ErreDue

Sector: Capital Goods

Sound traditional gas business plus free green H_2 option

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Fair Value (€)	**14.60**
Market Price (€)	**9.65**
Market Cap. (€m)	**60.3**

ErreDue - player in on-site gas generation & purification customized solutions, including H2 electrolysers for green energy transition – is listed on EGM since Dec 2022 and is investing most of IPO proceeds to boost its output capacity. ErreDue is a "small" public company, with 25 employees cumulatively holding 70% of the Company.

A strong track record of growth and profitability

With FY23 VoP and EBITDA at €19.3mn and €5.9mn respectively ErreDue boasts a strong track record in its traditional business of customized on-site gas generators: steady top line growth (34% $CAGR_{20\text{-}23}$ and 17% since 2016), healthy margins (ca. 30% EBITDA), sizable and growing amount of recurring revenues. ErreDue closed FY23 with net cash at €16.3mn.

IPO to fund capacity expansion and ride green transition

Following Dec 2022 IPO, ErreDue planned to invest most of net proceeds to boost its output annual capacity from 8MW to 60MW. The new plant should be fully operating from mid-2025 and focus on H_2 generators dedicated to energy transition applications (*Megawatt*). We expect the *Gigafactory* to reach margins aligned to existing production very quickly and despite low initial utilization rates, under current pricing conditions.

FY24E ok-ish but top line and EBITDA to double by FY26E

While we expect FY24E to be a "transition" year – due to a combo of slower growth for traditional business and large investments to prepare 2025E new production - we see strong growth into FY26E with Top line and EBITDA due to double: €43.4mn VoP (32.4% CAGR23A-26E), €13.5mn EBITDA (margin at 31.2% +71bps vs 2023A) and €17.1mn Net Cash.

Great opportunities always have some risks

This growth potential does imply some risks: first of all, the pace of low emission H_2 demand growth, and the take up of electrolyser demand vs output capacity expansion, which will have strong impact on profitability of business. Secondly, the execution risk attached to the launch of the new Megawatt products, and of the start-up of the Gigafactory by mid-2025.

Megawatt option comes for free: fair value at €14.6 p/s

We calculate a €14.6 p/s Fair Value, based on the average outcome of relative valuation vs peers and DCF model. Both methodologies look at the business: a) as a whole and, b) splitting the value of core/traditional business and of new venture in Megawatt plants, and hint that current market value adequately accounts for ErreDue traditional business only, but growth opportunities from new products and applications do come for free.

KEY FINANCIALS (€mn)	2023A	2024E	2025E
VALUE OF PRODUCTION	19.3	20.5	29.8
EBITDA	5.9	5.9	8.9
EBIT	4.1	3.8	6.0
NET PROFIT	3.4	3.2	4.7
EQUITY	30.9	32.7	36.0
NET FIN. POS.	16.3	14.4	12.2
EPS ADJ. (€)	0.54	0.51	0.75
DPS (€)	0.22	0.22	0.22

Source: ErreDue (historical figures)
Value Track (2024E-25E estimates)

KEY RATIOS	2023A	2024E	2025E
EBITDA MARGIN (%)	30.5	28.9	30.0
EBIT MARGIN (%)	21.0	18.7	20.0
NET DEBT / EBITDA (x)	nm	nm	nm
NET DEBT / EQUITY (x)	0.0	0.0	0.0
EV/SALES (x)	2.4	2.2	1.6
EV/EBITDA (x)	7.8	7.8	5.4
EV/EBIT (x)	11.4	12.0	8.1
P/E ADJ. (x)	18.4	19.1	12.8

Source: ErreDue (historical figures)
Value Track (2024E-25E estimates)

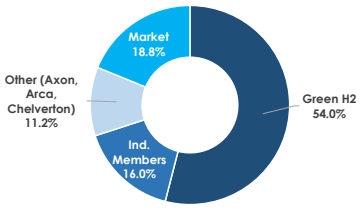
STOCK DATA	
MARKET PRICE (€)	9.65
SHS. OUT. (m)	6.3
MARKET CAP. (€m)	60.3
ENTERPRISE VALUE (€m)	45.9
FREE FLOAT (%)	18.8
AVG. -20D VOL. ('000)	3,835
RIC / BBG	RDUE.MI / RDUE IM
52 WK RANGE	7.28 – 10.70

Source: Stock Market Data

Business Description

ErreDue is a well-known Italian player in R&D, production, and commercialization of an extensive array of on-site gas generation and purification customized solutions, ranging from H_2 electrolysers, oxygen generators, gas purifiers and mixers, hydrogen refuelling stations, and N_2 generators. ErreDue has emerged as a central player across various sectors, i.e., industrial, laboratory and more recently solutions for green energy transition, such as power-to-gas technologies, hydrogen-fuelled mobility and industrial decarbonization. ErreDue is investing €12mn over 2023-2025 to boost its electrolysers output capacity from 8MW to 60MW. ErreDue is a "small" public company, with 25 employees holding 70% of the Company.

Shareholders Structure



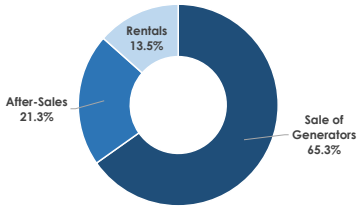
Source: ErreDue

Key Financials

€mn	2023A	2024E	2025E	2026E
Value of Production	**19.3**	**20.5**	**29.8**	**43.4**
y/y (%)	*57.0%*	*6.0%*	*45.6%*	*45.6%*
EBITDA	**5.9**	**5.9**	**8.9**	**13.5**
EBITDA Margin (%)	*30.5%*	*28.9%*	*30.0%*	*31.2%*
EBIT	**4.1**	**3.8**	**6.0**	**10.1**
EBIT Margin (%)	*21.0%*	*18.7%*	*20.0%*	*23.2%*
Net Profit	**3.4**	**3.2**	**4.7**	**7.8**
y/y (%)	*nm*	*-6.8%*	*48.4%*	*66.4%*
Adjusted Net Profit	**3.4**	**3.2**	**4.7**	**7.8**
y/y (%)	*nm*	*-6.8%*	*48.4%*	*66.4%*
Net Fin. Position	**16.3**	**14.4**	**12.2**	**17.1**
Net Fin. Pos. / EBITDA (x)	*nm*	*nm*	*nm*	*nm*
Capex	-4.8	-6.5	-6.2	-2.8
OpFCF b.t.	**-0.4**	**0.2**	**0.4**	**8.5**
OpFCF b.t. as % of EBITDA	*-7.0%*	*2.6%*	*4.8%*	*63.1%*

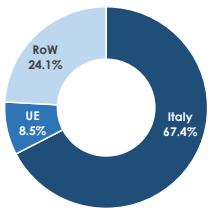
Source: ErreDue (historical figures), Value Track (estimates)

FY23 Sales breakdown by contract



Source: ErreDue

FY23 Sales breakdown by Country



Source: ErreDue

Investment case

Strengths / Opportunities

- In-depth expertise in alkaline technology and R&D, focus on after sales;
- Fully vertically integrated business model, with recurring revenues;
- Increasing demand for electrolyzers, due to switch to on-site production and applications for green energy transition;
- Profitable business (>30% EBITDA margin) and solid B/S (net cash).

Weaknesses / Risks

- Competitive threat from Chinese and potentially Indian markets;
- Uncertain outlook for demand/supply balance of electrolyzes.

Stock multiples @ €14.6 Fair Value

	2024E	2025E
EV / SALES (x)	3.8	2.7
EV / EBITDA (x)	13.0	8.8
EV / EBIT (x)	20.1	13.3
EV / CAP.EMP. (x)	4.2	3.3
OpFCF Yield (%)	8.3	8.0
P / E (x)	28.8	19.4
P / BV (x)	2.8	2.5
Div. Yield. (%)	1.5	1.5

Source: Value Track

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Executive Summary

"Micro public company" offering tailor-made gas generation on-site solutions

ErreDue (or "the Company") is a leading Italian player in R&D, production, and commercialization of a broad range of **tailor-made gas generation and purification on-site solutions,** listed on the Italian Stock Exchange (Euronext Growth Milan, ticker RDUE) since December 2022. Almost 70% of ErreDue capital shares is held by its employees (Green H2 Holding at 54% and individual direct shareholdings at 16%), thus we are referring to ErreDue as a **"micro public company"**.

With **2023A Value of Production and EBITDA at €19.3mn and €5.9mn** respectively, its portfolio includes 39 product models ranging from hydrogen and oxygen generators to gas purifiers, electronic gas mixers, hydrogen refuelling stations, and nitrogen generators. Their applications span across various "verticals" - including jewellery, winemaking, laser cutting, welding, food processing, pharmaceuticals, renewable energy, naval operations, sintering – and are divided in three main business lines: 1) Generators and other products (ca. 65% of FY23 revenues); 2) Service and spare parts (ca. 21% of FY23 revenues); 3) Rental of generators (ca. 14% of FY23 revenues).

Fairly valued traditional gas business + free option for energy transition applications

We initiate coverage on ErreDue with €14.6 Fair Equity Value per share, based on the average outcome of relative valuation and DCF model, providing valuations in the €14-15 area, under different assumptions and despite a relatively weaker growth in FY2024. Both methodologies have been run looking at the business: a) as a whole and, b) splitting the value of core/traditional business from the new venture in Megawatt plants. From our analysis, while there is still **some upside on the traditional business**, at current market price investors could secure **a zero-cost call option on the ramp-up of the new energy transition business**. Indeed, the traditional business of gas generators for industrial & laboratory applications is worth between €8.9-€10.8 p/s depending on valuation metrics, while the Megawatt segment (for energy transition applications) is worth between €5.9-€4.4 p/s, according to our base case scenario. We estimate that a worst-case scenario would still leave upside to the stock, while market price at €9.5 p/s implies a failure in the launch of the new Megawatt plants and in the start-up of the Gigafactory.

Track record of consistently high margins, growth and free cash flow

ErreDue boasts several notable economic / financial features in its traditional business, such as:

- **+35 years of management experience** – chiefly drawn from its executive chairman Enrico D'Angelo and his partners, involved in the business since 1986;
- **Vertically integrated** (from R&D to After-Sales services) and fully in-house business model;
- **Steady top line growth:** 34% $CAGR_{20\text{-}23}$, but a sound pace of organic growth also over a longer period (17% CAGR since 2016);
- **Sizeable and growing amount of recurring revenue** stems from generator rentals and from maintenance service and spare parts;
- **Good cash flow generation** thanks to **top-of-the-market EBITDA Margin**, with average FY20-FY23 OpFCF b.t. before development capex (defined as Adj. EBITDA – Capex for Electrolyzers for Rentals and Maintenance ± ΔNWC ± Δ Provisions) always in excess of 60% of EBITDA.

Upward set-ups in the "traditional" and in the new "energy transition" business

We expect ErreDue's strategic growth guidelines to develop along two growth paths (chased mainly via organic development, albeit M&A is not excluded):

- In the **"traditional" business"** by pursuing an enlargement of its commercial presence in contiguous end-markets and geographical areas (targeting markets in the EU, Saudi Arabia, Australia, and China), while on the other hand by fine tuning its industrial operations and processes in order to further improve profitability;
- In the **rising "energy transition related" business** by launching its new products suited for these applications (more powerful hydrogen generators, so called Megawatt) and by boosting its output capacity through the construction of a brand-new dedicated plant focused on Megawatt (called "Gigafactory").

As far as "traditional" business, ErreDue anticipates continued double-digit growth driven by a shift from cylinder-based to on-site gas production, fuelled by increased net-zero emissions awareness and renewable energy use. Challenges like high interest rates and geopolitical uncertainties might affect short-term growth (i.e. FY2024E), but the rental model could mitigate impacts.

On the "energy transition" space, ErreDue is advancing with the development of generators above 1MW, with the first delivery expected in 2025. The Gigafactory, set to be operational by 2025 with an annual capacity of over 60MW, will boost production and optimize operations.

This expansion, with a total investment of ~€12.0mn, positions ErreDue for significant growth if market conditions and government support align.

Hydrogen market on the verge of a significant expansion?

The **hydrogen outlook stands as the key market of ErreDue**, considered as the transformational driver of the Company's future growth. As far as this transition and then related demand for electrolysers are concerned, the three key challenges are: i) pace of take-up; ii) competition among technologies; iii) alignment of market demand and supply (affecting pricing). **Progress towards 2030 targets has been slow** so far, also due to fluctuating interest rates, technology uncertainties and government dependency, but strong market demand and ErreDue's financial stability enable it to manage delays effectively. The low-emission hydrogen market has significant growth potential, fuelled by Government incentives and decreasing renewable energy costs, and it could potentially increase tenfold by 2032 (*Allied Market Research* and *Global Market Insights*), with electrolysis as a key production method. Indeed, **over 70% of low-emission hydrogen is expected to be produced through electrolysis by 2030**, starting from a virtually zero base, according to the IEA's Global Hydrogen Review 2023.

However, actual **pace of market growth is uncertain** and forecasts on the future take up of hydrolyzer demand and of output capacity expansion are volatile, while the match / mismatch between the two sides of the market is due to have huge impact on the profitability of players involved in the business.

Our 2024E-26E forecasts: real take-off in FY2025E

For 2024E-26E fiscal years, we forecast:

- **Strong growth into FY2026E with Value of Production to ca. €43.4mn** (32.4% CAGR23A-26E) and **EBITDA to €13.5mn** (EBITDA margin 2026E at 31.2% +71bps vs 2023A) driven by: i) recovery of traditional business out of 2025E, ii) energy transition / H-MW plants contributing from 2025E, iii) steady growth of Rental business and after sales services;
- Yet, the combination of weak investments in capital goods and delays in adoption of H2 generators for energy transmission applications, coupled with the industrial reorganization at

ErreDue implied by the launch and relocation in the Gigafactory, make **FY2024E a transition year** in our view, with top line growth at 6% y/y and EBITDA broadly unchanged, with margin down by 160bp;

- **Net Cash Position decreasing but positive and lifting up to €17.1mn in 2026E** despite i) the sizeable development capex plan, ii) the NWC sales-driven absorption, iii) the dividend pay-out. In short, we expect a negative Equity Free Cash Flow over FY2024-2025E turning to €6.3mn in FY2026E, once development capex is completed and Gigafactory operating (albeit we assume a 20% utilization rate). On the other hand, OpFCF b.t. (before development capex) should stay at around 60% of EBITDA for the whole period.

Key challenges and concerns

It appears quite clear that the massive growth potential of a (small) player in the hydrogen production supply chain also implies certain (higher) risks, namely:

Low visibility on larger electrolyzers' demand / supply balance

The global hydrogen market is poised for significant growth, driven by green energy transition, and demand for electrolysers should equally boom as the first and most urgent step towards decarbonization. Yet, so far progress toward the 2030 targets has been slower than anticipated: timing remains uncertain and forecasts on the future take up of electrolysers demand and of output capacity expansion are volatile. This is key as the match / mismatch between the two sides of the market may have strong impact on the profitability of players involved in the business, in our view.

Despite this is a key question for ErreDue, it is mostly related to the new business (Megawatt), while the traditional segment (focused on Industry and Laboratory) is less exposed to these trends, as the two markets have different applications and competition.

Commercialization of Megawatt plants and start-up of Gigafactory

There is a certain execution risk attached to the growth strategy of ErreDue, as it implies a) the successful take-up of the new Megawatt plants, recently developed and commercialised starting from 2023, b) the building, testing and start-up of an extremely large manufacturing facility (Gigafactory), with an output capacity 7x higher than the existing one (albeit with a much smaller number of machines). Risks include slower than planned order intake for Megawatt, further delays in the Gigafactory start-up (management already faced red-tape issues with initial authorization processes), higher than expected extraordinary charges and inefficiencies in re-location of existing production into the Gigafactory, lower than expected performances in the new manufacturing lines.

Risk on key management

The managing team of ErreDue is still relatively small and the role of the founder and Executive Chairman – Mr. Enrico D'Angelo - appears pivotal. While it is worth to highlight this risk factor, we also acknowledge this is very common to small firms recently listed and does not appear really specific to ErreDue.

Company Profile

ErreDue is an Italian based company established back in 2000, leading player in R&D, production, and commercialization of a broad range of tailor-made gas generation and purification on-site solutions. It boasts +35 years of management experience – chiefly drawn from its executive chairman Enrico D'Angelo and his partners, involved in the business since 1986. In FY23, it generated €19.3mn Value of Production (~17% VoP CAGR 2016-23) – one third of revenues are recurring - and €5.9mn EBITDA (margin above 30%). With ca. 25 employees collectively holding 70% of the Company's share capital, ErreDue is a sort of "micro public company".

ErreDue at a Glance: Facts and Figures

With **2023 Value of Production and EBITDA at ca. €19.3mn and €5.9mn** respectively, ErreDue (or "the Company") is a leading Italian player in R&D, production, and commercialization of a broad range of **tailor-made gas generation and purification on-site solutions**. Its portfolio includes 39 product models ranging from hydrogen and oxygen generators to gas purifiers, electronic gas mixers, hydrogen refuelling stations, and nitrogen generators.

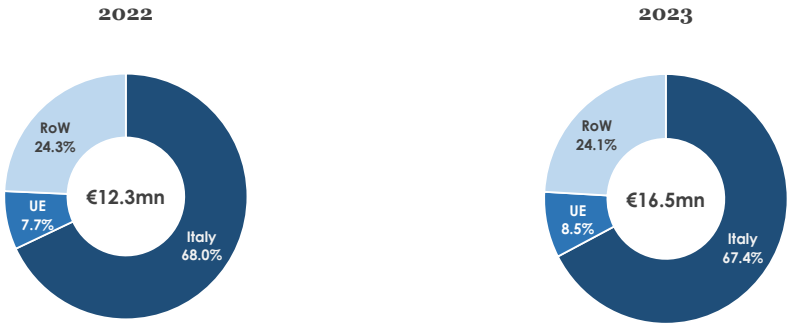
Founded in **2000**, ErreDue has become a pivotal figure in a diverse range of sectors, i.e., industrial, laboratory and green energy transition (i.e., power-to-gas, hydrogen-fueled transportation, and industrial decarbonization), demonstrating its adaptability and innovative capabilities addressing the unique needs of each sector. Its applications span across various "verticals", including jewellery, winemaking, laser cutting, welding, food processing, pharmaceuticals, renewable energy, naval operations, sintering.

Located in **Livorno** and with a **workforce of ~110**, ErreDue's key features worthy to mention are:

- Strong foundation reflected in **+35 years of management experience** – chiefly drawn from its executive chairman Enrico D'Angelo and his partners, involved in the business since 1986;
- Design and installation of more than **2,000 generators** in +50 countries globally, supplying over 1,600 clients and maintaining an average of more than 400 active customers annually;
- Expertise in both **alkaline and PEM technologies**, with the latter adopted in 2016 and accounting for ca. 19% of FY23's H_2 electrolysers sold, with alkaline covering the remaining;
- Production of state-of-the-art hydrogen generators, all **embedded with IoT technology**, facilitating remote management through proprietary remote-control software;
- Expansion of manufacturing capacity with a new 16,000sqm plant - the "Gigafactory" operating from 2025 – expected to further annual **production capacity from 8MW to minimum 60MW**;
- Strong commitment to innovation (7-8% of sales for R&D) and vertical integration, with **each technological component researched, designed, produced and assembled in-house;**
- Significant **market opportunity in the hydrogen segment**, evidenced by: i) transition from distribution to on-site production for traditional applications; and ii) green transition wherein blue/green H_2 is poised to play a key role.

Since Dec 2022, the Company has been listed on the Italian Stock Exchange (EGM, ticker "RDUE"), with an IPO including both new shares and a partial sale by existing shareholders (see further details below).

