

# Nordic at a glance

Investor Relations  
February 2024



**NORDIC**<sup>®</sup>  
SEMICONDUCTOR

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This presentation was prepared in connection with the Q4 results released on February 6, 2024. Information contained herein will not be updated. The following slides should also be read and considered in connection with the information given orally during the presentation.

# A globally leading IoT enabler

## Simplifying lives through all things connected



Founded  
1983

Employees  
1,493 (~75% R&D)

Oslo listing  
OSEBX:NOD

Market Cap  
~\$1.6bn

- Fabless semiconductor company specialized in low power wireless connectivity and embedded processing for IoT
- Market leader in Bluetooth Low Energy
- Early adopter of Thread (802.15.4) and support for Zigbee
- Launched Wi-Fi 6 connectivity (dual band)
- Committed to Matter - active contribution to Matter SW development
- Early mover in cellular IoT & 5G with LTE-M, NB-IoT and DECT NR+
- Value added device control and management through nRFCloud

# Dedicated to wireless connectivity

Broad portfolio - scalable solutions - common software platform

Strong product and solutions portfolio...

...for short-, medium- and long-range connectivity technologies



+



+



Low-power integrated circuits (ICs)

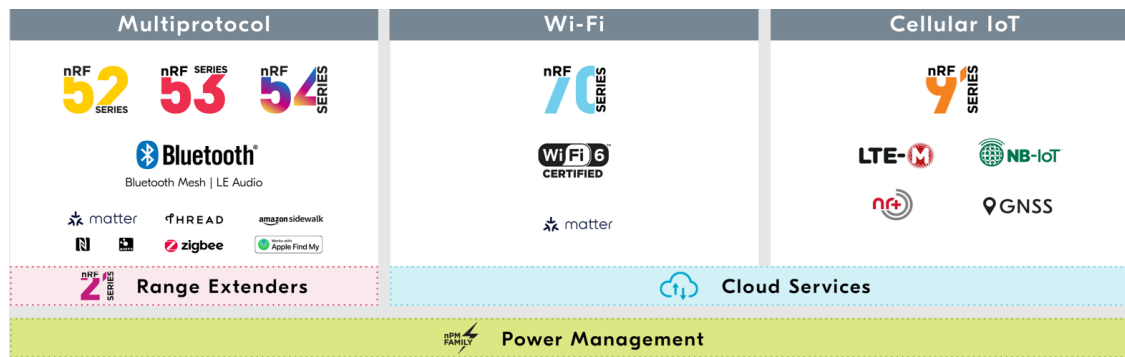
Embedded software

Advanced development tools

## Short-range IoT

## Medium-range IoT

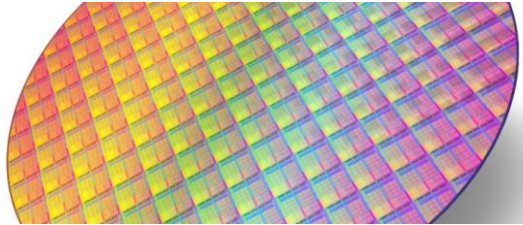
## Long-range IoT



# Resilient supply chain



- Norwegian company
- R&D in Norway, Finland, Sweden, UK, Poland, India and USA
- All development in-house

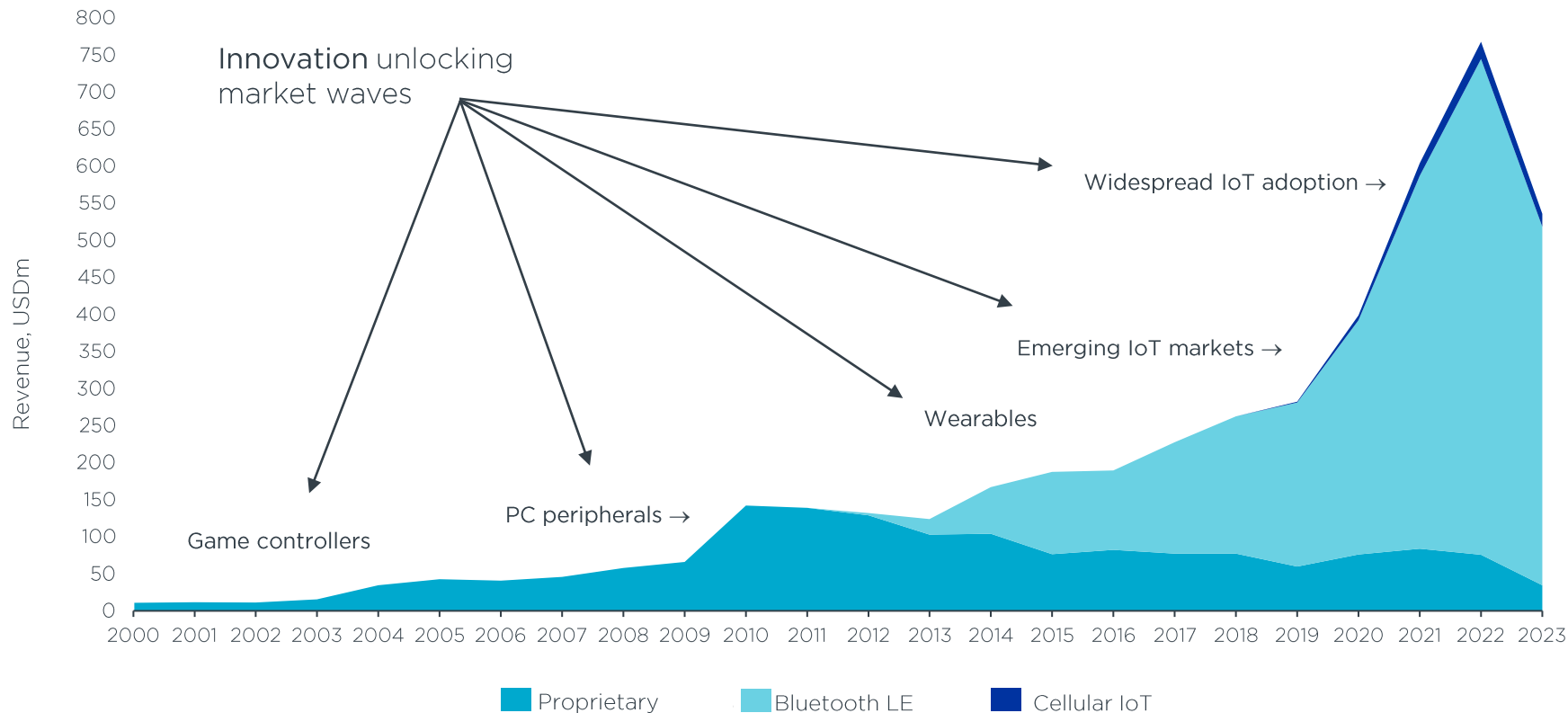


- Wafer production outsourced to TSMC and Global Foundries
- Facilities in Taiwan and Germany

