



# NEXT BIOMETRICS GROUP

Capital Markets Day February 14, 2024



[nextbiometrics.com](http://nextbiometrics.com)

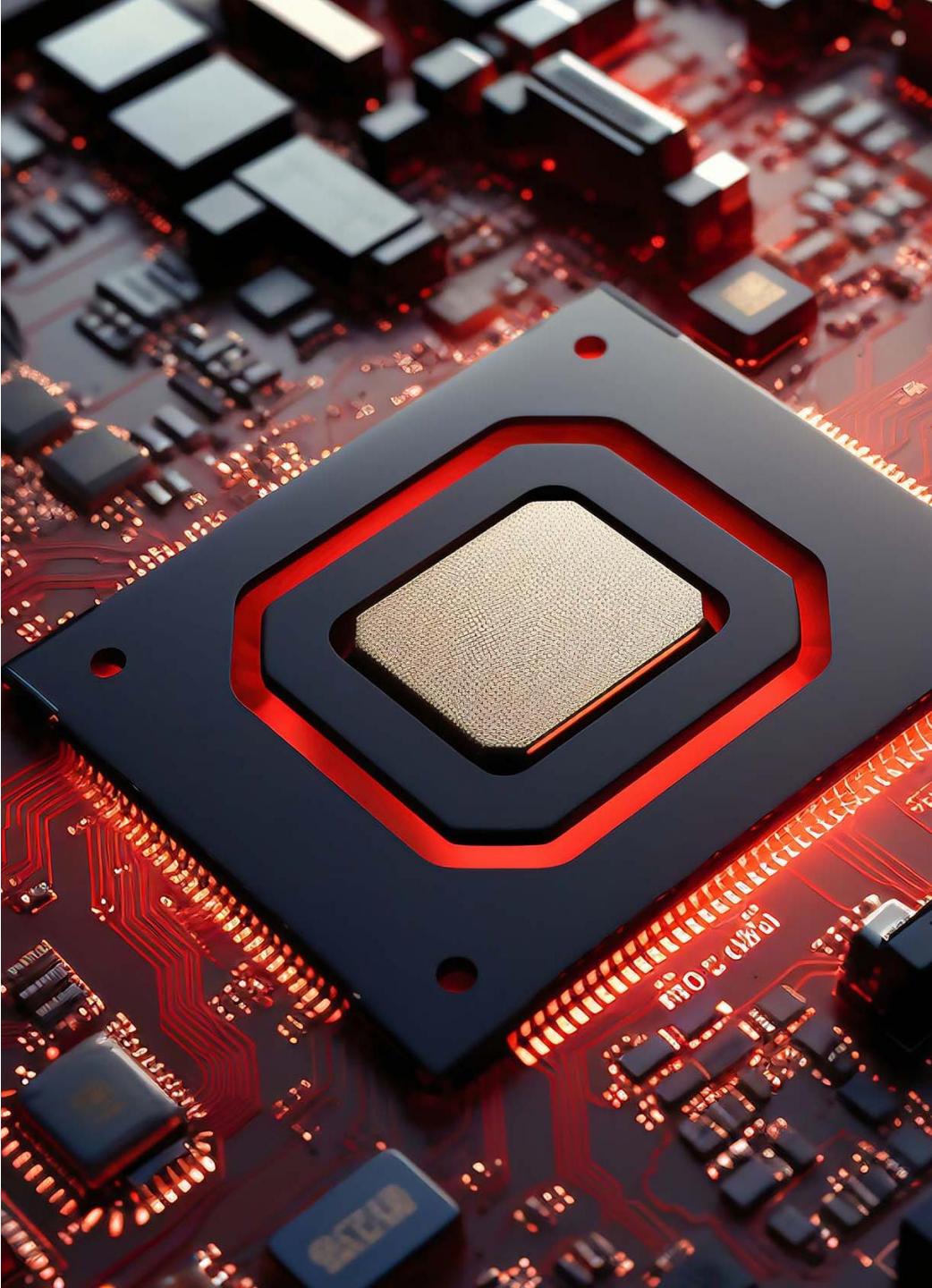
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# Agenda

- 11:30 Opening Remarks
- Company Overview and Outlook
- 12:00 LUNCH
- Product Technology and Product Innovation Roadmap
- Market Trends and Industry Analysis
- Biometric market in India and China
- Closing Remarks and Q&A



# World leader in Advanced, Large-Area Fingerprint Sensor Technology



# Today's speakers – Management team



**Ulf Ritsvall**  
CEO

25+ years' experience from executive positions in the biometrics and telecom industry



**Eirik Underthun**  
CFO

25+ years' finance experience from technology, oil services and consulting



**Marcus Lauren**  
CPO

25+ years' product and project management experience from Ericsson, IKEA and biometrics company Fingerprint Cards



**Digvijay Singh Kanwar**  
SVP, Head of Sales IUEA

17+ years' of sales and business development experience in the Biometrics, FinTech, and Telecom sectors



**Joshua Chiu**  
SVP, Head of Sales South-East Asia

20+ years' of sales experience from biometrics, semiconductor and panel industry

# Mission and Vision

## **Vision**

Provide the best biometric technology protecting data, information and people in a digital society

## **Mission**

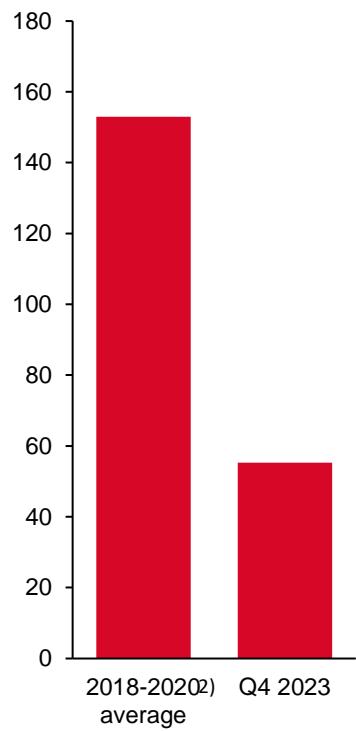
We provide advanced fingerprint sensor technology with uncompromised security enabling user-friendly authentication and access to systems, information and resources

# Scale-up phase: Growth and profitability

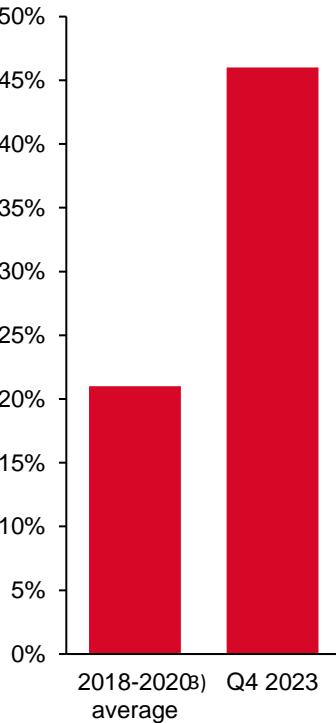


# Financial progress

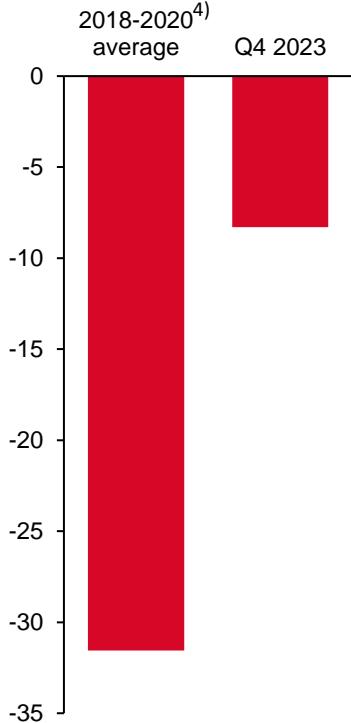
LTM OPEX<sup>1)</sup>



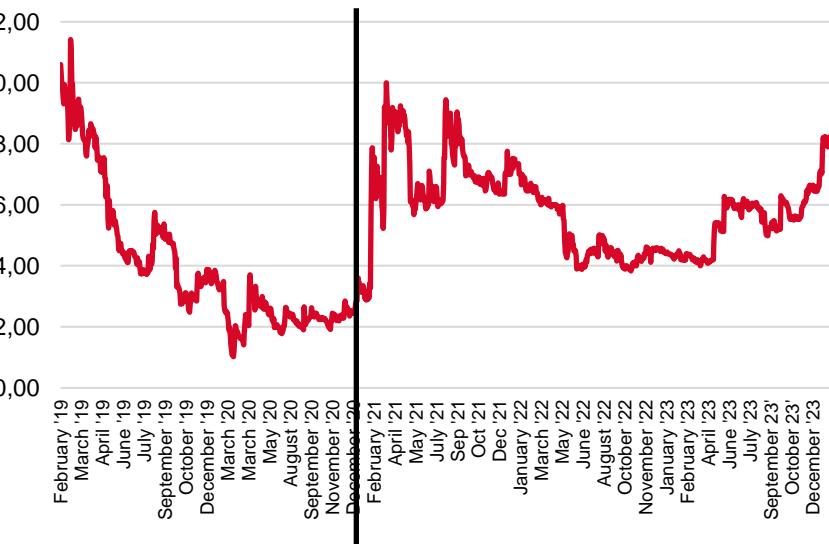
Gross margin (%)



