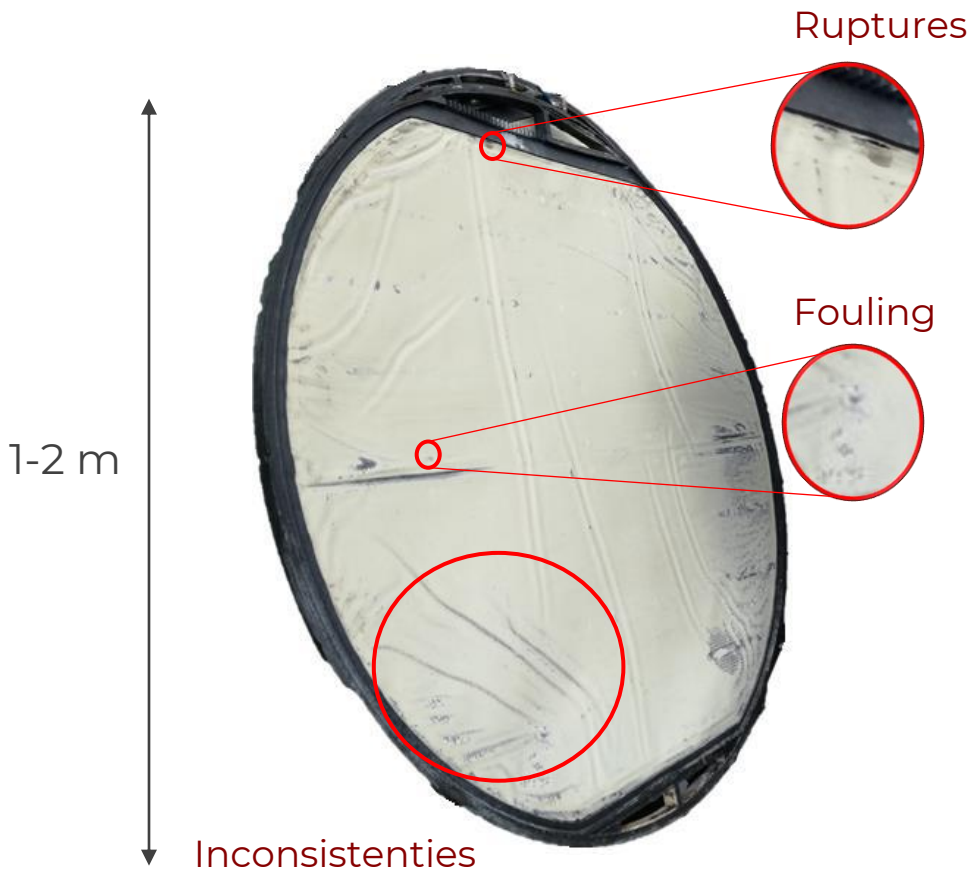
Low operational flexibility

~5,5MW

All electrolysers

Low energy efficiency
Frequent and expensive maintenance

The weakest link in the electrolysis chain



Membrane in an alkaline electrolyser

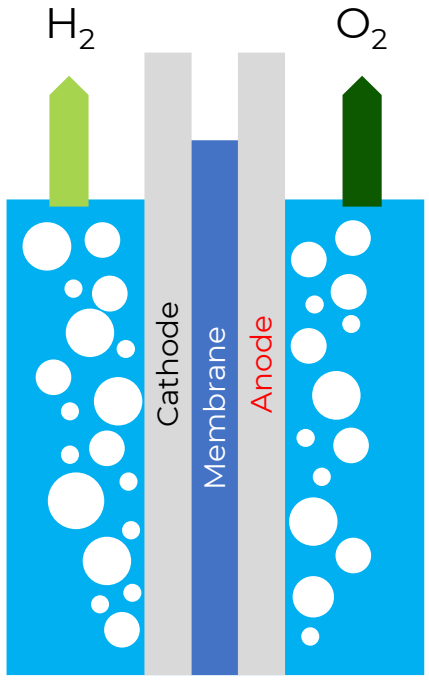
Reduces Efficiency

Short lifetime 3-5 years

Increases maintenance

Limits operational flexibility

The next step in electrolysis

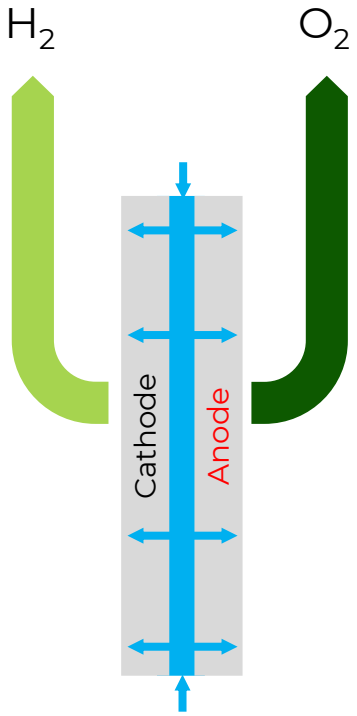


Proprietary electrodes

Remove the membrane