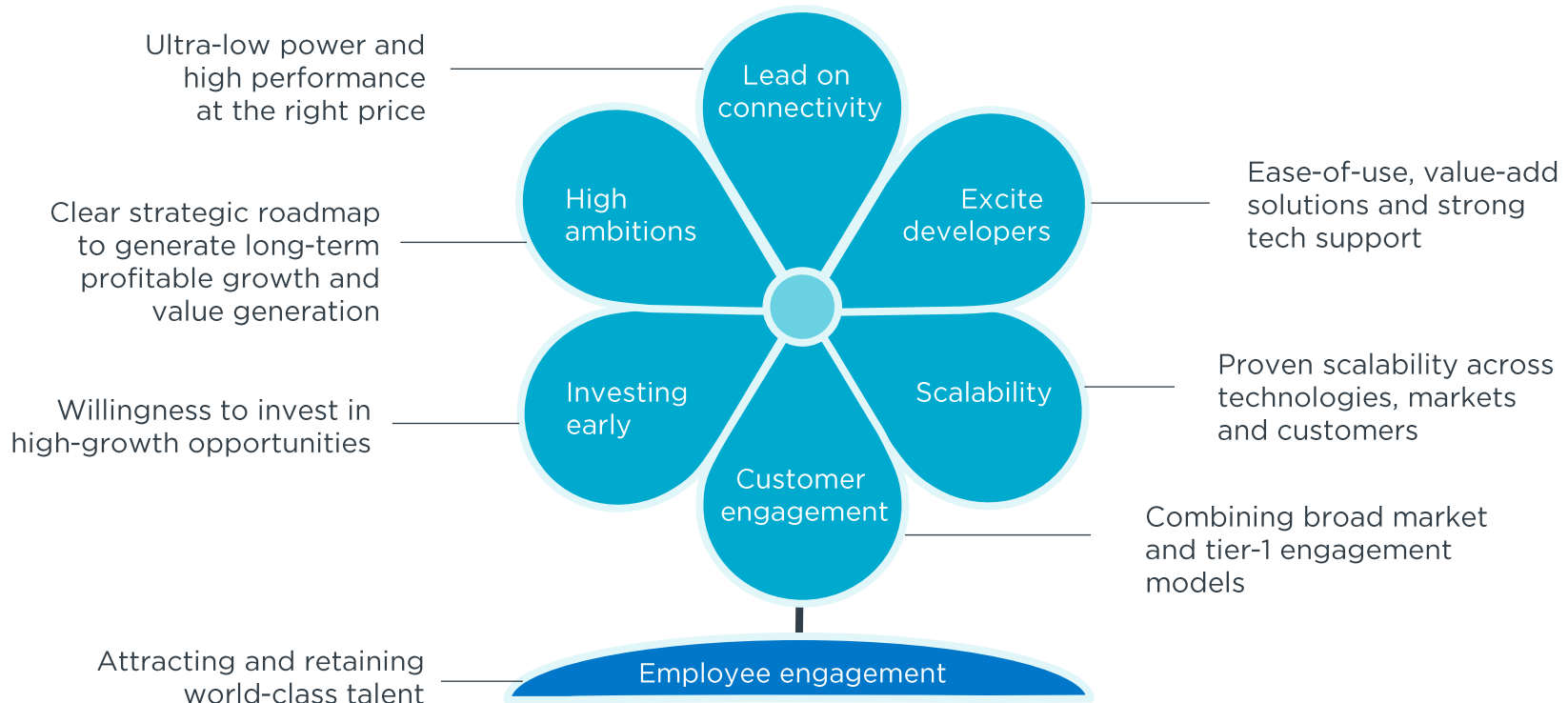


- Test and packaging outsourced to ASE, Amkor, Nepes and Qorvo
- Facilities in Taiwan, Philippines and China

# Nordic is on a long-lasting growth journey

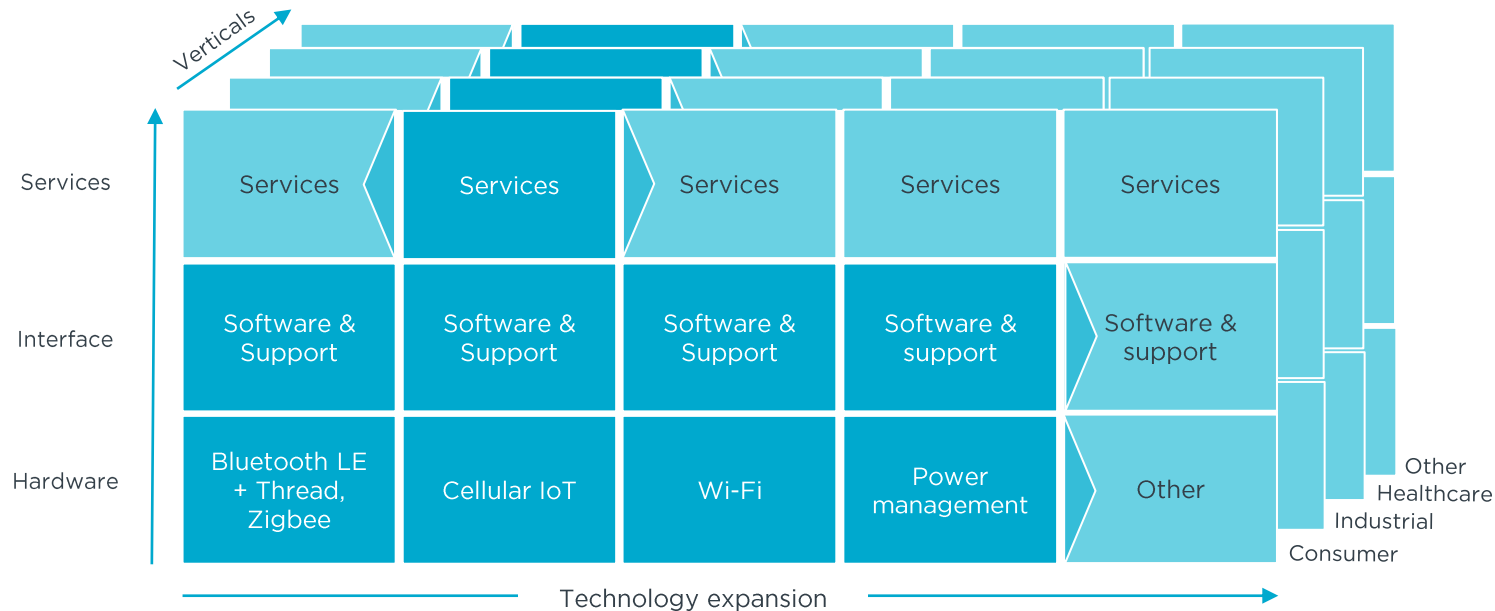


# Strategy based on distinctive advantages



# Expanding the opportunity pipeline

New technologies + value chain migration + more applications





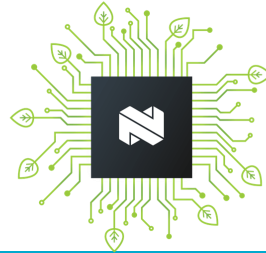
# Our tech solutions are recognized globally



## 2023 U.K. Elektra Awards

'Internet of Things Product of the Year' category

Nordic's low power Wi-Fi 6 companion IC



## 2023 Financial Times and Statista

Europe's Climate Leaders

Environmental performance



## 2023 EM Best Awards

IoT Semiconductor Company of the Year

For Product innovation, excellence, and sustainability

# Short-range IoT

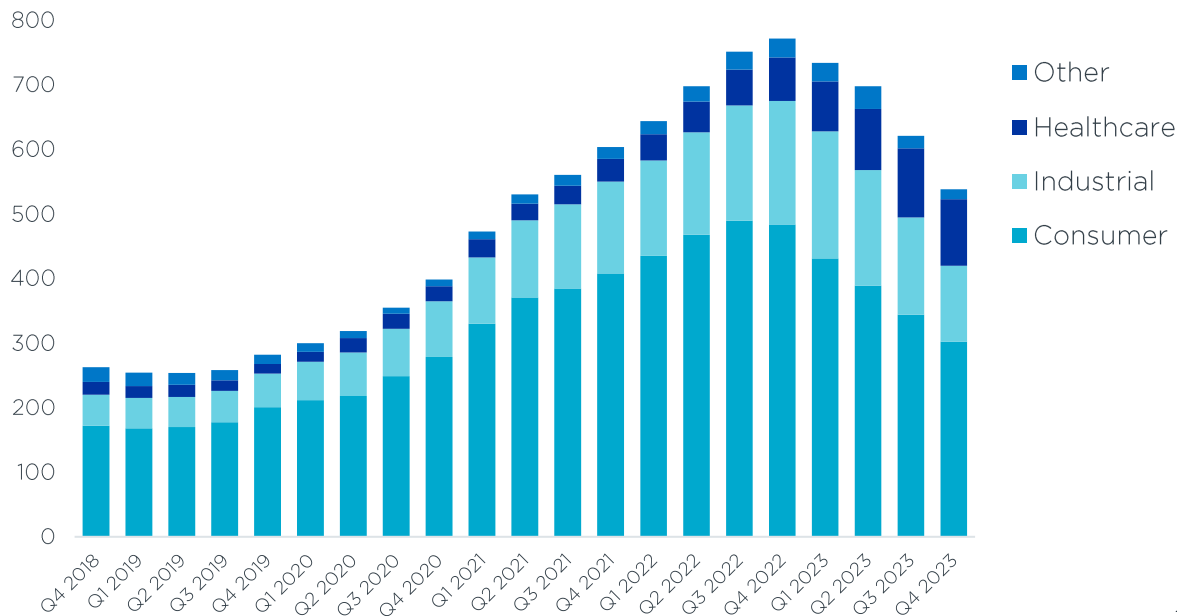
Market leader with strong growth

# Revenue by end-user market

Deeper and more prolonged cyclical downturn than expected

- Weaker consumer demand spread to other markets during 2023
- Current revenue affected by both underlying demand and inventory adjustments

