

ID²D fab

SCALABLE GRAPHENE INNOVATION
TO BOOST INDUSTRIAL EFFICIENCY,
CUT COSTS AND SAVE ENERGY

2Dx® GRAPHENE ENABLES A NEW GENERATION OF MATERIALS



2D fab is revolutionizing industries, from construction and packaging to batteries and dual-use applications.

- **Economic impact** – lower energy use and faster processing means reduced costs and higher margins
- **Strategic advantage** – unlocking high-value materials for civil and defense applications
- **Sustainability** – reduced CO₂ footprint, higher recyclability and longer-lasting performance

Creating profit with purpose – stronger, greener, smarter



2D FAB – FROM RESEARCH TO INDUSTRIAL IMPACT

2D fab was founded in 2013 in Sundsvall, and is at the forefront of Europe's graphene industry with large-scale production under the 2Dx® brand

Today, our patented process creates real value in construction and packaging – delivering stronger, more durable and more sustainable materials, while being cost-effective and scalable for industrial use.

Tomorrow, the same technology opens new opportunities – from battery technology to dual-use applications

Creating real value today, while enabling the sustainable industries of tomorrow.



KEY MARKET SEGMENTS DRIVING GRAPHENE DEMAND

1. Concrete and Construction

Graphene is transforming concrete by enabling cutting cement use, enhancing strength, durability and water resistance. It can significantly reduce CO₂ emissions and improve recyclability, aligning with sustainable construction goals.* The graphene-enhanced concrete market is projected to reach €1.1 billion by 2034, driven by demand for low-carbon, high-performance building materials.**

2. Electronics & Energy Storage

Graphene's high conductivity and flexibility make it ideal for next-generation semiconductors, sensors, batteries, and supercapacitors.*** The energy storage market alone is set to exceed €400 billion by 2030, where graphene-based anodes, cathodes, and electrolytes are already improving performance and lifespan in lithium-ion and solid-state batteries.****