Reduced distance between electrodes

Simplified cell and stack design



Benefits of removing the membrane

Increased efficiency

Decreased maintenance frequency and costs

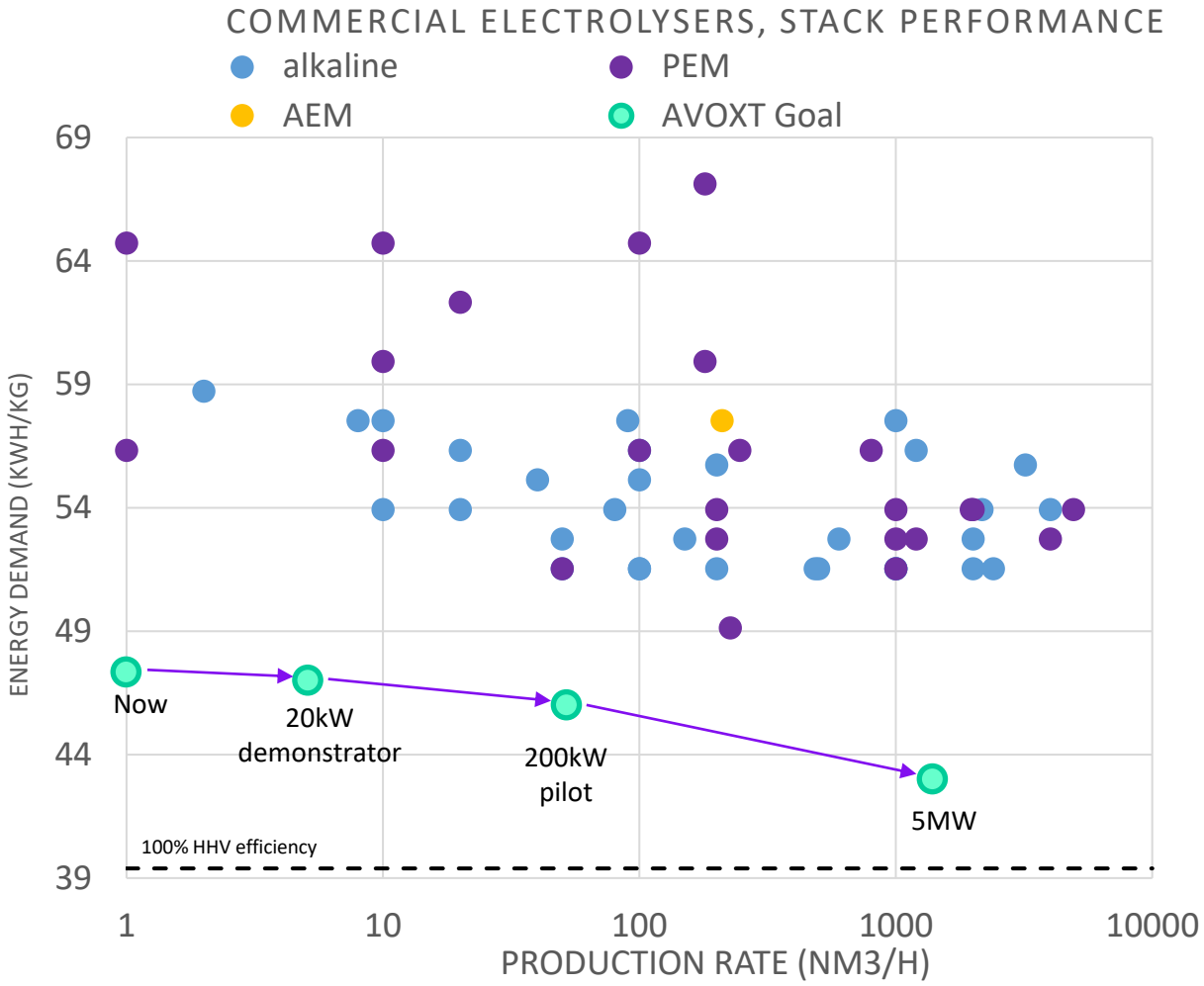
Higher operating flexibility

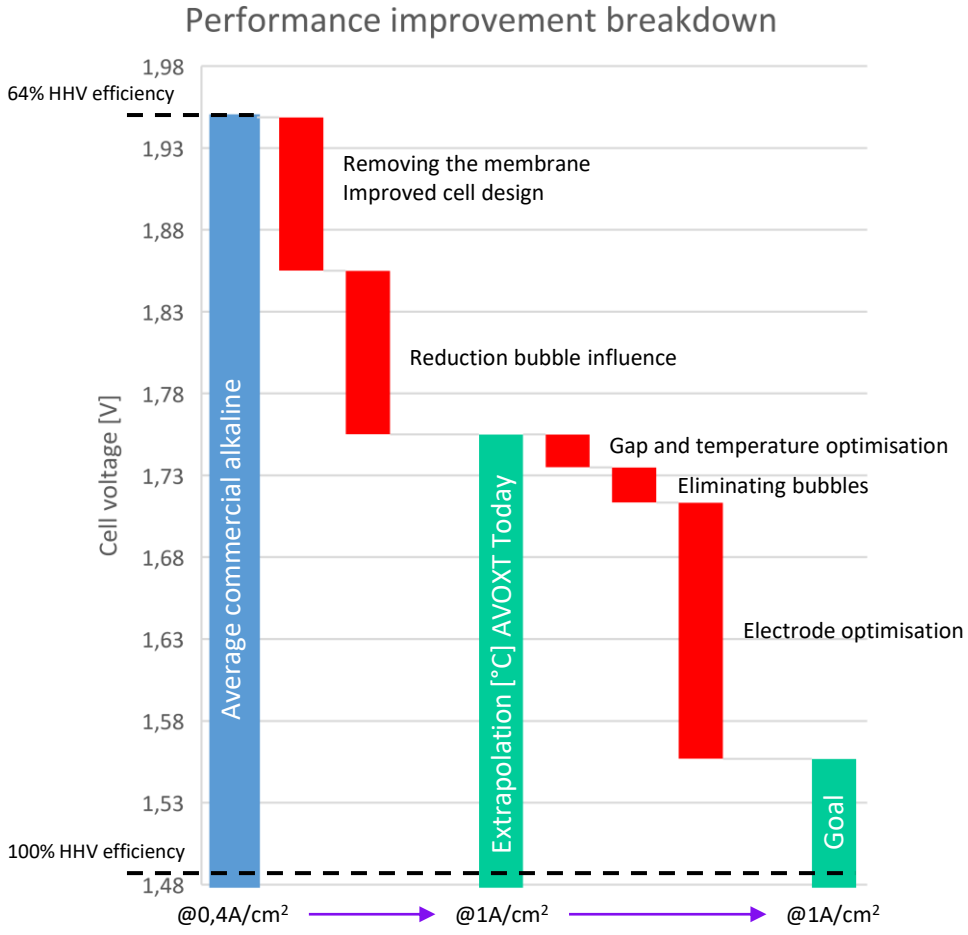
Direct compressed gas

Impact of removing the membrane

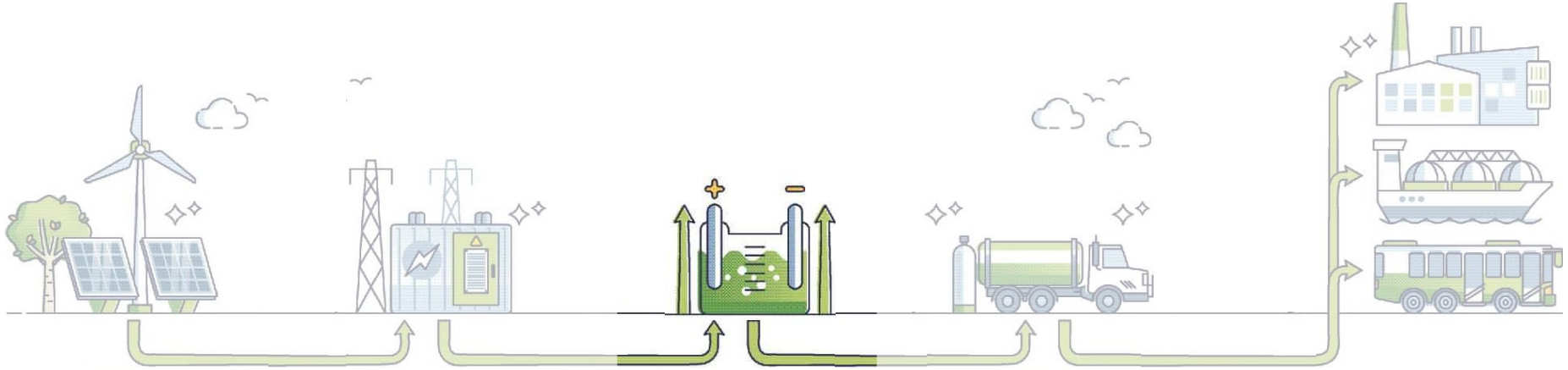
	Lifetime	Membrane replacement	Electrode replacement	Electrode refurbishment	Reduction in maintenance frequency
