



LayerLogic

Securing the food chain
with **rapid detection** at
the **point of production.**

Trusted by:



CHALMERS
UNIVERSITY OF TECHNOLOGY



VINNOVA
Sveriges innovationsmyndighet

Investors include:

scientifica

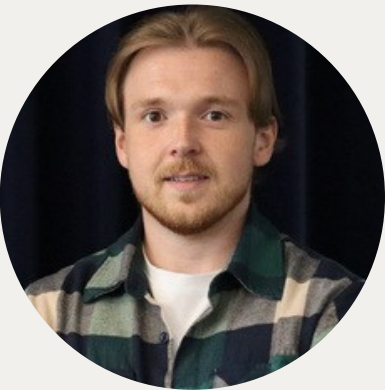
CHALMERS
VENTURES
what if

X&Y Invest

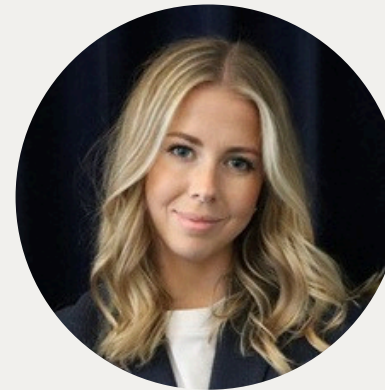
YEOS
VENTURES

Confidential

From science to solution.



André Persson
Chief Executive Officer



Ebba Sandbecker
Chief Commercial Officer



Sebastian Samuelsson
CFO & Product developer



Santosh Pandit
Chief Microbiology researcher



Avgust Yurgens
Professor & Advisor



Munis Khan
Inventor & Advisor



Mohammed Agha
Software engineer



Elnaz Danesh
Chemical engineer



Suzan Gumush
Microbiology Intern

Team experience from, including startups & scaleups:



Did you know?

Contaminated food causes
an estimation of:

550 million

illnesses and...

420 000

deaths globally each year

Source WHO

**It's a huge problem for
the food producers!**

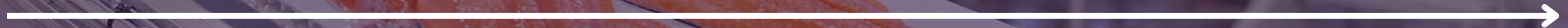
Daniel is our first pilot customer and runs a small
salmon factory on Swedish west coast

**Daniel lost 5 tons of salmon,
worth over €60 000**

In one afternoon because of Listeria outbreak

07:00 –
Start of production

16:00 –
End of production



Slow bacteria testing is one of the biggest challenges in food production, causing waste, costly recalls, and serious health risks.

01

€10 MILLION

Is what a single recall can cost a global food producer.

Grocery Manufacturers Association (GMA)