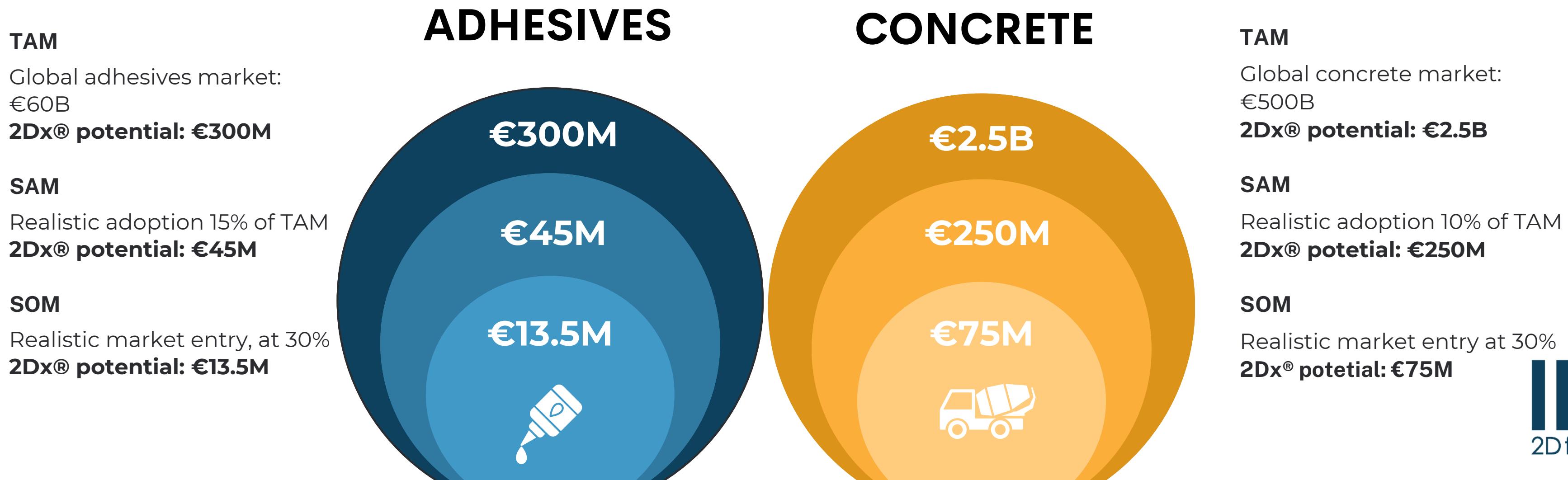
3. Composites & Coatings

Graphene is increasingly used in lightweight, ultra-strong composite materials for automotive, aerospace and industrial applications. It enhances durability, reduces weight and improves heat and chemical resistance.*** The global composites market is forecasted to reach €160 billion by 2030, with graphene adoption growing rapidly.****

€2.8B MARKET OPPORTUNITY IN ADHESIVES & CONCRETE

2D fab is positioned to lead in high-impact, large-volume sectors, with a primary focus on adhesives and concrete. These industries have a massive global market potential, where 2D fab's graphene solutions enable a sustainable transition by enhancing material efficiency and reducing emissions.

By extending the lifetime of concrete, reducing energy use in adhesive applications and cutting CO₂ emissions at scale, 2D fab's technology enables more sustainable and high-performance industries.



MARKET TRACTION FROM MAJOR INDUSTRY PLAYERS

2D fab has established strong collaborations with leading companies in construction, packaging and building materials.

- **Industrial pilots completed** in cardboard, concrete and fiberboards
- **Proven performance** verified in full-scale production
- **Next step: adoption** pilots ready to convert into contracts



Advanced adhesives

- 30-60% faster drying
- 20-30 % lower temperatures
- Stronger more durable bonds
- Reduced energy consumption



Sustainable concrete

- Stronger and more durable
- Up to 2x longer lifespan
- Enhanced resource efficiency
- Up to 50–80% lower CO₂ emissions



Future solutions

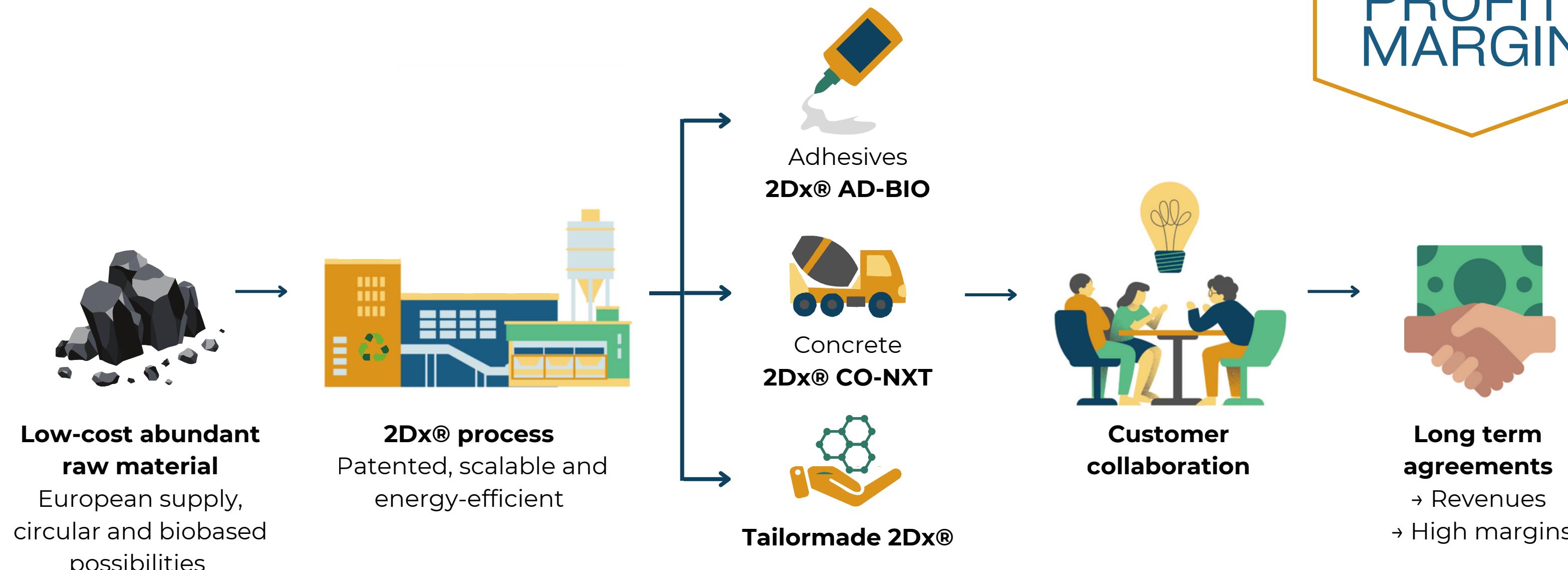
Our Tailored 2Dx® solutions delivers custom graphene-based products for cutting edge applications such as electronics, energy storage, coatings and composites