Short-range revenue by end-user markets, last 12 months (USDm)



# Breakdown by end-user markets

Aligned with customers end-products and our sales structure

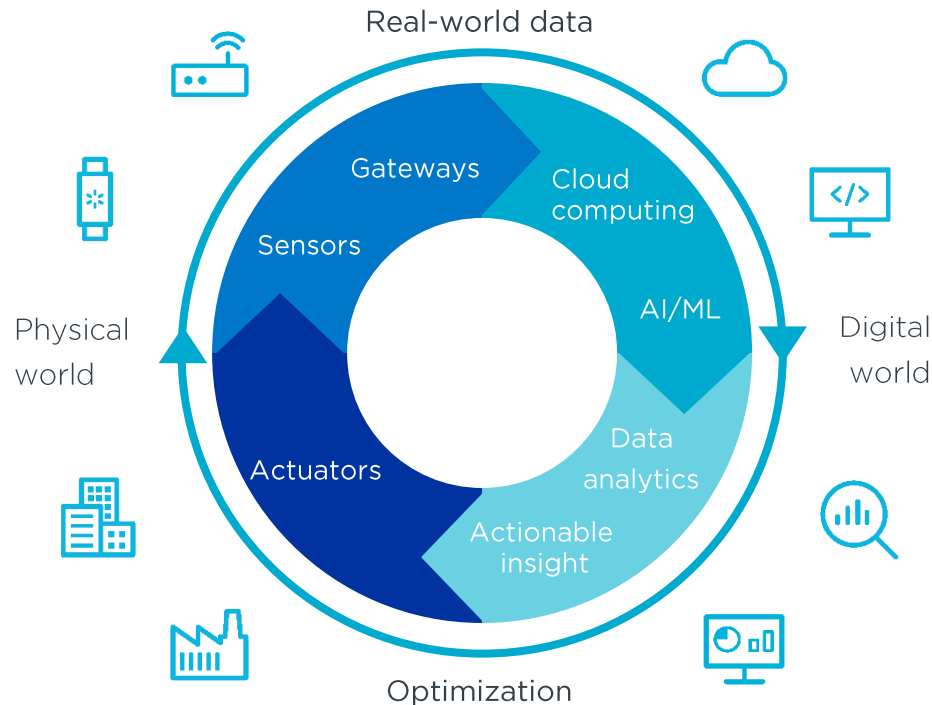
Markets	Verticals		
Consumer	<ul style="list-style-type: none"> <li>▪ Mobile/PC HID</li> <li>▪ Wearables</li> <li>▪ Smart Home</li> <li>▪ Gaming</li> </ul>	<ul style="list-style-type: none"> <li>▪ VR/AR</li> <li>▪ Consumer Asset Tracking</li> <li>▪ Consumer Health</li> <li>▪ Audio</li> </ul>	<ul style="list-style-type: none"> <li>▪ Toys</li> <li>▪ CE Remotes</li> <li>▪ Wireless Charging</li> <li>▪ Other</li> </ul>
Healthcare	<ul style="list-style-type: none"> <li>▪ Drug Delivery</li> <li>▪ Disease Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>▪ Hearing Aids</li> <li>▪ Other</li> </ul>	
Industrial	<ul style="list-style-type: none"> <li>▪ Asset Tracking</li> <li>▪ Professional Lighting</li> <li>▪ Metering</li> <li>▪ Building Automation</li> <li>▪ Modules</li> </ul>	<ul style="list-style-type: none"> <li>▪ Retail</li> <li>▪ Transportation</li> <li>▪ Payment / ID</li> <li>▪ Tools and Machinery</li> <li>▪ Agriculture</li> </ul>	<ul style="list-style-type: none"> <li>▪ Beacons</li> <li>▪ Maker and Education</li> <li>▪ Automotive</li> <li>▪ Other</li> </ul>
Other	<ul style="list-style-type: none"> <li>▪ Catalog sales</li> <li>▪ Undefined</li> </ul>		

# IoT - Connect, Compute, Analyze and Act

## IoT starts with connecting things

Bridging the physical and digital worlds requires:

- **Advanced** connectivity solutions
- **Powerful** low power compute
- **Accurate** sensing capability



# Platform ecosystems driving growth

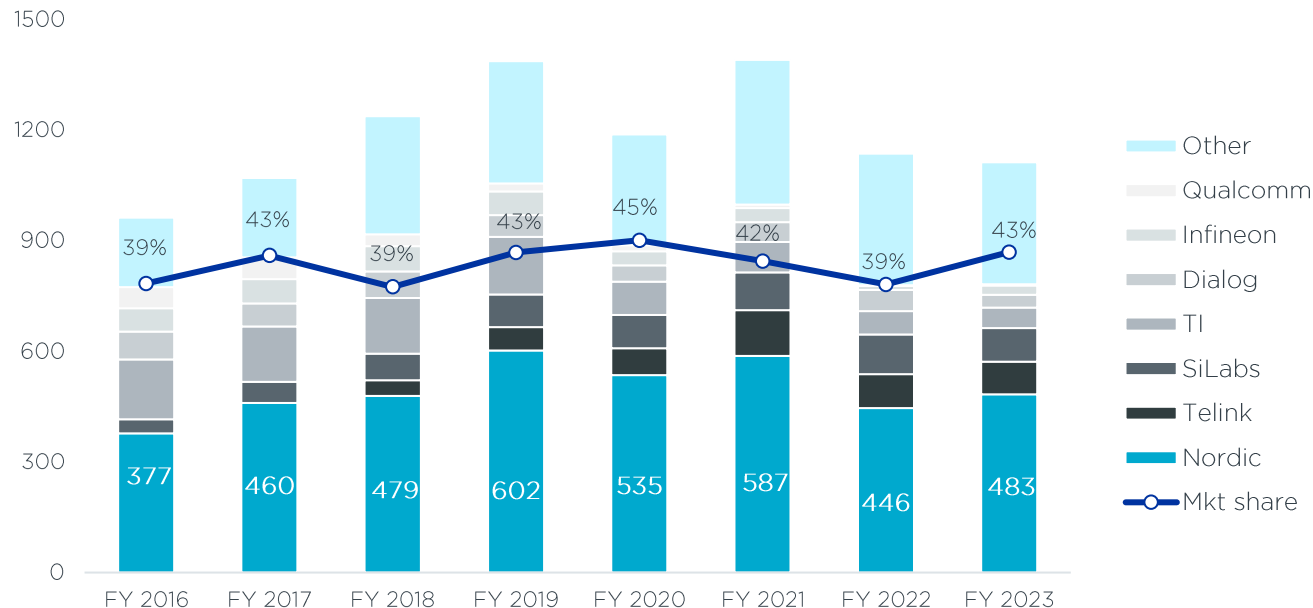
Nordic leverages  
on leading broad  
market position and  
strong tier-1 relations  
built over many years