ErreDue: Revenues from Sales split by region (FY22, FY23)

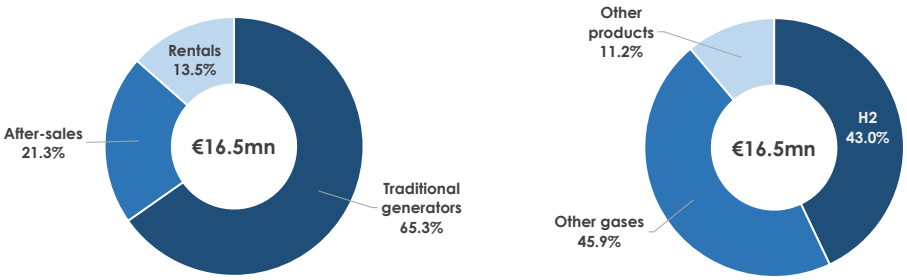


Source: ErreDue, Value Track Analysis

As far as revenue composition, ErreDue business is currently divided into three distinct business lines:

- **Generators and other products**, 65.3% of Total Revenues in FY23 (63.9% in FY22), for a business fully order-driven;
- **Services and spare parts**, 21.3% of Total Revenues in FY23 (19.5% in FY22), including after-sales maintenance services, accounting for 5% and spare parts for the remaining 16%, both representing a flow of recurring revenues;
- **Rental of generators**, 13.5% of Total Revenues in FY23 (16.6% in FY22), including generators for H_2 (27%) and other gasses, affirming the value of full customer support and recurring revenues with medium/long term contracts.

ErreDue: Revenues from Sales split by product/services and type of gas (FY23)



Source: ErreDue, Value Track Analysis

Historical Milestones

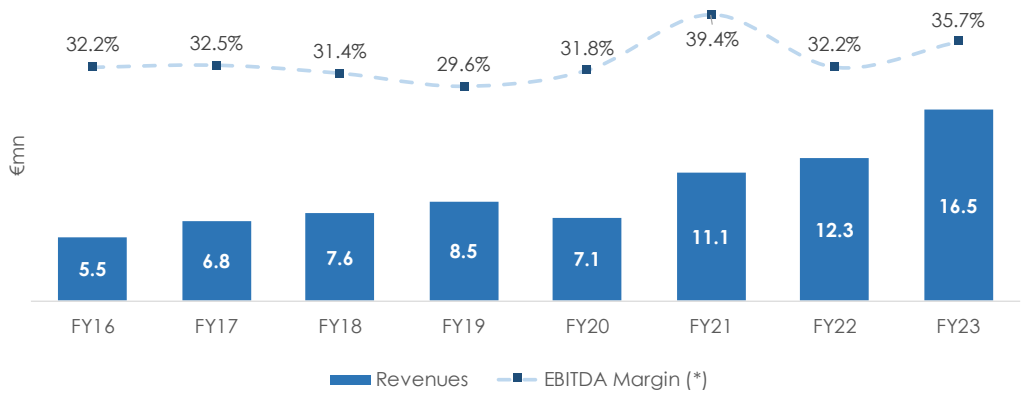
ErreDue was born in 2000 after that Enrico D'Angelo quitted Idroenergy management team. The other key steps undertaken since inception can be summarized as follows:

- **2001** – Key contract with Air Liquide Italy for maintenance of gas generators provides financial resources to finance growth investments;
- **2003** – i) Purchase of first building and HQ transfer; ii) Start of production of nitrogen generators and opening of new business;
- **2004** – Business model rethinking, switching from sale-only to rental formula for generators;
- **2010** – SpA transformation and set-up of board of internal auditors;

- **2014** – i) Acquisition of Advanced Catalysts Srl, a spin-off of Pisa University, run by highly expert professors with decades of experience in the field of metallic catalysers - catalysers know-how is internalised and ErreDue's R&D centre is born; ii) First company to achieve cells generating H_2 already at 30 bar pressure;
- **2016** – Start of production of i) small generators for lab applications; ii) PEM cells (previously bought from third-parties), more suitable for miniaturisation;
- **2022** – Testing of the first complete prototype of large H_2 production plants (210 M^3/h capacity at 30 bar pressure, with 1MW power)
- **2023-2024** – i) Try to push into greenfield Italian market for medical oxygen generators; ii) New plant and production ramp-up for large H_2 production plants (1MW and above) for "power-to-gas", "automotive" and "industrial decarbonisation" – the Gigafactory.

Worthy to note in terms of historical growth that after 2016 the Company posted a growth of **Turnover close to 17% (CAGR$_{2016-23}$)** which was **restless**, if one excludes the flattish performance of 2020, hit by the pandemic and quickly recovered in 2021, and supported by **stable margins**.

ErreDue: Revenues from Sales and EBITDA Evolution



Source: ErreDue, Value Track Analysis, (*) Calculated as a % of Revenue from Sales

ErreDue: Key Financials FY21-22-23

Profit & Loss (€, mn)	2021	2022	2023
Value of Production	**12.3**	**13.8**	**19.3**
EBITDA	**4.4**	**4.0**	**5.9**
EBITDA Margin (as a % of VoP)	*35.3%*	*28.7%*	*30.5%*
EBITDA Margin (as a % of Revenue from Sales)	*39.4%*	*32.2%*	*35.7%*
EBIT	**3.1**	**2.2**	**4.1**
Net Profit	**2.3**	**1.7**	**3.4**

Balance Sheet (€, mn)	2021	2022	2023
Total Capital Employed	8.6	10.2	14.6
Net Equity	12.6	27.5	30.9
Net Financial Position [Net debt (-) / Cash (+)]	**4.0**	**17.4**	**16.3**

Source: ErreDue, Value Track Analysis

Corporate Governance

Shareholders Structure

ErreDue's shareholders structure is characterized by a significant degree of **employee ownership**, with ca. 25 employees collectively holding 70% of the Company's share capital. This ownership is distributed between the Green H2 Holding, which owns 54% of shares (having double voting rights, these corresponding to 70.13% of total rights), and individual direct shareholdings, making up 16%, thus we are referring to ErreDue as a **"micro public company"**. This shareholding structure ensures that the employees are deeply invested and actively involved in the business operations of ErreDue.

Additionally, the Company's share capital includes several **institutional investors**:

- Axon Partners Group Investments, a global entity with a focus on technology and innovation, holds approximately 5.3% of the Company's share capital;
- Arca Fondi Sgr, recognized as a leading independent entity in the field of savings management within Italy, owns around 3.2% of ErreDue;
- Chelverton Asset Management, a boutique asset management firm known for managing a diverse portfolio of closed and open-ended fund strategies, with a 2.6% of the Company's share capital.

The remaining 18.8% of ErreDue's share capital is **free float**.

ErreDue: Shareholders Structure

Shareholder	Nosh	As %	Voting rights	As %
Green H2 Holding (*)	3,375,000	*54.00%*	6,750,000	*70.13%*
Individual Members	1,000,000	*16.00%*	1,000,000	*10.39%*
Axon Partners Group Investments	333,300	*5.33%*	333,300	*3.46%*
Arca Fondi Sgr	200,000	*3.20%*	200,000	*2.08%*
Chelverton Asset Management	164,000	*2.62%*	164,000	*1.70%*
Free Float (i.e., Market Investors)	1,177,700	*18.84%*	1,177,700	*12.24%*
Total	**6,250,000**	***100.00%***	**9,625,000**	***100.00%***

Source: ErreDue, Value Track Analysis (*) Controlled by 25 employees

Top Management: Structure & Powers

ErreDue's top management includes:

- **Enrico D'Angelo – Founder and Executive Chairman.** After graduating as electronic technician, D'Angelo founded several companies over the years, demonstrating his entrepreneurial spirit: i) GDF, Livorno (1974-99), focusing on customer-specific solutions and product sales; ii) Megabyete, Livorno (1981-85), exclusive IBM dealer for the Livorno area; iii) Tecnimat (1976-86), administrative, accounting, tax and financial management; iv) Idroenergy (1985-2000). He was also managing partner at Bulleri Macchine Srl (1987-99);
- **Francesca Barontini – Chief Executive Officer.** Once earning a diploma in accounting and business management, Francesca began working as a consultant in Livorno in 1997, focusing on legislation and technical finance facilitation for businesses. In 2001, she joined ErreDue as an employee in the Finance & Administration department and Head of HR. She was appointed Sole Administrator in 2010, a position she held until 2018. Currently, she acts as the CEO of ErreDue;
- **Rolando Robustelli – Chief Financial Officer.** He graduated in Business Economics from the UCSC and started his career in 2006 at PwC. He progressed through roles of increasing responsibility, first at Adidas Italy as Accounting Manager and Marketing Controller, then as Controller at Cameron Italy and from 2015 to 2023 in Argho Tech LLC, Sisam SA (Lugano), Sammontana Spa. He joined ErreDue in 2023;

- **Emiliano Giacomelli – Chief Operating Officer.** After obtaining his diploma as an electronic technician, Emiliano served in the Italian Army from 1993 to 1994 in the firefighting unit. In 1994, he joined Idroenergy with roles of increasing responsibility until 2000. In 2001, Emiliano became part of the newly founded ErreDue as the Chief Operating Officer, overseeing the Production, Procurement, and Logistics departments.

ErreDue: Organizational Structure (*)

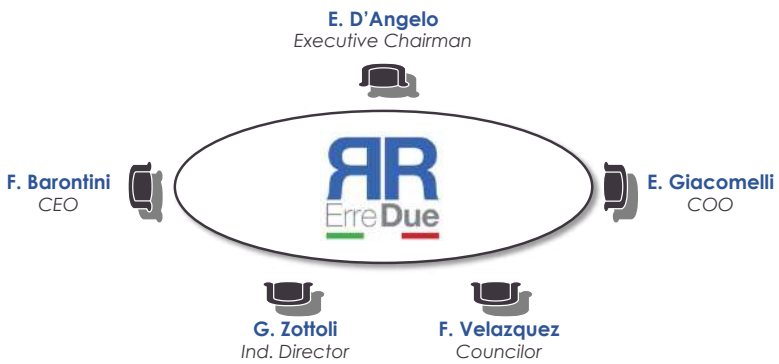
Department	Number of Employees (people, not FTE)
Administration Finance and Control	**7**
Commercial	**8**
o/w Marketing	*1*
Others	*7*
Industrial	**73**
o/w Production Managers	*4*
Warehouse	*4*
Maintenance	*14*
Production	*49*
R&D	**10**
Secretariat	**2**
General Services	**2**
Technical Office	**10**
Total	**110**

Source: ErreDue (*) As of Dec' 2023. These data differs from Full Time Equivalent (FTE) provided in Company Reports

In addition to D'Angelo, Barontini and Giacomelli, ErreDue's Board of Directors includes:

- **Giuseppe Zottoli – Independent Director.** With a degree in Economics from the University of Perugia and as Registered Chartered Accountants and Accounting Experts and Registered Auditors, he specialized in corporate finance, management control, accounting, and corporate crisis law, and held roles in management and control bodies of many joint-stock companies. Since 1997, he has been the principal of the Accounting and Tax Law Firm Dr. Giuseppe Zottoli;
- **Francisco Velazquez – Councillor.** Joining the BoD in April 2023, he is an aerospace engineer with an MBA. He began his career in the satellite industry, then moved into high-level international consulting, working with government agencies and tech corporations before founding two companies in 2007 in technology consulting and venture capital (today the Axon Partners Group).

ErreDue: BoD Structure



Source: ErreDue

Business Model

ErreDue distinguishes itself through a fully vertically integrated business model that encompasses all steps of the value chain, from R&D to After-Sales services. This comprehensive approach is supported by the Company's extensive expertise, accumulated through years of experience by its management, and an internally developed technology stack that includes advanced machinery, CNC supervisory tools, and proprietary firmware. Consequently, ErreDue can independently design, produce, and assemble all technological components of its products, ensuring complete oversight of its production processes from the procurement of raw materials to the delivery of finished products. This also allow ErreDue to offer a comprehensive after sales support and a rental solution, both bringing profitable and visible recurring revenues.

Vertically integrated business model from R&D to After-Sales services

One of the most important key features / competitive advantage that **ErreDue** boasts, in our view, is that the company **internally covers all the steps of the value chain**, from R&D to After-Sales services. Such a vertically integrated and fully in-house business model is possible thanks to:

- The expertise gained over the years by the company and its management;
- The internally developed "technology stack" that combines machines, Computerized Numerical Control (CNC) supervising tools, and proprietary operating firmware.

As a result, ErreDue is capable to design, produce, and assemble all technological components of its products internally, maintaining complete control over its production chain, from raw materials to finished products. And in the after-sale phase, it is possible to effectively provide remote support and predictive maintenance services. Among the main **benefits** that arise from such advantages. we would underline the following:

- Safeguarding the Company's proprietary know-how;
- Enhancing efficiency and product reliability;
- Generating recurring after sales business;
- Maximizing profit margins.

Main phases of the business model

More in details, the main **phases** of ErreDue business model can be summarized as:

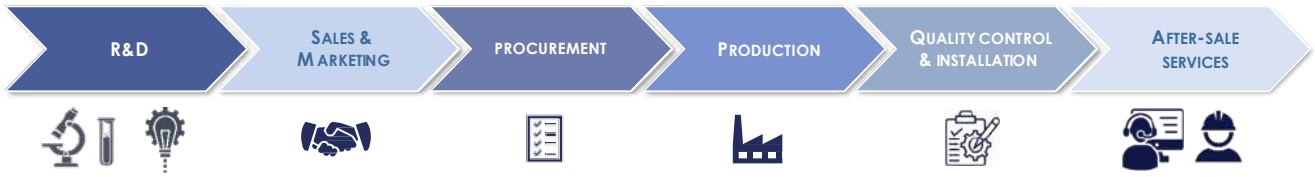
Phase # 1: R&D;

Phase # 1: Design / Procurement / Production;

Phase # 1: Orders acquisition (Go-to-market);

Phase # 1: After-Sales.

ErreDue: Phases of the business model



Source: ErreDue

Phase #1 - R&D: New products and technologies to fit client needs

We calculate that **around 7-8% or ErreDue's revenues is devoted to R&D**, with **all costs being charged on P&L** and part of them being eligible for Government R&D support (tax credits).

Key points to underline are:

- ErreDue has a dedicated area of 500m2 entirely designed for R&D activities, which will be further widened and optimized following the reorganization of the whole Group sites and location in 2024. R&D staff is made of 10 people, including the head of the department;
- The R&D department conducts a wide range of research and tests, integrating electronic, chemical, computer science, and mechanical fields, on cutting-edge technologies and innovative product applications, with the aim to continuously improve its commercial offerings for existing customers and to attract new ones;
- ErreDue has chosen not to pursue patent protection for its solutions to avoid public disclosure of the technical descriptions of its innovative activities. Though, to protect its know-how, it has applied logical security measures, legal protection measures and physical and document protection measures;
- In order to maximise the efficiency of its R&D effort, ErreDue also **cooperates with top tier public and private institutions** on themes such as PEM and AEM electrolytic cells, advanced systems for methanol production, development of new polymeric materials. Main partners are:
  - ENEA (National Agency for New Technologies, Energy and Sustainable Economic Development);
  - CNR (National Research Council);
  - Several Italian universities;
  - Spinpet S.r.l., a spin-off from the University of Pisa.

Phase #2 - From design to production: production processes entirely in-house

The integrated supply chain management process can be divided into three further steps:

1. Design & Development;
2. Procurement;
3. Production.

1. Design & Development

The design and development process begins with the results of basic research, or a need expressed by clients or identified through market research.

To initiate a new project, approval from the R&D head, the appointment of a dedicated project manager, and a clear definition of the objectives for which the initiative is undertaken are required.

The process is overseen by a project manager and is structured as follows:

1. The project is managed by the design and development function to verify the actual feasibility of the proposed functional and performance requirements;
2. Regulatory and statutory requirements are analyzed;
3. Development team drafts the Project plan i.e., it produces technical documentation, identifies elements to be tested, determines the target performance ranges, identifies material codes and product descriptions that need to be ordered to create a prototype, and issues compliance statements;
4. Final testing of prototype. If the tests are successful, the new solution is added to the product catalog.

2. Procurement

ErreDue manufactures based on clients' demand and not to build inventory stocks of semi-finished / finished products. As such, the procurement phase is mainly linked to the planning and execution of purchase orders.

Key points to underline are:

- Purchasing is carried out by each department of the Company according to specific needs; this allows orders to be formulated by highly-specialized individuals with deep knowledge of the uses of each purchased component;
- ErreDue purchases through direct "spot" orders several raw materials such as steel, iron, aluminum, polypropylene, polycarbonate, caustic soda, potash, nickel, palladium, iridium, ruthenium, carbon molecular sieves, zeolite, activated carbon, calcium chloride;
- In addition, ErreDue also purchases synthetic fibers and membranes, metal chassis, electric transformers, PLCs and expansion hardware. Regarding electrical components, supply contracts are annual and include supplies with pre-set targets linked to specific discounts.
- Depending on the discount offered by suppliers, ErreDue decides if to negotiate large quantity purchases with advance payments;
- Except for Nafion, a polymeric membrane utilized in the electrolytic cell of PEM electrolyzers, which is made from a material based on a proprietary patent held by DuPont Group, ErreDue is **not dependent on any key supplier**.

3. Production

We said before that ErreDue **internally performs nearly all the processes for constructing / assembling / mounting / testing its machinery** and, where necessary, independently produces the solutions needed for such constructions or, if available on the market, makes customized modifications to machine tools supplied by 3rd parties.

Furthermore, to protect the exclusivity and secrecy of its corporate know-how, the company manufactures critical parts containing proprietary technology at its own premises, equipped with two large CNC milling machines and other dedicated equipment.

The industrial machinery produced by ErreDue consists basically of five distinct parts, as follows:

ErreDue: Components for machinery construction

Component	Description
1. Electrolytic cell	The central element of the machinery, ErreDue has developed various models of electrolytic cells both with alkaline (made of plastic components produced with proprietary molds and designed internally) and PEM technology (made with catalyzed membranes using catalysts designed and produced internally)
2. Electrical part	Designed and assembled internally
3. Operating software	Designed internally and proprietary
4. Process components	Such as tanks, internal piping, collectors, end plates for nitrogen and hydrogen generators, designed internally at the Lavaiano plant
5. Chassis	A component without know-how, generally provided by the same clients who rent the Company's machinery for their own production

Source: ErreDue

We note that for **large-scale plants**, from 1 MW onwards, ErreDue has created a team of engineers dedicated exclusively to this project, and the construction is entirely carried out by the Company. For this type of machinery, ErreDue has purchased a milling machine dedicated to special processing to prevent the dissemination of design drawings for such solutions to external suppliers.

Production Facilities

ErreDue's production phase is carried out by 49 dedicated resources as of December 202e, across **six sheds**, all (except for the R&D area) owned and divided between the production site for large plants (700m²), processing and laboratory (1,000m²), R&D (500m²), production headquarters and commercial offices (2,000m²), warehouse (1,050m²), and an additional operational site (2,300m²) in Lavaiano (Pisa) for sheet metal processing.

It's paramount to remember that the company back in **June 2023**, has finalized an agreement to purchase **another site** with **16,000 m²** total surface area.

ErreDue's goal in the next quarters is to unify in a single main facility the construction of H-MW series plants and on-site industrial plants, the processing of components and tools, and the warehouse, maintaining a dedicated site for laboratory machinery and those based on PEM technology, and a property for the headquarters, administrative offices, and R&D activities.

This **reorganization** should allow the disposal of one of the existing sites.

Phase #3 - Go-to-market: Mostly direct sales or rental

The commercial organization consists of 8 personnel, with people dedicated to industrial alkaline generators, mixers, and dryers, allocated by i) Northern Italy, ii) Central- Southern Italy, and iii) international markets.

Other resources are specifically assigned to the commercialization of machinery intended for laboratories and products based on PEM technology.

Except for the international distribution of laboratory machinery, which ErreDue manages through a network of dealers, the Company does not utilize distribution channels for the sale of its machinery but operates directly with internal resources or through multi-agency representatives, located all-over globally, normally with no territorial exclusivity, via:

- ***Referrers*** in United Arab Emirates, Austria, Germany, England, Spain, China, France, India - individuals compensated with a commission depending on the discount given to the customer;
- **Dealers** - entities that purchase the machinery and resell it within their relevant markets and the Company grants a discount due to their assumption of credit risk with their counterpart.