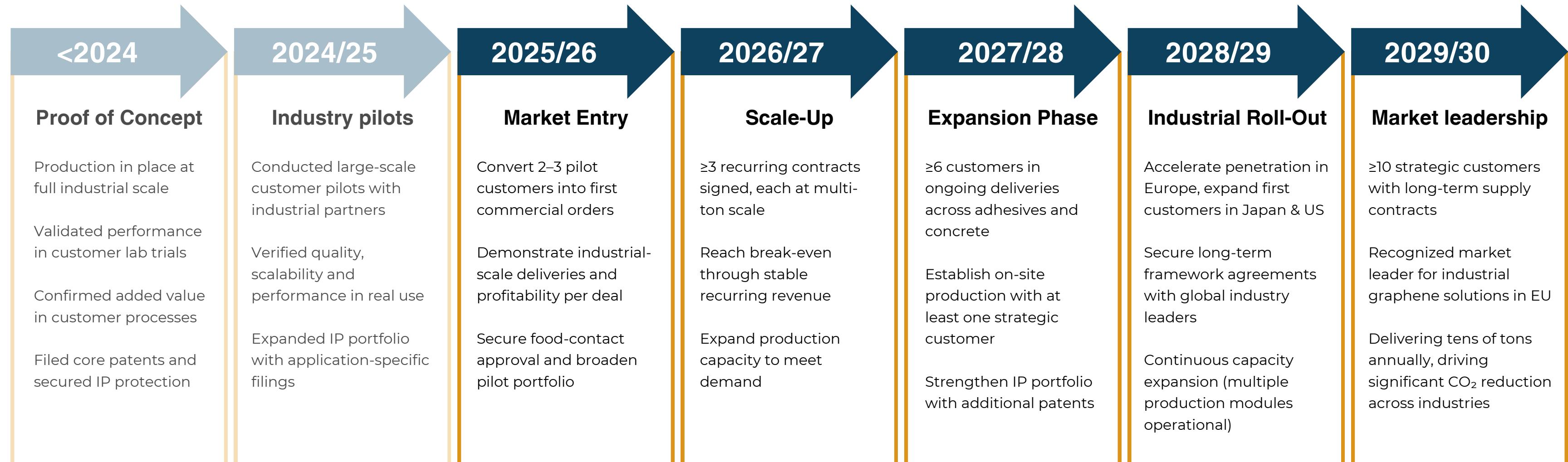
SCALABLE AND PROFITABLE BUSINESS MODEL

- **Direct sales of 2Dx® additives** – recurring revenues from adhesives and concrete industries
- **High gross margins (up to 80%)** enabled by full control of raw material, process, and quality
- **Customer integration** – pilots convert into long-term supply contracts with multi-ton volumes
- **Scalable production** – modular capacity expansion aligned with customer demand
- **Future upside** – licensing of application IP and on-site production at customer facilities

80%
GROSS
PROFIT
MARGIN



ROAD MAP TO MARKET LEADERSHIP



WHAT WE ARE REPLACING

While today's solutions solve fragments of the problem, they cannot meet industry's needs for high product performance alongside cost efficiency, scalability and sustainability.