02

**IN SWEDEN ALONE,
FOODBORNE ILLNESSES
DRAIN €157 MILLION FROM
SOCIETY EACH YEAR**

BMC Public Health

Today's methods leaves the producer with 2 options

Option 1 – Stop



Lost time



Food waste



Missed deliveries

Option 2 – Risk



Risk of recall



Health risk



Lost trust

Today's traditional methods in lab

day 1

day 2

day 3

day 4

day 5+

**Sampling/
swabbing**

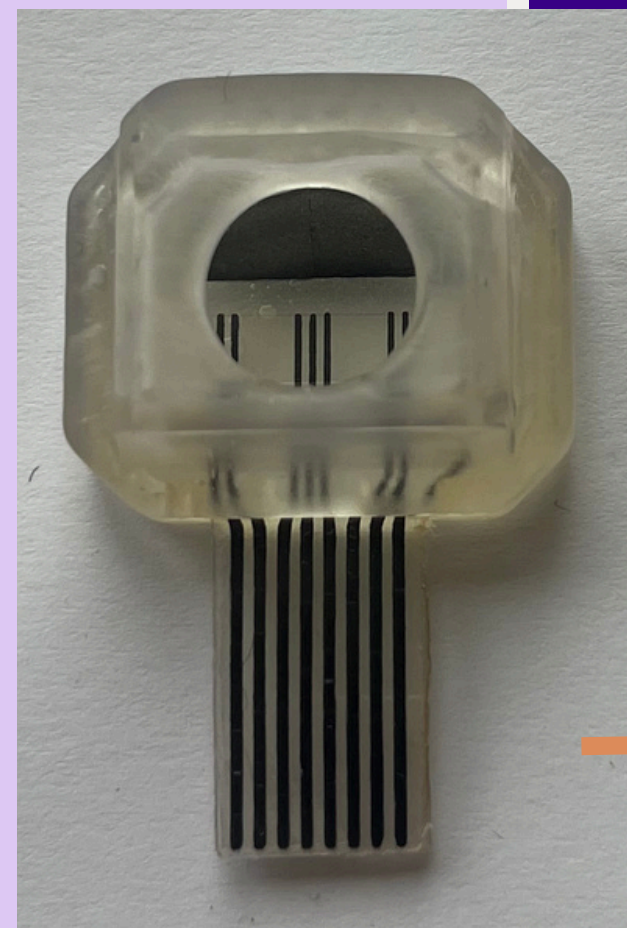
Send to lab

Receive results

Biosensor

This is our breakthrough.