Adjusted EBITDA<sup>5)</sup> per quarter (MNOK)



NEXT Biometrics share price (NOK)



1) Last twelve-month OPEX

2) 2018-2020 last twelve months OPEX (average per quarter)

3) 2018-2020 average gross margin (quarterly basis)

4) 2018-2020 average Adjusted EBITDA per quarter

5) EBITDA excluding option costs and inventory write downs

# Favorable Market dynamics

- Continued double-digit growing biometric markets
- Dominated by a few giants and many mid-sized players
- Multiple complementing and competing biometric modalities - IRIS and Fingerprints mainly used for high-end market
- Global trend towards higher security needs with increased security budget
- High-end market: Alternative technology available at higher cost (optical and IRIS)
- Higher retention than in consumer electronics



# Current status and outlook

- Q4 scorecard:
  - Quarterly revenue growing, still EBITDA negative
  - Gross margins increasing, OPEX on track
- Outlook:
  - India is ramping up, China ramping up during Q1 2024
  - Continuation of adding design wins to the sales funnel
  - Adding high gross margin customers
  - Expecting break-even in Q2 2024 and EBITDA<sup>1)</sup> positive during 2024



1) Adjusted EBITDA

# Strategic direction

- To enter high-end market with partners and direct sales in key markets
- Revenue runway from established business in India, China, and other design wins in rest of the world
- Additional revenue growth from
  - Expanding in other biometric modalities
  - Expanding with new business models
  - Expanding in new market segments

NEXT Biometrics - Ready to expand



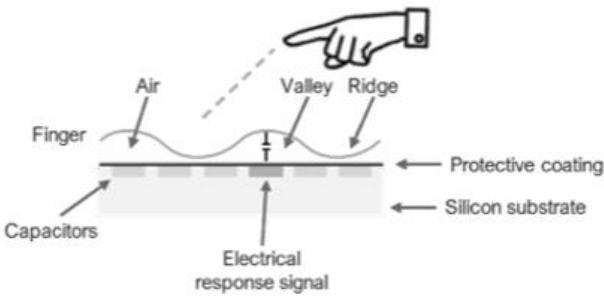


Pause in presentation. We will return shortly.

A photograph of a modern residential street at night. The houses are illuminated from within, showing warm light through the windows. The street is wet, reflecting the lights. A complex network of white lines and dots is overlaid on the image, representing a digital or technological connection, stretching across the sky and across the houses.

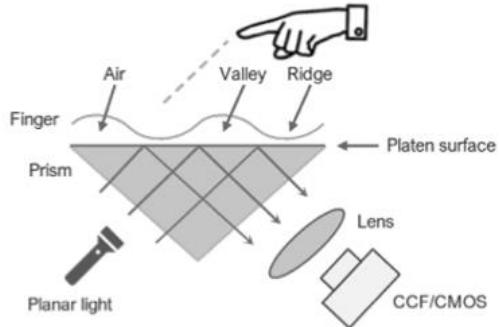
# Product Technology & Product Innovation Roadmap

# Technology comparison



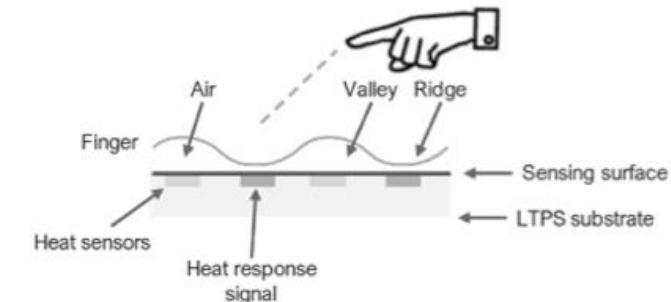
## Capacitive

- Cost effective for smaller sizes
- Total Cost increases significantly with size
- Small size typically disqualified for high end applications (e.g. FBI standards with minutiae points)
- High competition market, with low margins



## Optical

- Tends to be big and bulky
- Different cost structure, since the camera quality drives the cost, more than the glass area
- Often seen in border control devices
- Typically, in high margin - low volume markets

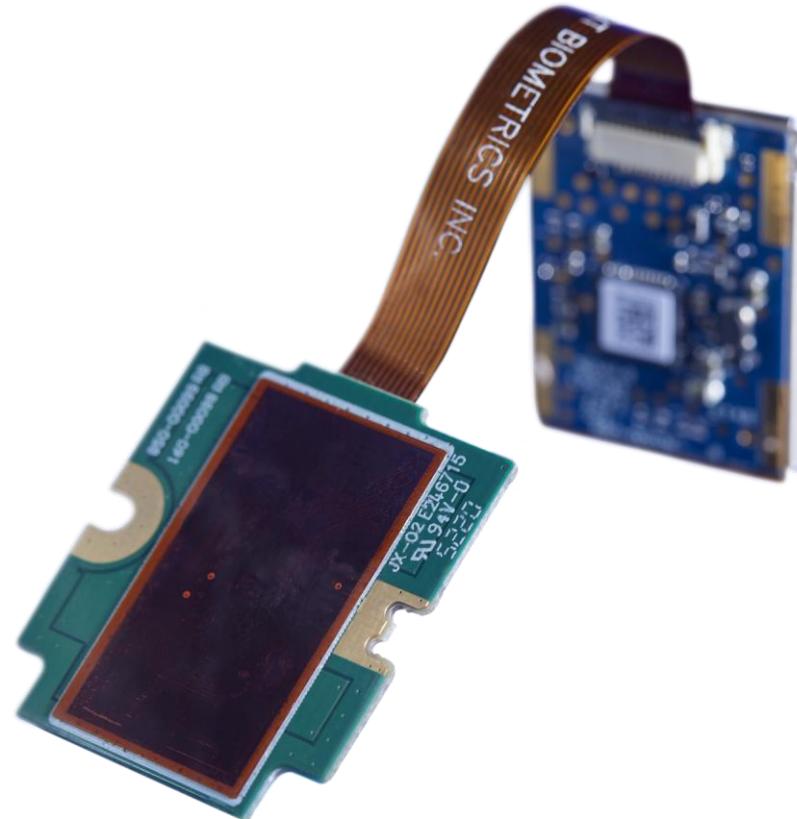
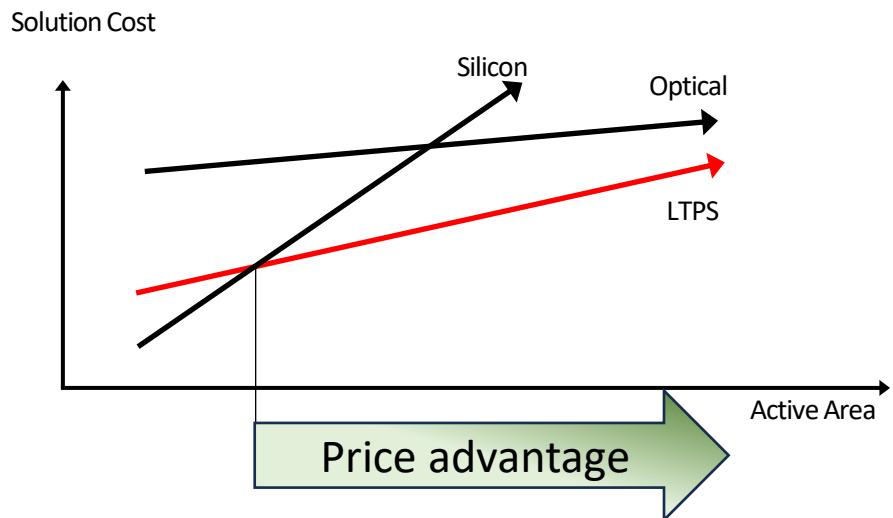