- **Energy-intensive processes** – high drying temperatures and long curing times drive up both costs and CO₂ emissions
- **Conventional additives** – improve performance, but add chemicals, increase costs and reduce recyclability
- **Harmful chemistries** – reliance on formaldehyde and other materials with health, environmental and safety risks
- **Bio-based solutions** – sustainable in theory, but fail to match durability and efficiency at industrial scale





CREATING VALUE FOR OUR CUSTOMERS WITH OUR PATENTED PROCESS - 2Dx®

Our proprietary 2Dx® process transforms raw graphite into high-quality graphene at industrial scale – backed by ten years of research, deep know-how and tailored customer solutions.

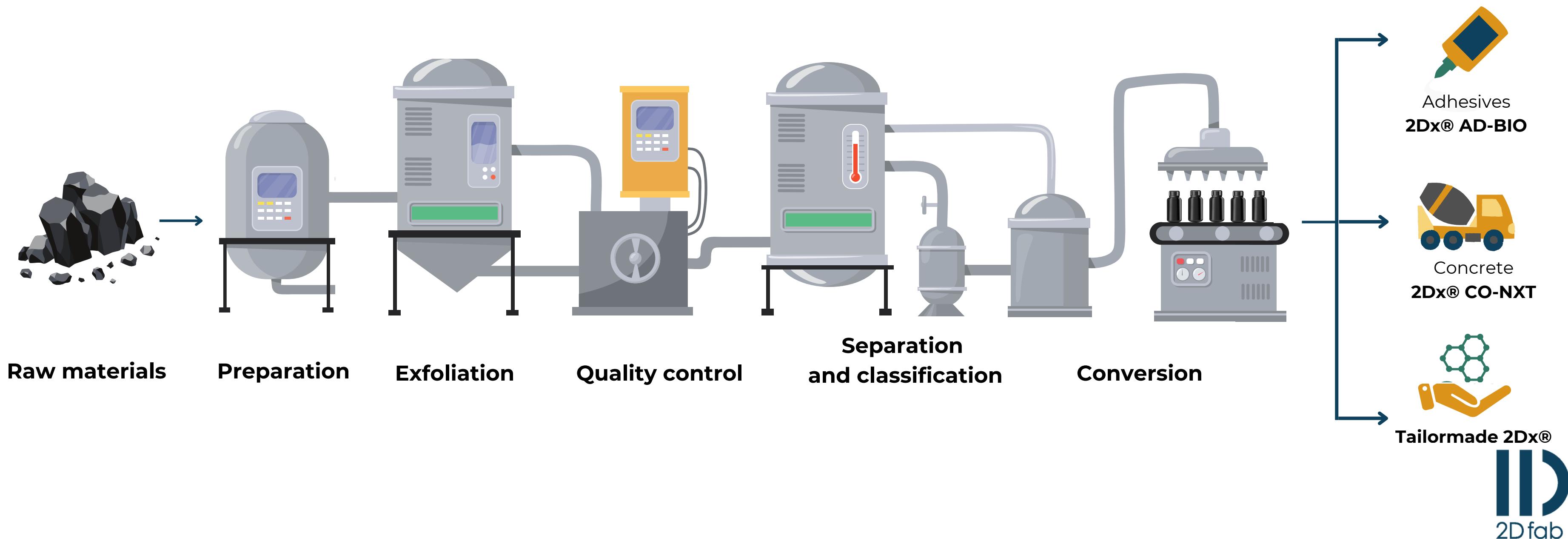
- **Patented 2Dx® process** – the most cost- and energy-efficient graphene production on the market
- **Scalable and capital-light** – 10+ tons/year today, modular growth with low CAPEX requirements
- **Full value chain control** – ensuring low cost, high quality and secure supply
- **European supply chain** – with options for circular and bio-based raw materials
- **Seamless adoption** – true drop-in solutions, no production line modifications needed
- **Proven track record** – 10+ years of research, validation and industrial pilots
- **Collaboration** – leveraging our expertise to co-develop and tailor solutions that address industry-specific challenges, ensuring measurable improvements in performance, efficiency and sustainability.

2Dx® gives our customers a proven, patented solution that adds value in everyday industrial production.