Worthy to note, **ErreDue's machines can be offered either for sale or for rent**, each technicality having its own features, as follows:

Sale of Electrolyzers

- Once orders are confirmed, machines are **delivered within an average period of 4 months**, along with user and maintenance manuals, electrical diagrams, and compliance certification or specific certifications required for certain applications;
- The contractual conditions typically include an **advance payment** upon order confirmation amounting to 30% of the total contract value, which increases to 50% for machinery made with solutions that must meet specific client requests;

  For sales within Italian territory, the **balance** of the payment, after deducting the aforementioned advance, is made in installments at 30, 60, and 90 days from delivery, while for foreign clients, the balance is usually settled before delivery;

- The sales agreements may stipulate that testing be conducted, in the presence of the client, at the Company's premises once the production and assembly phase is completed, before shipment;
- Machines enjoy a twelve-month warranty, which, however, does not cover components subject to wear and is typically provided ex-works from the Livorno plant.

Rental of Electrolyzers

- Predominantly limited to the Italian territory, this commercial scheme allows customers to avoid up-front costs for equipment investments and, at the same time, it generates predictable and recurring revenues to ErreDue. Routine and extraordinary maintenance services are included in the rental fee;
- Being accounted as capex, these machines do generate Depreciation charges in ErreDue's P&L, albeit always much lower than the rental fee charged to clients;
- Rental contracts are fully indexed to inflation and have an average **duration of 65 months**, with an automatic renewal of 24 months at the end of the term, unless cancelled by the client within the third month prior to the contractual expiration;
- At the end of the contract, machines still have a market value (even if fully depreciated), of approximately 60% of the initial one: they can indeed be redeemed or rented again to the same customer or sold to 3rd parties with a capital gain. In terms of cash flow, we estimate that the average payback period on these machines is 2.5-3.5 years;
- To cover any potential damage that might arise from improper handling of the provided machinery, clients are required to sign specific agreements and to secure adequate insurance coverage, in addition to providing ErreDue with an indemnity regarding any liability or recourse arising from such events;
- The rental agreements stipulate that throughout their duration, the machinery remains the property of ErreDue and must be placed in areas at the client's premises that are always accessible to the Company's staff.

Phase #4 - After-Sales: Operational excellence & client satisfaction with good returns

After-sales services provide a steady flow of **recurring revenues** to ErreDue with very **attractive margins**, thanks to the fact that machinery's estimated useful life is around 15-20 years and the supply of spare parts - handled directly by the sales force outside of existing maintenance contracts - typically entails nice operating margins.

ErreDue's after-sales activity comprises 10 specialized personnel taking care of clients throughout the entire "process", from the design of the plant to the installation and continues with subsequent support after the machinery has been commissioned. These activities include maintenance contracts and spare parts supply.

The key features of the after-sales services are:

- Each client is granted the opportunity to perform factory acceptance testing (FAT), or to conduct a **usage test** at ErreDue's premises before the machinery is delivered;
- After installation and testing, ErreDue performs continuous **remote monitoring** of each installed machinery, promptly performing both routine and extraordinary maintenance, avoiding sudden production stops;
- ErreDue ensures to clients **prompt and reliable responses**, due to the fact that i) assistance is provided by internal resources, ii) Company always holds spare parts and accessories;
- Particular attention is devoted to **personnel training** both at the time of hiring and subsequently for updating on new technologies.

Products & Services Portfolio

ErreDue's products range includes traditional industrial gas generators, advanced H_2 alkaline and PEM technologies, N_2 and O_2 generators suitable for laboratory use, and various purifiers, mixers, and stabilizers. The Company's vertically integrated structure enriches its capability to offer crucial services that support client retention and generate recurring revenues with favourable medium-term prospects. Revenue streams are split either i) by product/gas produced — hydrogen, other gases (N_2 and O_2), and other products; or ii) by contract terms — sales of generators, after-sales services and spare parts, and electrolyzers for rental. The business is currently (FY23) evenly split among H2 and other gases (with generators and related services for H2 and other gases contributing for 43% and 46% respectively, and other products for residual 11%), while in terms of revenue streams, sales of generators and other machines account for 65% of total, while recurring revenues (after sales services, spare parts and generators' rentals) for 35%.

Products and Services

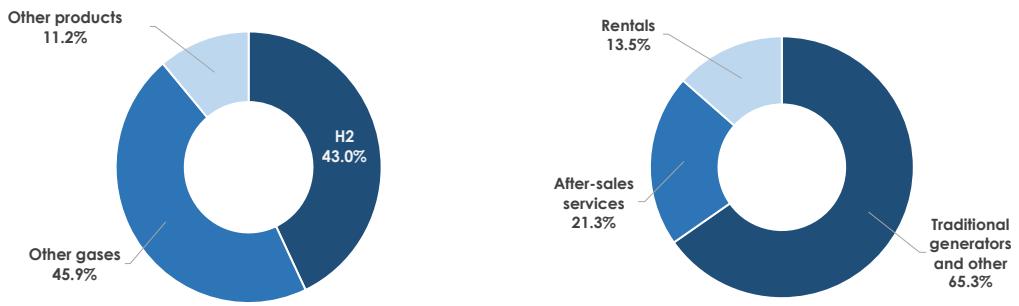
ErreDue's **product offering** has undergone significant enlargement in recent years, starting with traditional industrial gas generators and now including H_2 alkaline (AWE, i.e. Alkaline Water Electrolyser) and PEM (i.e. Proton Exchange Membrane) technologies, N_2 and O_2 generators, and purificators /mixers /stabilisers.

In addition, the vertical integration allows ErreDue to offer additional **key services** aimed at 1) supporting clients and hence contribute to retain them and, b) providing recurring revenues with good medium-term visibility.

ErreDue provides the split of the revenues from products and services offered as follows:

- **by gas** i.e., by type of gas generator/machine: **1)** hydrogen, **2)** other gases (N_2 and O_2) and **3)** other products;
- **by contract** i.e., depending on the terms of the product or service provided: **1)** sale of generators, **2)** after sales services and spare parts and **3)** rental of generators.

ErreDue: Revenues split by gas and by type of contract (FY23)



Source: ErreDue, Value Track Analysis

1. Sale of Products (€10.8mn or ca. 65% of FY23 revenues)

ErreDue **highly-diversified product portfolio comprises #39 product models** – with plans to launch two additional models soon – addressing hydrogen, but also ultra-pure nitrogen and oxygen generation plants for industrial, laboratory and energy transition plant applications.

Additionally, crucial to ErreDue's strategic advantage is its comprehensive **all in-house capability** in concept development, design, component manufacturing, and assembly.

This end-to-end control over production processes allows ErreDue to craft **tailor-made solutions** that precisely meet the specific requirements of its clientele, facilitating competitive differentiation in the market.

In a nutshell, the Company enjoys a competitive advantage based upon the fact that its generators:

- can meet **the most demanding requirements**;
- can be **customized** to best suit the customers' needs;
- are seen as the **top-end benchmark in the industry**.

#1 Hydrogen / H_2

ErreDue's primary offerings in hydrogen gas generation include:

- **H_2 Alkaline Electrolysers** *(i.e. Mercury)* – Products engineered to satisfy industrial demand, complementing biogas production and serving as potential clean energy storage solution.

  They support continuous operation (24 h /7 days) and boast significant scalability;
- **H_2 PEM Generators** *(i.e. Sirio, MarsBox, Mars)* – Generators employing proprietary PEM technology and predominantly utilized in biogas production processes and metal heating treatment.

  Systems' pressure settings can be customized, ranging 15-30 bar, and support a maximum capacity that can be adjusted from 0.5 to 2 normal cubic meters per hour (nmc/h).

ErreDue: H_2 Generators

Sirio



Mercury



MarsBox



Mars



Electrolysers 500kW



Source: ErreDue

#2 Other gases / N_2 - O_2

ErreDue also offers other gas generators such as:

- **Ultrapure N_2 Generators** – Generators instrumental in pivotal industrial domains as semiconductor fabrication, metallurgy, laser cutting of plastics.

  A modular design offers the possibility of gradual post-installation capacity enhancement;
- **Plug&Play N_2 Generators** – Machines producing pressurized nitrogen streams directly interfaced with the laser system, achieving flow rates that can reach up to 500 normal cubic meters per day.

  They are tailored for laser cutting applications;
- **N_2 Generators** – Machines constructed with stainless steel and suited for environments where sanitary conditions are paramount, such as food packaging and sterile pharmaceutical manufacturing processes;
- **O_2 Generators** – Generators designed for efficiency that achieve up to 95% purity with low maintenance, and suitable for uses such as water purification and aquaculture.

ErreDue: Other Gases Generators

Saturn



Venus



NitroBOX



Mizar



GN Inox



Lyra



Galileo



Gemini



Aries



Source: ErreDue

#3 Other products

ErreDue offers additional products as well, such as:

- **Gas Purifiers** – Devices facilitating the recycling of gases, allowing both economic savings and retrieval of elements that would, otherwise, be dispersed into the environment.

  They are designed to integrate seamlessly with any ErreDue generator and can purify and reuse hydrogen, argon, oxygen, nitrogen, methane, etc.
- **Electronic Gas Mixers** – Devices capable of forming one or more mixtures of arbitrary percentage between two/three gases.

  The control device of the mixer is a PLC that communicates with an LCD operator panel.

  Through this device the user can select the desired concentration of the mixture and get information about the status of the ongoing process;
- **Air compressors** – Devices feeding N_2 or O_2 generators, managed autonomously by a PLC with a touchscreen control panel that allows the display and modification of parameters.

  They operate independently, producing only the amount required by the machinery with no waste, and include a storage tank to support consumption peaks.

ErreDue: Other Products

Gas Purifier



Electronic Mixer



Andromeda



Pegaso



Orion Z



Orion P



Source: ErreDue

2. Provision of Services (€5.7mn or ca. 35% of FY23 revenues)

ErreDue provides services, as well, such as:

- **After sales** services;
- **Rental of electrolysers**.

#1 After-sales services: maintenance and spare parts

In **FY23**, ErreDue's reported **€3.5mn after-sales revenues** (vs. €2.4mn in FY22), including €2.6mn from spare-parts (up from €1.7mn in FY22) and €0.9mn from maintenance and assistance services (up from €0.7mn in FY22).

Notably, maintenance and spare-parts replacement represent a captive and growing segment of ErreDue's business, correlated with the expanding global installed base of the Company's plants.

We note that over 56% of the revenue generated in 2023 from maintenance and spare parts was due to hydrogen generation equipment as electrolytic cells are the most-costly component to replace, having

an operational lifespan of approximately 40,000 hours, vs. an estimated useful life of the electrolyser between 15 and 20 years.

Customer care is crucial at ErreDue for ensuring client satisfaction. Indeed, the Company's gas generation and treatment solutions are integral to broader production facilities; thus, any unexpected generator downtime or malfunction can disrupt the entire production process and worsen ErreDue's reputation as a highly reliable partner.

ErreDue maintains its high level of service using advanced remote monitoring software and a highly specialized technical department, which includes ca. 10 maintenance technicians. ErreDue supports clients from the design phase to installation:

- **Upon project completion**, ErreDue personnel train customers on product operation, maintenance, and optimal management of the generated gas. During the Factory Acceptance Testing (FAT) phase at ErreDue's facilities, customers can ensure that the equipment fulfils its intended function and meets all specifications and requirements before installation;
- **Post-installation**, ErreDue proprietary remote-control software enables continuous monitoring of the performance and condition of installed generators and other equipment, facilitating timely predictive and extraordinary maintenance and preventing unforeseen production stoppages.

  Additionally, the software helps the Company efficiently plan for the production of made-to-stock spare parts, ensuring their immediate availability.

  Many clients opt for annual maintenance contracts, which offer additional assurance for smooth operations and cost management.

#2 Rental of Electrolyzers

In **FY23**, **rental business revenues totalled approx. €2.2mn** (vs. €2.0mn in FY22 and FY21).

ErreDue manufactures generators that hold as assets on its balance sheet while being rented out to clients who make regular instalment payments, thus generating a steadily increasing stream of recurring revenues over time to ErreDue.

These rental agreements are indexed to inflation, with an average duration of 65 months and automatic renewal at the end of the term, unless termination is explicitly requested.

In some cases, machines have been rented to the same client for over 15 years, with agreements renewed twice. On the opposite, some other clients choose to purchase the generators after a few years of rental, finding ownership more cost-effective.

The rental option is particularly appealing to new customers who are trying onsite gas generation for the first time, allowing them to explore an emerging technology without a significant initial capital expenditure and without the risks associated with managing a new technology asset.

It's worth describing the accounting features of such business:

a. Rental fees are recognised as Revenues from sales;
b. In-house manufacturing costs of the machines offered for rental are capitalized (see previous section with comments on historical financials as for Value of Production and Capex) and then depreciated over a **6.7-year period (15% amortization rate)**, although their functional lifespan can extend up to 15-20 years;
c. Once machines offered for rental are fully amortized, the income generated flows down directly to EBT, or if the asset is sold after the rental period, it generates a capital gain accounted within Top Line.

It is estimated that at the end of a 6-year rental contract, a generator still retains ~60% of its original construction value, albeit almost fully amortized.

End Markets / Applications

Industry applications are the largest segment (~89% of FY23 traditional generators' revenues), as it represents the historical area of business and here ErreDue brand has become a quality "benchmark", with the Laboratory segment accounting for the residual 11%. The end-sectors for these products are extremely diversified among sectors, verticals and client segments.

On top of these traditional and consolidated products and applications, ErreDue is developing and has recently started to commercialize products suited for applications linked to the energy transition, i.e. larger H2 generators, currently based on AWE and PEM technologies.

ErreDue's gas generators have been utilized for many years in several end markets, both *Industrial,* and *Laboratory*. Examples of applications of ErreDue devices extend across various verticals, such as jewellery, winemaking, laser cutting, welding, food processing, pharmaceuticals, naval operations, sintering, and more. We can view this as ErreDue's current business field.

At the same time, in the latest few years, a new huge market opportunity is emerging, driven by the pivotal role expected for hydrogen in facilitating the so-called "green transition". We'll see later on how ErreDue is optimally positioned to ride this market opportunity thanks to the expertise gained in its current business field.

ErreDue: Applications and End-Markets

Type of Products	Applications			End-Market
	Industry	Laboratory	Green Transition	
H_2 Generators	√	√	√	Thermal treatment, Biogas production, Welding, Sintering, Precious metal, Green Energy
N_2 Generators	√	√		Laser cutting, Thermal treatment, Electronic boards brazing, Semi-conductors production, Laser cutting, Jewellery, Enology, Pharma, Naval, MAP packaging
O_2 Generators	√	√		Water purification, Welding, Steam reforming, Fish farming
Gas Purifiers	√			All industrial applications with gas involved
Electronic Gas Mixers	√			All industrial applications needing gas mixtures
Air Compressors		√		All laboratory applications with nitrogen or oxygen involved

Source: ErreDue, Companies' website, Value Track Analysis

ErreDue: Traditional generators' revenues split by segment (FY22, FY23)



Source: ErreDue, Value Track Analysis

End Markets / Applications in the current business field

#1 - Industrial applications

Corresponding to roughly 89% of total traditional generators' sales figures in FY23 (vs. 90% in FY22), in the industry space technical gases find an **ever-expanding array of applications**. ErreDue offers on-site gas generators such as:

1. Hydrogen Generators, based on alkaline and PEM technologies, for ultrapure hydrogen production from water;
2. Nitrogen Generators, aimed at high-purity nitrogen production from filtration of compressed air using the Pressure Swing Adsorption (PSA) principle;
3. Oxygen Generators, utilizing molecular sieves (zeolites) to filter compressed air;
4. Nitrogen, Hydrogen, Oxygen and complex gas mixtures (syngas) purifiers and mixers.

Herein, we report some key and last ErreDue's business cases concerning industrial applications:

- February 2023 – Construction of a plant capable of producing 750 mc/h of ultra-pure nitrogen for a leading company active in the **metallurgy** sector.

  The facility comprises three SATURN-250 nitrogen generators capable of producing a continuous flow of nitrogen with extremely low levels of oxygen and residual humidity (purity up to 99.9%), through the filtration and subsequent purification of a compressed air stream.

  The exceptionally high purity of the nitrogen produced by the Saturn generators is achieved by adding a small percentage of hydrogen, which is produced directly by the system and added to the gas stream;

- June 2023 – Delivery of an alkaline electrolysis plant with a capacity of 0.5 MW to **Logan Energy** Group, active in the UK and a leader in hydrogen technology.

  The electrolyzer has been integrated into an industrial processing workflow within the food & beverage sector. By reducing CO_2 emissions, the plant will facilitate the identification of viable solutions aimed at enhancing energy efficiency and reducing the costs associated with industrial processes;

- February 2024 – Delivery to **Snam SpA**, Italy's and Europe's leading operator in gas infrastructure, of a mobile H_2 generator featuring an alkaline electrolytic cell.

  The electrolyzer, with a capacity of 500 kW, offers an efficient and adaptable solution for the generation of green H_2. This unit will be employed by Snam to undertake experimental trials and evaluations aimed at facilitating the deployment of H_2 across diverse industrial and mobility applications, thus enabling end-users to assess the H_2 compatibility of various materials and processes.

#2 - Laboratory applications

ErreDue manufactures gas generators in **smaller sizes and with lower power outputs** to suit the specific needs for lesser volumes of technical gases typical of laboratory environments (~11% of traditional generators' revenues in FY23 vs. 10% in FY22). Examples are:

1. Ultrapure Hydrogen Generators, equipped with PEM technology;
2. Nitrogen Generators, which utilize the Pressure Swing Adsorption (PSA) principle to provide a continuous flow of pure nitrogen;
3. Oxygen Generators, designed to deliver oxygen at a constant flow rate;
4. Pure Air Generators, which produce air free from hydrocarbons and dehumidified to a very low dew point (-50°C);
5. Zero Air Generators, capable of generating pure air devoid of hydrocarbons, particularly methane (CH_4).

A recent example of these applications is:

- January 2024 – Supply of a H_2 generator with a PEM electrolytic cell to **Enea** – the National Agency for New Technologies, Energy, and Sustainable Economic Development – after a successful bid in a tender.

  The tender reflects the intention of Enea to equip itself with a SIRIO 1000 D model hydrogen generator, enhancing its specialized laboratory dedicated to research and innovation with a state-of-the-art machine. The installation will be used for the development of an Energy Storage, Power to Gas project.

End Markets / Applications addressing the "green transition" theme

In order to ride the green transition opportunity, ErreDue is pursuing ad-hoc research programs and signing partnerships with the aim to launch into the market hydrogen generators above 1MW (i.e. *Energy Transition Plants).*

More in particular, back in 2023 ErreDue has continued its development activities of H_2 generators by developing and manufacturing a large-scale electrolytic cell model that is ideally suited for **alkaline electrolysers** with a capacity of **1MW and above**.

The first prototype facility, designed to be composed of and powered by two electrolytic cells of 500kW each (capable of producing up to 200 standard cubic meters per hour of ultrapure hydrogen), or four electrolytic cells of 250kW each. Worthy to note, these cells are modular, allowing for the potential expansion of capacity up to 5 MW. So far it has not been reported by the Company any formalized order for Megawatt electrolysers, albeit there are many talks in progress.

Indeed, throughout 2023, ErreDue also continued the design and development of new large-scale hydrogen production facilities using **PEM technology of 1MW**, for the first of which it has already received an order by Foglia Umberto Srl with **delivery expected in 2025**.

Particularly, the electrolyzer will be used for the production and storage of green hydrogen at a Waste Disposal Industrial Hub in the Molise Region. The green hydrogen produced by the PEM electrolyzer will be stored and later used to generate heat for use within the hub and the electricity required for the electrolyzer will be supplied by a photovoltaic plant of approximately 2 MW.