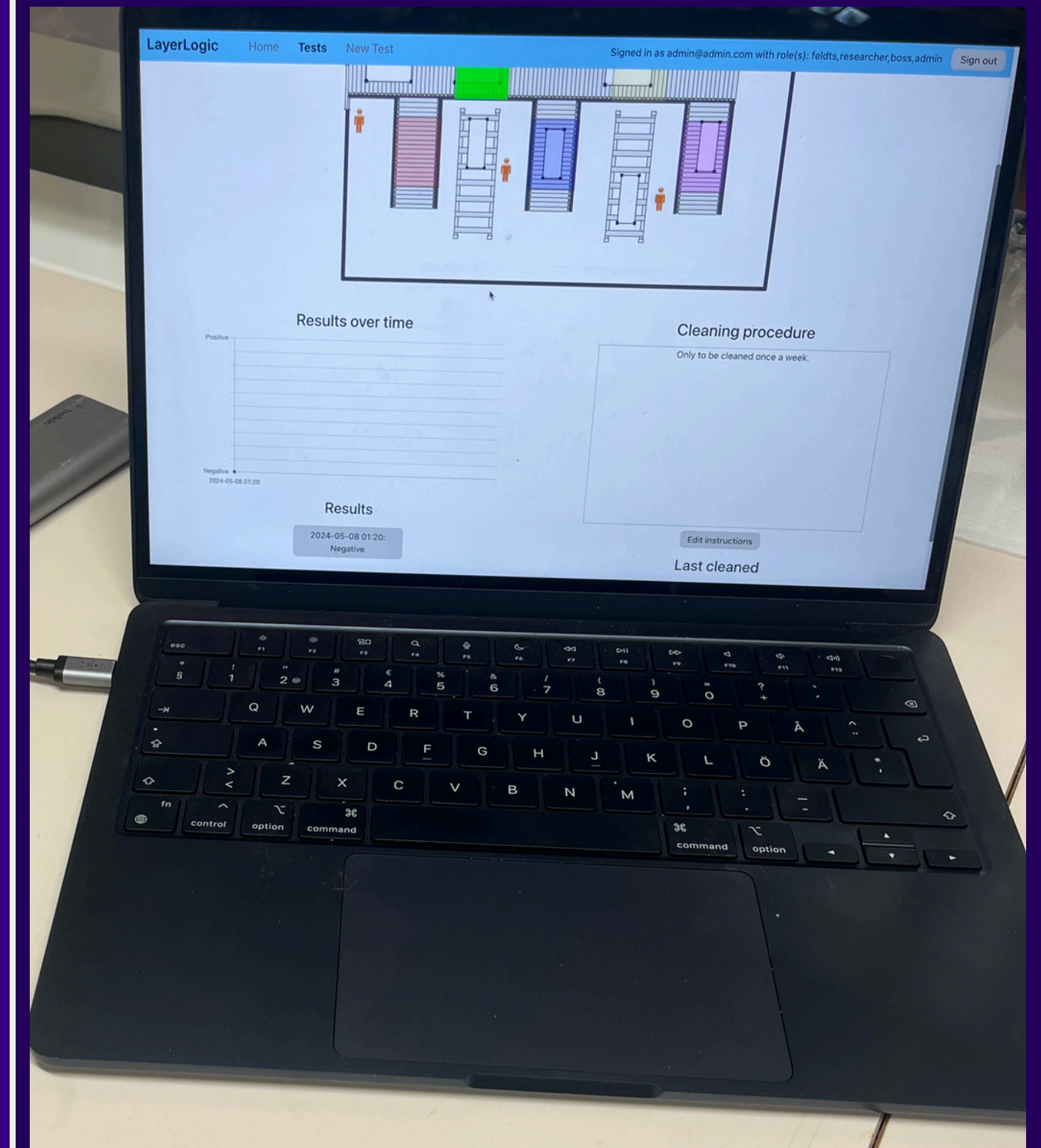
3-5 days becomes 15 minutes



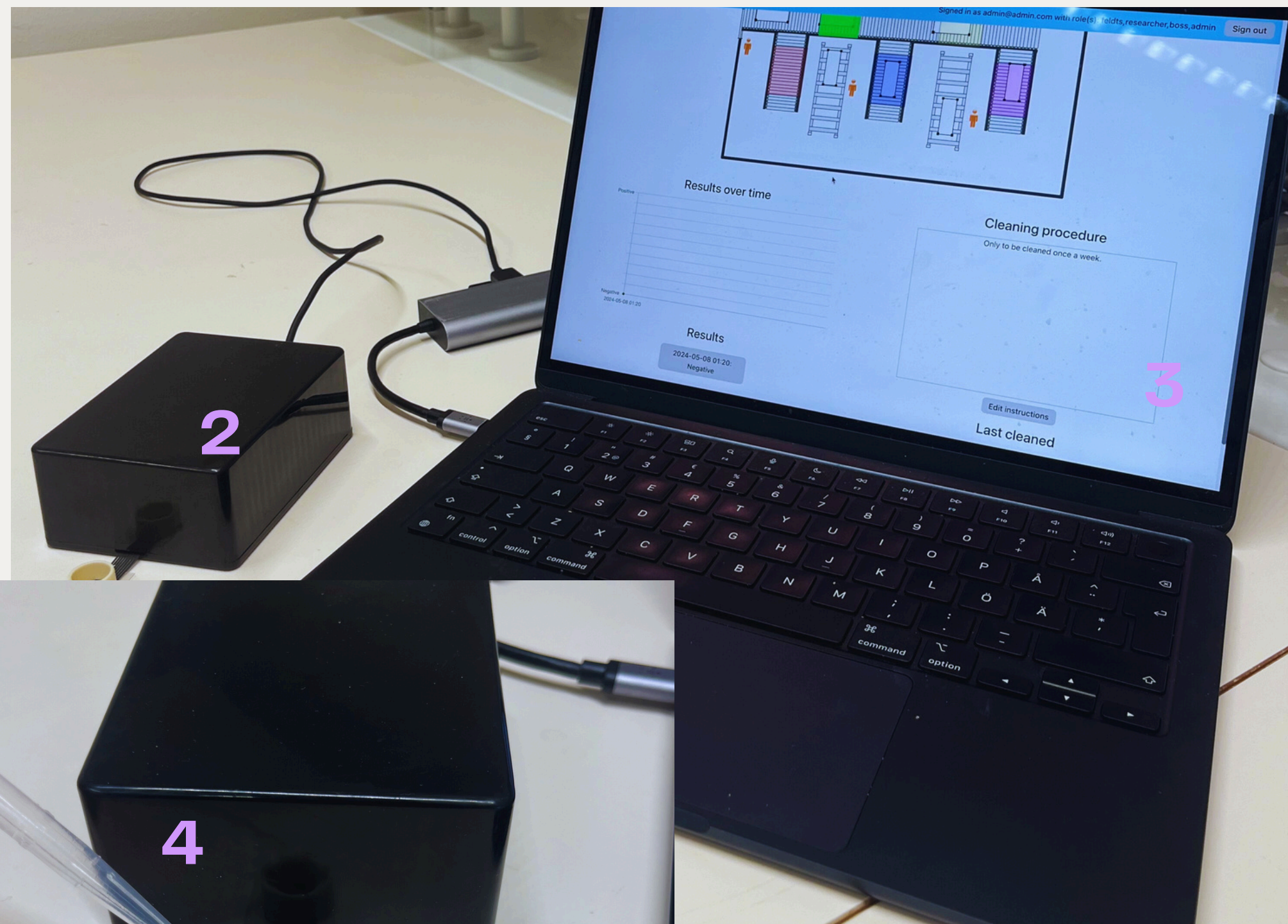
Hardware



Software



The product – how it works



1

Biosensor

The core of our value proposition is the functionalized GFET, the biosensor, which enables detection of bacteria in food production within minutes.

2

Read out electronics

The read out electronics reads the changes in the biosensor, accurately providing the result. The results will then be presented on software on a computer, which the hardware is connected to.

3

Software

The software is essential for being able to do conduct the test and give the customer a fast and reliable answer, as well as stores information.

4

Pipette

The pipette transfers the swab sample to LayerLogic's biosensor for bacterial detection via resistance change. An answer is given within 15 minutes.



from 3–5 days...

**No lab
needed**

300x

faster results than
traditional methods

Easy to use

... to 15 minutes with LayerLogic

What the producer can do with
15 minutes
instead of waiting days...

Storage of 3–5 days is replaced by **same-day delivery.**

Reduced risk of recalls and increased **consumer safety.**

Efficient production through **real-time detection** of bacteria.

Competitors

Target Precision
(Range: general detection to highly targeted tests)

EXTERNAL LAB



ONE SITE TEST

Internal lab needed



ONE SITE TEST

No internal lab needed



NEW TECHNOLOGIES

AI, Optical imaging etc



5+ days

3 days

48 h

24h

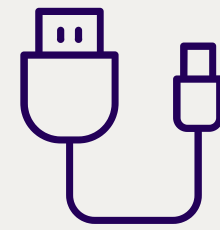
16h

8h

2h

minutes