FROM GRAPHITE TO GRAPHENE – THE 2Dx® PROCESS

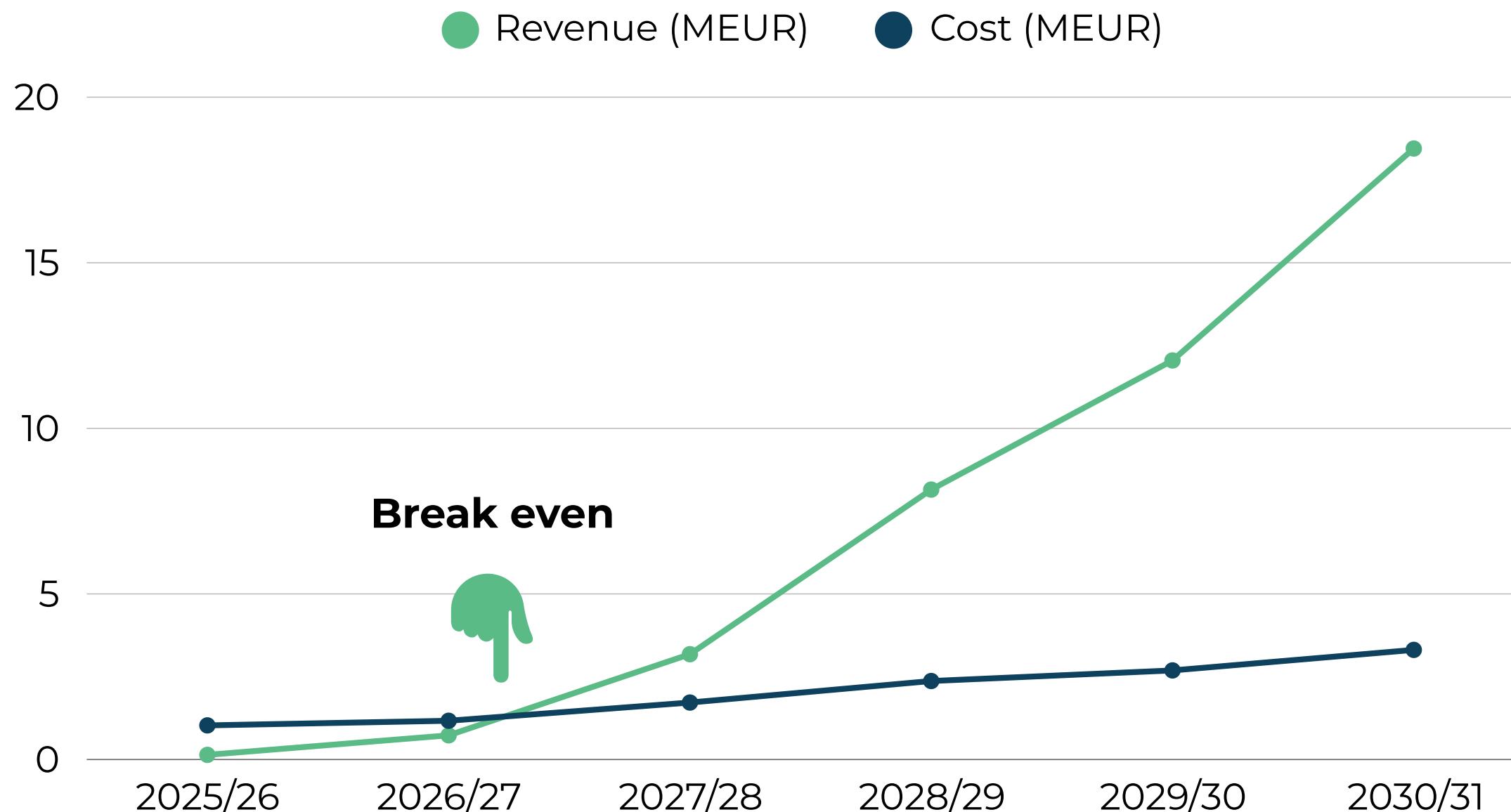
Our patented liquid phase exfoliation converts graphite into application-ready graphene through a controlled, stepwise process – without harmful chemicals and with very low energy consumption.