## Active Thermal

- Unique technology
- Disruptive price points for customers, compared to optical sensors
- Cost efficient for medium and large size sensors
- High margin - mid volume and high margin - low volume

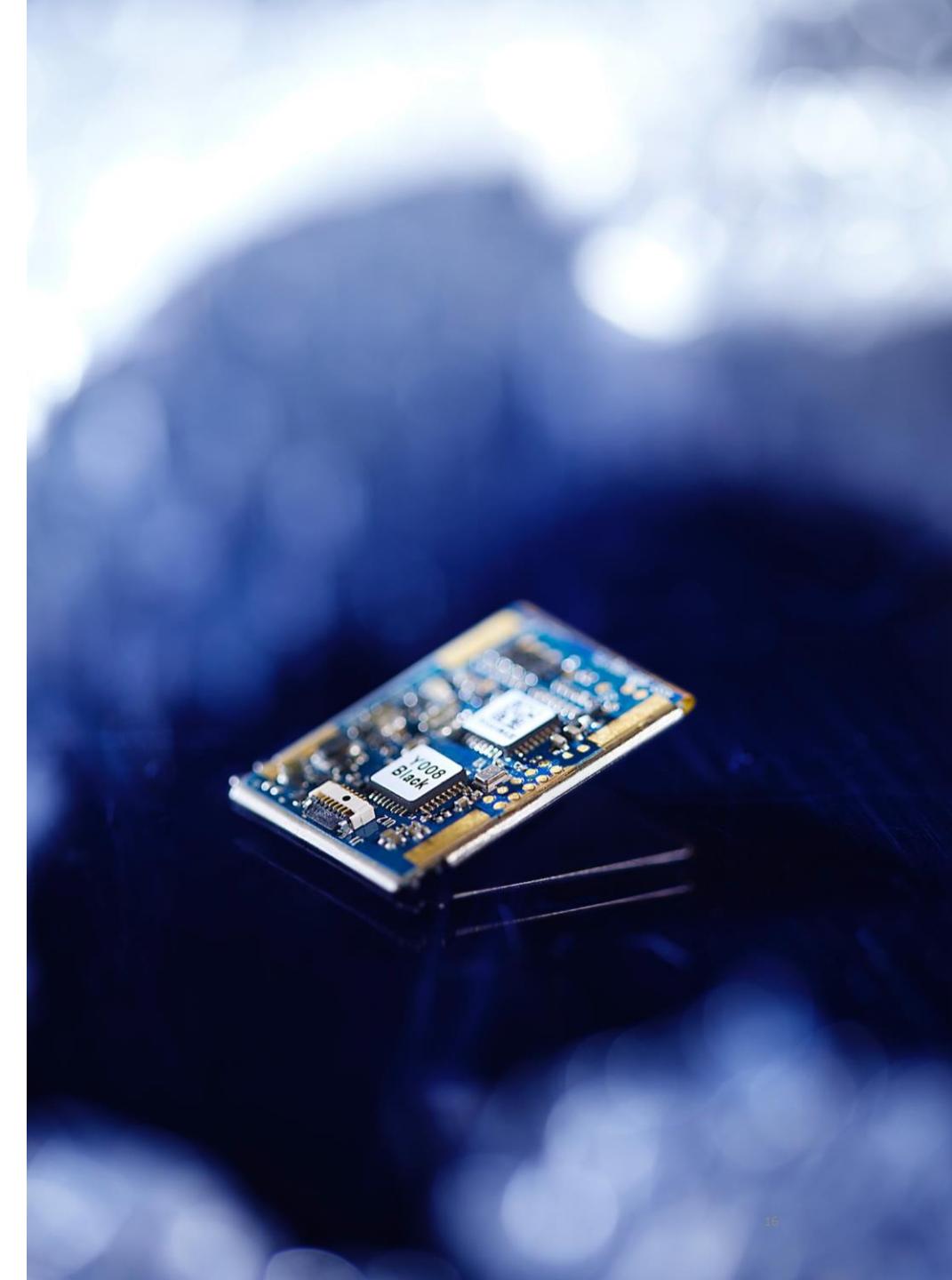
# Cost related to size

- Price grows with size (more materiel), this is valid for basically all technologies
- But different technologies - grows differently
- Sensor materiel cost, passive components, PCB, manufacturing costs, yield etc.



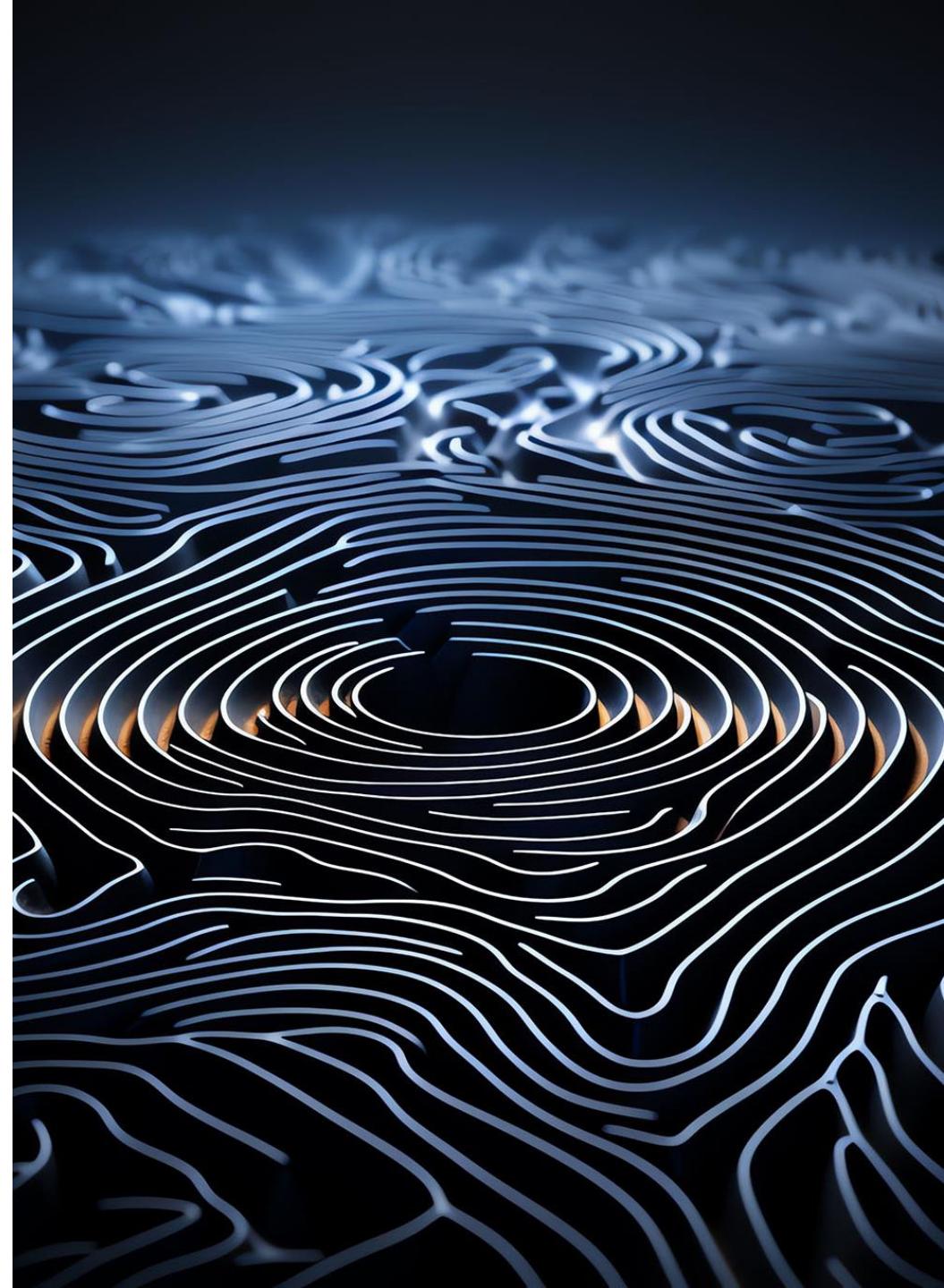
# Advantages of NEXT Active Thermal

- Wet fingers
  - Active Thermal can handle even soaked finger
- Sun-light
  - Active Thermal is not affected by sunlight
- Liveness
  - Different materials act differently, and we look for human finger behaviour
- Anti spoofing
  - High resolution picture of the fingerprint in 3D
  - Detection of the picture to be 3D as a real finger and not a 2D print
  - Algorithms to sort out real fingers from advanced spoofs
  - Different options to add additional security in the Software, like machine learning (aka AI) to further enhance security
- Low power consumption
  - Enables battery driven devices



