
DE NORA
Electrochemistry, Water, Energy:
our future for a cleaner world

EURONEXT

DE NORA

€856.4m

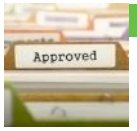
2023 Revenues

24

Operating companies

+100

Years of Innovation

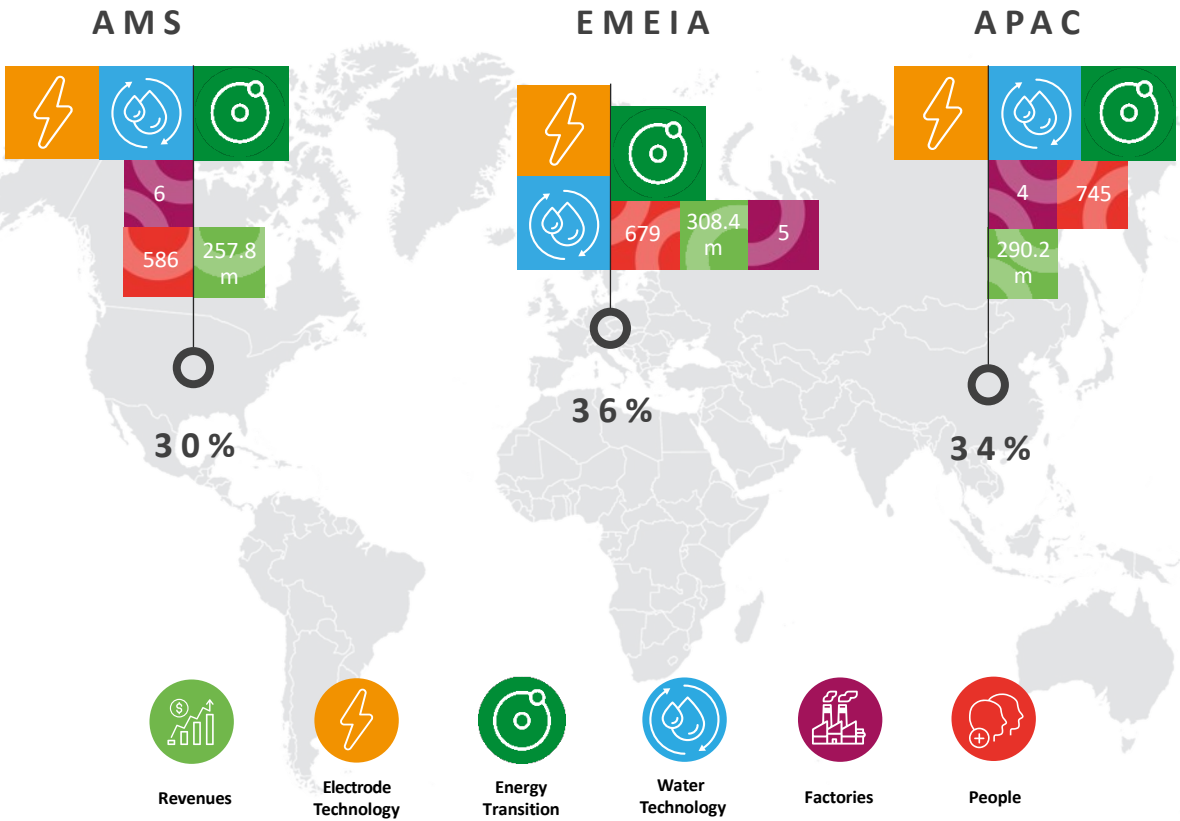


281

Patent families

2010

People



Data as of 31.12.2023

WHO WE ARE

Global Leader in Electrode Technologies and Water Treatment Solutions

The world's largest supplier of high-performing coatings and **electrodes** for industrial applications

Leader in emerging sustainable technologies and with a key role in **Green Hydrogen** market

Recognized provider of disinfection and filtration solutions for **water** and **wastewater treatment**