The method is modular, scalable and precise, allowing tailor-made graphene solutions that ensure consistent quality and reliable performance for each industrial application.



FINANCIAL OUTLOOK & GROWTH PATH

2 MEUR to profitability. Break-even 2026/27.



Funded to profitability with
2 MEUR break-even 2026/27

End-to-end control of value chain
ensure high profit margins

Low CAPEX per added ton,
modules added as demand grows

Flexible feedstock ensures
predictable supply and quality

CAPEX

(MEUR)

0

0.5

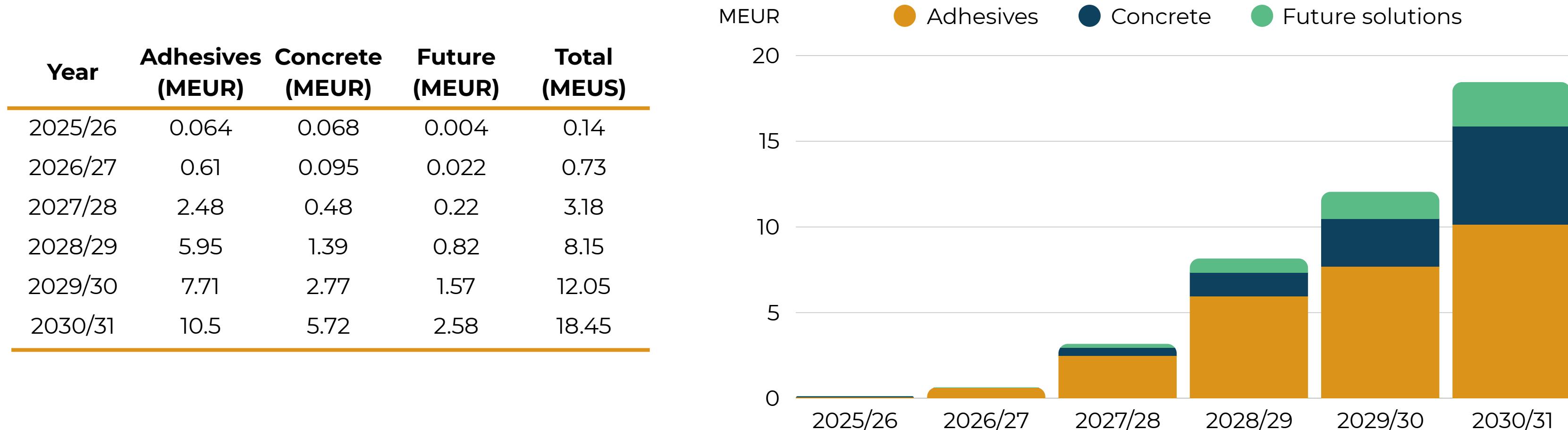
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SEGMENT GROWTH AND REVENUE MIX



Break-even targeted 2026/27 with the first anchor contract

Mix shift: Adhesives ramps first, Concrete scales with verified trials, Future Solutions adds upside

Capacity fit: Modular add-ons secure supply at low CAPEX

Conversion: Pilots to contracts in 6 to 12 months driven by drop-in integration and successful factory and field trials

Stage	Adhesives	Concrete	Future
Pilots in progress	9	5	6
Pilots ready to convert	4	3	3
Expected tcontracts 12 mo	2	1	1

MEET OUR TEAM

2D fab has a highly skilled team of technical experts with backgrounds in materials development, chemistry, industrial production and business development.



Jan Nordin

Application engineer
PhD in Chemistry and more than 20 years' experience from product- and application development



Carolina Costa

Quality engineer
PhD in Chemical Engineering



Roland Bäck

Process developer
Extensive experience of research and development within the pulp and paper industry



Frida Forsberg

Marketing coordinator
Bachelor of Science in Journalism



Helena Henke

CEO

MSc in Business Administration with management of growing enterprises as specialty



Magnus Larsson

CTO

MSc in Materials Science and Engineering with nano-materials as specialty



Britta Andres

R&D Engineer

PhD in Engineering Physics with a major in Materials Physics



Johnny Johansson

Operations manager

Extensive experience of process development within the chemical industry

NOW RAISING €2M

Use of proceeds:

Accelerate commercialization and secure long-term customer contracts.