Conventional electrolyser	**20 years**	**5-6 x**	**2-3 x**		
AVOXT electrolyser	**20 years**	**0 x**	**2-3 x**	**60-80%**	

How do we compare to commercial electrolysers?

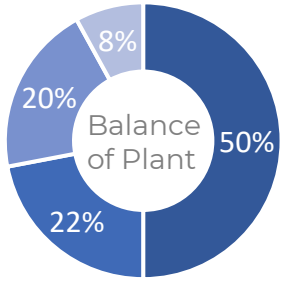




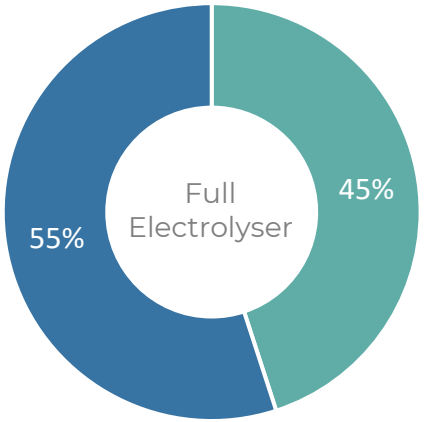
AVOXT's contribution to a green future



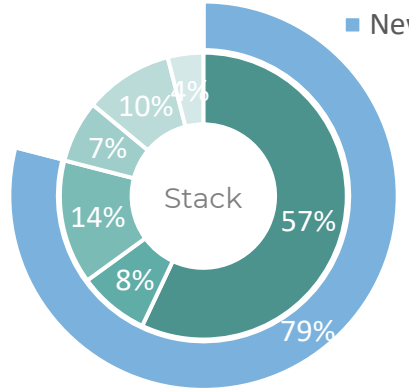
Renewable electricity generation | Getting electricity to the electrolyser | **Electrolyser** | Distribution and storage of the hydrogen | Net Zero emission use cases



- Power supply
- Water circulation
- Hydrogen processing
- Cooling



- Stack
- Balance of plant

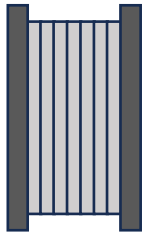


- New AVOXT technology
- Membrane/electrode package
- Porous transport layer
- Structural layers
- Bipolar plates
- Stack assembly and end plates
- Small parts (sealing, frames)

AVOXT's product offering

5MW Stack module

Core product



Modules are stackable to the required plant size

Hydrogen

Deoxo/dryer/etc.