Razor and blade Business model

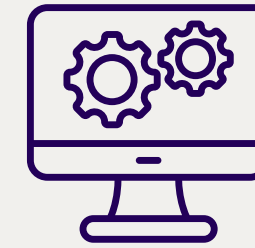


**Buy the
Hardware...**

01

The hardware acts as the entry point to LayerLogic's business model, driving adoption and enabling recurring biosensor sales.

€ 1500/unit



**...subscribe to
the Saas, and...**

02

LayerLogic owns the software and database, enabling data-driven sales, product development, and advanced services.

€ 40-200/month



**...pay for every
test/biosensor
they use.**

03

The single-use biosensor is the main value driver in LayerLogic's business model—both through new customers and increased testing from existing ones.

€50 / test

€20 Billion

Food and pathogen
testing Market size:

€5 Billion

Market size for
microbiological tests for
Salmonella and Listeria

€100 Million

2% of the market
for Listeria and
Salmonella

Ca:
300 millions of tests
done every year



Market

We are building a platform
technology, the food industry
is only the beginning...

#1 market is Listeria

A bacteria naturally occurring in water, soil and contaminated food, particularly in fish, unpasteurized dairy products, deli meats, and raw vegetables.

€20 Billion

Food and pathogen testing Market size:

€5 Billion

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€100 Million

2% of the market for Listeria and Salmonella

Ca:

300 millions of tests done every year



Market

Go-to-market strategy

Paid pilots in the nordics

Focus has been on testing the product in the Nordic market. In 2025 so far, 4 paid pilots have been completed and 100+ sensors sold for Listeria.