Enhance operational efficiency by automating and optimizing processes for large-volume orders.

Expand our team to further strengthen sales, production and product development.

Join us in shaping tomorrow's industries



THANK YOU!



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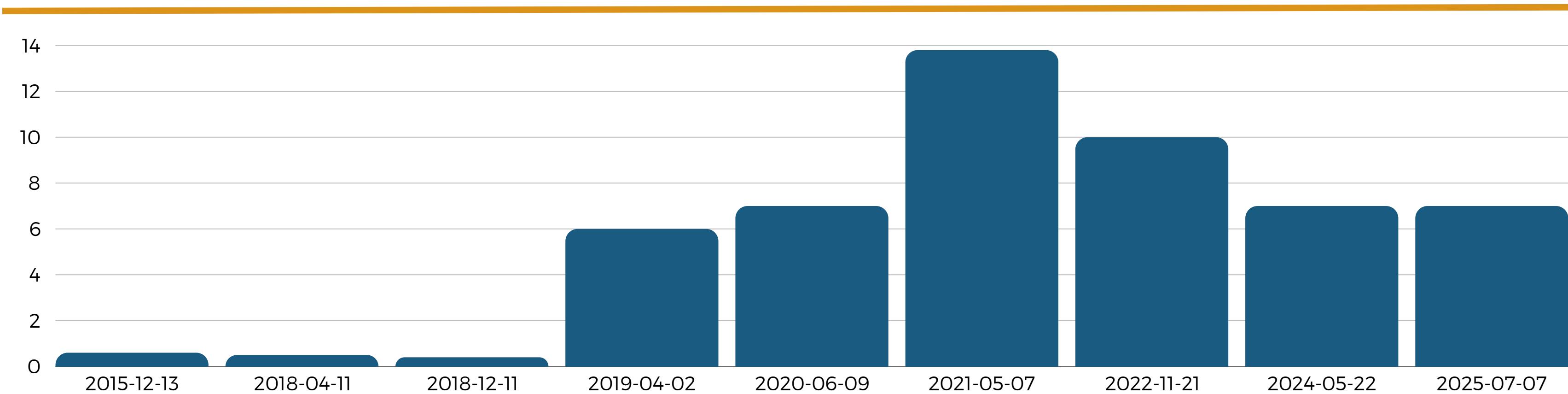
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COMPANY OWNERSHIP

2D fab is an independent Swedish limited company with a diverse ownership structure, including private investors and industrial stakeholders. The 10 largest owners together hold 72.1% of the company:

- Akribi Kemikonsulter AB (Sven Forsberg, Founder) – 24.6%
- Rigel AB (Private) – 10.2%
- Almi Invest Mitt AB (Institutional) – 8.5%
- Fastighets AB Lilium (Private/Industrial) – 6.8%
- Polynom Investment AB (publ) (Institutional) – 5.0%
- Björnberget Invest AB (Private) – 4.9%
- 5J Holding AB (Private) – 4.8%
- Mikael Ölund AB (Private) – 4.0%
- Gerd Margareta Jonsson (Private) – 1.9%
- E14 Invest AB (Institutional/Regional fund) – 1.5%

PREVIOUS ISSUES



Since 2015 we have successfully closed several equity rounds, raising a total of **51.5 MSEK**.

Key milestones include:

2025: 7.0 MSEK raised at 95 SEK/share

2024: 7.1 MSEK raised at 119 SEK/share

2022: 10.1 MSEK raised at 119 SEK/share

2021: 13.8 MSEK raised at 110 SEK/share

2020: 7.0 MSEK raised at 77 SEK/share

2019: 6.0 MSEK raised at 75 SEK/share, valuation 30 MSEK

2018: Major split (100:1) and two rounds, incl. 15.0 MSEK at 4114 SEK/share (valuation 15 MSEK) and 6.0 MSEK at 3002 SEK/share

2015: First external round, 0.6 MSEK at 215 SEK/share