# Nordic gaining design win market share

Nordic no. of designs +8% in 2023, vs -10% for all others combined

Bluetooth Low Energy end-product certifications, last 12 months



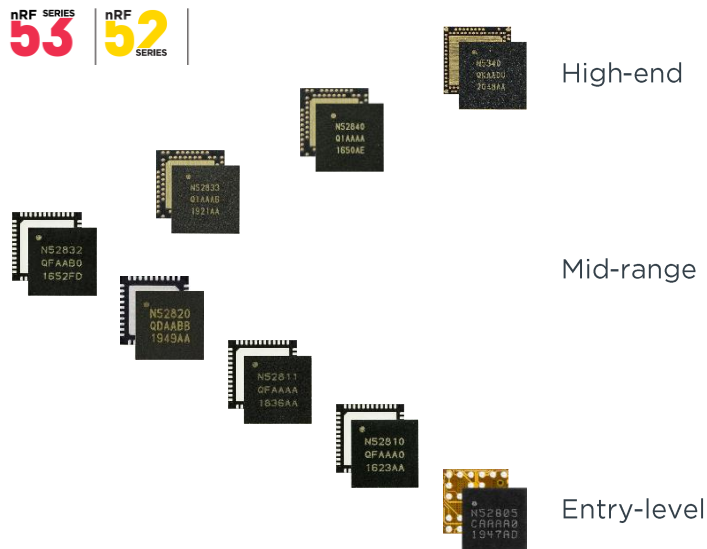
Nordic  
end-product  
certifications

Q4'23  
153 designs  
45% mkt share

FY2023  
483 designs  
43% mkt share

# Successful short-range product strategy

## Customer centric broadening of the portfolio



- Broad portfolio of ultra-low power SoCs
  - Multiprotocol products combining Bluetooth LE, Bluetooth mesh, ANT, NFC, Matter, Thread and Zigbee
- Leading the market on power consumption, performance and features
- Catering to all types of applications
  - From entry-level SoCs for cost constrained applications to high-end SoCs for complex IoT
- Major R&D efforts ongoing for development of next generation SoCs

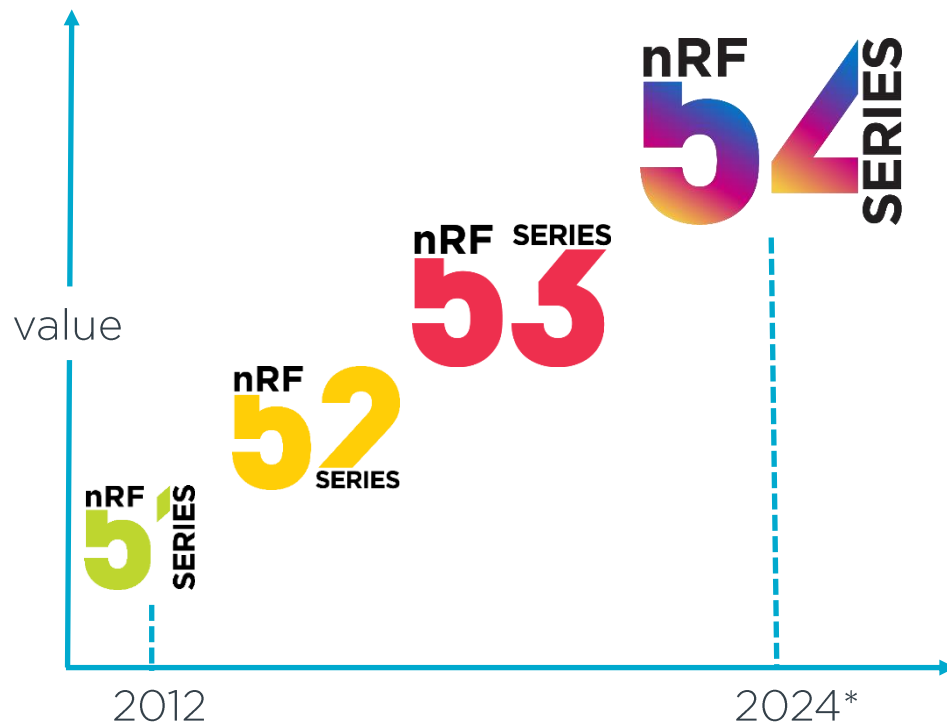




# Nordic 4<sup>th</sup> generation wireless SoCs

Setting a new standard in performance, efficiency  
and security

# Driving value through continuous innovation

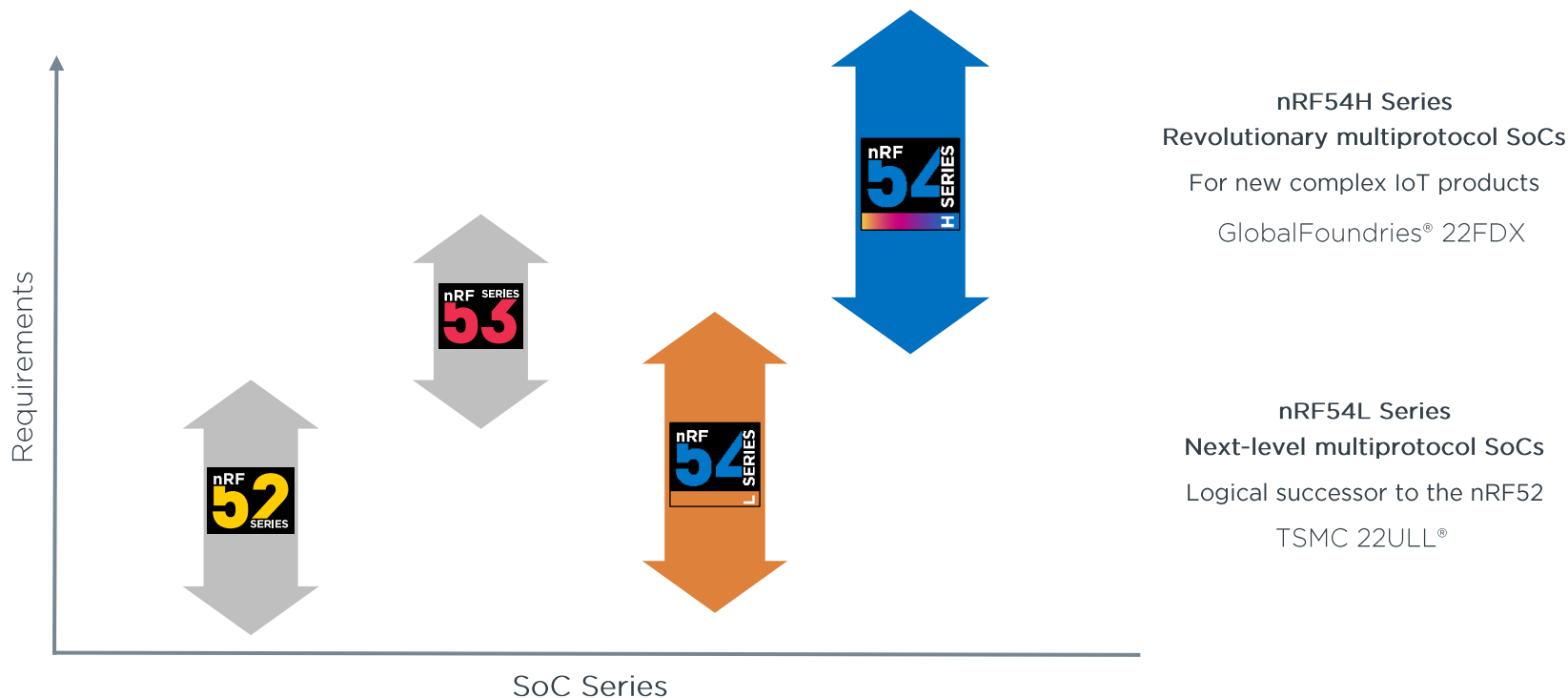


- New product families **increases overall value** for customers
- **More features** enables faster time to market and better end-products from our customers

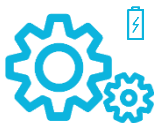
\*Initial revenue by year end 2024

# Nordic raising the bar once again

nRF54 – sampled both L and H to >100 customers by YE 2023



# Cornerstones of the nRF54 Series



Higher processing power  
lower power consumption

## 22nm

Smallest and most modern  
process node for connectivity in IoT

# nRF54 SERIES



More security integrated  
ensuring its readiness for the next  
generation of IoT



4<sup>th</sup> generation Nordic radio  
equipped to support future Bluetooth  
specification updates