Paid pilots in EU

Next step is testing with major food producers in Europe, while continuing to focus on technology development.

Launched product

The goal for 2027, post-launch, is to convert pilot customers across Europe into recurring paying customers.

Scale up

Scale global sales and expand the product portfolio to new markets and pathogens beyond Listeria.

2025



2026



2027



2028 - 2030



Bottom up – business case

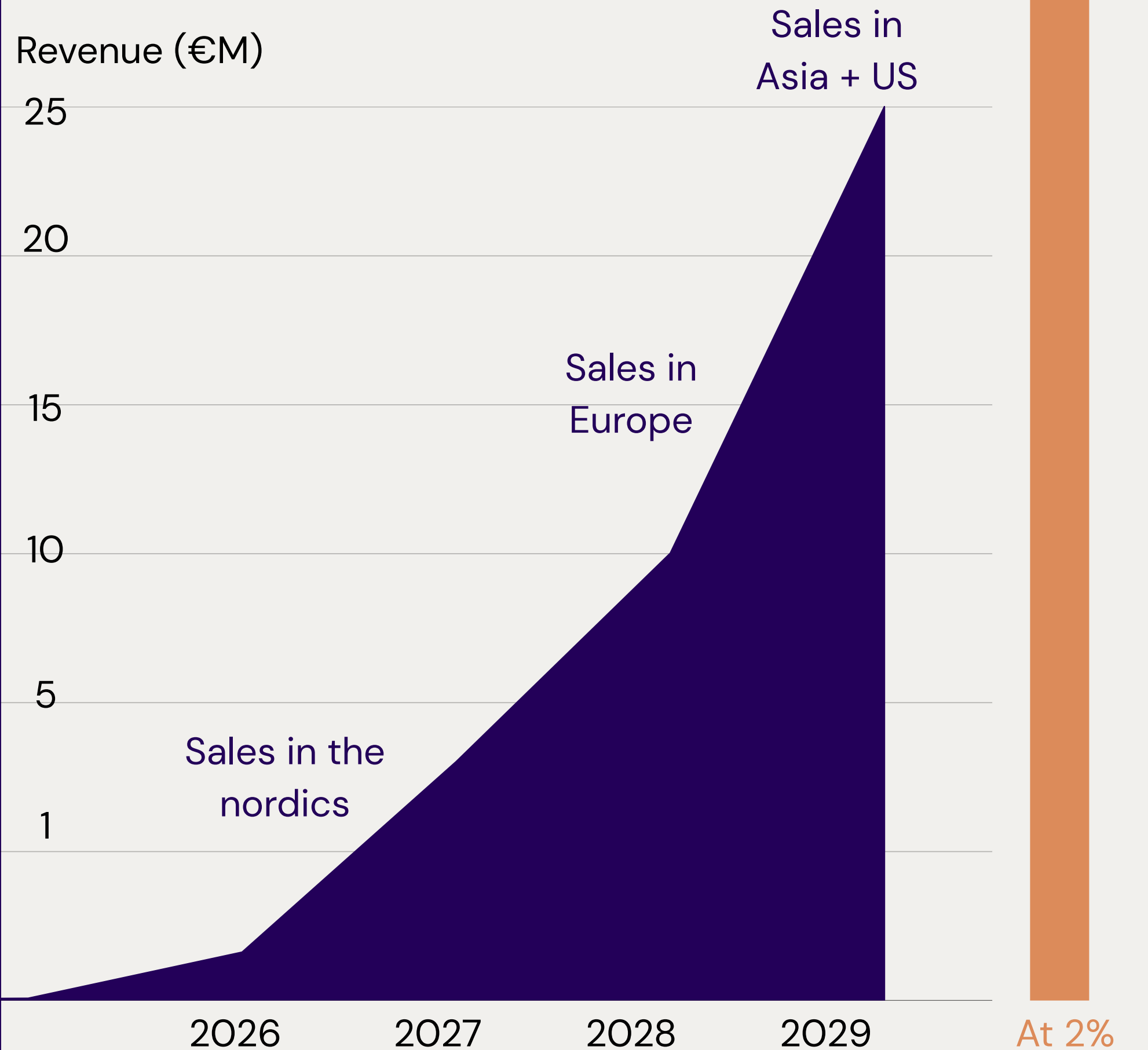
How to reach 2% of the market – using our pilot customer to give an example how one customer can bring revenue