Growth Strategies

To sustain high double-digit growth rates, we expect management to pursue the following strategies: 1) in the "traditional business", expanding a direct commercial footprint into new geographic regions and refining/optimizing industrial operations and processes in order to enhance profitability; 2) in the rising "energy transition related" business, increasing production capacity by the establishment of a dedicated facility specifically designed for the MW generators. The new facilities will bring generators output capacity from 8MW to 60MW, by mid-2025 we believe.

ErreDue is already well positioned to profit from the medium-term growth of its reference market, both in the traditional business (i.e., machines aimed at industrial and laboratory applications) and in the one that could represent the "gold mine" of the future i.e., machines aimed at supporting the energy transition theme.

As such, the company's strategies are tailored on the different market opportunities it has to target:

- In the **"traditional" business** ErreDue is, on the one hand, pursuing an enlargement of its commercial presence in contiguous end markets and geographical areas, while on the other hand it is fine tuning its industrial operations and processes in order to further improve profitability;
- In the **rising "energy transition related" business**, ErreDue is working to boost its output capacity by rolling out a brand-new dedicated plant focused on Megawatt generators.

Traditional business

We believe that the "traditional" business is still in an accelerating phase and can offer, even if with some unavoidable pauses, double digit growth rates ahead and higher operating profitability ratios.

Medium-term: Double digit growth rates opportunity

We expect the traditional business of ErreDue to witness a double-digit medium-term growth stance – we remind that ErreDue posted a 17% revenues CAGR over the 2016-2023 period and a 18% CAGR over 2019-2023.

Indeed, the potential for further organic growth within the "traditional" industrial and laboratory segments for ErreDue is still sizeable, as we see **strong medium-term driver** of demand, as **transition in industrial gas usage from cylinders to on-site production** has still plenty of room to go, driven by:

- Increasing awareness towards net-zero emissions, as long as the initiatives and ESG certifications to a carbon-neutral future move along the industry chain.

  This trend should be fuelled by the increasing penetration of renewable energy sources (RES) and PV in particular, as the combination of RES and on-site production may accelerate the route to carbon-neutrality also for relatively small enterprises which are along the supply chain of larger ESG driven corporates;
- On-site gas production competitive advantages compared to more traditional supply provisioning methods. Indeed, on-site gas production boasts:
  - More favourable economic terms (pricing by ErreDue always grant savings to client);
  - Lower volatility of costs (or limited to energy costs if not RES);
  - Higher safety;
  - Better reliability of gas supply.

- The possibility offered by ErreDue to opt for rental solutions which overcome the potential issue of the initial up-front investment by the clients.

In order to exploit such demand potential ErreDue's management is already working in order to enlarge its **international presence**, by getting a direct presence in new markets (in this respect, ErreDue is considering a branch or a potential JV in regions as EU, Saudi Arabia, Australia, China).

Short-term: Possible more flattish stance

Yet, demand for capital goods is also exposed to **shorter term investment cycles** and hence to enterprises' risk attitude, interest rates and fiscal policies / incentives to industrial capex and this may affect the short-term pace of growth for generators' demand.

In particular, this may be an issue for ErreDue order acquisition in 2024, due to a combination of prolonged high interest rates, macro and geo-political uncertainties and unclear fiscal policies.

Such scenario might be partially mitigated by the increasing penetration of the *rental* formula.

Operating profitability: Still room to see higher margins

ErreDue already reports healthy margins (EBITDA margin in the 28%-35% region) despite its relatively small size, however we believe there is still room for improvement, namely due to:

- **Optimization** of industrial sites and locations and **reorganization** of flows, which should help efficiency and reduce logistic costs.

  This reorganization follows the acquisitions of various sites and buildings carried over the latest years and will also rely on part of the new 16k sqm plant to be built in these quarters and focus on the MW generators (see also below).

  More in particular, the **R&D** activity should find appropriate and separate sites within the new organization of the Company facilities, while new **headquarters** should support a successful and efficient growth of headcounts and should help managing the increasing complexity and international expansion;
- The positive effect on margins that should come from the steady top line growth and from the related **scale benefits**;

We also note that some resources in the next quarters/year may be "reinvested" in the new **branches/JVs abroad**, but the precise amount of the financial effort will depend upon the number of markets entered and the formula adopted.

Eventually, special considerations should be drawn on **business mix**, as profitability of services like after sales & maintenance and generators' rental is extremely high and the FCF profile of the latter is also peculiar, and hence their contribution can make some difference on final results.

The Energy Transition opportunity: no longer a "bet", but collection from 2025

ErreDue has been preparing for catching the opportunities related to the energy transition theme since a few years, and the strategy to be pursued foresees two steps, both in relatively advanced phase:

1. Development and launch of **new specific products** called Megawatt generators i.e., large H_2 production plants (1MW and above) for "power-to-gas", "automotive" and "industrial decarbonisation" purposes;
2. Building **output capacity** to face the expected demand.

1. New Megawatt generators – tests successfully completed & first order in

In 2022 ErreDue completed the testing of the first prototype of large H_2 generator (**alkaline electrolyzer**, 210 M^3/h capacity at 30 bar pressure, with 1MW power) made of four electrolytic cells of 250kW each.

In 2023 ErreDue continued its development activities. Indeed, the first prototype machine, designed to be composed and powered by two/four electrolytic cells of 500/250kW each, has been further enhanced and refined following numerous verification and testing processes, completed in 2H 2023. While a few ongoing talks have been reported by management since listing, so far no commitments have been taken by clients on large Megawatt AWE generators.

Around mid-2023 ErreDue also completed the design and development of new large-scale hydrogen production machined using **PEM technology of 1MW**, for which it has already received an order by Foglia Umberto Srl with delivery expected in 2025**.**

2. Gigafactory

In order to cope with the rising demand for large electrolysers linked to the green transition process – i.e. for "power-to-gas", sustainable mobility, syngas applications – ErreDue back in 2022 launched a project to expand its output capacity by rolling out a "Gigafactory", and finalized its IPO with the aim of funding this project.

The key features of this project are the following:

- Rollout of a brand new **16,000sqm plant** (the "Gigafactory") which should be fully **operating starting as of 2025**. The land and previous industrial site have been purchased back in mid-2023 and by end of 2024 ErreDue's management plans to get new buildings completed, with equipment installed in early 2025;
- Annual **production capacity moving from 8MW to 60MW** (120MW on two shifts);
- Manufacturing process initially based on four lines working on one single shift, with an output of **5/8 machines per month** (i.e., 60/90 machines per year);
- Gigafactory to also host the production of traditional industrial machined and to allow an **overall reorganization and optimization** of the Company's manufacturing activities;
- **Investment** plan worth ca. **€12mn in total**, of which ca €3mn spent in FY23 and virtually all the remaining in FY24-1Q25,
- While the overall investment required by the project seems in line with initial indications, it seems to require **longer than initially expected** (mostly due to red-tape issues) and at this stage, we understand kick-off is more likely to be in 2Q rather than 1Q 2025.

The potential additional business linked to these new products and applications is really sizeable and may drive the company to double its size again in a few years, provided demand for electrolysers remains solid, price for production of H_2 (green or blue) becomes competitive and/or government policies become more supportive, and no disruptive technologies arise.

More details on market outlook are provided in the next section.

Reference Market and Competition

ErreDue's strategic focus is on the hydrogen market, crucial for its expansion and alignment with the global energy transition, emphasizing green and low-emission hydrogen to meet the EU's carbon-neutral objectives. While developing hydrogen technology faces uncertainties in technological adoption speed and choice, the global market is poised for significant growth, potentially increasing to over $30bn by 2032. Despite early adoption hurdles, prospects for expansion are strong, bolstered by falling renewable energy costs and supportive Government policies. However, high initial costs and project delays pose challenges, with expected technological advancements and cost reductions by 2030 likely to improve the economic viability of green H_2.

Although ErreDue is also involved with N2 and O2 generators, and other equipment like purifiers, mixers, and stabilizers — all of which are expected to keep growing in the coming years — **our market analysis will primarily focus on the hydrogen outlook**, as this market can be the transformational driver of the company's future growth.

It's necessary to underline that the hydrogen market must be understood **within the context of the energy transition theme**, as it is heavily influenced by the prospects for "green" or low-emission hydrogen, which is considered a crucial factor in moving towards the EU's carbon-neutral future.

As far as this transition is concerned, the three key topics to address are: 1) the speed of such transition; 2) which technologies could potentially emerge as leaders in this field; 3) the match (or mismatch) of demand and offer evolution and the impact on prices.

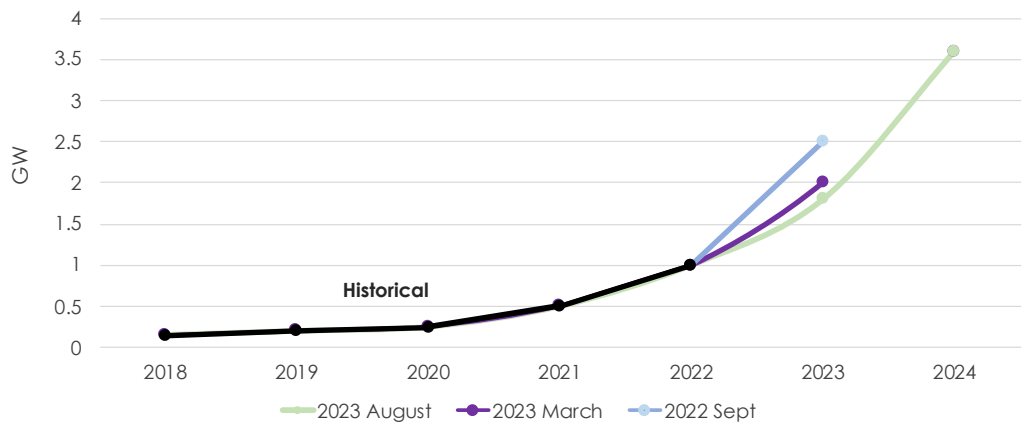
Topic # 1 - Speed of transition

No doubt, the initial progress toward the 2030 targets has been slower than anticipated, a common occurrence in all technological revolutions where early phases often see alternating cycles of hype and disappointment. Furthermore, when government support is necessary, we can expect additional volatility and uncertainties.

The key point here is therefore to sound the following conditions:

- The market demand potential remains robust over a foreseeable time horizon;
- The company possesses the financial resources to manage despite potential delays.

Hydrogen generation capacity has been a moving target – Annual output of electrolyzers (AWE)



Source: BloombergNEF, 2024 - Shipments annual data and forecasts based on prediction date

Topic # 2 – Possibly winning technologies

Technological uncertainty is extremely high as the global research community explores various potential solutions to reduce greenhouse gas emissions, not limited to hydrogen.

Within the hydrogen sector itself, there is an abundance of potential solutions, applications, and technologies under development.

However, in this respect the key messages at this stage seem the following:

- The situation is exceedingly complex and the need for solutions urgent, with a 2030 focus. Over the next decade, we expect a variety of technologies, both related and unrelated to hydrogen, to develop and coexist;
- Within the realm of hydrogen technology, the push towards "green" hydrogen might be tempered for a few years in favour of "blue" and other forms of "low emission" hydrogen, adhering to the notion that "the best is the enemy of the good";
- Even adopting a more agnostic view of the "grey to green" transition, the substantial expansion of hydrogen production capacity is undoubtedly essential, with electrolysers playing a significant role;
- **On-site gas production is poised to have a more substantial impact in the near future compared to traditional distribution methods**. Indeed, it allows for complete control over the energy source and, all else being equal, results in a lower carbon footprint compared to cylinders (due to reduced transportation and packaging), and offers better visibility compared to long-distance distribution projects.

However, it's worthy to note that ErreDue is a minor participant in this new global context: i) it is focusing its efforts on the niche market of electrolysers with less than **2.5/5MW** power and ii) the company's strategy includes expanding its installed capacity to approximately **60MW**-plants within the projected forecast period (and up to 120MW moving to double shifts).

Topic # 3 – Demand and offer evolution. Match or mismatch ahead?

Forecasts on the future take up of hydrolyzer demand and of output capacity expansion are volatile, and the match / mismatch between the two sides of the market is due to have huge impact on the profitability of players involved in the business.

Some key points to analyse this topic are:

1. Potential for market growth of hydrogen and electrolysis production is huge;
2. In 2023 there's 1.1GW of global electrolysis capacity, and China is the leading nation;
3. Electrolysis output capacity deployment forecasts through 2030 are unsettled;
4. Electrolyzers' cost was up in 2023, contrary to expectations;
5. Higher penetration does require / entail lower running costs.

1. Potential for market growth of hydrogen and electrolysis production is huge

The belief is strong that the sector is poised for a significant boom due to worldwide agreement on achieving net-zero emissions and the increasing importance of green hydrogen in promoting a carbon-neutral future. This is supported by several factors:

- An increase in green policies, government incentives, and mandates to reduce carbon emissions, bolstered by the NRRP and NGEU funds.

- A decline in the cost of renewable energies, which improves the economic feasibility of green technologies.

Indeed, market projections from Allied Market Research and Global Market Insights suggest substantial growth potential, with a **CAGR estimated at 24.5% to 27.7% over the next decade**.

This growth could increase the market's valuation from approximately $3 billion in 2023 to over $30 billion by 2032, a tenfold increase.

More importantly, **over 70% of low-emission hydrogen is expected to be produced through electrolysis by 2030**, starting from a virtually zero base, according to the IEA's Global Hydrogen Review 2023.

2. In 2023 1.1GW of global electrolysis capacity - China is the leading nation

The deployment of electrolysis capacity experienced a significant increase of approximately 60% in 2023 compared to 2022, reaching 1.1 GW from 700 MW.

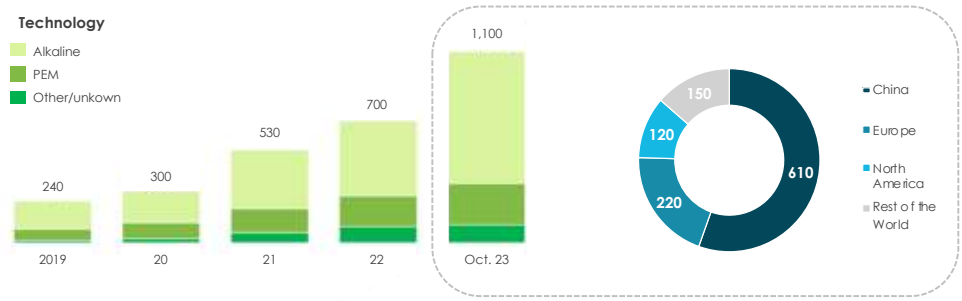
This growth was largely driven by a substantial project in China, a 260 MW facility that accounted for 65% of the year's overall expansion.

Presently, China leads globally with the largest deployed electrolyser capacity at 610 MW, home to the world's two largest operational projects with capacities of 260 MW and 150 MW.

Following China are the United States and Germany, each with 60 MW, and Spain, Taiwan, Sweden, and Canada, each hosting around 25 MW.

Outside of China, the largest increases over the past year were seen in the United States and Sweden, with additions of approximately 50 MW and 20 MW, respectively.

Global cumulative installed electrolysis capacity, MW



Source: McKinsey & Co.

3. Electrolysis output capacity deployment forecasts through 2030 are unsettled

According to McKinsey, **the industry is projected to deploy some 305 GW of electrolysis capacity by 2030, marking an increase of 73 GW from previous estimates**.

About half of this capacity has progressed beyond the announcement stage, with nearly 140 GW either in feasibility studies or Front-End Engineering Design (FEED) phases, and 12 GW having reached the Final Investment Decision (FID) stage.

The volume of capacity that has moved beyond FID has increased from 9 GW to 12 GW, predominantly in China, which accounts for ca. 55% of the 12 GW. This is followed by the Middle East and Europe, each contributing about 15%, and North America, which accounts for roughly 5%.

Despite the extensive capacity announced, **less than 5% of renewable hydrogen supply investments are fully committed**.

To reach the ambitious target of 305 GW, there needs to be a substantial acceleration in project development and financial closures. Most projects that are scheduled to become operational within the next three to five years must secure financing soon. This suggests that only a fraction of these projects may actually be finalized.

However, referencing a more detailed data set from another source, "*Shortage of electrolyzers for green hydrogen*" by EY in February 2023, we see confirmation that electrolyzer manufacturers are rapidly increasing their production capacities for green hydrogen.

The data presented here below in the table show an aggregated expansion plan by key industry players totalling approximately 37 GW by 2025, and potentially reaching up to 60 GW by 2032. This represents a more credible growth factor of 6-10 times.

Electrolyzer manufacturers are gearing up to increase the green H_2 production capacity

Manufacturers	Region	Technology (*)			Capacity (MW)		
		PEM	ALK	*SO*	Current	Exp. plan	Growth
ITM Power	UK	√			1,000	5,000 (by 2024)	5x
McPhy	FR	√	√		100	1,300 (by 2024)	13x
Nel	NOR	√	√		500	10,000 (by 2025)	20x
John Cockerill	BEL		√		350	8,000 (by 2025)	22x
Plug Power	US	√			75	3,000 (by 2025)	40x
Thyssenkrupp	DE		√		1,000	5,000 (by 2030)	5x
Sunfire	DE		√	√	40	500 (by 2023)	12x
Siemens Energy	DE	√			125	1,000 (by 2030)	8x
Cummins	US	√	√	√	38	3,500 (by 2025)	92x
Topsoe	DK			√	75	5,000 (by 2030)	66x
Ohmium	US	√			500	2,000 (by 2022)	4x
Enapter	DE		√		30	300 (by 2023)	10x
Bloomenergy	US			√	500	1,000 (by 2023)	2x
Green Hydrogen Systems	DK		√		75	400 (by 2023)	5x
Hydrogen Pro	NOR		√		100	1,000 (by 2030)	10x
Elogen	FR	√			160	1,000 (by 2025)	6x
Other manufacturers		√	√	√	1,000E	12,000E (by 2030)	
Total					**5,600**	**37,000 (by 2025) 60,000 (next 10 years)**	**6x 10x**

Source: "Shortage of electrolyzers for green hydrogen" (Ernst & Young, February 2023), (*) "ALK" stands for "Alkaline" and "SO" for "Solide Oxide"

4. Electrolyzers' cost was up in 2023, contrary to expectations

According to the *Electrolyser Price Survey 2024* report by Bloomberg NEF, in China, the US, and Europe the **cost of producing and installing electrolysers for green hydrogen production has increased by more than 50% year-over-year**. This surge contradicts previous analyses which had anticipated a gradual cost reduction.

Several factors have contributed to this increase, including inflation, which has elevated the costs of materials, utilities (such as water and electricity), and labour, particularly in the US and Europe. Additionally, delays in the rollout of subsidies have hindered the scaling up of green hydrogen projects.

We have to underline that Bloomberg NEF analysis shows notable methodological differences from earlier predictions:

1. Based on a survey of more than 50 companies, most of which are located in the US, China and Europe, the last BNEF's report processed more data on bigger green hydrogen projects than in its last survey in 2022, which focused predominantly on the smaller developments that were most advanced at the time;
2. This time around it analysed costs that were not apparent for the smaller projects, such as those related to transformers to provide grid connection, which are important cost considerations for large installations — resulting in a wider scope of analysis.

   This is also why figures also reveal higher costs from Chinese manufacturers, even though they are less affected by inflation and prepared to manufacture at a loss without subsidies in order to win massive orders.

As a consequence, the average system-level cost, (which includes both the stack and the balance of plant components), in **China is currently priced at a mid-range of $600/kW, whereas similar machines manufactured in Europe or the US are priced around $2,500/kW**.

Bloomberg NEF's analysis revealed that contrary to the expected annual reduction of 8-10% from 2023, the capital expenditure (capex) for an electrolysis plant actually saw an average increase of 57% last year.

This upward trend in costs is echoed by a study from *McKinsey* focusing on renewable hydrogen. This study estimated the levelized cost of producing renewable hydrogen at between $4.5 and $6.5 per kilogram, an increase of 30% to 65%. This rise is attributed to several factors, similar to those cited by BNEF, including the infrastructural costs of electrolyzer plants and higher capital costs, which were further augmented by 3 to 5 percentage points.