5.4 LE Audio Mesh



matter



THREAD



ANT+

2.4 GHz

4 Mbps throughput

# Targeted applications



PC accessories

Gaming, VR, AR, and media controllers

Smart home and Matter

Medical devices

Industrial IoT



Advanced wearables

VR, AR, and advanced gaming controllers

Smart home and Matter

Medical and healthcare

LE Audio

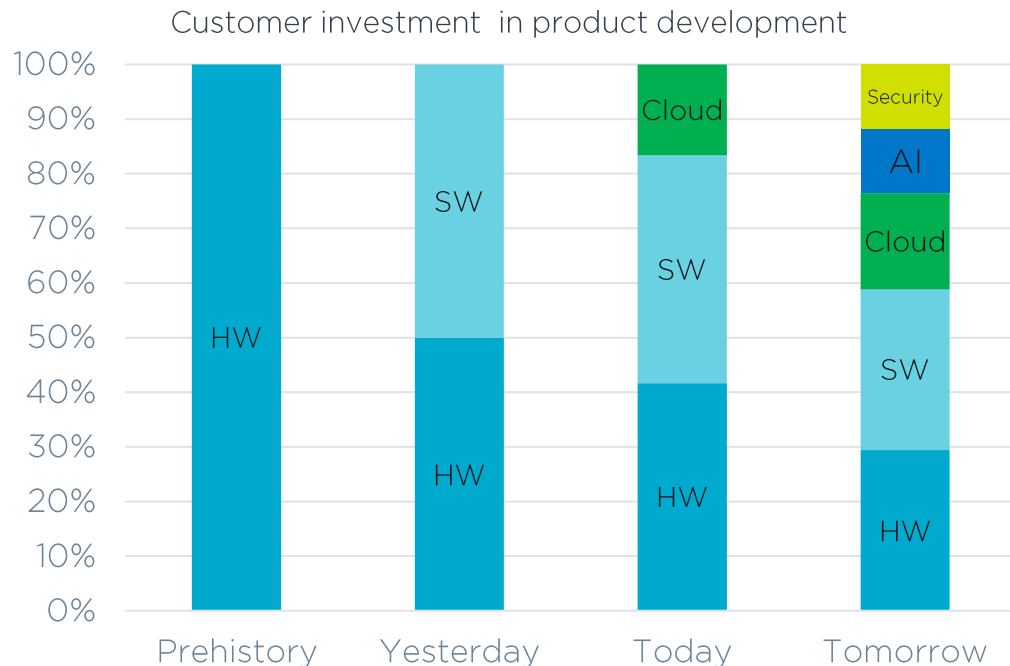
Industrial

E-mobility

# Long-range IoT and adjacent technologies





**Early mover in next growth waves**

# Delivering on our customers' needs



- Nordic is providing solutions to our customers reaching beyond ICs
- Investments in Software, Cloud, AI and Security is essential for the next growth wave

# Broadening our technology space

	Cellular IoT
	Wi-Fi
	Power management
	Cloud Services

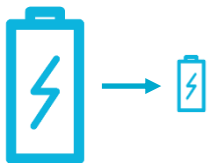
Sound [investment criteria](#) across technologies, products, services and verticals

- Sizeable markets
- Growth above industry average
- Opportunity for healthy gross-margins
- Opportunity to grow market share
- Feasibility from technical and financial viewpoint and time to market



# Cellular IoT: nRF91 Series – Ease of use

## Lowest Power



Designed for low power IoT  
Efficient HW, FW, protocols and  
optimized cloud services

Verify with Power Profiler Kit II

## Security Lifecycle



nRF Cloud Security Services  
from blank to securely  
connected device

Secure boot, authenticated  
FOTA, secure key/data storage

## Reduced cost of ownership



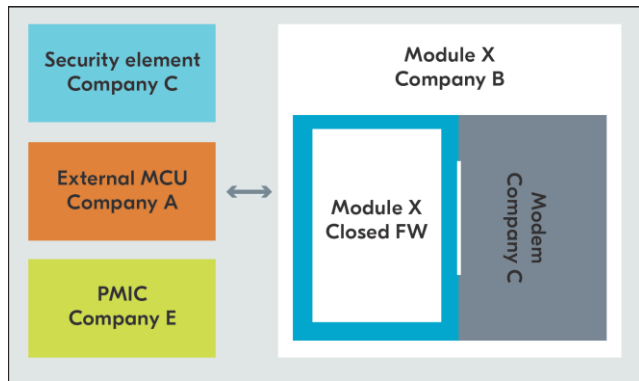
Single integrated hardware for  
global deployment

Tools and SDK for faster time to  
market

# Lowers total cost and simplify supply chain

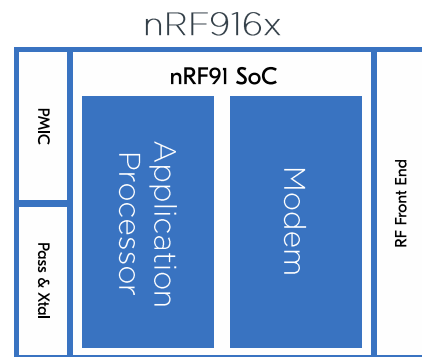
Others

Fragmented ownership



Nordic

Full solution ownership



Completely integrated

- Lower complexity
- Lower power
- Smaller size
- Total lower cost
- Simpler supply chain
- Support and maintained
- Globally Certified

# Target Applications – Cellular IoT



## Asset tracking

People/pet/pallet  
tracking and health  
management  
Portable medical  
devices



## Smart City

Waste management  
Smart streetlights  
Environmental  
management  
Device maintenance  
Smart parking



## Smart metering

Water/electrical/gas  
metering  
Agriculture

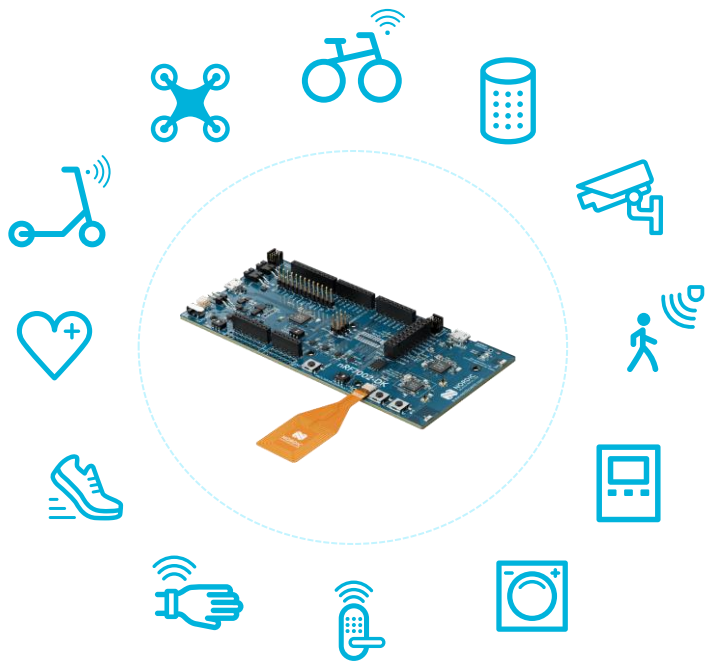


## Industry 4.0




Predictive  
maintenance  
Smart grid

# Expanding into Wi-Fi

## nRF70 Series - enabling IoT



- Wi-Fi 6 companion IC - 40nm node
- Dual band, 2.4 GHz and 5 GHz
- QFN 6x6mm package
- ~US\$ 2 in high volumes
- Customer projects within Smart Home/Matter, Building Automation and Asset Tracking and other verticals

-  **Low Power** - Efficient radio power saving schemes
-  **Robust performance** - in dense congested environments
-  **Secure** - Cutting-edge security protocols