Pilot customer X	
Amount of production sites in Europe	50
Amount of tests/site/year	6000-12000
Cost per sold sensor	€50
Amount of read-out systems / site	5
Cost per sold read-out system	€1500

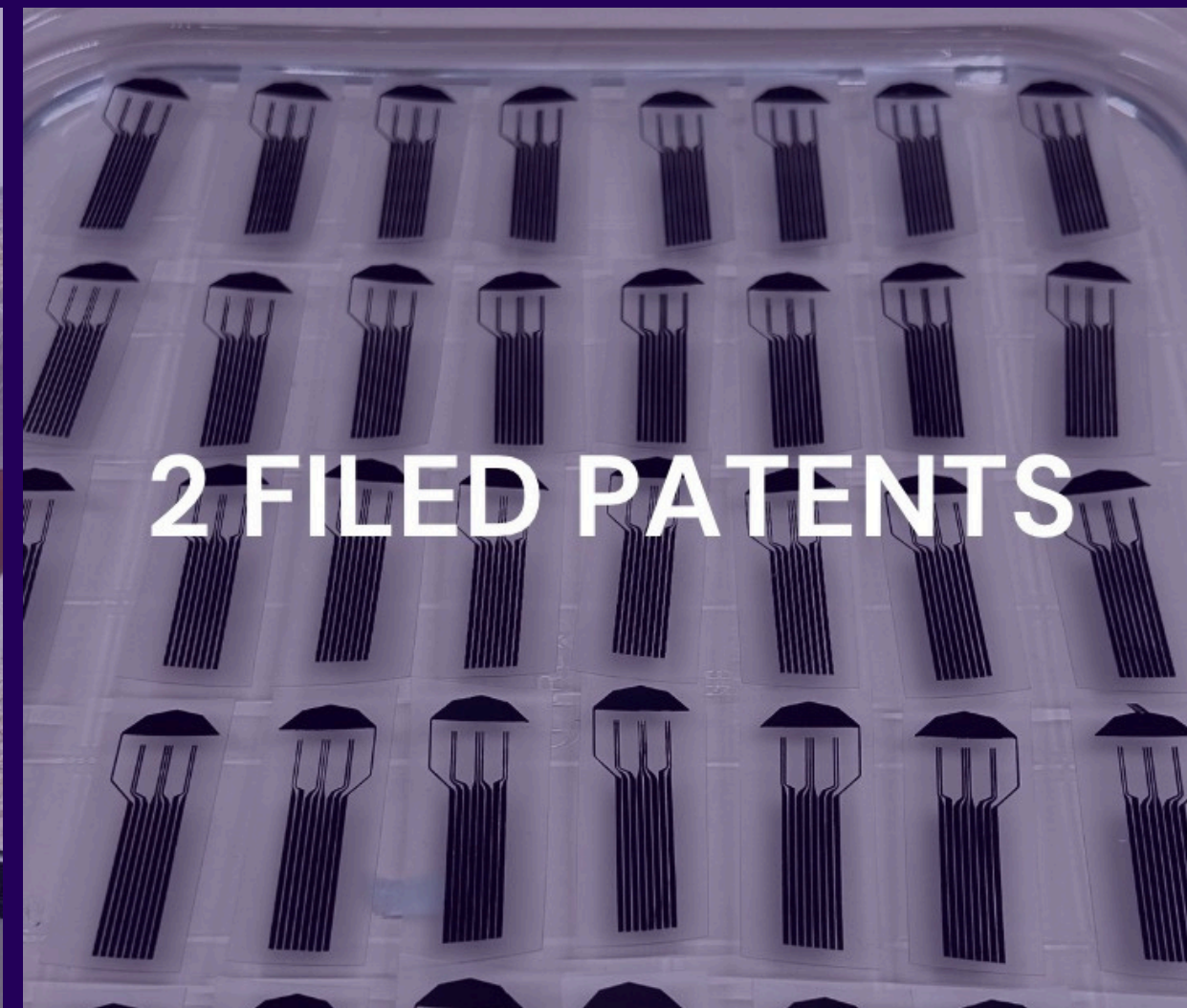
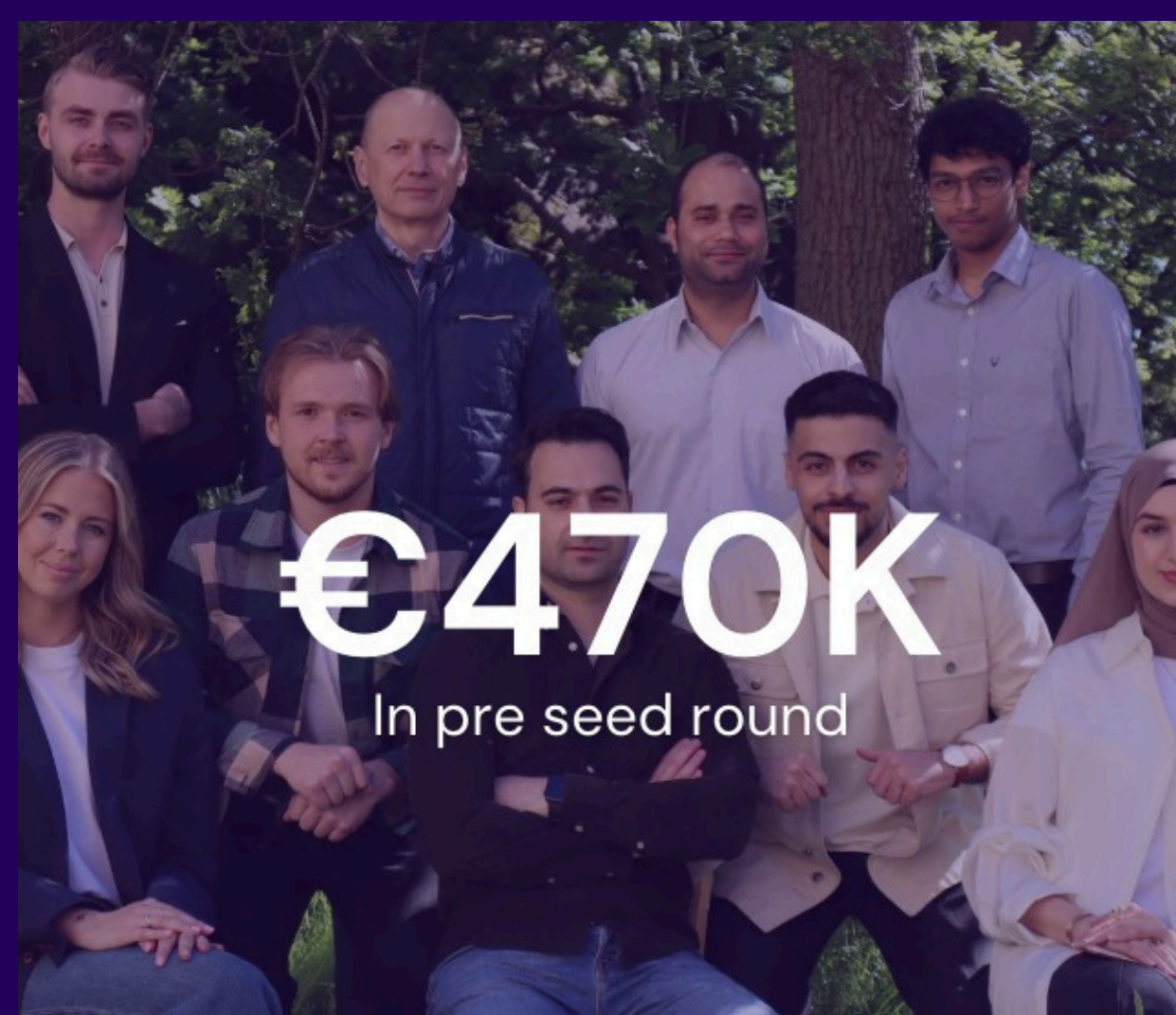
LayerLogic's potential revenue of customer X