However, both **BNEF and *McKinsey & Company* expect cost reductions ahead**. The latter, based on a detailed breakdown of costs suggests reductions of 35% to 45% by 2030, driven by:

- Lower electrolyzer system costs;
- Design optimizations minimizing precious metal usage;
- Increased power density and efficiency in electrolyzer systems.

These technological advancements are expected to streamline plant designs, reduce construction materials and labour, and consequently lower overall system costs.

Similarly, the production cost of renewable hydrogen is forecasted by *McKinsey* to decrease to 2.5 to 4.0 USD/kg by 2030, driven by technological advances in electrolyzer systems, manufacturing scale economies, design optimizations, and a decline in renewable power costs.

Currently, the entire supply chain is in a state of limbo, with large-scale projects — which were anticipated to positively influence prices by driving them down — still awaiting Final Investment Decisions (FID).

The decision-makers are holding off until the initial outcomes of the European auctions (European Hydrogen Bank and H_2Global in Germany) become official and the regulatory frameworks for green hydrogen subsidies in the USA are enacted.

5. Higher penetration does require / entail lower running costs

The increasing penetration of innovative products and / or technologies requires and causes decreasing prices and this is even more the case for technologies or solutions replacing existing and cheap ones (as carbon fossil energy sources and the related hydrogen).

In the case of energy transition, the initial impact of high costs will likely be mitigated by government policies such as subsidies, tax incentives, and regulatory support. However, for the transition to be sustainable in the long term, the economics must be inherently favourable.

This means that the cost of technologies like green hydrogen must eventually decrease to a point where they are competitive without substantial government aid, driven by advancements in technology, increased production scale, and improved efficiencies.

As indicated above major consultancy firms expect the cost for green hydrogen production to face potential reductions of 35% to 45% by 2030, driven by a few factors and among these we focus on:

- Lowering costs related to electrolyzer systems, in turn driven by plant designs streamlining, lower construction materials and labour, technological advances and manufacturing scale economies;
- Lower energy costs, as a point to underline is that in order to make hydrogen/syn-fuels cheaper, the first condition always mentioned is getting energy - ultimately from RES – in large quantity and cheaper.

Indeed, according to ErreDue management, generators have average useful life of 15-20 ears and pay-back period of 2-3 years for their clients in traditional businesses: this entails that take-off for applications like "Power –to- gas of "green" hydrogen does not depend on plant amortization costs but on its running costs: water and energy from RES.

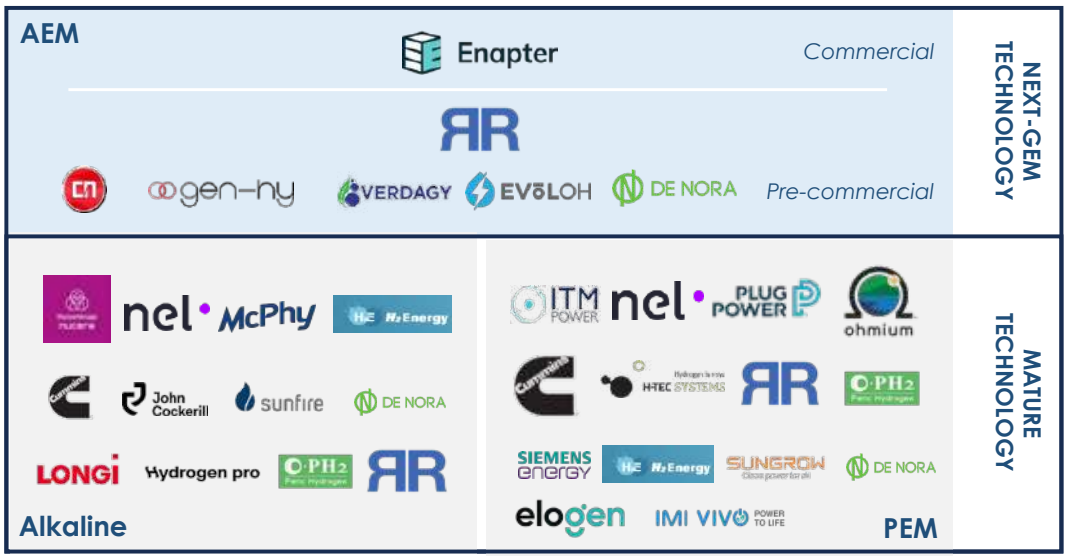
Looking ahead, the company does not anticipate price pressure in the near future. Instead, it expects the focus to remain on enhancing efficiency, reliability, and after-sales services for some time.

Technology and competitive positioning

In a rapidly evolving market where the distinctions between announcements, commercial launches, prototypes, and industrial production often blur, we present a chart that tentatively outlines the current competitive positioning of ErreDue. The chart includes a range of companies from large multinationals to start-ups on a global scale, focusing only on the main technologies currently available in the market.

As previously discussed, ErreDue has a strong and consolidated presence in the sector of alkaline technology and in Proton Exchange Membrane (PEM) technology, particularly in smaller laboratory-scale machines. However, when it comes to Anion Exchange Membrane (AEM) technology, the company is still in the development phase.

Low-temperature electrolysis: Alkaline / PEM / AEM competitive scenario



Source: Enapter, Value Track Analysis

Historical Financials

ErreDue has posted a high double-digit growth in these years (17% Value of Production CAGR over the 2016- 2023 period), enjoying very healthy operating margins (EBITDA-EBIT margin at 30.5% and 21.0% respectively as of 2023FY) and boasting a good operating cash flow generation, allowing a marginal deleveraging process from 2020 onwards, despite strong growth, with development capex to expand capacity explaining the small cash absorption of FY23. Despite the deleveraging of FY22 thanks to IPO proceeds (€15mn gross), the Company has witnessed high post-money returns on equity and on capital employed (>10% and >20% respectively in FY23).

Key Data & Messages

The key highlights from ErreDue's 2020-2023 financial results are the following in our view:

- **Steady top line growth** (34% 3-year CAGR from 2020, but a sound pace of organic growth also over a longer period (17% CAGR since 2016);
- **Sizeable and growing amount of recurring revenue** stems from generator rentals (13.5% of sales in FY23) and from service and spare parts (21.3% of sales in FY23);
- **Top-of-the Market EBITDA Margin,** around 30% and increasing y/y in FY23 (ca +180bps);
- **Medium-low incidence of trade receivables** (~20% on VoP) and **low maintenance capex**, with development capex to expand capacity explaining the cash absorption of the last two years.

ErreDue: Key Financials FY21-FY23

(€, mn)	2020	2021	2022	2023	$CAGR_{20-23}$
Value of Production	**8.0**	**12.3**	**13.8**	**19.3**	**33.9%**
EBITDA	**2.3**	**4.4**	**4.0**	**5.9**	**37.7%**
EBITDA Margin (% VoP)	*28.0%*	*35.3%*	*28.7%*	*30.5%*	*+245bps*
EBIT	**1.3**	**3.1**	**2.2**	**4.1**	**45.2%**
EBIT Margin (% VoP)	*16.5%*	*25.0%*	*16.0%*	*21.0%*	*+451bps*
Net Profit	**1.1**	**2.3**	**1.7**	**3.4**	**47.1%**
Net Margin (% VoP)	*13.3%*	*18.3%*	*12.0%*	*17.6%*	*+430bps*
Net Cash (+) Debt (-)	**0.7**	**4.0**	**17.4**	**16.3**	**+15.6**

Source: ErreDue, Value Track Analysis

Remarkable growth, +17.0% $CAGR_{16-23}$

ErreDue has so far demonstrated to be able to grow at a steady double-digit organic pace (**+17.0% CAGR over the 2016-2023 period**), benefitting from positive operating margins. Even in FY20 ErreDue performance was relatively resilient, as Covid-19 took a rather low toll: the Company registered a double-digit negative growth rate (-16.4% y/y) and got back to its growth rate trend in FY21 (+56.3% vs FY20 and +30.6% vs FY19).

Revenues from sales (~88% of Value of Production) are historically allocated between

- generators and other products,
- service and spare parts and
- rentals.

Other revenues historically account for 12% of VoP on average and include variables amount of:

- Δ Inventory / WIP (ranging €1.0mn/-€100k) related to in-process generators yet to be delivered;
- Δ Fixed Assets (€600k/-€1.4mn), i.e. capitalized costs to manufacture generators for rental.

As for FY23, ErreDue reported €19.3mn *VoP (+40.3% y/y),* supported by €16.5mn **Revenues from Sales, up 34.1% y/y** thanks to augmented volumes within the **hydrogen** sector, the growth of the reference market leveraging initial incentivizing measures instituted by regulatory bodies, and growth in **nitrogen** generators (exemplified by the Saturn model), and **despite the ongoing Russo-Ukrainian conflict** (territories where the company had previously generated substantial revenues).

ErreDue: Revenues Breakdown by Products / Services Offered FY20-21-22-23

(€mn)	FY20	FY21	FY22	FY23	y/y
Generators and other products	//	**5.8**	**7.9**	**10.8**	*37.0%*
As a % of Revenues	//	*52.8%*	*63.9%*	*65.3%*	//
o/w					
Laboratory	//	//	*0.8*	*1.2*	*60.5%*
Industry	//	//	*7.1*	*9.5*	*34.5%*
Service and spare parts	//	**3.2**	**2.4**	**3.5**	*46.3%*
As a % of Revenues	//	*29.2%*	*19.5%*	*21.3%*	//
Rental of generators	//	**2.0**	**2.0**	**2.2**	*8.8%*
As a % of Revenues	//	*18.0%*	*16.6%*	*13.5%*	//
Revenues from Sales	**8.0**	**11.1**	**12.3**	**16.5**	***34.1%***

Source: ErreDue, Value Track Analysis

ErreDue: Revenues Breakdown by Gas FY20-21-22-23

(€mn)	FY20	FY21	FY22	FY23	y/y
Hydrogen	//	**5.6**	**4.4**	**7.1**	*62.6%*
As a % of Revenues	//	*50.7%*	*35.4%*	*43.0%*	//
Other gases	//	**4.6**	**6.5**	**7.6**	*15.9%*
As a % of Revenues	//	*41.9%*	*53.1%*	*45.9%*	//
Other products	//	**0.8**	**1.4**	**1.8**	*30.4%*
As a % of Revenues	//	*7.4%*	*11.5%*	*11.2%*	//
Revenues from Sales	**8.0**	**11.1**	**12.3**	**16.5**	***34.1%***

Source: ErreDue, Value Track Analysis

ErreDue: Revenues Breakdown by Country FY20-21-22-23

(€mn)	FY20	FY21	FY22	FY23	y/y
Italy	//	**6.6**	**8.4**	**11.1**	***32.8%***
As a % of Revenues	//	*59.6%*	*68.0%*	*67.4%*	//
UE	//	***1.4***	***0.9***	***1.4***	***48.9%***
As a % of Revenues	//	*12.6%*	*7.7%*	*8.5%*	//
Rest of the World	//	**3.1**	**3.0**	**4.0**	***33.0%***
As a % of Revenues	//	*27.5%*	*24.3%*	*24.1%*	//
Revenues from Sales	**8.0**	**11.1**	**12.3**	**16.5**	***34.1%***

Source: ErreDue, Value Track Analysis

As for the other components of VoP the Company posted i) €425k related to Other Revenues (R&D related grants but from FY23 also the 5-year recognition of fiscal credits related to the €500k IPO bonus, i.e. ca. €200k including last year both FY22 and FY23), ii) €1.0mn to change in inventories (including WIP) and iv) €1.4mn due to the capitalization of costs for internally manufactured fixed assets (i.e. generators for rental).

ErreDue: Value of Production breakdown from FY20 to FY23

(€mn)	FY20	FY21	FY22	FY23	y/y
Revenues from Sales	7.1	11.1	12.3	16.5	*34.1%*
Other Revenues	0.3	0.4	0.3	0.4	*54.0%*
Δ Inventory (Finished Goods) and WIP	-0.1	-0.1	0.5	1.0	*94.5%*
Δ Internally Generated Fixed Assets	0.8	0.9	0.7	1.4	*105.4%*
Value of Production	**8.0**	**12.3**	**13.8**	**19.3**	***40.3%***

Source: ErreDue, Value Track Analysis

Operating Margins: EBITDA getting above to 30%

In the same period, profitability has notably increased as ErreDue benefitted from its investments in output **capacity** and strong **vertical integration**, thereby allowing for the containment of direct production costs, as well as from a certain **scale** effect, as the Company doubled its revenues since 2019.

In FY23, ErreDue achieved ca. **€5.9mn EBITDA** (vs €4.0mn in FY22), with margin expansion mostly due to lower incidence of services costs and labour costs on VoP. Key items in FY23 were:

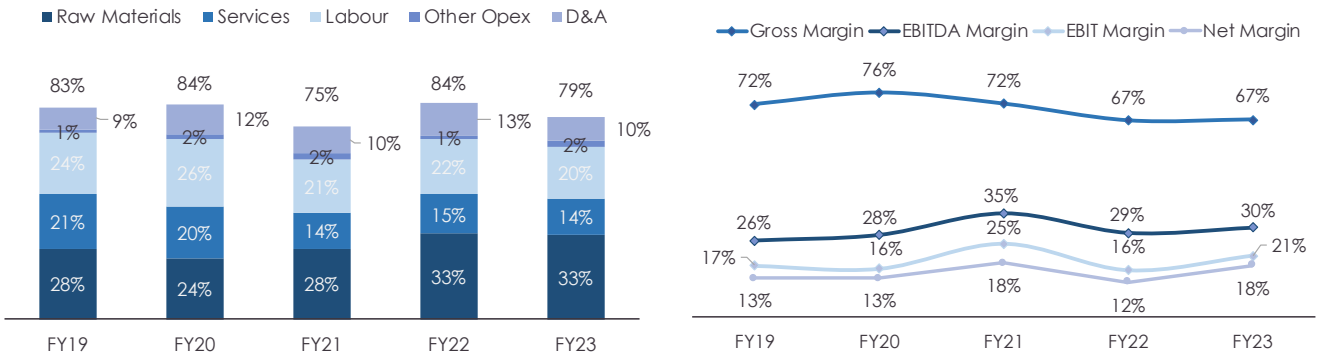
- Raw Materials (incl. Δ inventory) costs stood at €6.4mn (stable at ca. 33% of VoP);
- Labour Costs stood at €3.9mn, +30.3% y/y (vs. €3.0mn in FY22), due to the new workforce implemented (from 70 to 83 average employees over the year);
- Costs of Services stood at €2.8mn, +31.0% y/y, with growth also attributable to costs linked to the EGM listing.

As a result, the EBITDA Margin achieved 30.5% of VoP in FY23, up from 28.7% of FY22.

EBIT as well increased more than proportionally with respect to the top line, +84.1% y/y to €4.1mn (EBIT margin 21.0%, up by ca. 500bps y/y), as D&A charges remained subdue and accounting approx. for €1.8mn (ca. 9.5% on VoP) in FY23, up mainly due to the increase in assets (generators) located to clients.

Thanks to a) the positive financial income generated by the IPO proceeds, temporarily invested in liquid securities such as Bot, bonds or funds, pending Gigafactory investments, and b) a ~24% tax rate, FY23 Net Profit stood at ca. €3.4mn, doubled y/y, with Net Margin increasing by more than 500bps to a healthy 17.6%.

ErreDue: Operating Margins evolution



Source: ErreDue, Value Track Analysis

Good Cash Generation and sound Balance Sheet

ErreDue has consistently demonstrated a **good operating business' cash flow generation**, allowing a swift deleveraging process from 2020 onwards. Indeed, Net Financial Position moved from €0.7mn Net Cash in 2020, to €16.3mn Net Cash in 2023 (including almost €14mn of net IPO proceeds), with some €1.1mn worsening y/y in FY23, as a result of the purchase of the property for the new Gigafactory.

As far as FY23 is concerned:

- **Net Fixed Assets** stood ca. €11.3mn, almost €3mn higher vs. FY22 (€8.4mn);
- **Net Working Capital** stood at roughly €4.3mn, **22.4% on VoP**, up vs FY21 and FY22 due to:
  1. 107dd Days of Inventories, up vs. 96dd in FY22 due to the Work In Progress activities;
  2. €3.7mn Trade Receivables, (-16dd vs. FY22), Δ y/y at ca. €470k;
  3. €2.6mn Trade Payables (ca. 100dd), slightly increased y/y in absolute value.

ErreDue FY20 to FY23: Net Working Capital Structure

(€mn)	FY20	FY21	FY22	FY23
Inventories	2.3	2.5	3.6	5.6
Days of Inventory on Hand (x)	*105.3*	*74.9*	*96.2*	*106.6*
Trade Receivables	2.0	2.4	3.2	3.7
Days of Trade Receivables (x)	*88.7*	*71.9*	*85.1*	*69.5*
Other Current Assets	0.4	0.6	0.9	1.0
Current Assets	**4.7**	**5.5**	**7.7**	**10.4**
Trade Payables	1.0	1.5	2.4	2.6
Days of Trade Payables (x)	*96.6*	*104.3*	*127.3*	*99.6*
Other Payables	0.9	2.1	2.7	3.5
Current Liabilities	**1.9**	**3.7**	**5.1**	**6.1**
Net Working Capital	**2.9**	**1.9**	**2.6**	**4.3**
as % of VoP	***35.9%***	***15.2%***	***19.1%***	***22.4%***

Source: ErreDue, Value Track Analysis

As for the Cash Flow generation FY22 and FY23 is concerned, we calculate OpFCF b.t. (before development Capex and capitalized IPO costs) at 42.2% of EBITDA in FY23 and 59.6% in FY22, however with a worsening of FY23 NFP of €1.1mn, driven by:

- Capex at €4.8mn (vs. €2.7mn in FY22), mainly related to: i) purchase of the industrial building for €2.9mn (including €118k for incremental expenses), ii) new internally built plant and machinery for lease for approx. €1.4mn, iii) equipment for €212k and iv) other (~€94k);
- NWC absorption at €1.7mn in FY23 (vs. €0.8mn in FY22), following surges of inventory (€2.0mn due to both higher backlog and growing demand in the after-market sector) which included the newly manufactured Megawatt generator and only slightly offset by higher trade receivables;
- Nihil dividends in FY23, vs €1.7mn cash out in FY22.

In an effort to enhance transparency regarding the Capex allocations of ErreDue from FY20 to FY23, we outline the Capex structure more precisely by splitting it in the following components:

1. Maintenance - Historically, ErreDue has dedicated ~2-3% of its VoP each year to maintenance Capex in order to cover the acquisition of machinery / equipment critical to sustain its core business operations,
2. Electrolysers for rental - The reviewed period encompasses sizeable Capex related to the in-house manufacturing of electrolysers offered for rental (rather than sale), which typically requires additional capex of around 5-6% on VoP in last years. Albeit this capex is "offset" by the on-going stream of rentals in progress (e.g. in FY23 ErreDue invested €1.4mn in generators to be located but invoiced ca €2.2mn for rentals), the average pay-back period of the single machine is ca. 2.5-3.5 years;
3. Development capex & Gigafactory – over the last years ErreDue has increasingly invested to boost its output capacity and in FY22 launched its Gigafactory project for a total of €12mn investments into FY25. While development capex had been as much as maintenance over FY20-FY22, in FY23 investments accelerated (and it will be the same in FY24);
4. IPO costs – In FY2022 €1.2mn were associated with the capitalization of IPO costs.

ErreDue: Capex Structure FY20-FY23

(€, mn)	2020	2021	2022	2023
Maintenance Capex	-0.2	-0.2	-0.4	-0.4
As an % of VoP	*-2.2%*	*-1.9%*	*-3.1%*	*-2.0%*
Electrolyzers for Rentals	-0.8	-0.4	-0.7	-1.4
As an % of VoP	*-9.5%*	*-3.6%*	*-4.9%*	*-7.0%*
Development Capex - Gigafactory	-0.2	-0.3	-0.4	-3.0
As an % of VoP	*-1.9%*	*-2.0%*	*-2.8%*	*-15.7%*
IPO Costs	0.0	0.0	-1.2	0.0
As an % of VoP	*0.0%*	*0.0%*	*-8.9%*	*0.0%*
Total Capex	**-1.1**	**-0.9**	**-2.7**	**-4.8**

Source: ErreDue, Value Track Analysis

Rentals can generate revenues over a period of 7 to 20 years, despite the underlying asset is depreciated in 7 years (15% amortization rate). To note that at the end of the contract, the generators still have a value (even if fully depreciated), they can be bought back or rented again by the same customer or sold to a third party with a capital gain.