# Expanding the PMIC portfolio

## Multi-function PMIC with unique system management features

Launched '21  
nPM1100



Launched '22  
nPM6001



Launched '23  
nPM1300



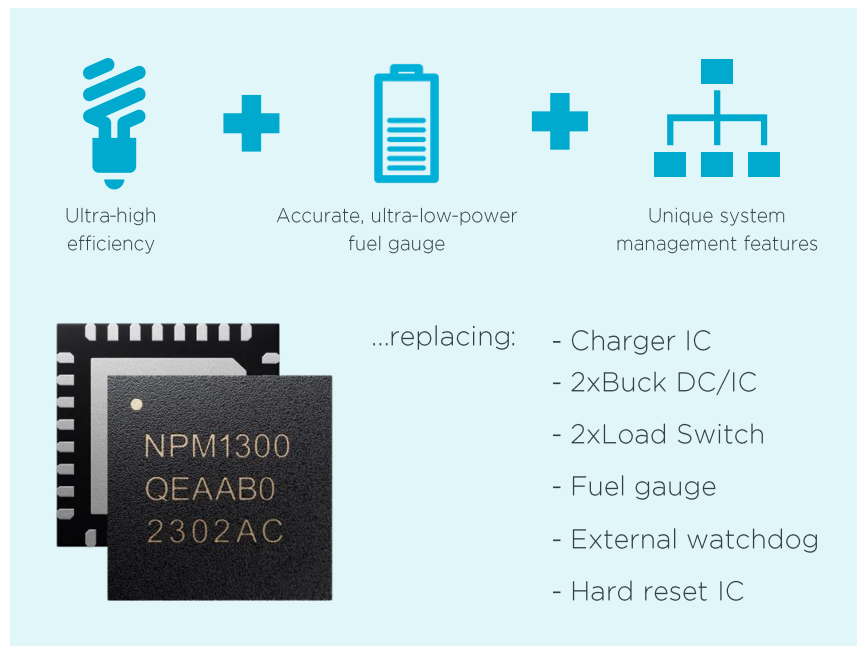
Charging		No	
Power Rails (DCDC+Linear)	1	4+2	2+2
System Management Features			
Price			
Use Case	Bluetooth LE, cloT	Bluetooth LE, Wi-Fi, cloT	Bluetooth LE, cloT
Availability	In production	In production	In production

*"I have been an earlier adopter for many of your parts over the years and would really like to put this PMIC in a design where the customer reaction is simply WOW. Congratulation for you and your team, you are definitely going to shake up the industry."*

*Customer email when nPM1300 was launched*

# Wide launch of the nPM1300

The most intelligent PMIC on the market



Ultra-high efficiency

+

Accurate, ultra-low-power fuel gauge

+

Unique system management features

...replacing:

- Charger IC
- 2xBuck DC/IC
- 2xLoad Switch
- Fuel gauge
- External watchdog
- Hard reset IC

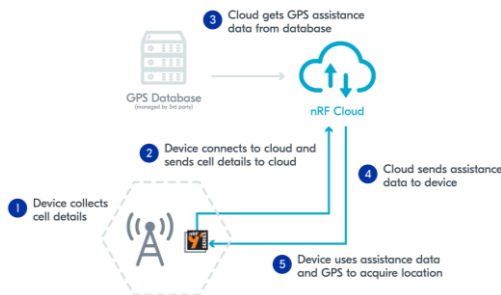
NPM1300  
QEAB0  
2302AC

- Nordic takes care of energy efficiency from battery to antenna
- Unique power and system management features
- Replacing up to eight circuits from competing solutions
- [nPM Power UP](#) PC Software sets a new ease-of-use standard for PMICs

# Expanding into cloud-based services

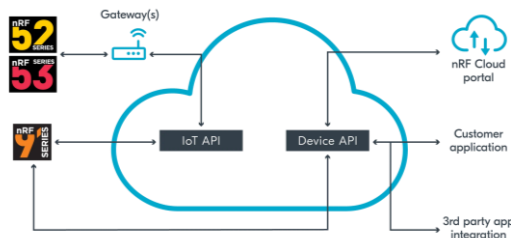
A new long term revenue stream for Nordic Semiconductor

## Location Services



Initial services for nRF91 Series  
Assisted / Predictive GPS  
Cell-tower based location  
Significantly enhances battery life

## Future Services



Also for short-range devices  
Firmware Over The Air updates  
Device lifetime management  
Other value added services

## One-stop-shop



Out-of-the-box support on Nordic kits  
Tightly integrated, device to cloud  
Single sales point for customer  
«Ease of use»

# Expanding existing technology

Nordic strong contributor to new 5G, ETSI DECT NR+ standard



DECT NR+ reinvents the familiar DECT technology standardized by ETSI three decades ago. Supporting highly reliable low-latency connection between large numbers of densely-packed devices, it's a scalable, cost-effective solution for enterprise IoT and machine-to-machine applications including industrial automation, sensor networks, logistics and smart buildings.

## WORLD'S FIRST NON-CELLULAR 5G TECHNOLOGY, ETSI DECT NR+, GETS ITU-R APPROVAL

- Nordic main contributor to the physical layer and a key contributor to the medium access layer of the specification
- Leverage our cellular investments with initial solution being built around the nRF91 Series
- In partnership with Wirepas, a Finish massive IoT wireless solution SW specialist company.



# Investing into open-source RISC-V

- Establishing a new company\* together with other major semiconductor players:
  - Nordic Semiconductor, NXP, Qualcomm, Bosch, and Infineon
- Aiming to [accelerate the commercialization](#) of future products based on the open-source RISC-V architecture



# Acquired AI/ML tech IP and team

Harnessing the power of AI to transform our position in the IOT market

- Bolt-on acquisition of high strategic significance
- Buying the IP portfolio and employing small core team in San Diego
  - › Always-on AI/ML accelerator – a key differentiator in the future
  - › Smart Health analog front-ends
  - › Power Management IC (PMIC)
- The acquisition obtained U.S. regulatory approval December 1, 2023



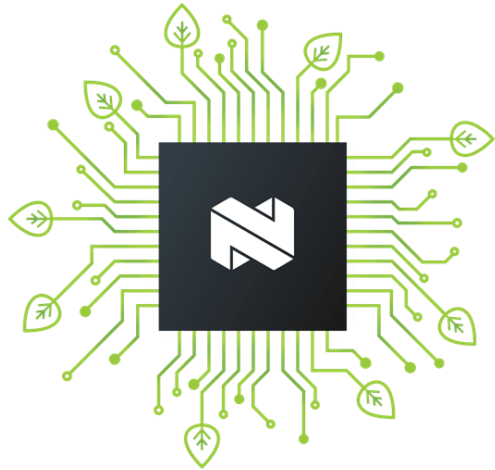
*"This brings a new level of always-on AI/ML capabilities and technologies that will strengthen our core business"*

Kjetil Holstad,  
EVP Strategy and Product Management

IoT supporting sustainability

# Nordic one of Europe's Climate Leaders 2023

## Compiled by Financial Times and Statista



*"I am honored to witness the recognition we have received for our dedication and initiatives toward promoting sustainable development"*

Linda Pettersson,  
SVP Legal & Compliance, Chair of Nordic Semiconductor ESG Committee

- Nordic ranked number 26, making it the highest-ranked Norwegian company on the prestigious list of 500 companies
- The methodology for this list was tightened to reflect on companies' environmental performance:
  - reduction of core greenhouse gas emissions intensity over a five-year period
  - transparency on disclosing emissions that arise elsewhere within a company's value chain

# 2022 ESG and people highlights



# ESG ratings and recognitions

In 2022, we received several awards and acknowledgments for our work and progress on our sustainability goals and initiatives. Some highlights include:



CDP A rating



Position Green A rating



Sustainalytics Low Risk rating



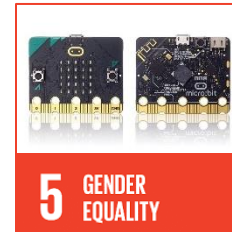
Nasdaq ESG Transparency Partner



STOXX® Global ESG Leaders Index

# Sustainability depends on technology

Disruptive IoT projects can contribute immensely to UN SDGs



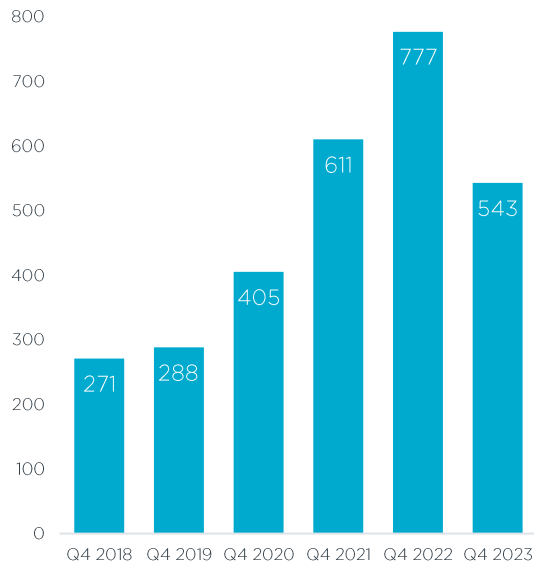
# Key financials & Summary

Continuing a profitable growth journey

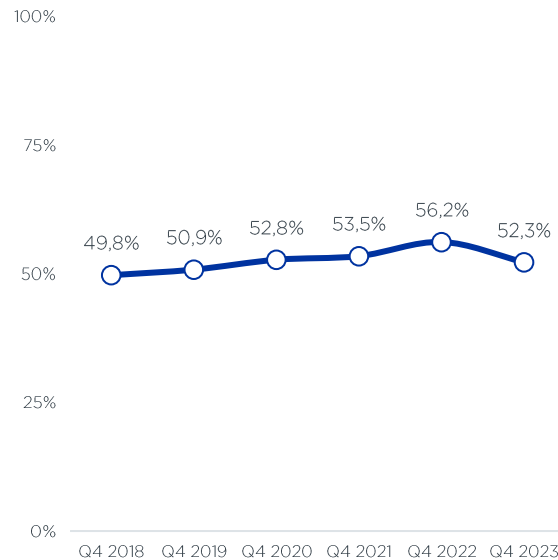


# Financial performance – rolling 12 months

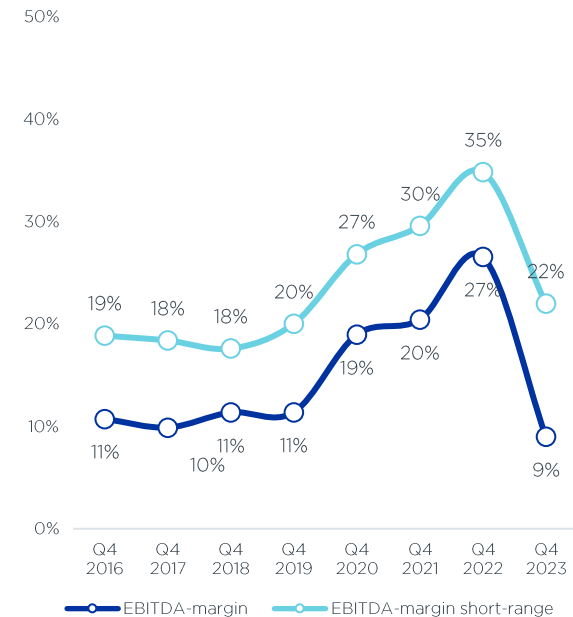
Revenue, last 12 months USDm



Gross margin, last 12 months, %

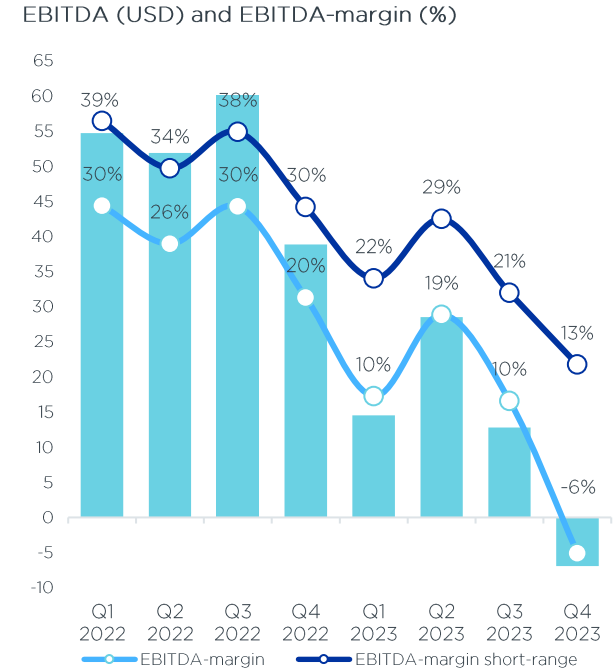
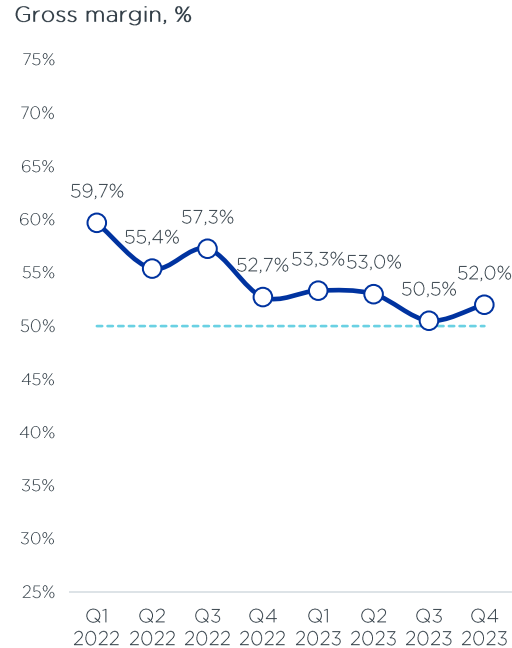
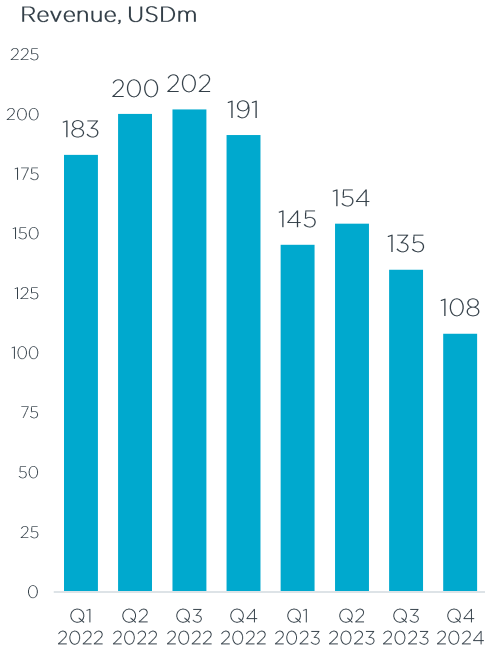


EBITDA, last 12 months, %



# Financial performance – quarterly

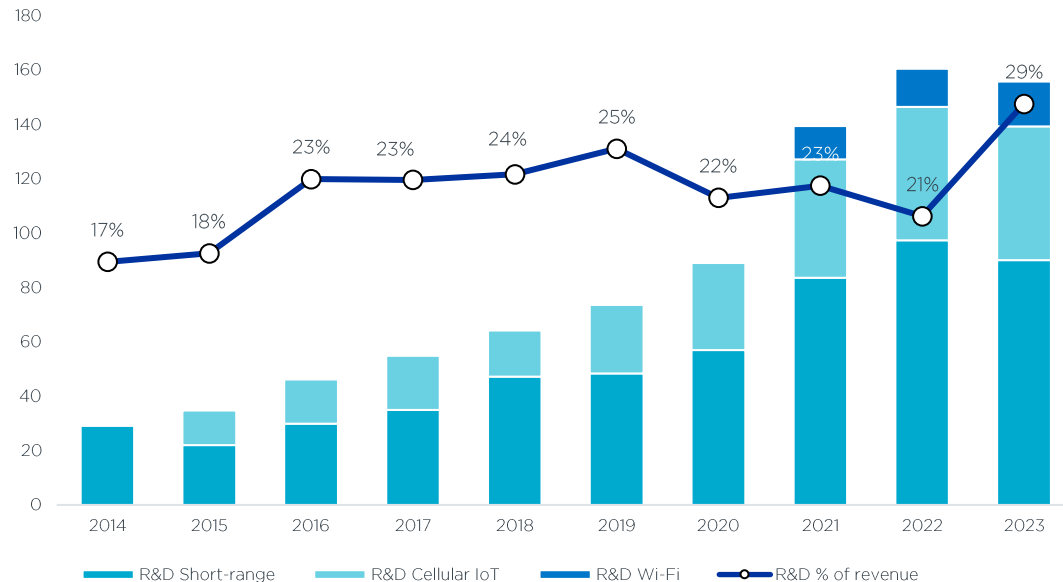
## EBITDA-margin decline mainly reflecting revenue drop