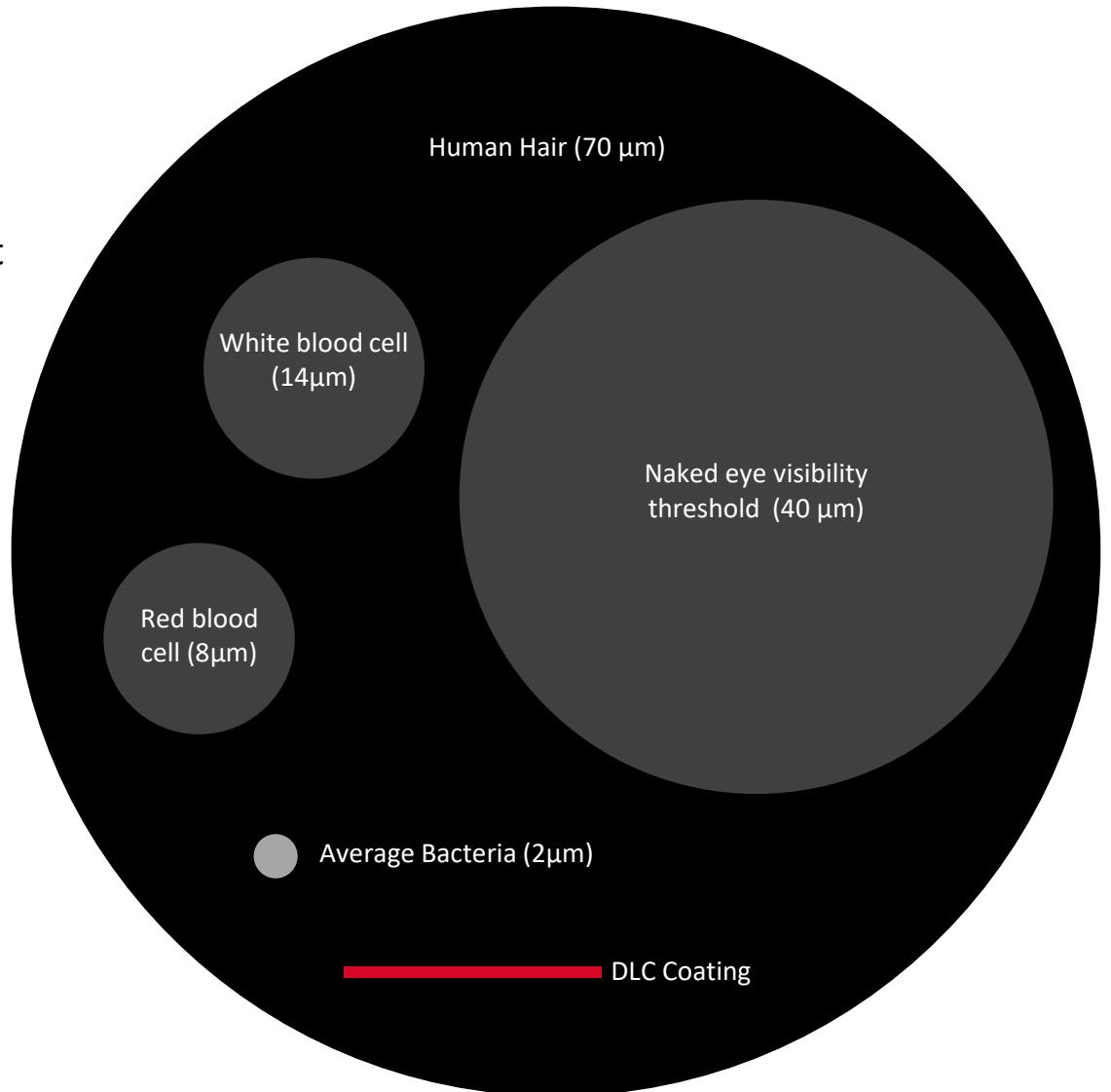
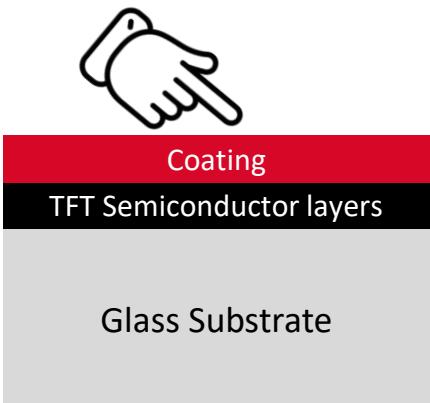
# NEXT Active Thermal sensor technology

- The active area is covered with “pixels”
- The more pixels per inch, the better picture
- We have 500dpi (almost 20 pixels per mm)
- In each pixel, there is a tiny sensor to measure thermal activity
- Different materials conduct heat differently
- Skin contact (ridge) and non-skin contact (valley) makes big difference
- The sensors measure the differences
- The data from the sensors is collected and the picture takes form



# Unique protection

- Our sensors are made of a thin layer of semiconductors, to measure your finger
- You want to get close to the finger, to get the best measurement (image)
- Protect the layer of semiconductors
- Unique way, using combinations of different materials for protecting coating
- One of materials is DLC (Diamond Like Carbon), where structure of the carbon is ordered in a diamond like way.
- Just to visualize the thickness, in the image to the right, see the size comparison with a human hair



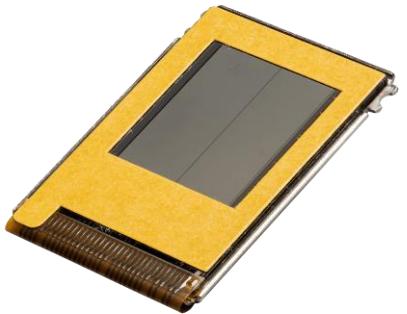
# Product Line-up

Access 100



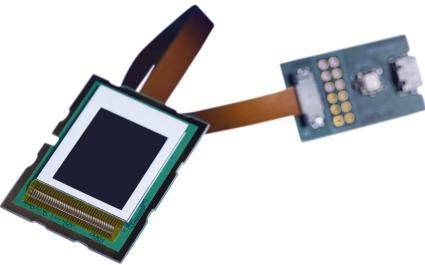
Access 100 Sensor features a large 12×17 mm active sensing area for fast, convenient fingerprint enrolment and authentication

Access 200



Access 200 Sensor features a high-quality 12×12 mm active sensing area for good image quality at low biometric error rates in small-footprint devices.

Access 300



ACCESS 300 Sensor (FAP20) has been specifically designed (15x20mm) to meet highest security standards such as PIV and meets the tough requirements from FBI

Oyster III



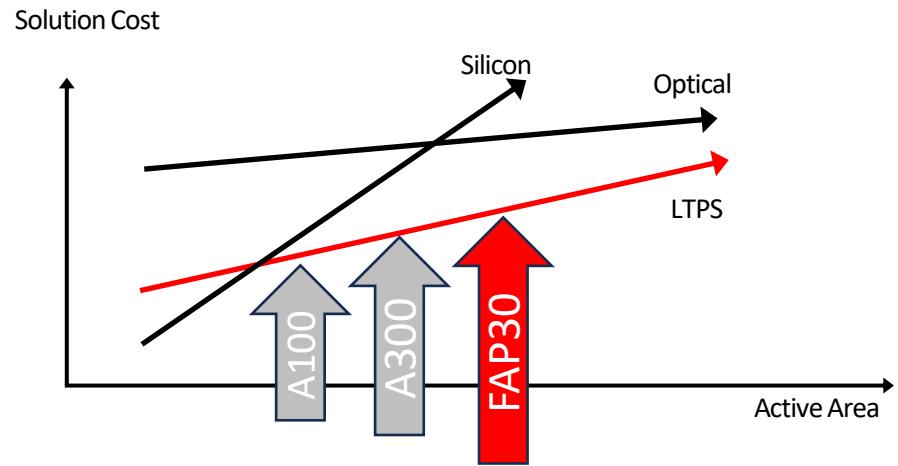
The Oyster III reader takes Next Biometrics' range of highly accurate and convenient fingerprint sensor solutions to an even higher level of security.