H_2

O_2

Electrolyte

5X MW full electrolyser plant

One-stop shop solution for end users

Our plan to success

Initial revenue expected

DEMCON
DEVELOPMENT & ENGINEERING PARTNER

H2-23	H1-24	H2-24	H2-25	H2-26
Proof of Principle	First stack operational	20kW demo	200kW pilot	5MW plant
• Technology proven • Dry gas production achieved	• First multi-cell electrolyser operational	• Integrated in a complete plant	• In field testing connected to a windmill	• Commercial launch

PROJECT PARTNERS

FLUIDWELL

renewable factory
energy to share

PROJECT SUPPORTERS
LOI's signed

MEIERIJSTAD

POM
Platform Ondernemend Meierijstad

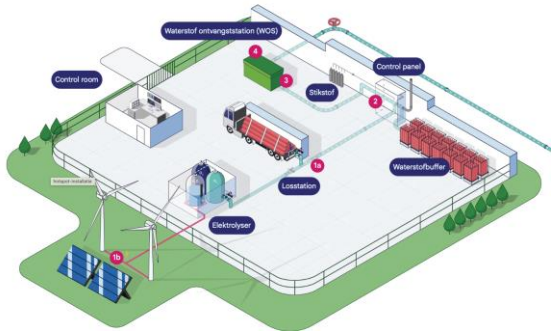
BOM
Catalyzing Change

van Kessel

Market interest

renewable factory
energy to share

Potential customer,
Project partner 200kW pilot



DEMCON

Development partner,
Interested to invest

van Kessel Olie

Potential customer,
LoI signed

H_2 WaterstofWijk Wagenborgen

Potential customer,
under discussion

HY NORTH

Hydrogen Network
Northern Netherlands,
Warm contact

The team that will make it happen

Founders

Ton Rademaker
Founder & CEO
Entrepreneur
Industrial Design Engineer

Pascal van Bakel
Founder & CTO
Energy systems expert
Mechanical engineer

Employees

Tim Josten
Mechanical Engineer

Abhay Patel
Mechanical engineer

Dr. Loes Wijnoltz
Material Scientist

Dainora Šimkūnaitė
Mechanical engineer

Advisory board

Prof. John Bell
Advisor
CEO HighTech XL
Tilburg University

Prof. Earl Goetheer
Advisor
CTO HighTechXL
Prof. TUDelft

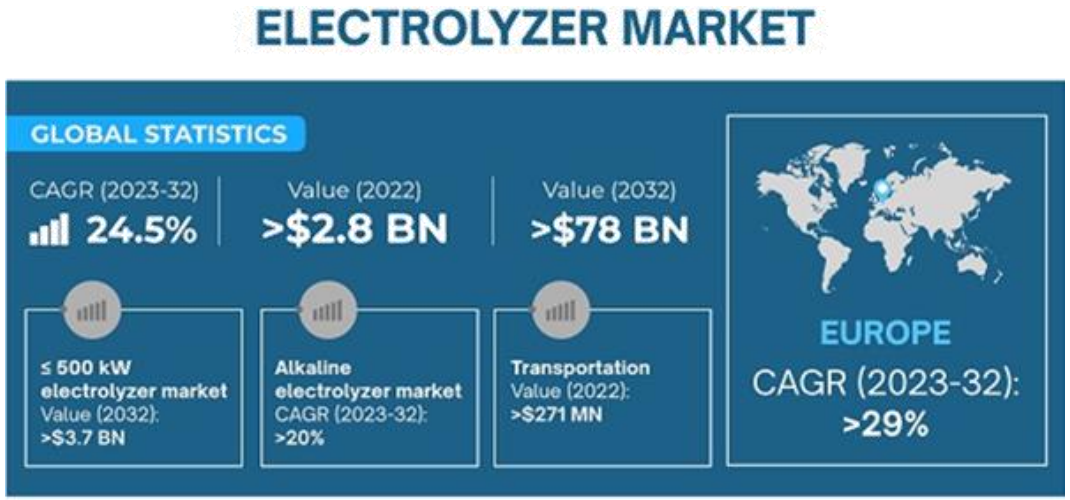
Philippa Biritwum
Advisor
CEO Amacon
Executive Automobile