Consequently, after adjusting for Development Capex and IPO costs (categorized as "extraordinary" Capex), ErreDue core business consistently achieves a sizeable **OpFCF b.t., on average in excess of 60% of EBITDA.**

ErreDue: Cash Flow Structure FY20-FY23

(€, mn)	2020	2021	2022	2023
EBITDA	2.3	4.4	4.0	5.9
Δ NWC / Δ Provisions	-0.3	1.1	-0.6	-1.5
Maintenance Capex	-0.2	-0.2	-0.4	-0.4
Electrolyzers for Rentals	-0.8	-0.4	-0.7	-1.4
OpFCF b.t. (before dev. Capex and IPO)	**1.0**	**4.8**	**2.2**	**2.6**
As a % of EBITDA	*43.9%*	*109.9%*	*56.7%*	*44.6%*
Cash Taxes	-0.2	-0.8	-0.5	-1.1
OpFCF a.t. (before dev. Capex and IPO)	**0.8**	**4.0**	**1.7**	**1.5**
Development Capex	-0.2	-0.3	-0.4	-3.0
IPO Costs	0.0	0.0	-1.2	0.0
Capital Injections	0.0	0.0	15.0	0.0
Other (incl. Financial Inv.)	-0.5	0.0	0.0	0.0
Net Financial income (Charges)	0.0	0.0	0.0	0.4
Dividends Paid	0.0	-0.4	-1.7	0.0
Δ Net Financial Position	**0.1**	**3.3**	**13.4**	**-1.1**

Source: ErreDue, Value Track Analysis, (*) IPO Proceeds

Over FY22-FY23, even though at the start of the current sizeable investment cycle, the pile of cash from IPO proceeds not yet invested, and despite NWC absorption, we note a healthy Returns on Equity and Capital Employed.

ErreDue: Key return indicators FY22-FY23

ROE / ROIC Analysis (%)	2022	2023
ROE (%, on avg. E t-1)	6%	11%
ROIC b.t. (%, on avg. IC t-1)	22%	28%
ROIC a.t. (%, on avg. IC t-1)	16%	20%

Source: ErreDue, Value Track Analysis

FY20-FY23 P&L, Balance Sheet, Cash Flow

ErreDue: P&L FY20-FY23

(€, mn)	2020	2021	2022	2023
Value of Production	**8.0**	**12.3**	**13.8**	**19.3**
Raw Materials, Δ Inventory (Raw Materials)	-1.9	-3.4	-4.6	-6.4
Gross Profit	**6.1**	**8.9**	**9.2**	**12.9**
Gross Margin (%)	***76.2%***	***72.4%***	***66.7%***	***67.0%***
Costs of Services	-1.6	-1.7	-2.1	-2.8
Costs of Rent	0.0	0.0	0.0	-0.1
Labour Costs	-2.1	-2.6	-3.0	-3.9
Other Costs	-0.1	-0.2	-0.1	-0.3
EBITDA	**2.3**	**4.4**	**4.0**	**5.9**
EBITDA Margin (%)	***28.0%***	***35.3%***	***28.7%***	***30.5%***
D&A (excl. Goodwill)	-0.9	-1.3	-1.6	-1.8
Provisions	0.0	0.0	-0.1	-0.1
EBIT	**1.3**	**3.1**	**2.2**	**4.1**
Interest Expenses / Other Non-Op. Items	0.0	0.0	0.0	0.4
Pre-Tax Profit	**1.3**	**3.1**	**2.2**	**4.5**
Taxes	-0.2	-0.8	-0.5	-1.1
Net Profit	**1.1**	**2.3**	**1.7**	**3.4**
Net Profit Margin (%)	***13.3%***	***18.3%***	***12.0%***	***17.6%***

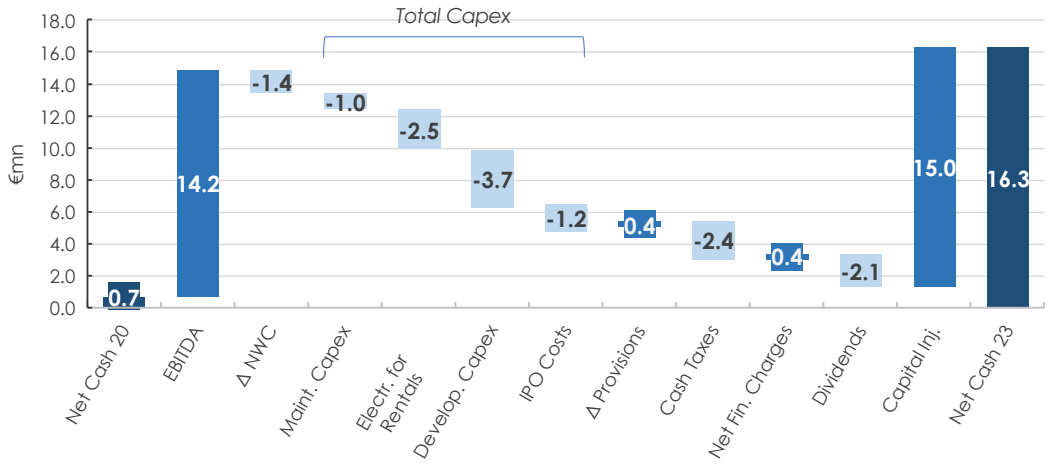
Source: ErreDue, Value Track Analysis

ErreDue: Balance Sheet Structure FY20-FY23

(€, mn)	2020	2021	2022	2023
Net Fixed Assets	7.8	7.4	8.4	11.3
Net Working Capital	2.9	1.9	2.6	4.3
Provisions	0.6	0.7	0.9	1.0
Total Capital Employed	**10.0**	**8.6**	**10.2**	**14.6**
Group Net Equity	**10.7**	**12.6**	**27.5**	**30.9**
Net Financial Position	**0.7**	**4.0**	**17.4**	**16.3**

Source: ErreDue, Value Track Analysis

ErreDue: Bridge Net Financial Position FY20 to FY23



Source: ErreDue, Value Track Analysis

Forecasted Financials 2024E-26E

We expect Value of Production to grow at a 31.0% CAGR 2023A-26E, up to ca. €43.4mn in 2026E with EBITDA margin as a % of VoP always in the 30-31% range. The key drivers of top line evolution in our forecasts are: i) recovery of tradition business from 2025E; ii) energy transition contribution. As far as profitability, we forecast a slight upgrade, mostly due to leveraging on labour costs, given higher efficiency of sizable Megawatt generators. Given the ca. €15.5 of aggregate capex (o/w ca. €9.0mn related to Giga Factory's investments and concentrated over FY2024E-25E), free cash flow generation should turn positive in FY26E, but we remind that i) average OpFCF b.t. / EBITDA is above 60% (before development Capex) and ii) net financial position remains positive (as we assume neither M&A or opening of new branches/JV abroad in our model).

Our financial estimates for 2024E-26E are built under **OIC accounting principles** and are based on the current consolidation perimeter, i.e., not factoring in any potential future M&A deal or investments in direct international presence via branches or JVs, albeit this is part of the Company's growth strategy.

2024E-26E forecasts at a glance

Key points about our 2024E-26E forecasts on ErreDue:

- **Revenues from Sales** expected to grow at **~32.4% CAGR$_{23A-26E}$**, up to ca. €38.3mn in 2026E, driven by i) recovery of traditional business out of 2025E, ii) energy transition / H-MW plants contributing from 2025E, iii) major growing in WIP due to hugest projects with longer timeline;
- **Average 2024E-26E EBITDA margin at ca. 30% of VoP**, as new "energy transition" segment leverages labour given sizable 1MW and above machines / generators;
- **EBIT** to grow at ca. **35.4% CAGR$_{23A-26E}$**, as a consequence of a bit lower incidence of D&A expenses on VoP;
- **Average OpFCF b.t. (before Dev. Capex) / EBITDA** at **66%** despite ca. €9.7mn aggregate absorption linked to ΔNWC and Electrolyzers for Rentals;
- **Net Cash Position higher than €17.0mn as of 2026E,** thanks to high margins, however partially offset by: i) huge development capex plan, ii) NWC erosion, iii) potential dividend policy.

ErreDue: Key Financial Forecasts 2024E-2026E

(€mn, IAS)	2023A	2024E	2025E	2026E
Value of Production	19.3	20.5	29.8	43.4
EBITDA	5.9	5.9	8.9	13.5
EBITDA Margin (%)	*30.5%*	*28.9%*	*30.0%*	*31.2%*
EBIT	4.1	3.8	6.0	10.1
EBIT Margin (%)	*21.0%*	*18.7%*	*20.0%*	*23.2%*
Net Profit	3.4	3.2	4.7	7.8
OpFCF b.t. (before dev. Capex and IPO)	2.6	4.9	4.7	8.5
As a % of EBITDA	*44.6%*	*82.1%*	*52.9%*	*63.1%*
Net Fin. Pos. [Net Debt (-) Cash (+)]	16.3	14.4	12.2	17.1

Source: ErreDue, Value Track Analysis

P&L: Value of Production due to bounce from FY25, ~30% CAGR$_{23A-26E}$

We're modelling ErreDue's 2023A-26E **top line** based on the following data and assumptions:

- Traditional businesses – following years of strong growth – facing a slowdown in growth rates in 2024E, due to a widespread deceleration in investments and uncertainties surrounding hydrogen-related issues (including incentives). A recovery is anticipated starting from 2025E;
- "Energy Transition" / H-MW plants starting to contribute from 2025E, as currently, there are no orders for 2024 delivery of generators with a capacity exceeding one MW;
- Gigafactory project expected to complete in 2025 with the production and delivery of the PEM plant for Foglia Srl in 1H25E, and in 2025, we also anticipate the delivery of 4 other plants of similar size and value. For 2026E, we are forecasting the sale of 13 plants, thus continuing the very reduced use of the production capacity of the four lines;
- Rental model assumed to be limited to the traditional business (not provided for MW plants) for the period 2025E-2026E, yet we expect this segment to keep growing in terms of revenues and hence in terms of internal capitalized costs to build these generators;
- Significant growth in work in progress (WIP) as the Company is progressively bidding larger projects with longer execution time.

ErreDue: 2023A-26E VoP

(€mn, IAS)	2023A	2024E	2025E	2026E
Traditional generators and other products	**10.8**	**10.9**	**12.2**	**13.6**
Change % y/y	*37.0%*	*1.5%*	*11.7%*	*11.7%*
As of Revenue from Sales (%)	*65.3%*	*62.4%*	*46.4%*	*35.7%*
After-sales services	**3.5**	**4.2**	**5.1**	**6.1**
Change % y/y	*46.3%*	*20.0%*	*20.0%*	*20.0%*
As of Revenue from Sales (%)	*21.3%*	*24.0%*	*19.2%*	*15.9%*
Rentals of generators	**2.2**	**2.4**	**2.6**	**3.0**
Change % y/y	*8.8%*	*7.3%*	*7.0%*	*15.7%*
As of Revenue from Sales (%)	*13.5%*	*13.6%*	*9.7%*	*7.7%*
Energy transition	**0.0**	**0.0**	**6.5**	**15.6**
Change % y/y	*//*	*//*	*//*	*//*
As of Revenue from Sales (%)	*//*	*//*	*24.7%*	*40.8%*
Revenues from Sales	**16.5**	**17.5**	**26.3**	**38.3**
Other Revenues	0.4	0.5	0.5	0.6
Δ Inventory (Finished Goods) and WIP	1.0	0.9	1.3	1.9
Δ Internally Generated Fixed Assets	1.4	1.6	1.7	2.6
Value of Production	**19.3**	**20.5**	**29.8**	**43.4**
Change % y/y	*40.3%*	*6.0%*	*45.6%*	*45.6%*

Source: ErreDue, Value Track Analysis

As far as operating profitability is concerned, in 2024E we see a slightly decreasing profitability (EBITDA Margin from 30.5% in FY23 to 28.9%) due to hiring (especially for new MW lines to be fully operating from FY2025) and to the potential inefficiencies and additional charges related to the relocation and reorganization of sites.

However, for the next years, we expect ErreDue slightly upgrading its **EBITDA margin** at ca. **31.2% in 2026E**, with **EBITDA growing in absolute value to €13.5mn**, driven by:

- Higher profitability expected from larger machines / generators, mostly due to better leveraging on labour costs;
- Lack of inefficiencies caused by the operating re-organization due in 2024, with the gradual normalization of processes over Fy2025E-2026E and the related improvement in efficiency,
- Generalised positive scale effect as top line takes-off.

Regarding **EBIT**, we forecast it to grow at **35.4% $CAGR_{23A-26E}$** with EBIT margin expected to increase up to 23.2% by 2026E.

Thanks to ca. €300k per year of financial income, driven by ca. €500k per year of financial income from invested liquidity, and to a low (~24%) tax rate, Net Profit is expected to grow at **~32.0% $CAGR_{23A-26E}$** with a ~18.0% **Net Margin**, leading to €7.8mn in FY26E.

ErreDue: 2023A-26E P&L Forecasts

(€mn, IAS)	2023A	2024E	2025E	2026E	$CAGR_{23-26E}$
Revenues from Sales	**16.5**	**17.5**	**26.3**	**38.3**	***32%***
Other Revenues	0.4	0.5	0.5	0.6	*13%*
Δ Inventory (Finished Goods)	1.0	0.9	1.3	1.9	*23%*
Δ Fixed Assets	1.4	1.6	1.7	2.6	*24%*
Value of Production	**19.3**	**20.5**	**29.8**	**43.4**	***31%***
Raw Materials, Δ Inventory (Raw Materials)	-6.4	-6.7	-10.1	-15.1	*33%*
Gross Profit	**12.9**	**13.8**	**19.7**	**28.3**	***30%***
Gross Margin (%)	*67.0%*	*67.2%*	*66.3%*	*65.3%*	*-174bps*
Costs of Services	-2.8	-3.1	-4.6	-6.7	*35%*
Costs of Rent	-0.1	0.0	0.0	0.0	*-13%*
Other Costs	-0.3	-0.4	-0.6	-0.9	*37%*
Labour Costs	-3.9	-4.3	-5.6	-7.1	*22%*
EBITDA	**5.9**	**5.9**	**8.9**	**13.5**	***32%***
EBITDA Margin (%)	*30.5%*	*28.9%*	*30.0%*	*31.2%*	*+71bps*
D&A	-1.8	-2.1	-3.0	-3.5	*25%*
Provisions	-0.1	0.0	0.0	0.0	*nm*
EBIT	**4.1**	**3.8**	**6.0**	**10.1**	***35%***
EBIT Margin (%)	*21.0%*	*18.7%*	*20.0%*	*23.2%*	*+223bps*
Financial Income	0.4	0.5	0.5	0.5	*5%*
Financial Charges	0.0	-0.2	-0.3	-0.3	*142%*
Other Non-Operating Income/Expenses	0.0	0.0	0.0	0.0	*nm*
Pre-Tax Profit	**4.5**	**4.2**	**6.2**	**10.3**	***32%***
Taxes	-1.1	-1.0	-1.5	-2.5	*32%*
Minorities	0.0	0.0	0.0	0.0	*nm*
Net Profit	**3.4**	**3.2**	**4.7**	**7.8**	***32%***
Net Margin (%)	*17.6%*	*15.5%*	*15.8%*	*18.0%*	*+43bps*

Source: ErreDue, Value Track Analysis

Balance Sheet & Cash Flow: Positive FCF from FY26E

As already outlined, ErreDue business model implies **medium-low NWC** and **fixed asset** requirements and **high margins**, thus leading to **good cash generation**. However, in coming years ErreDue will be involved in a major investment plan. In more details on the capital employed structure, we expect:

- Net Working Capital to growth and absorb almost €4mn over the forecast horizon, but this is fully driven from top line growth and we rather expect NWC / VoP to improve slightly overtime;
- Net Fixed Asset increasing a lot in absolute terms (from €11.3mn in FY23 to €18.3mn in FY26E), as an effect of the massive development capex and increase capital required by the rental business with €15.5mn cumulated Capex over the next three years.

Based on such assumptions, we forecast ErreDue to witness a **return on capital employed after taxes ~30% in FY26E**.

Working capital under control

Despite the growth in absolute terms – following the acceleration of business – the Net Working Capital on VoP is seen to decline slightly to ca. 19.4%, mostly driven by higher DPO (calculated on total cash costs including labour ones, VAT Included in Trade Payables), with the other main components remaining broadly flat. DPO, which had dropped to 100 days in FY23 are assumed to rise sharply y/y in FY24E (due to large payments due to suppliers of the Gigafactory) and to gradual normalize later on (towards 120 days, in line with the 110-130 days level prior to FY23).

ErreDue: 2023A-26E Net Working Capital Forecasts

(€mn, IAS)	2023A	2024E	2025E	2026E
Inventories	5.6	6.4	8.6	11.9
Days of Inventory on Hand (x)	*106.6*	*115.0*	*105.0*	*100.0*
Trade Receivables	**3.7**	**3.9**	**5.7**	**8.3**
Days of Trade Receivables (x)	*69.5*	*70.0*	*70.0*	*70.0*
Trade Receivables / VoP (%)	19.0%	19.2%	19.2%	19.2%
Trade Payables	**2.6**	**4.2**	**5.2**	**7.5**
Days of Trade Payables (x)	*99.6*	*150.0*	*125.0*	*120.0*
Trade Payables / VoP (%)	*13.5%*	*20.6%*	*17.6%*	*17.2%*
Other Current Assets	1.0	0.5	1.3	2.0
Other Current Liabilities	3.4	3.0	4.3	6.3
o/w Accruals and deferrals	*1.3*	*1.4*	*2.1*	*3.0*
Down payments and tax payables	*2.1*	*1.5*	*2.2*	*3.3*
Net Working Capital	**4.3**	**3.6**	**6.1**	**8.4**
Net Working Capital / VoP (%)	*22.4%*	*17.8%*	*20.4%*	*19.4%*

Source: ErreDue, Value Track Analysis

Fixed Assets to absorb operating cash flow into FY2026E

The Company has decided, with the IPO, to grasp its production capacity from the current annual capacity of 8MW to at least 60MW with a massive investment in a new 16,000 sqm manufacturing facility. Particularly, as far as forecasted capex composition, we assume:

- Further ~€9.0mn for H-MW production expansion through the Gigafactory (building already acquired for approx. €3.0mn), of which: i) €6.5mn for modernization and renovation, i) €2.5mn for equipment and facilities;
- Electrolyzers for Rentals at~€5.9mn (cumulated FY2024-26E);
- Maintenance capex at €200k per year.

As a result, in 2024E-25E we expect that almost all Operating Cash Flow to be absorbed by development capex outflow, maintaining the **Net Cash Position at ca. €17.1mn by the end 2026E**. However, from FY2026E onwards, we foresee a strong cash generation due to the prior investments made, and the sizeable excess capacity (as the model assumes the Gigafactory to work on one shift up to 60MW output).

We remind that our **2024E-26E forecasts** are based on the following key assumptions:

- **No M&A** deals;
- **No opening** of any large branch abroad;
- **No major investments in additional technologies**, as current capex assumptions are consistent with our forecasts in terms of orders intake, but management may decide to invest further in order to accelerate and capture additional market opportunities.