# Certifications

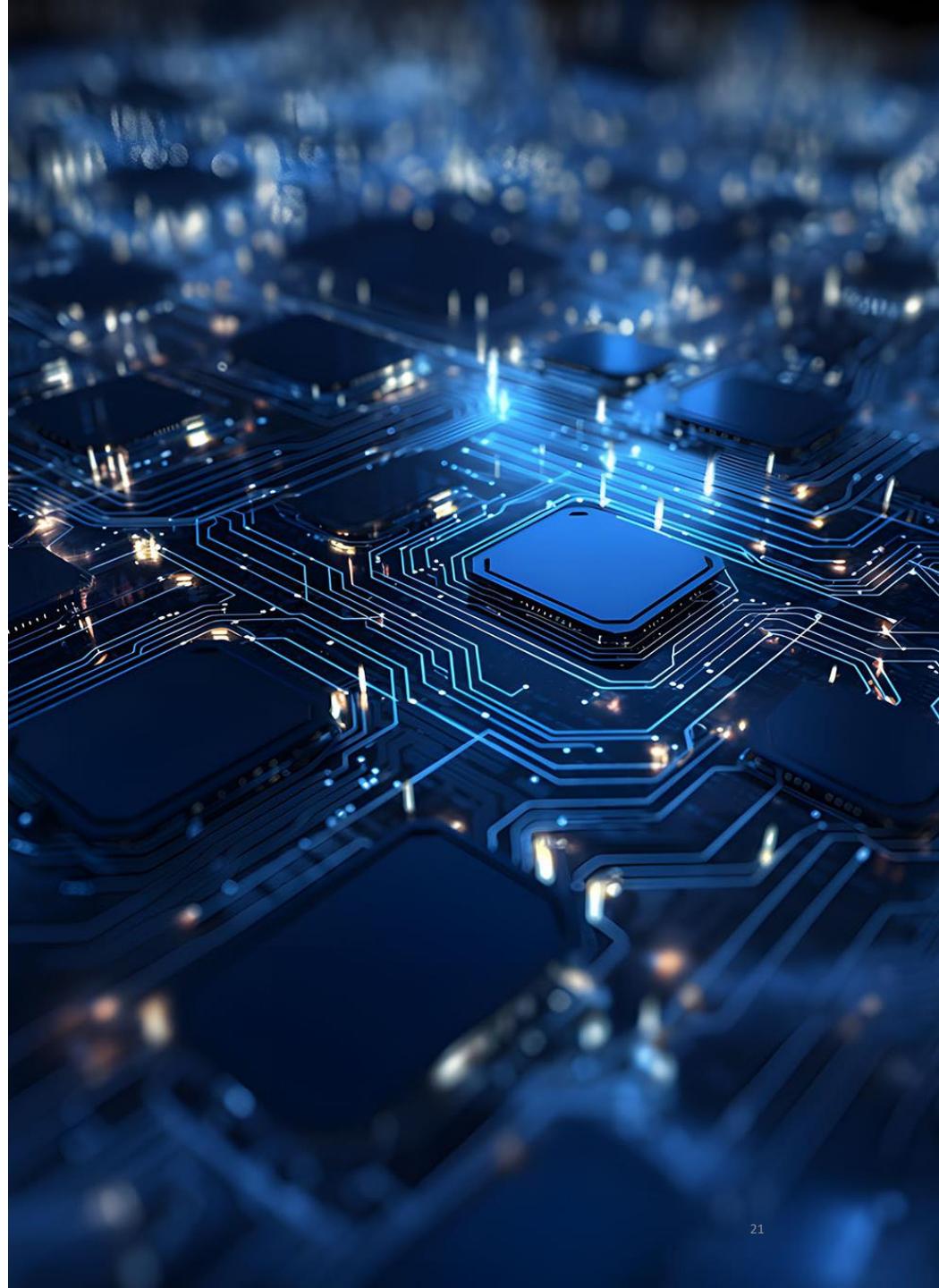
- L0 and L1 for Aadhaar in India
- PIV certified for FBI
- NIBSS (Nigeria Inter-Bank Settlement System)
- Our latest certificate is ChinalD, a certificate that is granted for products that fulfil the tough requirements to only allow the best products for sensitive applications
- Banking and Governmental applications often has a ChinalD certificate as a hard requirement
- This opens up a new tangible market for us in China
- Already now, we have secured an order for ChinalD



# Product development



- Natural to step to add a new size to the portfolio
- FAP30 is a standardized size
- FAP30 has an existing market, where Customers are used to costly devices
  
- Active Thermal™ will be very price - competitive
- Active Thermal™ will also allow for high margins

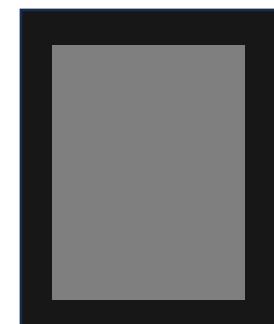


# Product development: FAP30

- Project economics NEXT FAP30:
  - Development cost is already included in 2024 OPEX cost guiding
  - NEXT's prospective FAP30 product has gathered strong interest from partners as NEXT can offer sensor at very competitive price
  - FAP30 products are more high-end than FAP20; higher prices and better margins
- High-end product:
  - FAP30 is addressing customer with higher demand of security and quality
  - Bigger size – higher security, but also higher price



Total area: +50%

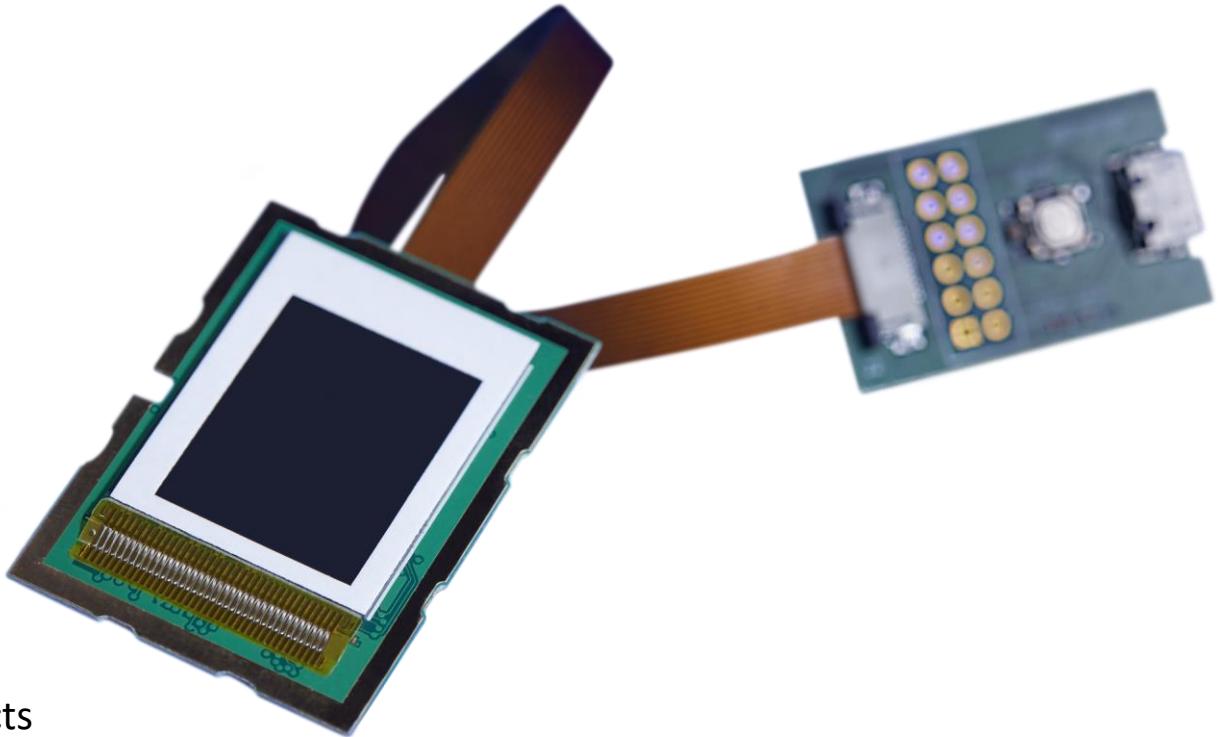


Active area: +67%

FAP30 is about 67% (2/3) bigger than FAP20, but only uses 50% more surface material

# Technology summary

- Disruptive Sensor Technology and coating
- Cost competitive
- Mature manufacturing
- Big size (Secure)
- Liveness
- Major certificates
- Well positioned, with sought - after products
- New Customers, on both existing and upcoming products





# Market Trends and Industry Analysis

# Market trends

- Rapid Growth due to growing security threats
- Logical Access and Governmental
- Multimodal Biometrics
- Biometrics in Financial Services
- Contactless Biometrics

## Fingerprint Sensor Market



# Market Segments



Public Security



Payment & Fintech



Access Control



Office & Notebook

# Tailored to a wide range of use cases

NEXT's FAP20 sensor is used in a variety of applications



## Public Security

Government ID

- Very High Security Level
- Liveness detection
- Dry/Wet/aged fingers support

## Payment & Fintech

Point of Sales (POS) terminals and digital wallets

- High Security Level
- Dry/Wet/aged fingers support
- Flexible on design
- Cost efficiency for large size
- Low power consumption for handhelds

## Access Control

Door locks, logical access devices and more.