Knowledge partners

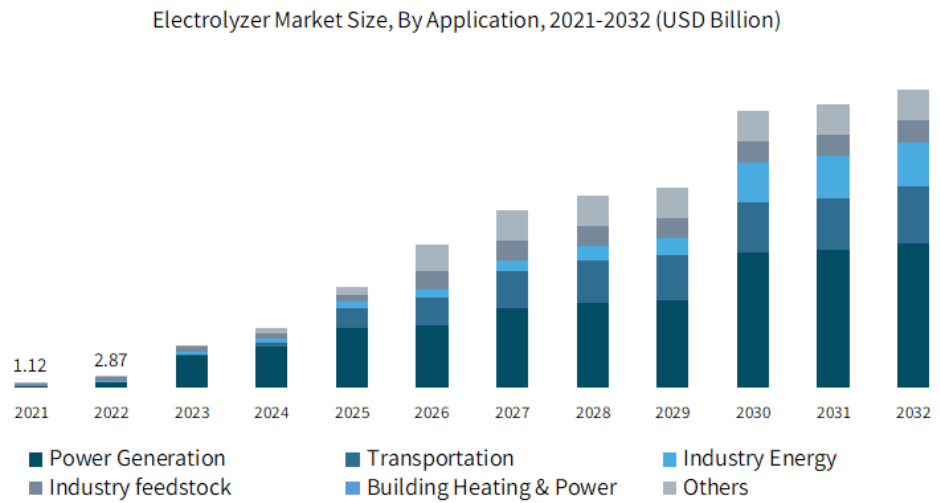
FME POWERED BY DUTCH TECHNOLOGY · TU Delft · TU/e Technische Universiteit Eindhoven University of Technology · Fontys University of Applied Sciences · avans hogeschool

info@avoxt.com

Huge market potential



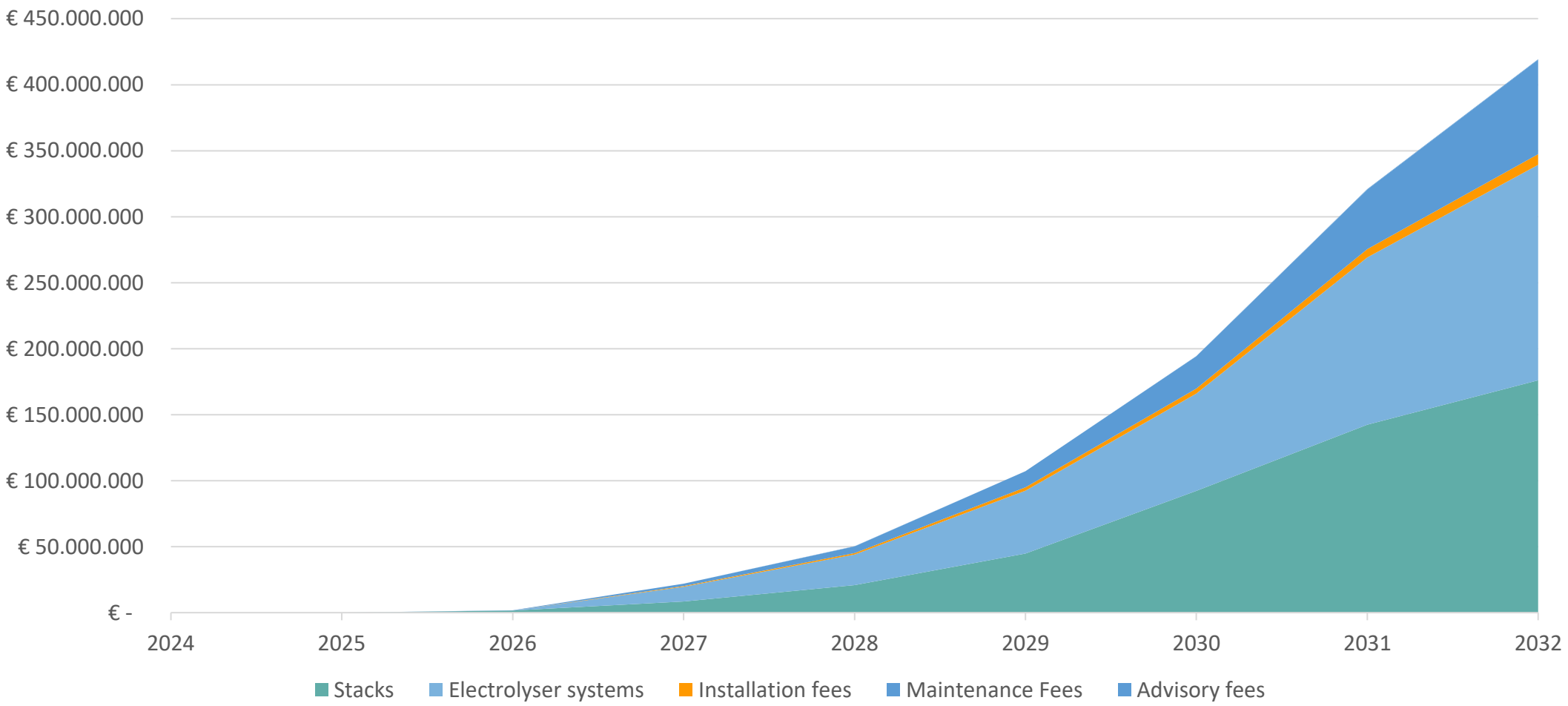
TAM	$78 BN	Electrolyser market
SAM	$5 BN	Predicted alkaline stack market
SOM	$419 M	25 systems of 5MW → 3.2% market share in full systems 90 Stacks of 5 MW → 14% marketshare in alkaline stacks market share