ErreDue: 2023A-26E Balance Sheet

(€mn, IAS)	2023A	2024E	2025E	2026E
Net Fixed Assets	11.3	15.7	19.0	18.3
Net Working Capital	4.3	3.6	6.1	8.4
Provisions	1.0	1.1	1.2	1.3
Total Capital Employed	**14.6**	**18.3**	**23.8**	**25.4**
Group Net Equity	**30.9**	**32.7**	**36.0**	**42.4**
Net Fin. Position [i.e., Net Debt (-) Cash (+)]	**16.3**	**14.4**	**12.2**	**17.1**

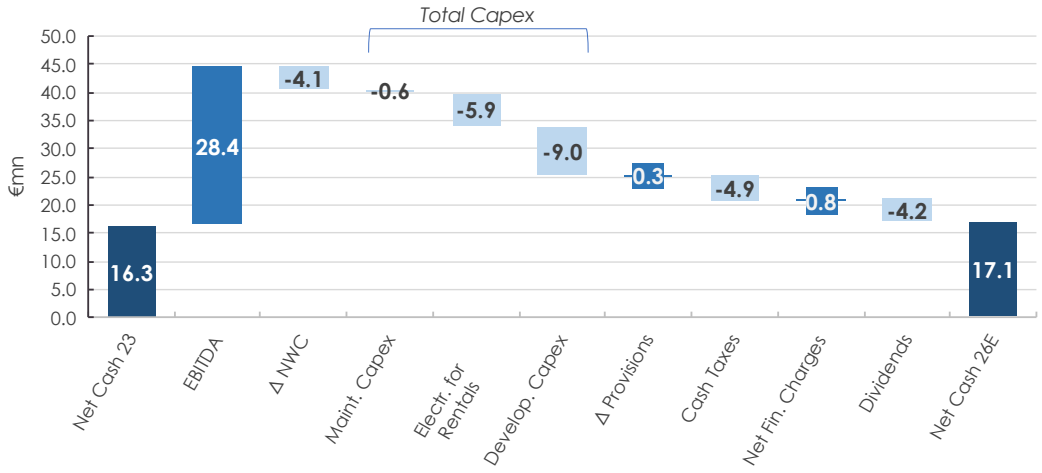
Source: ErreDue, Value Track Analysis

ErreDue: 2023A-26E Cash Flow Statement

(€mn, IAS)	2023A	2024E	2025E	2026E
EBITDA	**5.9**	**5.9**	**8.9**	**13.5**
Δ NWC / Δ Provisions	-1.5	0.7	-2.3	-2.2
Maintenance Capex	-0.4	-0.2	-0.2	-0.2
Electrolyzers for Rentals	-1.4	-1.6	-1.7	-2.6
OpFCF b.t. (before dev. Capex and IPO)	**2.6**	**4.9**	**4.7**	**8.5**
As a % of EBITDA	*44.6%*	*82.1%*	*52.9%*	*63.1%*
Cash Taxes	-1.1	-1.0	-1.5	-2.5
OpFCF a.t. (before dev. Capex and IPO)	**1.6**	**3.9**	**3.2**	**6.1**
Development Capex	-3.0	-4.7	-4.3	0.0
IPO Costs	0.0	0.0	0.0	0.0
Capital Injections	0.0	0.0	0.0	0.0
Others (incl. Financial Inv.)	0.0	0.0	0.0	0.0
Net Financial Charges	0.4	0.3	0.2	0.2
Dividends Paid	0.0	-1.4	-1.4	-1.4
Δ Net Financial Position	**-1.1**	**-1.9**	**-2.2**	**4.9**
Net Financial Position	**16.3**	**14.4**	**12.2**	**17.1**

Source: ErreDue, Value Track Analysis

ErreDue: Bridge Net Financial Position FY23 to FY26E



Source: ErreDue, Value Track Analysis

Valuation

We initiate coverage on ErreDue with €14.6 Fair Equity Value per share, based on the average outcome of relative valuation and DCF model, providing valuations in the €14-15 area, under different assumptions and despite a relatively weaker growth in FY2024. Both methodologies have been run looking at the business: a) as a whole and, b) splitting the value of core/traditional business from the new venture in Megawatt plants. From our analyses, we can infer that while there is still some upside on the traditional business, at current market price investors could secure a zero-cost call option on the ramp-up of the new energy transition business. Indeed, the traditional business of gas generators for industrial & laboratory applications is worth between €8.9-€10.8 p/s depending on valuation metrics, while the Megawatt segment (for energy transition applications) is worth between €5.9-€4.4 p/s, according to our base case scenario. We estimate that a worst-case scenario would still leave upside to the stock, while market price at €9.5 p/s implies a failure in the launch of the new Megawatt plants and in the start-up of the Gigafactory.

Fair Equity Value at €14.6 p/s

We initiate coverage on ErreDue with a **Fair Equity Value of €14.6 p/s**, based on the average outcome of the following valuation methodologies:

- **Relative Valuation**, based on peers' multiples and looking at the Group in two different ways, i.e., 1) as a whole and, 2) valuing separately the two businesses - traditional gas generators and new Megawatt for energy transition – with a Sum-Of-The-Parts (SOTP) model. The two approaches do give similar outputs and hint at €14.2-€15.2 range, with average **€14.7 p/s** Fair Equity Value. SOTP provides useful details about where value comes from;
- **Discounted Cash Flow**, here again we both: 1) look at the Group as a whole and 2) split the streams of the two different business, building different models. The two exercises provide a value range of €14-€15 per share, also considering different capital structures, with **€14.5 p/s** average.

At €14.6 p/s, ErreDue stock would trade at **2.7x EV/Sales, 8.8x EV/EBITDA, 19.4x P/E Adj. 2025E**, in line with sales multiples of electrolysers manufacturers and still at some discount vs. EBITDA and P/E multiples of global industrial gas suppliers. The table below shows the sensitivity of key multiples to different fair values per share.

ErreDue: Multiples Sensitivity at Various Stock Price Levels

Fair Equity Value p/s (€)	EV/Sales (x)			EV/EBITDA (x)			EV/EBIT (x)			P/E Adj. (x)		
	2024E	2025E	2026E	2024E	2025E	2026E	2024E	2025E	2026E	2024E	2025E	2026E
€ 10.00	2.4	1.7	1.0	8.1	5.6	3.4	12.6	8.4	4.5	19.7	13.3	8.0
€ 11.50	2.8	2.0	1.3	9.7	6.7	4.1	15.0	10.0	5.4	22.7	15.3	9.2
€ 13.00	3.3	2.3	1.5	11.3	7.7	4.7	17.5	11.6	6.4	25.7	17.3	10.4
€ 14.60	**3.8**	**2.7**	**1.7**	**13.0**	**8.8**	**5.5**	**20.1**	**13.3**	**7.4**	**28.8**	**19.4**	**11.7**
€ 16.00	4.2	2.9	1.9	14.5	9.8	6.1	22.4	14.7	8.2	31.6	21.3	12.8
€ 17.50	4.6	3.3	2.1	16.1	10.9	6.8	24.8	16.3	9.2	34.6	23.3	14.0
€ 19.00	5.1	3.6	2.3	17.6	11.9	7.5	27.3	17.9	10.1	37.5	25.3	15.2

Source: Value Track Analysis

In addition to the core methodologies described above, we run a valuation exercise in order to assess the medium-long term potential and downside risk assuming less favourable scenarios, notably for the new business linked to Megawatt plants. This exercise is based on a **Rolling Valuation**, which provides an indication of the upside potential / downside risk of the stock with a 2-year horizon, assuming a neutral stance on market multiples (i.e. in absence of multiples de/re-rating) and based on **different scenarios**.

Relative Valuation

Based on the following peers' analysis we performed two different methodologies, i.e. a relative valuation for the whole Group and a SOTP analysis splitting ErreDue business into: i) traditional business and ii) new energy transition segment.

In terms of valuation time horizon, we run the **peers' multiple analysis of the Company as a whole on FY2024 and FY2025**, while for **SOTP** we **focused on 2025E-26E** as reference years, as in 2024E the new energy transition production is not expected to contribute.

Also, while the traditional business could be valued by looking at EV/EBITDA multiples of comparables, all the peers involved in the manufacture of electrolysers are not profitable yet, hence our valuation primarily relied on EV/Sales multiples.

Finally, we remind that we expect **FY2024E to be a year of transition**, affected by a much lower growth in traditional business (weak capital good demand on high interest rates and uncertain macro-outlook) and by the sizeable capex (and some initial opex) required by the start-up of the Gigafactory due in early 2025. This in turn suggests that **metrics on FY24E multiples will be much less favourable for ErreDue**, while FY25E forecasts will start incorporating a recovery in investment cycle of traditional generators and the early deliveries of green hydrogen applications, as the Gigafactory will be fully operating.

Peers Selection

In our view, there is no listed comparable that shares the same size and business profile maturity stage of ErreDue. However, we believe there are some names that vaunt important similarities:

- **Industrie De Nora** is on the verge of shifting its business model core focus from its traditional electrodes and electrochemical services towards its newly set energy transition segment and the investment in Thyssenkrupp Nucera to benefit from the uptick in green hydrogen production;
- **McPhy, Nel, Plug Power** (and De Nora/**Thyssenkrupp Nucera**) offer the same technologies for hydrogen production for large scale operations (i.e., AWE, PEM) vs. more innovative solutions such as AEM (provided, for instance, by Enapter).

In addition, we identified a number of other names which offer interesting features to support our valuation, opting for the three following clusters:

1. **Industrial Gas Suppliers**: domestic and global leaders for the production and supply of industrial gases, chemicals and related services to various industries such as manufacturing, laboratory and medical. We included the world's largest industrial companies (Linde, Air Liquide, Air Products) and the Italian Sol in order to compare them with the historical and more traditional business of ErreDue;
2. **Electrolysers Manufacturers**: global companies expected to provide industrial scale solutions for the production (mainly involved in the manufacture of electrolysers), storage and distribution of green hydrogen. We included companies from all over the world, which are deploying substantial investments to scale their production capacity. We believe this cluster to share various similarities (including the maturity stage and size) with ErreDue new energy transition ventures;

3. **Other Hydrogen Players**, involved in the same supply chain of the previous cluster but with a diversified focus (mainly clean energy technologies and the production of fuel cells for the energy production from hydrogen sources to various end-markets).

ErreDue: Peers Selection by Clusters



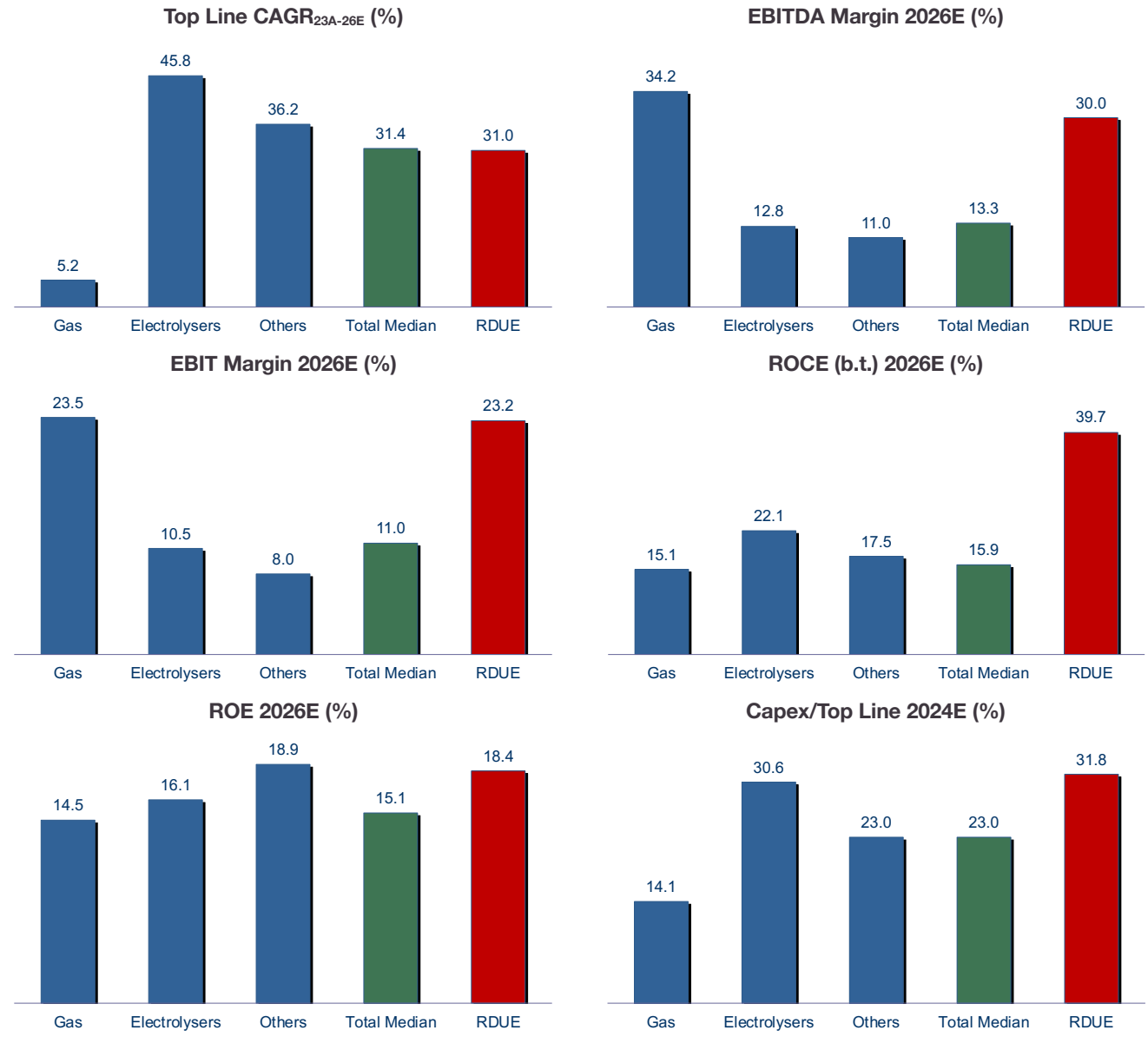
Source: Various

Operating Benchmark

Looking at the consensus estimates for our selected peers and analysing the median values of each cluster with respect to ErreDue, we believe worth to highlight a few points:

- **Growth**. ErreDue is expected to grow in line (ca. 31% $CAGR_{23A-26E}$) with the total median of peers. However, the strong growth profile is the consequence of the new energy transition stream (we expect over €20mn revenues in 2026E from nihil in 2023), while the traditional business is expected to grow in line with industrial gas suppliers' median, at around 6%, mostly due to the much lower growth expected for FY2024E;
- **Operating Profits**. ErreDue should also boast a top-class profile in terms of profitability, leveraging on its already renowned expertise on dealing with gas and hydrogen technology. Indeed, it should maintain EBITDA and EBIT margins in line with industrial gas suppliers, above 30% and 20%, respectively. New comparables' ventures in the hydrogen supply chain should struggle back and start to generate positive operating profits only in late 2025E-26E (apart from De Nora);
- **Capital Intensity**. The higher-than-average relative deployment of Capex over 2024E from ErreDue should bear fruits already from 2025E, outlining stronger ROCE and ROE ratios with respect to the median of all peers. While gas suppliers boast historically high capital intensive business models, most hydrogen players are still in their scale-up phase, deploying significant investments to reach scale production.

ErreDue: Operating Benchmark vs. Peers



Source: Market Consensus, Value Track Analysis

Stock Market Multiples Benchmark

All our clusters trade at demanding multiples (the whole list of peers' multiples can be found in the Appendix). More in details:

- Industrial **Gas Suppliers** vaunts exceptional operating profitability (EBIT Margin above 20%) and trade at median 4.6x EV/Sales, **13.2x EV/EBITDA**, 21.0x EV/EBIT and 23.5x P/E 2024E;
- Given the strong potentiality of hydrogen in the global energy transition and the expected growth profile, both **Electrolysers Manufacturers and Fuel Cells** producers trade at demanding **EV/Sales** multiples, even if they are still far from positive operating profits (for the last two clusters, only De Nora, Ballard Systems, and Doosan Fuel Cells have meaningful EV/EBITDA, EV/EBIT and P/E multiples, driving high median values).

That said, **ErreDue looks very cheap vs. all clusters (30%-60% discounts** on EV/Sales, EV/EBITDA 2025E, respectively). While on the one hand the discount is justified vs. industrial gas global leaders or players such as De Nora and Thyssenkrupp, we believe the stock deserves some rerating.

ErreDue: Peers Trading Multiples

Peers	EV/Sales (x)			EV/EBITDA (x)			EV/EBIT (x)			P/E Adj. (x)		
	2024E	2025E	2026E	2024E	2025E	2026E	2024E	2025E	2026E	2024E	2025E	2026E
Industrial Gas Suppliers												
Average	4.5	4.2	4.0	13.1	12.2	11.4	20.0	18.4	16.9	24.2	22.1	20.3
Median	4.6	4.4	4.1	13.2	12.3	11.5	21.0	19.1	17.4	23.5	21.2	19.8
Electrolysers Manufacturers												
Average	2.8	1.9	1.3	15.5	16.0	10.4	19.8	18.2	11.4	29.9	25.9	16.6
Median	2.9	2.1	1.4	15.5	14.3	12.3	19.8	18.2	13.6	29.9	25.9	16.8
Other Hydrogen Players												
Average	3.9	3.0	2.2	25.2	15.8	16.6	nm	28.6	19.6	nm	36.4	34.2
Median	4.2	2.5	2.0	25.2	15.8	17.2	nm	28.6	19.6	nm	36.4	36.7
Total Average	**3.5**	**2.8**	**2.3**	**16.9**	**14.3**	**12.6**	**20.0**	**20.9**	**15.2**	**25.3**	**25.1**	**22.7**
Total Median	**3.6**	**2.4**	**1.9**	**15.5**	**12.4**	**12.3**	**19.8**	**19.5**	**16.4**	**27.1**	**25.2**	**23.0**
ErreDue	**2.2**	**1.6**	**1.0**	**7.8**	**5.4**	**3.2**	**12.0**	**8.1**	**4.3**	**19.1**	**12.8**	**7.7**
Discount vs. Total Median. (%)	*-38%*	*-33%*	*-47%*	*-50%*	*-57%*	*-74%*	*-39%*	*-58%*	*-74%*	*-30%*	*-49%*	*-66%*

Source: Market Consensus, Value Track Analysis

Relative Valuation #1: The Group as a Whole

In order to set the fair multiples for ErreDue. we apply a **15% discount** to the rating of the overall peers' universe, as on the one hand we believe a 20/30% discount is reasonable vs large global players in gas production, while on the other no discount is probably needed when comparing ErreDue to the other new entrants in the green hydrogen segment.

If we apply such a discount on the median of all key metrics (EV/Sales, EV/EBITDA, EV/EBIT and P/E), and focus on **FY2024E and FY2025E**, we get to a Fair Equity Value of **€14.2/share**.

ErreDue: Group Relative Valuation (based on peers' multiples)

Relative Valuation 2024E-25E	EV/Sales (x)		EV/EBITDA (x)		EV/EBIT (x)		P/E Adj. (x)	
	2024E	2025E	2024E	2025E	2024E	2025E	2024E	2025E
Peers' Median (x)	3.6	2.4	15.5	12.4	19.8	19.5	27.1	25.2
Discount (%)	*-15.0%*	*-15.0%*	*-15.0%*	*-15.0%*	*-15.0%*	*-15.0%*	*-15.0%*	*-15.0%*
Fair Multiples (x)	3.1	2.0	13.2	10.5	16.8	16.5	23.0	21.4
Fair Equity Value p/s (€)	12.4	11.7	14.7	17.0	12.6	17.7	11.7	16.1
Average Fair Equity Value p/s (€)	**14.2**							

Source: Market Consensus, Value Track Analysis

Relative Valuation #2: Sum of The Parts

With a simplified SOTP model we evaluate separately i) the traditional and consolidated business, focused on industry and laboratory applications, and 2) the new segment, focused on large H_2 generators for energy transition applications. This methodology is still based on market multiples of peers, but offers the benefit that we can apply different multiples and/or different discounts for each business segment. Hence:

- **Traditional business** is valued on the back of FY25E-FY26E EV/EBITDA of gas providers (median), applying a 25% discount due to different size, liquidity, competitive positioning etc.,
- **"Megawatt" business** (for energy transition) is valued on EV/Sales for FY25E and FY26E (median) but here we do not apply any discount, as most players in the Electrolyser Manufacturers group are larger than ErreDue but in the same order of magnitude and have weaker financials.