# Investing in innovation

Innovation is a core driver of long-term revenue and margins

R&D expenses\* by technology, USDm

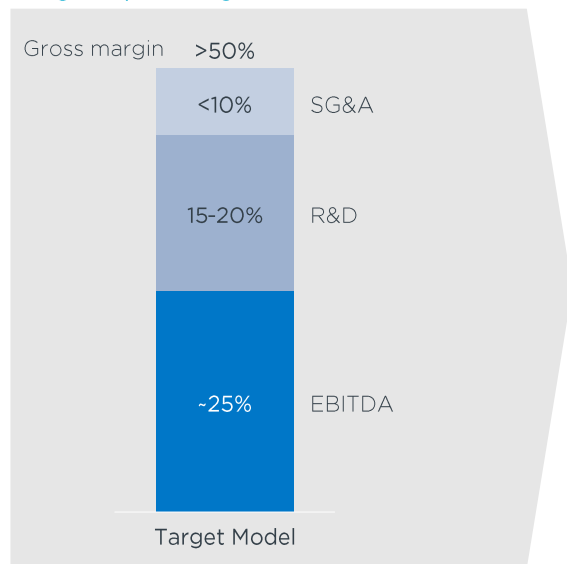


- R&D intensity increased sharply with declining revenue in 2023
- Implemented measures to reduce costs and reallocate R&D resources

- Recognized in P&L
- 2023 numbers are excluding restructuring cost

# Expansion within target operating model

## Target operating model



Gross margin

- Gross margin depending on technology and customer mix
- Lower gross margin expected in cellular IoT Module business
- Higher gross margin opportunities in other new technologies and service offering
- Overall goal to maintain above 50%

SG&A

- Increasing operational leverage

R&D

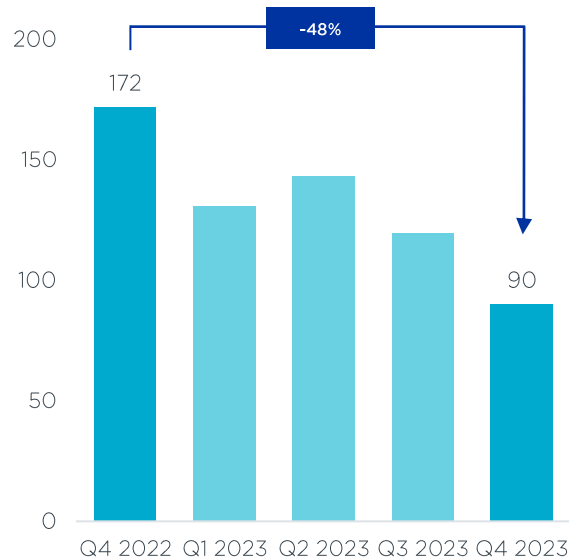
- Continued strong commitment to innovation

EBITDA

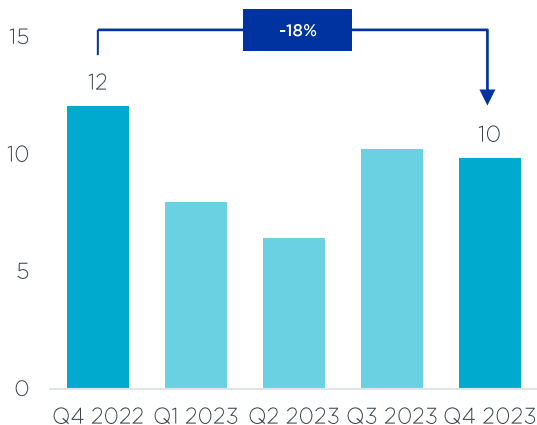
- High operational leverage - margin depending on volume growth

# Lower Bluetooth revenue

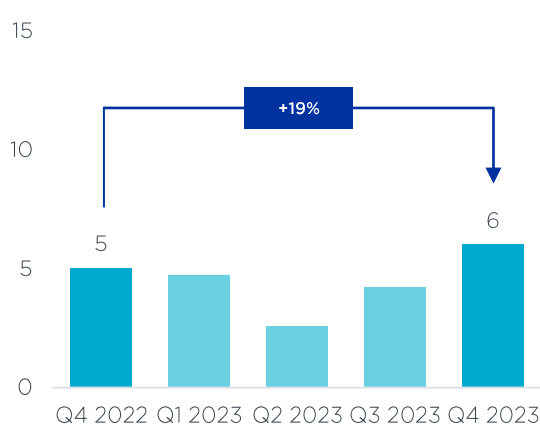
Bluetooth revenue (USDm)  
Quarterly



Proprietary revenue (USDm)  
Quarterly

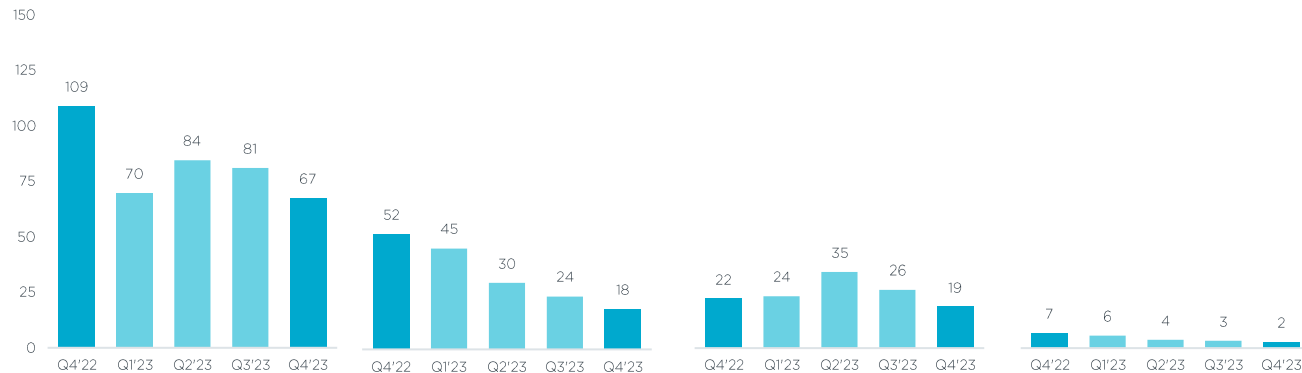
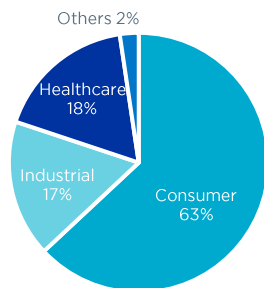


Cellular IoT revenue (USDm)  
Quarterly



# Revenue by markets

Group	Consumer		Industrial		Healthcare		Others		
USDm 108.2	USDm 67.4		USDm 18.3		USDm 18.8		USDm 2.5		
-43% y-o-y	-20% q-o-q	-38% y-o-y	-17% q-o-q	-65% y-o-y	-23% q-o-q	-16% y-o-y	-29% q-o-q	-62% y-o-y	-26% q-o-q



Revenue for the individual markets excludes ASICs and consulting revenue

# Low revenue in Q1 and limited visibility

## Q1 2024 guidance

Revenue	Gross margin
USDm 70-80m	~50%
-52% to -45% y-o-y      -35% to -26% q-o-q	

### Financial calendar 2024

- Q1: 24 April 2024
- Q2: 8 August 2024
- CMD planned for September 2024, date TBD
- Q3: 24 October 2024
- Q4: 5 February 2025

- Low revenue in Q1 with continued inventory adjustments - in addition to normal seasonality
- Reporting philosophy:
  - Only guiding for the current quarter
  - Limiting specific customer comments
  - May limit certain information due to the competitive landscape

# Contact details

Ståle 'Steel' Ytterdal, SVP IR

Thomas Larsen , IR Manager

Please reach out to us on [ir@nordicsemi.no](mailto:ir@nordicsemi.no)



# Building a smarter world!

Where everything is connected



Retail and Payment



Toys and Gaming



Audio and Music



Logistics & Transport



Smart Lighting



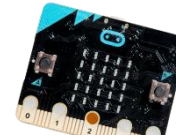
Sports and Fitness



Connected Health



Industrial Automation



Education



VR & AR



Connected Home



Computer Peripherals



Wearables



Automotive



Beacons