- High Security Level
- Dry/Wet/aged fingers support
- Waterproof with high IP Level
- Immune to Sunlight

## Office & Notebook

Laptops, PC, mice and more

- High Security Level
- Dry/Wet/aged fingers support
- Sleek & elegant surface



Pause in presentation. We will return shortly.

China

# China is now the key biometric market in the world

## Importance of China

### Demographics and biometrics

- 1.4 bn people
- Biometrics everywhere:
  - Government ID
  - Everyday life
- All overseas customers outsourced their manufacturing to China

### Policy & Economy

- Stable biometrics demand growth despite local economic downturn
- Increasing high-end biometrics needs (liveness detection)
- Embracing new applications of biometrics

### The future

- Increasing NEXT traction in large attractive market
- China is leader in biometrics today, all China-based companies have a global agenda

# NEXT is progressing in China

## NEXT China status

### NEXT marketing and product development

- Market: Identified the right market for NEXT being live verification and large sized sensors
- Prioritized product development for ChinalD customers

### NEXT progress on key milestones

- Certificate: NEXT awarded ChinalD certificate after two years of hard work
- Focused China market entry strategy focusing on niche markets has resulted in multiple large contracts and partnerships with long-term revenue upside

### NEXT progress in China

- NEXT now in partnership with the most experienced partner in the industry (Asia distributor)
- NEXT selectively engaging deeper in the value chain (New business model with higher margins)

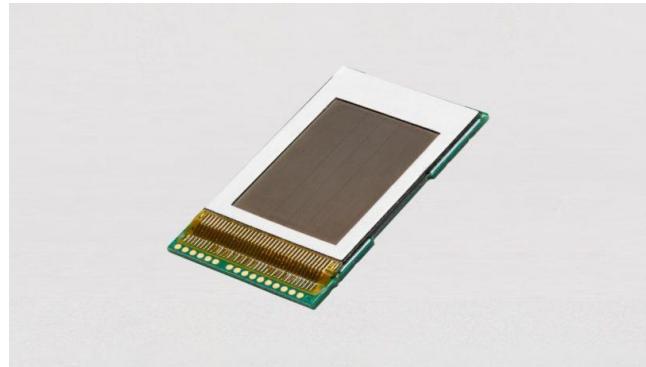
# NEXT focus on high security market

Core strength – Unique technology Active Thermal™ differentiates NEXT from competitors. Live finger verification & large-area as mandatory for high-security

## NEXT: Large-area sensor

High-secure market (ID, banking, etc)  
Few vendors

High price level  
Addressable market: 5-10M units



## Competitors: Small-area sensor

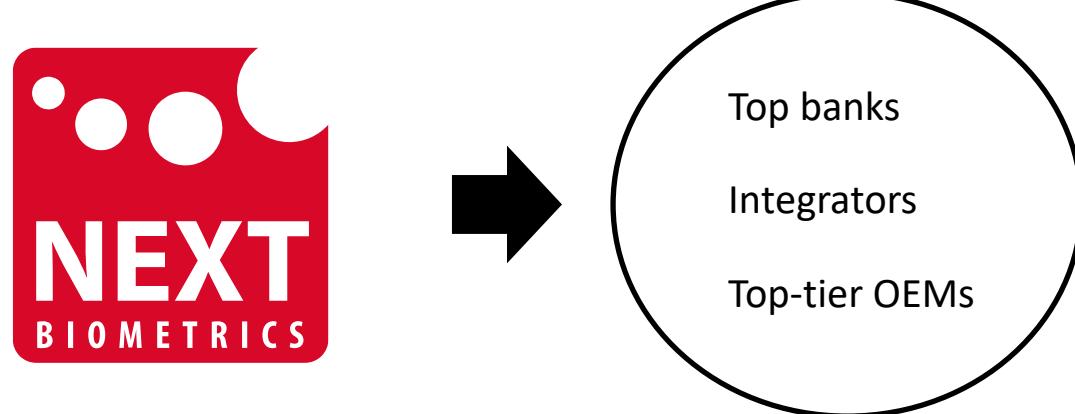
Consumer market (mobile, smart card, etc)  
fierce competition

Low price level  
Addressable market: 1B units



# NEXT market-entry strategy focusing on top distributors and direct sales to market niche players

Besides traditional distributorship model, NEXT has expanded its business to a direct-sales model, that we work directly with top-tier OEMs & Partners, and become a preferred supplier in the ecosystem and actively involved in major projects from end users (bank/healthcare/etc.)



Access to major ongoing projects

Partnership with key ecosystem players

Brand recognition in the ecosystem

Cost-efficient supply chain

# NEXT focusing on niche segments with high security needs

- Unique high-security technology & product – identified niche markets in China
- NEXT have products with high gross margin in less competitive market

Niche segments with  
attractive margin for NEXT's large-area sensor

Banking & Fintech



MoU with top OEMs

Social Security



Strategic partnership with the dominant player

Medical Insurance



Strategic partnership with the dominant player

Access/border-Control



Cooperation with the tier 1 vendor

# Partnership with Biometric solution provider

- Signed exclusive partner agreement with largest biometrics solution provider in healthcare and medical segment in China
- The Partner to promote NEXT live-finger verification to Ministry of Healthcare as a national standard
- Exclusivity, will exchange all FPS to NEXT (starting Q2)

## Why NEXT?

- Unique technology with live finger verification, cost competitive
- Large sensor
- Exclusive - Swap optical to NEXT

## Who is the Partner and how is the issuance working?

- Beijing based biometric solution provider, strong market position in healthcare industry
- Work with province-level bureaus to set up fingerprint database and verification system

## Revenue potential

- Medical Insurance – 6 million+ device to be implemented in hospital and pharma stores
- Retired Military Staff ID – 48 million+ retired staff to be verified every year to receive monthly allowance

# Execution of Market Strategy

## Phase 1: Obtain certification & partnerships

- Certification & Integration
- Product & team support
- Key partnership
- Algo-partners
- OEM clients

## Phase 2: Build-up references & high-level business development, sale ramp-up

- Supplying references with top-tier OEMs
- Bank/healthcare project references;

## Phase 3: Win top-tier banks/gov & scale up sales & sustain in China

- Qualified by top-tier banks
- Long-term vendor for major OEMs
- High-level BD

2023:  
Done

2024 Q1:  
Ongoing Breakthrough

2024 Q2-Q3:  
Sales ramp-up

# China set for growth

## 2023 Highlights

- Secured contracts estimated value NOK 130 – 270 million over 3 years
- Got the first stocking order for ChinalD market
- MoU with major customers in banking industry
- Strategic partnership with tier 1 algo partner in Medical / Healthcare industry (new market to NEXT)
- Initiated the cooperation with tier 1 customers for Access Control and Boarder Control

## 2024 Outlook

- Ongoing China macroeconomic challenges, yet - NEXT expects that the Chinese biometric market will increase in 2024 compared to 2023
- ChinalD certificate awarded to partner; more orders expected
- NEXT will expand its footprint to new market – ChinalD, Healthcare, Medical Insurance and E-lock
- NEXT improve its position in the value chain of Biometrics industry from sensor vendor to solution provider
- NEXT China will enhance the operations and support for OEMs & banks, aiming at significantly improved sales & gross profits



# Q&A

India

# India - the role model for government ID deployment

## Importance of India

India Aadhaar program	Key benefits	The future
<ul style="list-style-type: none"><li>• 1.2 Billion people enrolled and growing</li><li>• The fingerprint digital ID is utilized across diverse government programs for accessing subsidized food, disbursing benefits, pensions, in-branch and online bank functions and obtaining a SIM card</li></ul>	<ul style="list-style-type: none"><li>• \$1.5 billion investment saved \$29 billion</li></ul>	<ul style="list-style-type: none"><li>• New government and financial schemes are being added at a fast pace to increase the scope of Aadhaar</li><li>• Government ambition is to further increase daily transactions by 5x</li><li>• 20% market volume increase from corporate banks into the program</li><li>• Other countries in Asia and Africa are looking to India when they design their government ID program standards</li></ul>

The Aadhaar program in India is deemed "*the most sophisticated ID program in the world*".