Revenue sensors	$6000 \times 50 \times 50$ = 15 000 000 €
Revenue read-out system	$1500 \times 50 = 375\,000$ €
Total Revenue (without software subscription)	15 375 000 €

First goal: 2% of the market for Listeria and Salmonella

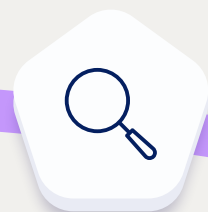


Founded in 2024,
and we've
already made
strong progress!



Whats next?

2025:
Pilot projects & demonstration
on production sites



Next financing
round



2026:
Validation with 3rd part

New customer project secured



2027-2029:
Launch our first product
and scale up

Picadeli[®]

LERØY

**RI
SE**

Research
Institutes
of Sweden

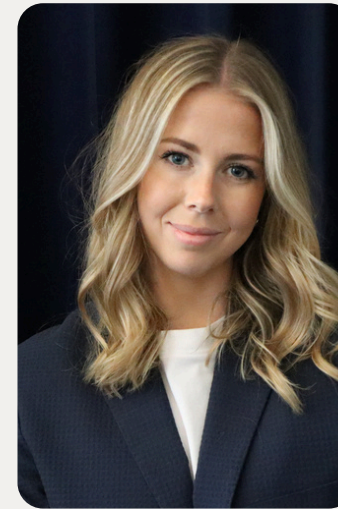
The Organization

A tech startup from Sweden, based in Gothenburg—a mix of researchers who are experts in their field and ambitious entrepreneurs, all working to revolutionize bacterial detection in the food industry.



André Persson
Chief Executive Officer

Background in Mechanical Engineering and former Production Engineer, with broad startup/SME experience in roles such as Market Analyst, Headhunter, Data Analyst, and Product Developer.



Ebba Sandbecker
Chief Commercial Officer

Background in Industrial Management & Production Engineering, with experience in supply chain, order management, and startup roles involving market analysis, project management, and CE certification.



Sebastian Samuelsson
CFO & Product developer

Background in Industrial Engineering and Management, with experience as Deputy CEO of an employer branding firm, and roles in material planning, project management, auditing, and operations.

Researcher team



Santosh Pandit
Chief Microbiology researcher

Santosh is a senior researcher, microbiologist, and biomedical analyst specializing in bacterial biofilms, diagnostic devices, and antimicrobial coatings for detecting bacterial pathogens.



Avgust Yurgens
Professor & Advisor

Prof. Avgust Yurgens is an expert in graphene science and technology, working in the field of two-dimensional materials for nearly 30 years. Inventor of the patents.



Munis Khan
Inventor and advisor

Inventor of the patents, holds a PhD and a Master's in Solid State Physics, with experience as a process engineer in nanofabrication for photonic and AR/VR devices.

Development team



Mohammed Agha
Software engineer

Background in Computer Science and is currently pursuing a Master's degree in Software Engineering at Chalmers University of Technology. With over 3 years of experience in software development,



Elnaz
Chemical engineer

Background in Chemical Engineering with hands-on experience in water treatment processes and surface functionalization techniques. Will focus on optimizing and advancing the functionalization of the GFET sensor to enhance its sensitivity and reliability.



Suzan Gumush
Microbiology Intern

Background in biomedical research, currently pursuing a Master's in Molecular Biology at the University of Gothenburg. Passionate about applying her experience in immunology, cell biology, and microbiology to innovative biotech and medical solutions.

Management team

Scientific Advisor