The table below summarizes the outcome of this exercise, which provides a range of value of €14.0-16.5 per share and a mid-point of **€15.2 p/s**.

The additional key information provided by this model is that most of value is still related to the **traditional and fully consolidated business of ErreDue**, i.e. on-site gas generators for the most various industries and laboratories: this business accounts for ca. 76% of Group based on FY2025E, with Energy transition at 24%, while these relative contributions move to 67% / 33% based on FY2026E, with the increasing contribution of the Megawatt business mirroring its increasing financial performance. On average we estimate **traditional business represents ca 70% of equity value vs 30% for Megawatt**, i.e. **€10.8 p/s and €4.4 p/s respectively**.

ErreDue: Sum of the Parts Valuation (based on peers' multiples)

Sum of the Parts Valuation	Traditional Business		Energy Transition		ErreDue Group	
	2025E	2026E	2025E	2026E	2025E	2026E
Fair EV/Sales (x)			2.1	1.4		
Fair EV/EBITDA (x)	9.2	8.6				
Enterprise Value (€mn)	**57.0**	**57.6**	**18.1**	**28.8**	**75.1**	**86.5**
As a % of total	**76%**	**67%**	**24%**	**33%**	**100%**	**100%**
Net Financial Position (€mn)					12.2	17.1
Fair Equity Value (€mn)					**87.2**	**103.5**
NOSH (mn)					6.3	6.3
Fair Equity Value p/s (€)					**14.0**	**16.5**
Average Fair Equity Value p/s (€)	**10.8**		**4.4**		**15.2**	

Source: Market Consensus, Value Track Analysis

Discounted Cash Flow

Our DCF analysis is also run with two different stand points: Group as a whole – traditional and Megawatt segments - and via separate free cash flow profiles and valuations for the two segments.

The **Group DCF model** considers the two business as a whole, and is run through the use of two capital structures: a target / levered one and the current (cash positive). The outcome of the Group DCF is an **Equity Value at €14.5 p/s,** within a €14.0-€15.0mn range, depending on the capital structure considered.

The **DCF by business segment**, starting from the specific contributions of the two businesses to the Group performance, provides a very similar outcome of **€14.8 p/s** - the difference being related to a slightly different WACC, depending on mix of capital structure - but it also indicates what is the value of each business: ca. **60% (€8.9 p/s) is attributable to traditional business**, while the remaining **40% (€5.9 p/s)** should arrive from the **new Megawatt** product line.

WACC Assumptions

Our model derives an **11.9% Rolling WACC** from the Capital Asset Pricing Model approach, relying on the assumptions below and assuming the current capital structure (unlevered); while based on a **target capital structure** (20% D/D+E) our WACC comes at **11.1%.**

The key assumptions for our DCF models are:

- 2025E-2030E as time horizon for explicit forecasts;
- 2.0% Risk Free Rate in line with medium term inflation target;
- Unlevered Beta equal to 1.13 (Source: Damodaran web site), as European Machinery companies;
- Implied Italian Equity Risk premium at 5.62% (Source: Damodaran web site);
- 3.5% Company specific Risk Premium (small cap + low liquidity);
- 4.5% Pre-Tax Cost of Debt;
- 20% Net Debt/Capital Employed ratio (as Target Capital Structure);
- 1.0% Perpetuity Growth Rate ("g");
- Corporate tax rate at 24%.

Group DCF model

That said as for our DCF assumptions, the results of our models are reported in the tables below, with Fair Equity Value p/s at **€14.0** assuming the current unlevered capital structure, with unlevered Beta and Rolling WACC, and **€15.0** Fair Equity Value p/s on a target slightly levered capital structure.

ErreDue: Group DCF Model with Rolling WACC

(€mn, g = 1.0%)	(€mn)
PV of Future Cash-Flows 2025E-2030E	24.1
PV of Terminal Value 2030E (implied TV/EBITDA at 4.8x)	48.7
Fair Enterprise Value	**72.9**
Net Financial Position 2024E	14.4
Minorities, Other Liabilities / Assets	0.0
Fair Equity Value	**87.3**
Number of Shares (mn)	6.3
Fair Equity Value p/s	**14.0**

Source: Value Track Analysis

ErreDue: Group DCF Model with WACC @ Target Capital Structure

(€mn, g = 1.0%)	(€mn)
PV of Future Cash-Flows 2025E-2030E	24.8
PV of Terminal Value 2030E (implied TV/EBITDA at 5.1x)	54.3
Fair Enterprise Value	**79.1**
Net Financial Position 2024E	14.4
Minorities, Other Liabilities / Assets	0.0
Fair Equity Value	**93.5**
Number of Shares (mn)	6.3
Fair Equity Value p/s	**15.0**

Source: Value Track Analysis

ErreDue: Sensitivity of Group DCF Model @ Target Capital Structure

Fair Equity Value (€mn))		Perpetuity Growth (%)				
		0.50%	0.75%	1.00%	1.25%	1.50%
WACC (%)	10.1%	16.0	16.3	16.6	16.9	17.2
	10.6%	15.2	15.5	15.7	**16.0**	16.3
	11.1%	14.5	14.7	**15.0**	15.2	15.5
	11.6%	13.9	**14.0**	14.3	14.5	14.7
	12.1%	13.3	13.4	13.6	13.8	14.0

Source: Value Track Analysis

DCF by Business Segment – Traditional vs Megawatt (Energy Transition)

In our DCF analysis by business segment we split the "traditional" and the new "energy transition" business segments, running separate projections into 2030 and assuming different assumptions in terms of capital structure and risk profile. The result shown in the table below indicates that the Fair Equity Value for the Group stands at **€14.8 p/s** and it is attributable for ca**. 60% to the traditional business segment**, with the residual stemming from "energy transition".

In terms of equity value per share the split would therefore be €8.9 for traditional business and €5.9 for the Megawatt segment. Not surprisingly DCF model appears relatively more "generous" to the new Megawatt business, as it factors longer term streams compared to peer market multiples.

ErreDue: DCF Model by Business Segment

Fair Equity Value (€mn)	Traditional Business	Energy Transition	ErreDue Group
Capital Structure	Target (20% D/D+E)	Current (cash)	
WACC (%)	9.8%	13.4%	
g (%)	0.8%	1.6%	
PV of Future Cash-Flows 2025E-2030E	15.1	9.4	
PV of Terminal Value 2030E	31.9	21.9	
Enterprise Value	**47.0**	**31.3**	**78.3**
Net Financial Position 2024E			14.4
Fair Equity Value			**92.7**
NOSH (mn)			6.3
Fair Equity Value p/s	**€8.9**	**€5.9**	**14.8**

Source: Value Track Analysis

Rolling Valuation and Scenario Analysis

The Rolling valuation analysis offers a view of what a company's stock might be worth in the medium term: it estimates the potential forward equity value based on: (i) an assumed rolling fair multiple (e.g. EV/EBITDA), and (ii) the company's future financial metrics (e.g. EBITDA and NFP). Therefore, it helps to gauge the potential increase or decrease in the company's stock value under various scenarios — whether the company's fair multiple stays the same, improve, or decline, and depending on different financial performance outcomes.

If we assume as **fair multiple** for the Group (today and forward) a **9.0x EV/EBITDA**, in line with what we used in our SOTP analysis, the main indications provided by the model on the back of different scenarios are reported below.

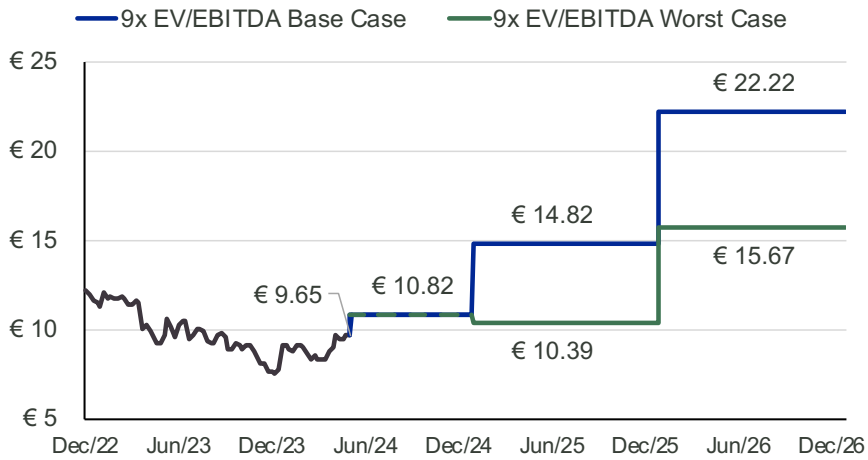
1. **Base Case Scenario**: based on our forecasts, the rolling valuation model outlines:
   - A one-year horizon fair value of €14.8 p/s, broadly aligned with our average fair value from the DCF and Peers' Analysis. This value (53% upside) relies on the multiple expansion (from current 7.8x EV/EBITDA to our assumption of 9.0x) and the additional value expected from the new Megawatt business from 2025, but it does not fully incorporate FY2026 and longer-term prospects. In addition, an annual 2.3% dividend yield should be added to total return;
   - A two-year horizon fair value of €22.2 p/s; the 130% upside incorporates the multiple expansion (to 9x EV/EBITDA) and the underlying growth and cash flow generation into FY2026E, including a successful start-up of the Gigafactory and nice order acquisitions for Megawatt plants. Again, dividend yield would get on top;
2. **Worst Case Scenario**: based on a more cautious scenario that implies an increasingly competitive price environment for the Megawatt segment - i.e., the new energy transition business at break-even in 2025E and generating only 15% EBITDA Margin in 2026E (vs. the "above 30%" assumed in our base case) - the rolling model outlines a one-year horizon fair value of €10.4 p/s and a two-year horizon fair value of €15.7 p/s. In other words, should the take-off of energy transition or the start-up of the Gigafactory tougher than expected, the upside for the stock would be limited in the short term and less sharp over two years, but still positive;
3. **Scenario priced by market**: the current market price of ErreDue would result as one-year horizon fair value - still applying our 9.0x EV/EBITDA fair multiple - only in a scenario of extreme difficulties in taking up the new energy transition stream. Indeed, this **extremely negative outlook** would imply in FY2025E Revenues of only €1.3mn (i.e., **no further order acquisitions**) and a negative EBITDA from the new business, while abandoning the opportunity (with no Revenues or EBITDA) in 2026E.

ErreDue: Rolling Multiple Valuation under different scenarios

Rolling Multiple Valuation (€, mn)	Base Case Scenario		Worst Case Scenario		Scenario priced at €9.5 p/s	
	2025E	2026E	2025E	2026E	2025E	2026E
Value of Production	29.8	43.4	29.8	43.4	24.7	23.1
EBITDA	8.9	13.5	6.2	9.7	5.6	6.7
EBITDA Margin (%)	*30.0%*	*31.2%*	*20.7%*	*22.4%*	*22.8%*	*28.9%*
Net Cash	12.2	17.1	9.4	10.5	8.9	6.9
Fair Value p/s at 9.0x EV/EBITDA (€)	**14.8**	**22.2**	**10.4**	**15.7**	**9.5**	**10.7**

Source: Market Consensus, Value Track Analysis

ErreDue: Rolling Valuation Graphical Representation



Source: Various

Finally, we analyze the situation assuming no stock re-rating, hence sticking to the **current market multiple** of **7.8x EV/EBITDA** also in future years (albeit we deem this as extremely cheap to peers, as discussed above). Even under this assumption though, the one-year horizon fair value would be at ca. **€13.1 p/s**, i.e. ca. 36% upside.

This is below our fair value as it would be driven only by ErreDue improving financials (as from our forecasts) without the re-rating effect.

Again, dividend yield should be added on top to get full return for shareholders.

Again, to analyze the valuation/scenario currently priced by the market, the stock would be fully valued at €9.5 p/s if we assumed a multiple of 7.8x EBITDA (i.e. a 30%-60% discount to peers) and the worst scenario described above.

Appendix – Peers' profile

ErreDue: Industrial Gas Suppliers

Sol (SOL) – Italian multinational active in the production, applied research and sale of technical, pure and medical gases and homecare services, with operations in Europe, Brazil, Morocco, India and Turkey.

Air Liquide (AI) – French multinational supplying industrial gases and services to various industries including medical, chemical and electronic manufacturers. Second-largest supplier of industrial gases with operations in >80 countries.

Linde (LIN) – Global multinational chemical company founded in Germany and, since 2018, domiciled in Ireland and headquartered in the United Kingdom. Linde is the world's largest industrial gas company by market share and revenue.

Air Products & Chemicals (APD) – American international corporation whose principal business is selling essential industrial gases and chemicals to customers in dozens of industries.

ErreDue: Electrolysers Manufacturers

Industrie De Nora (DNR) – Largest global supplier of high-performing coatings and electrodes & electrochemical services. It should also materially benefit from the uptick in green hydrogen via its newly set energy transition segment.

Thyssenkrupp Nucera (NCH2) – Multinational company that designs industrial scale, high current density electrolysers for the chlor-alkali and hydrogen sectors. De Nora and Thyssenkrupp as strategic investors.

Nel Hydrogen (NEL) – Norwegian but global company providing solutions for the production (electrolysers), storage and distribution of hydrogen from renewable energy sources.

Plug Power (PLUG) – American company offering end-to-end green hydrogen ecosystem, from production (electrolysers), storage, and delivery to energy generation (fuel cells).

ITM Power (ITM) – Energy storage and clean fuel UK company that designs, manufactures, and integrates electrolysers based on proton exchange membrane technology to produce green hydrogen using renewable electricity and tap water.

McPhy Energy (MCPHY) – French company that specializes in manufacturing and marketing hydrogen production and storage equipment from water electrolysis. The group also provides electrolysers and storage containers.

HydrogenPro (HYPRO) – Norwegian technology company and an OEM for high-pressure alkaline electrolyser systems for large-scale green hydrogen plants.

Enapter (H2O) – German-based company developing plug-and-play Anion Exchange Membrane (AEM) electrolysers to be manufactured at scale, enabling solutions in refueling, energy storage, industry, power-to-x, and research.

Green Hydrogen Systems (GREENH) – Danish company that designs and manufactures efficient, standardized and modular electrolysers for production of green hydrogen with renewable energy sources.

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ErreDue: Other Hydrogen Peers

Ceres Power (CWR) – United Kingdom-based developer of clean energy technology, electrolysis for the creation of green hydrogen, and fuel cells for power generation.

Bloom Energy (BE) – American company manufacturing and marketing solid oxide fuel cells for the distributed generation of electricity on-site.

Ballard Power Systems (BLDP) – Canadian company that develops and manufactures proton exchange membrane fuel cell products for markets such as heavy-duty motive, portable power, material handling as well as engineering services.

Powercell Sweden (PCELL) – Swedish company that specializes in the development and production of hydrogen electric fuel cell stacks and systems for aviation, marine, power generation, off & on road industries.

FuelCell Energy (FCEL) – US-based company, global leader in designing, manufacturing, operating and servicing direct fuel cell power plants.

Doosan Fuel Cell (336260) – South Korean company that develops environment-friendly fuel cell with high efficiency for power generation facilities.

Nikola Corporation (NKLA) – American manufacturer of heavy-duty commercial battery-electric vehicles, fuel-cell electric vehicles, and energy solutions.

Appendix – Peers' stock multiple

ErreDue: Peers Trading Multiples

Peers	EV/Sales (x)			EV/EBITDA (x)			EV/EBIT (x)			P/E Adj. (x)		
	2024E	2025E	2026E	2024E	2025E	2026E	2024E	2025E	2026E	2024E	2025E	2026E
Industrial Gas Suppliers												
Sol	2.2	2.0	1.9	8.9	8.2	7.6	15.3	14.1	13.4	19.1	17.7	17.0
Air Liquide	3.9	3.6	3.4	13.3	12.2	11.4	19.7	17.8	16.4	27.1	24.5	22.6
Linde	6.4	6.1	5.7	17.2	16.1	14.9	22.9	21.3	19.5	30.4	28.3	25.3
Air Products & Chemicals	5.4	5.2	4.8	13.2	12.4	11.7	22.2	20.3	18.5	20.0	18.0	16.1
Average	**4.5**	**4.2**	**4.0**	**13.1**	**12.2**	**11.4**	**20.0**	**18.4**	**16.9**	**24.2**	**22.1**	**20.3**
Median	**4.6**	**4.4**	**4.1**	**13.2**	**12.3**	**11.5**	**21.0**	**19.1**	**17.4**	**23.5**	**21.2**	**19.8**
Electrolysers Manufacturers												
Industrie De Nora	2.8	2.6	2.3	15.5	14.3	12.8	19.8	18.6	16.4	29.9	25.9	23.0
Thyssenkrupp Nucera	1.0	0.9	0.7	nm	27.7	12.3	nm	nm	17.1	nm	nm	30.9
Nel Hydrogen	3.1	2.4	1.9	nm	nm	nm	nm	nm	nm	nm	nm	nm
Plug Power	2.4	2.1	1.8	nm	nm	17.7	nm	nm	nm	nm	nm	nm
ITM Power	4.1	2.7	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
McPhy Energy	2.9	1.9	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
HydrogenPro	0.2	0.3	0.1	nm	6.1	1.0	nm	17.9	1.1	nm	nm	1.7
Enapter	4.5	2.3	1.1	nm	nm	8.4	nm	nm	10.8	nm	nm	10.5
Green Hydrogen Systems	4.4	2.0	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
Average	**2.8**	**1.9**	**1.3**	**15.5**	**16.0**	**10.4**	**19.8**	**18.2**	**11.4**	**29.9**	**25.9**	**16.6**
Median	**2.9**	**2.1**	**1.4**	**15.5**	**14.3**	**12.3**	**19.8**	**18.2**	**13.6**	**29.9**	**25.9**	**16.8**
Other Hydrogen Players												
Ceres Power	5.3	4.9	4.7	nm	nm	nm	nm	nm	nm	nm	nm	nm
Bloom Energy	1.9	1.5	1.1	20.6	12.3	8.3	nm	28.5	14.2	nm	nm	23.0
Ballard Power Systems	5.4	4.7	2.9	nm	nm	nm	nm	nm	nm	nm	nm	nm
Powercell Sweden	4.2	3.0	2.2	nm	nm	19.9	nm	nm	nm	nm	nm	42.9
FuelCell Energy	2.6	2.1	1.7	nm	nm	23.6	nm	nm	nm	nm	nm	nm
Doosan Fuel Cell	3.4	2.4	2.0	29.9	19.3	14.6	nm	28.8	25.0	nm	36.4	36.7
Nikola Corporation	4.7	2.5	1.1	nm	nm	nm	nm	nm	nm	nm	nm	nm
Average	**3.9**	**3.0**	**2.2**	**25.2**	**15.8**	**16.6**	**nm**	**28.6**	**19.6**	**nm**	**36.4**	**34.2**
Median	**4.2**	**2.5**	**2.0**	**25.2**	**15.8**	**17.2**	**nm**	**28.6**	**19.6**	**nm**	**36.4**	**36.7**
Total Average	**3.5**	**2.8**	**2.3**	**16.9**	**14.3**	**12.6**	**20.0**	**20.9**	**15.2**	**25.3**	**25.1**	**22.7**
Total Median	**3.6**	**2.4**	**1.9**	**15.5**	**12.4**	**12.3**	**19.8**	**19.5**	**16.4**	**27.1**	**25.2**	**23.0**
ErreDue	**2.2**	**1.6**	**1.0**	**7.8**	**5.4**	**3.2**	**12.0**	**8.1**	**4.3**	**19.1**	**12.8**	**7.7**
Discount vs. Total Median. (%)	*-38%*	*-33%*	*-47%*	*-50%*	*-57%*	*-74%*	*-39%*	*-58%*	*-74%*	*-30%*	*-49%*	*-66%*

Source: Market Consensus, Value Track Analysis

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