AWE cell
Industrie De Nora laboratories

DE NORA: THREE DIVISIONS, ONE SOUL

100 Years of Electrochemistry, to provide Sustainable Technologies

ELECTRODE TECHNOLOGIES

Anodes, Cathodes, Catalytic Coatings
Gas Diffusion Electrodes,
Cell Manufacturing

MARKETS & LEADERSHIP

Chlor-alkali,
Electronics,
Nickel & Cobalt
Electrowinning

> 50% market share

ENERGY TRANSITION

Electrodes for Alkaline Water Electrolysis (AWE), Electrolysis Cells, and Electrodes for Fuel Cells, Small Scale Electrolyzers

MARKETS & LEADERSHIP

Green Hydrogen Production
AWE Technology

WATER TECHNOLOGIES

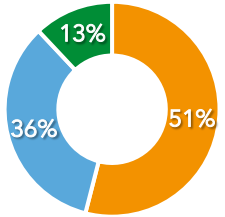
Electrochlorination, Disinfection and Filtration Technologies, Water Treatment Technologies, Electrodes for Pools

MARKETS & LEADERSHIP

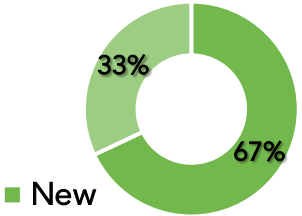
Pools (> 80% Mkt share) &
Industrial Electrochlorination;

Within the top 5 in municipal disinfection & filtration

H1 2024 Revenues By Business Units



H1 2024 Revenues New Installations Vs Services



OUR POSITION AT THE CORE OF THE GREEN H_2 VALUE CHAIN

Distinctive position in the value chain and strategic partnerships with major market leaders in the hydrogen space

PRIMARY SCOPE OF SUPPLY	PARTNERS OF CHOICE	Technologies providers			EPC Contractors		Off-takers
		Electrodes	Cell	Electrolyzers	BOP	Plants construction	
 Electrodes and cells manufacturing (AWE)	Joint Venture	De Nora			thyssenkrupp nucera		Producer
 Electrodes and packages (AWE)	Electrolyzers OEMs	De Nora			OEM	EPC	Producer
 Electrodes (Fuel Cell)	Fuel Cell OEMs	De Nora			OEM	EPC	Producer
 Small size AWE electrlolyzers	EPC	De Nora				EPC	Producer

Green Hydrogen technologies already produced

- **1 GW** in 2023
- **588 MW** in H1 2024
- **1.6 GW** in backlog

OEM: Original Equipment Manufacturer; EPC: Engineering, Procurement and Construction.

DE NORA

An innovative H_2 generation system by De Nora based on De Nora Advanced AWE technology

Reduced Stack dimension
New cooling system through special design bipolar plates

High capacity
High current density, reduced footprint

High-efficiency electrodes
State-of-the-art power consumption

Reduced footprint
MW/m^2

Minimized construction costs

Optimized transportation costs
Use of standard size containers

Minimized installation costs
Plug and play – all utilities on board

Customizable Offer
Utilities on board

Our innovative H2 generation system

- Designed to minimize Total Cost of Ownership (TOC) and Levelized cost of green H_2
- Plug-n-play system
- Reduced Footprint

Sizes: 1MW – 7.5MW

A versatile solution for decentralized applications:

- Heavy transport and Mobility (train/buses, tracks)
- Light industries' needs
- Ideal for small local uses and Hydrogen Valleys

Key Milestone June 2024*

LOI with Duferco Energy Company to jointly develop Green Hydrogen Projects across Europe

HyTecHeat - Snam e Tenova
1MW low carbon H_2 for steel production
Funded by EU " Horizon Europe"

CRAVE H_2 - Crete Hydrogen Valley (Crete)
4 MW - 500 tons/y of Green H_2
co-funded by the EU Commission

*Backlog - Received Orders. Hot Deals - High Probability of award in short term. Actively Pursued Projects - Under discussion both in technical and economic terms, a good chance to be translated into Hot Deals. Identified Pipeline - Submitted Offers and preliminary tech. discussion.