Source: GM insights

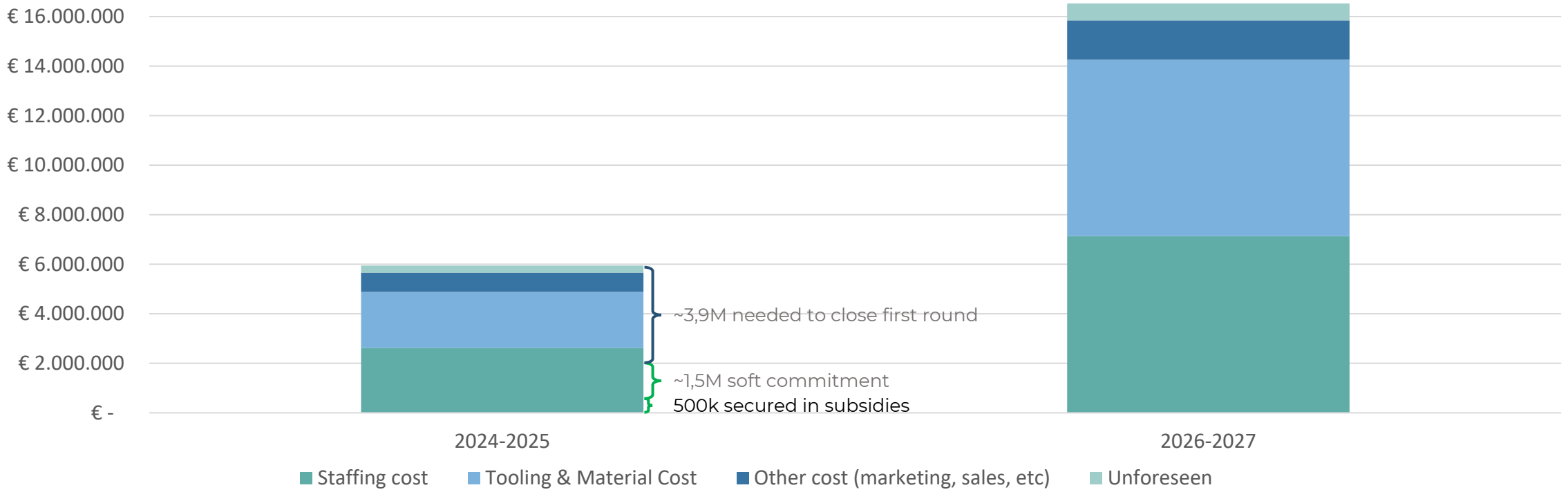
Electrolyzer Market Size & Share | Growth Analysis, 2023-2032 (gminsights.com)

Projected revenues



Funding needed

	2024	2025	2026	2027
Deliverable	20kW demo	200kW pilot	5MW plants	
Burn rate	1,3M	4,7M	8,0M	8,6M
Funding rounds	5,9M		16,6M	



*Currently the venture is funded with grants (~900k), HTXL and in-kind hours from the founders.
About half of the subsidies will be paid out on the basis of declaration in the near future to be used for R&D.

AVOXT

Making green hydrogen affordable for everyone

Contact

- Email: info@avoxt.com
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- Facebook: facebook.com/avoxt