# India Biometric Market – Ready for the leap

## India fingerprint sensor market development (Aadhaar)

- Early mover, established Aadhaar year 2009
- Largest database to date with 1.4 Billion people
- Slow development from 2019 to 2023 – delayed due to covid, political challenges
- The phase-out deadline for L0 devices is set for June 2024
- Government's ambition is to increase Aadhaar Enabled Payment Services by 5x daily transaction



# Pole position to take a large share of India fingerprint sensor market

## NEXT India status

### NEXT marketing positioning

- Approached the market as a sensor company rather than a finished product company; NEXT is not threat to its partners
- Positioned as a more secure sensor rather than a more economical solution, thereby being accepted in higher value Fintech projects
- Partnering with multiple local distributors, which targets different parts of the market to maximize overall unit sales

### NEXT progress

- Certification: One NEXT partner awarded Aadhaar L1 certificate; multiple more are applying for L1 certificate
- Current partner with L1 certification (ACPL) is one of the largest players in Aadhaar
- Secured contracts valued at NOK 300 million over at least 2 years

# India Target Segments



Single Fingerprint Device - For SIM  
card Sale/Pension



Micro ATM/Point of Sale  
for Subsidised grains



Access Control for attendance



Tablet for Child enrolment



Keyboard for Windows Login



Aadhaar enabled ATM use  
Biometrics for transaction

# India: Overview

## 2023 Highlights

- Secured contracts valued NOK 300 million over at least 2 years
- NEXT partner ACPL secured Aadhaar L1 certification
- Aadhaar's evolution towards the next level of security persists with the introduction of the mandatory new L1 certificate, which has now been successfully deployed
- Large banks have already started floating large tenders for L1
- Signed up multiple top OEMs. Have multiple L1 applications in the pipeline

## 2024 Outlook

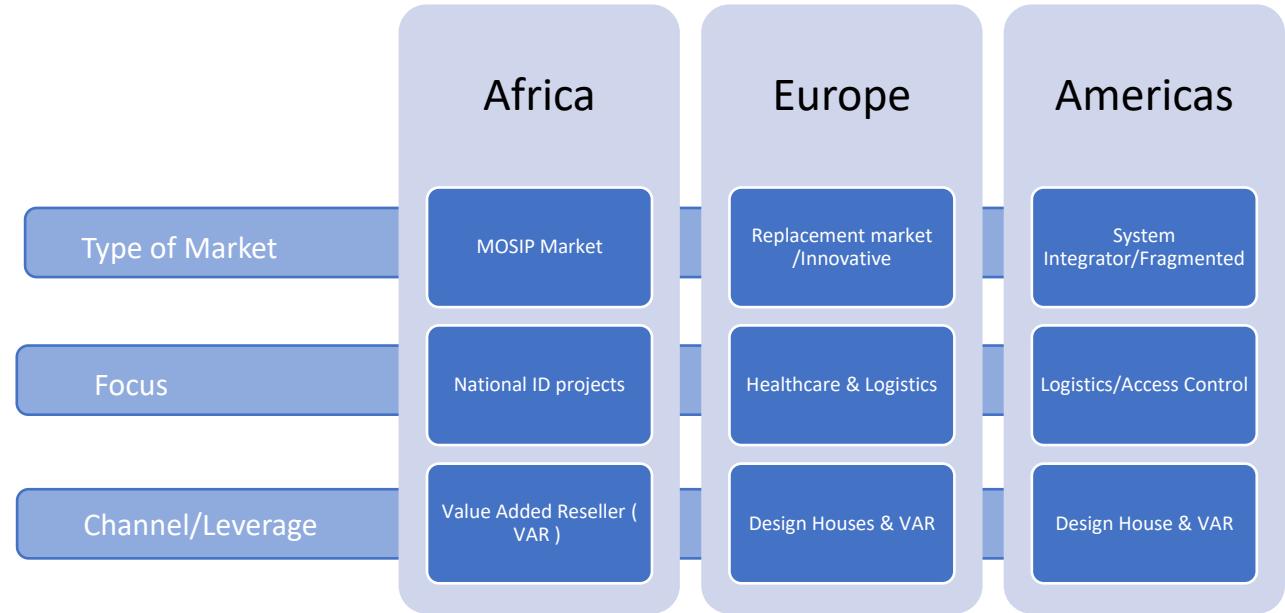
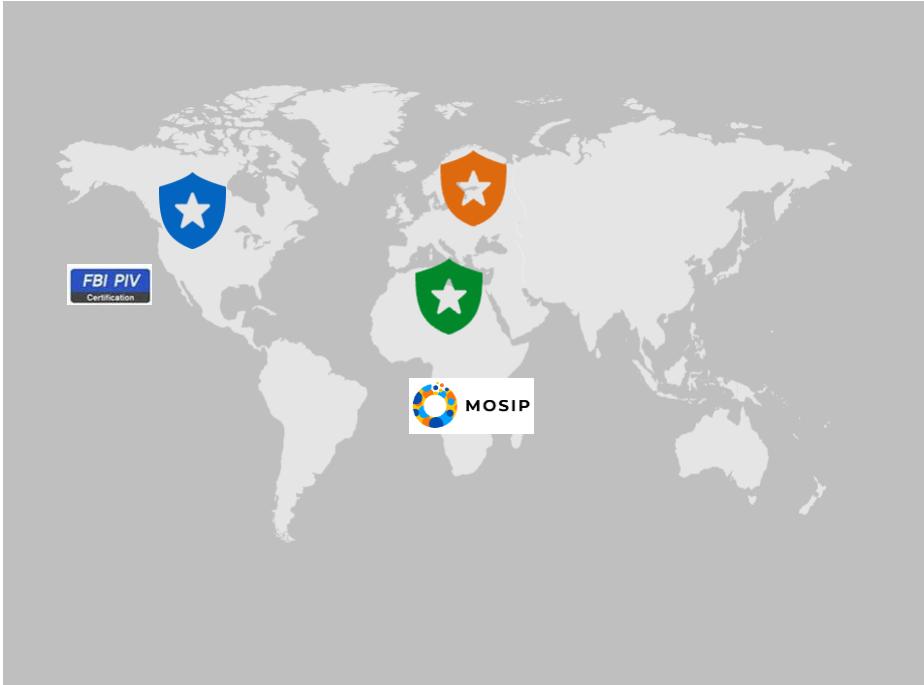
- Expecting to have 3 or more OEM to have L1 certification in 2024 that are using NEXT's FAP20 sensor
- Largest Bank in India expected to release the biggest biometric device tender till now
- Aadhaar ecosystem start expanding in 2024, increasing the total addressable market by 20%
- Anti spoofing is a big demand from the Financial sector
- NEXT targets a market share of minimum 30% in 2024

NEXT has the highest number of OEMs applying for Aadhaar certification. They are all using NEXT's FAP20 sensors.