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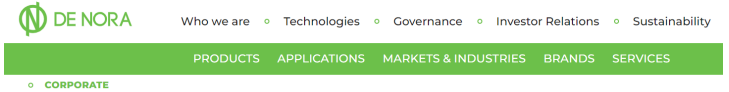
Dragonfly® system global footprint

Currently following business development activities also **outside Italy and Europe**, in other key markets (e.g., Japan, Brazil)



De Nora signs an agreement with Asahi Kasei to develop and commercialize electrolyzers and containerized systems for small-scale green hydrogen production

Main Projects in Backlog

NEOM, Saudi Arabia,
Largest Green H_2 Project Globally
part of > **2 GW** tot project
H_2 to Green Ammonia

Green Steel project, Sweden
the first large-scale green steel plant in EU
700+ MW
H_2 to Steel – Hard to abate industry

Some Projects in our Pipeline

27% of our Pipeline's Hot Deals

«Next Company» *(Capacity Reservation, jv nucera)*
High multi-hundred MW Green H_2
project in North America

ABEL **260 MW** AWE *(jv nucera Preferred Supplier)*
Project for maritime Industry in Australia
H_2 to methanol

NESTE **120 MW** AWE
at Neste's Refinery in Finland
H_2 to Refinery Processes

CEPSA **300 MW** AWE *(Basic Eng. and package design, jy nucera)*
Andalusian Green H_2 Valley, Spain
Basic Engineering & Design

BOOSTING OUR DISTINCTIVE PRODUCTION CAPACITY

Readiness and Flexibility to Markets Development

AMS

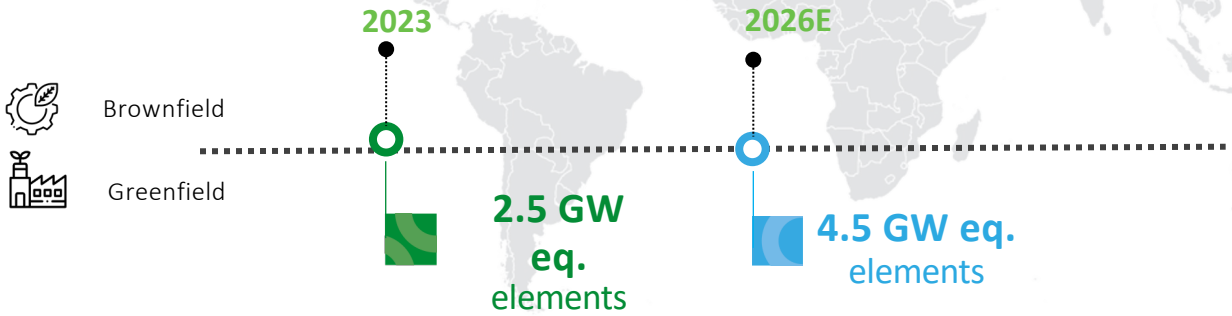
- **Automation** and **technology upgrades**.
- New **Energy Innovation Center**
- **~US$50m Grant by DOE[1]** for manufacturing expansion (green H_2) *pre-selection*

EMEIA

- **Strengthened** manufacturing set-up in **Germany** (Energy Transition)
- **Greenfield Gigafactory** (Italy)- Groundbreaking celebrated in Jun'24

ASIA

- **Synergic plan of expansion for China & Japan.**
- **Suzhou's** expansion phase completed in'23
- **Okayama** expansion completed in March 2024



Italian Gigafactory's Groundbreaking

June 2024

- Greenfield project
- 2GW Green H_2 Technologies Capacity (Dragonfly® System)
- Smart and Sustainable Factory
- Start of Operations in 2025
- Eligible for **€63** m **IPCEI** funds. Already **approved €32m** by **Ita. Gov**

1. De Nora with its partners has been in addition pre-selected also for about ~US$ 30 m grants for innovation projects to reduce the cost of Green H2