# Global

# India, China then we take EMEA and Americas



Global biometric market annual growth of 14.5%<sup>1)</sup>

NEXT focusing on distributors to address markets in EMEA and Americas

1) Source: Straits research



# Q&A



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Protected



# Closing

# Capital Markets Day takeaways

- NEXT targets a growing and large biometric market with disruptive Active Thermal technology
  - >2 USD billion market
  - NEXT well positioned in market with favorable market dynamics
- Following the turnaround phase, NEXT has now entered the scale-up phase
- Revenue runway from current contracts and design wins. 2023 business development progress has further increased the potential for future revenues in India and China
- More than 50% of DW are related to high margin product FAP 20; now also planning to launch high margin FAP30



# NEXT proof points to date

-  Products valid/competitive
-  Customers segments relevant
-  Strong position in China and India
-  Financial Margins relevant
-  Cost Control

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## Coming now

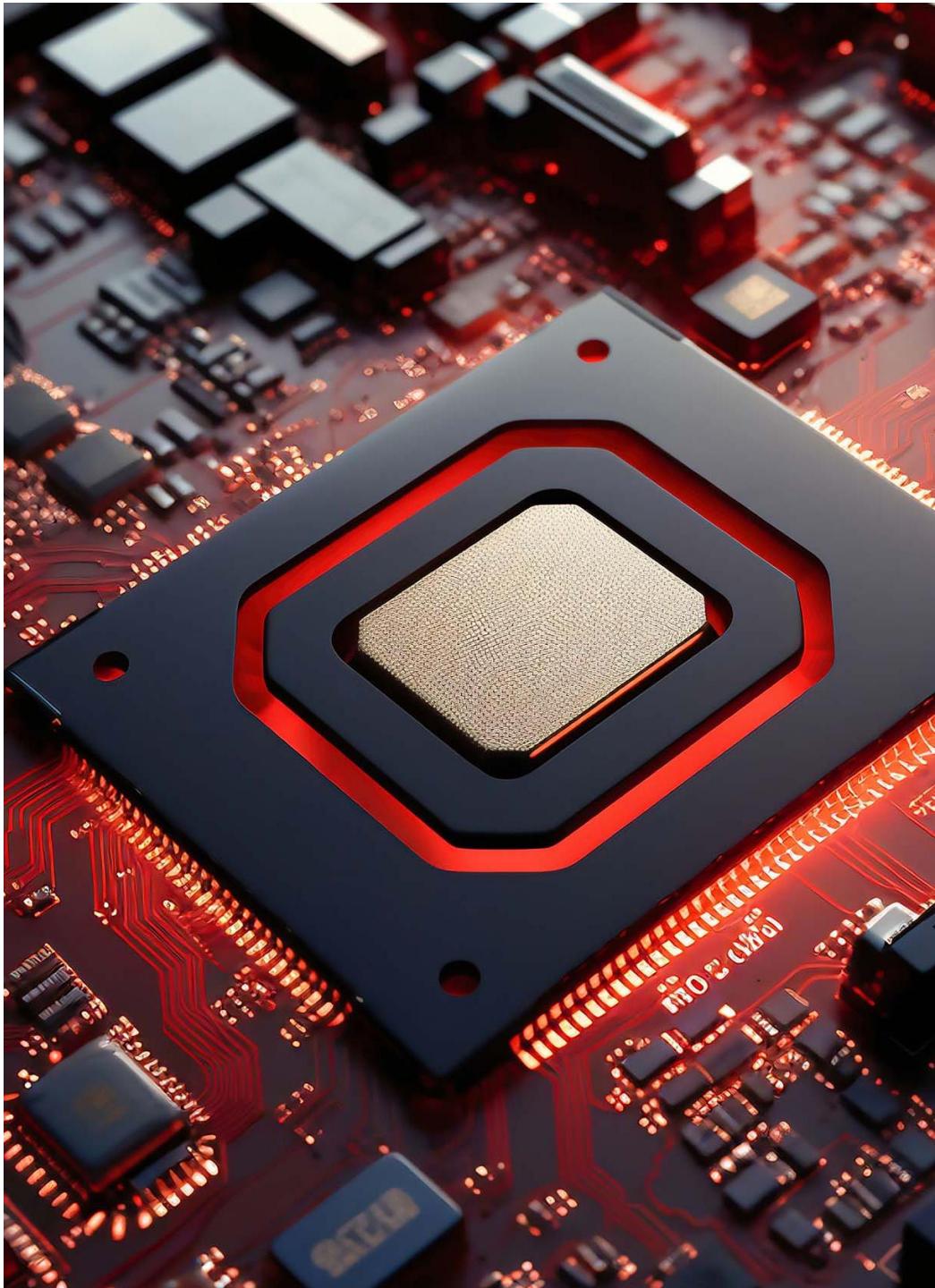
-  The missing part is adding more customers and receiving final purchase orders with shipping dates for contracts in place

# Outlook

- Expect strong growth in FAP20 revenues and total revenues in coming quarters
- Already secured contracts and design-wins with NOK 200 million in total annual revenue potential
- 50% gross margin and an annual run-rate OPEX cost of NOK 65 million expected in 2024
- Current OPEX level can cater for a much higher revenue and with external manufacturing, any additional orders are expected to contribute to the bottom line
- The company could reach EBITDA break-even in Q2 2024, and target a positive result for 2024 in total

# Final remarks

- It has taken time, but markets are now taking off in India and China
- Launching the high margin FAP30 to a booming market with key customer ready and willing to order
- NEXT has secured volume contracts and partnerships that will lift revenues in 2024, but even more so in 2025:
  - Additional partner, contract and purchase order announcements to be announced (when agreed and finalized)
- Gross margin trending higher; be prepared for positive surprises
- You can follow our progress by:
  - Subscribing to news (email) at [NEXTBiometrics.com](http://NEXTBiometrics.com)
  - Following NEXT on LinkedIn
  - EURONEXT Ticker: NEXT





# Q&A

# Appendix

# Ulf Ritsvall

New CEO of NEXT as per October 1, 2023

- Previously Senior Vice President, Sales and Marketing, at NEXT
- Prior to joining NEXT, 25+ years experience from executive positions in the biometrics and telecom industry
- Unique industry knowledge and large network – lived and worked in South Korea and USA

“NEXT Biometrics has a unique fingerprint technology and strong biometrics know-how, which we will continue to build on, leading the way for biometric authentication solutions worldwide.”



# Eirik Underthun

CFO at NEXT Biometrics from Q1 2020

- 26 years' experience in finance, business controlling and strategy/business development roles in IT/Telecom, Oil Services and Management Consulting companies.
- Extensive financial management and business controlling experience including international assignments (30+ countries) and turnaround management, financial restructuring and cost management expertise.
- MBA from Cornell University and a M.Sc. degree (Industrial Economics and Tech. Mgmt.) from the Norwegian University of Technology and Science.



# Marcus Laurén

CPO – Chief Product Officer from Q4 2023

- Internationally experienced business professional, with 25+ years' experience from companies like Ericsson, IKEA and biometrics company Fingerprint Cards.
- Marcus has extensive and diverse knowledge from different industries, but is especially skilled in driving complex, technical projects – with both a clear business focus, as well as the customer perspective and tangible value creation in mind.
- Having worked with clients in Japan, South Korea, China, India, Canada, US as well as the Nordics, Marcus also has broad international working experience and a large network.
- He studied the Master of Science program at Lund University. The focus throughout his career has been working with customer success, often in complex and global environments and with cutting-edge technology.

"Achieving the China ID is a key milestone in our expansion in biometric market in China. The certification is also a positive indication for NEXT, as it means further high-end market opportunities will emerge and become available.."



# Joshua Chiu

SVP Head of Sales South-East Asia

- Previously President at Egis Technology China and Senior Sales Director, Country Manager Taiwan at Fingerprint Cards
- Prior to joining NEXT, 20+ years experience from executive positions in the biometrics and semiconductor industry
- Joshua has more than 20 years of experience from both the semiconductor and panel industry. He has worked with LG Innotek and Corning Display Technology, where he gained his industry knowledge, experience and had excellence performance in each position.
- MSIA (Master of Science in Industrial Administration) from Purdue University, IN USA



# Digvijay Singh Kanwar

SVP, Head of Sales IUEA (India, US, EU and Africa)

- Before taking on his current role as Senior Vice President, Head of Sales IUEA, Digvijay Singh Kanwar led NEXT's sales team in India and served as the Country Manager for India.
- Digvijay's diverse experience was cultivated through studies and work in culturally rich and diverse nations such as India, Russia, the United States, and the European Union. With a true engineer's heart and a business degree, he stands as a versatile business leader with an impressive 17-year track record spanning the Biometrics, FinTech, and Telecom sectors.
- Prior to joining NEXT, Digvijay held the position of Country Manager for India at Fingerprint Cards
- Digvijay holds an MBA in Global Marketing & Strategy from Arizona State University's Thunderbird School of Global Management, USA and a Computer Science Engineering degree from the National Research Institute, MPEI-Moscow State University, Moscow, Russia.

