Nordic Semiconductor

- A global leading IoT enabler

2023 DNB TMT and Consumer Conference - Oslo

Svenn-Tore Larsen, CEO

NORDIC SEMICONDUCTOR

Simplifying lives through all things connected

Founded	Employees	Oslo listing
1983	1,452 (~77% R&D)	OSEBX:NOD

R&D in
Norway, Finland, Poland, US, UK India, Sweden

Revenue in 2022
777m USD

- 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 2020
- Value added device control and management services through nRFCloud

Dedicated to wireless connectivity

Broad portfolio - scalable solutions – unified software platform

Strong product and solutions portfolio...

Low-power integrated circuits (ICs)

+

Embedded software

+

Advanced development tools

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

Short-range IoT

Bluetooth LE, 802.15.4/ Thread, Zigbee, Matter and 2.4GHz RF SoCs

Medium-range IoT

Wi-Fi 6

Long-range IoT

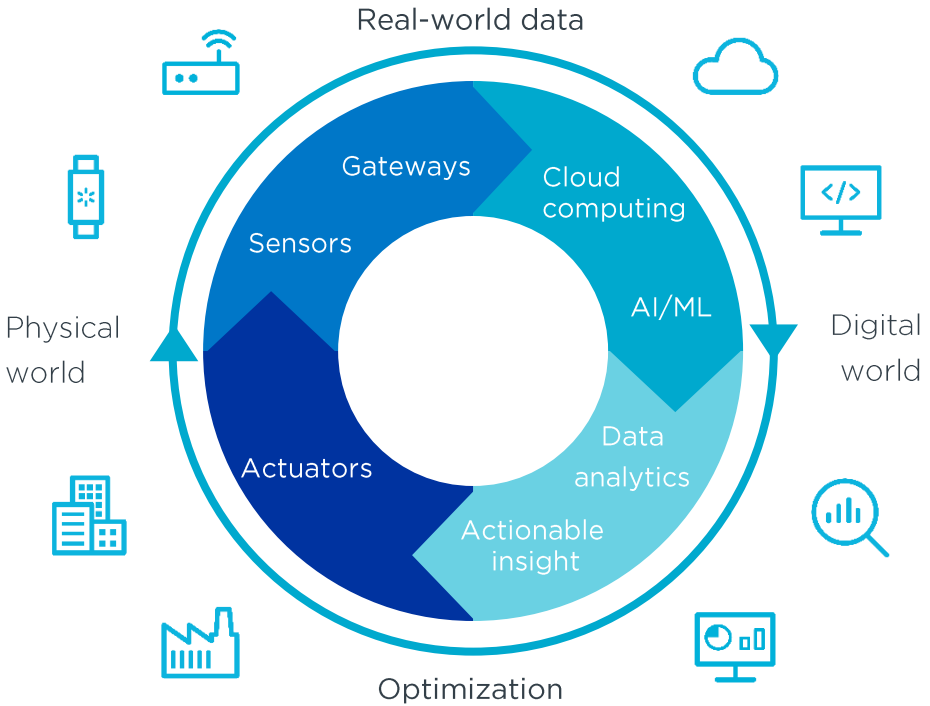
Multi-mode cellular LTE-M/NB-IoT Modules
5G NR+

IoT: Connect, Compute, Analyze and Act

IoT starts with connecting things

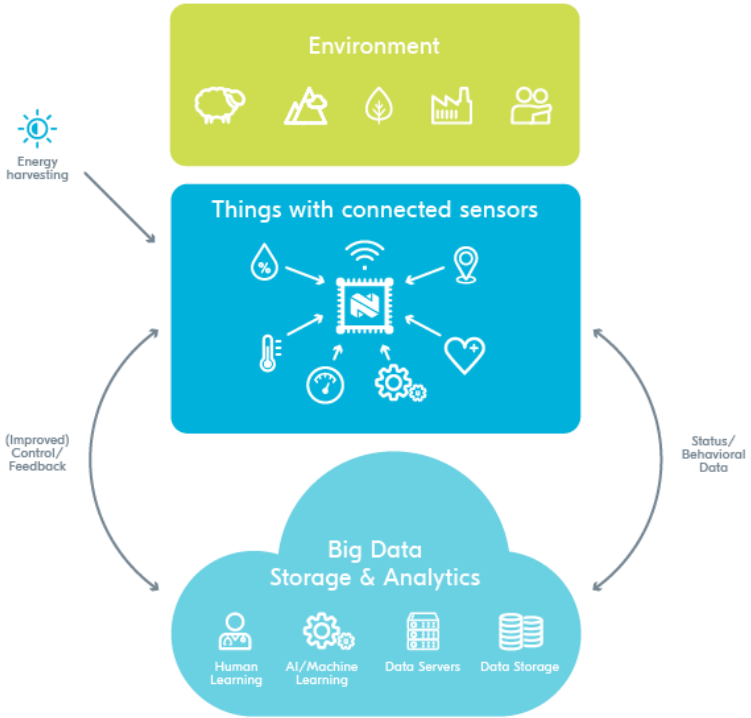
Bridging the physical and digital worlds requires:

- advanced connectivity solutions
- powerful low power compute
- accurate sensing capability



Sustainability thrives on IoT, big data & cloud

IoT is crucial to deliver on UN SDGs



Nordic is making ‘things’ more capable and efficient by:

- Lowering power consumption
- Increasing computational capability
- Adding AI/ML Capability
- Adding sensor capabilities

- Enabling a large variety of sustainable applications
  - Precision farming
  - Climate smart cities and communities
  - Smart mobility
  - Energy efficiency of buildings
  - Sustainable manufacturing and waste reduction
  - Extreme weather and climate impact modelling

Internet of Things is becoming ubiquitous

Sustainability

Disruptive IoT projects can contribute immensely to UN SDGs

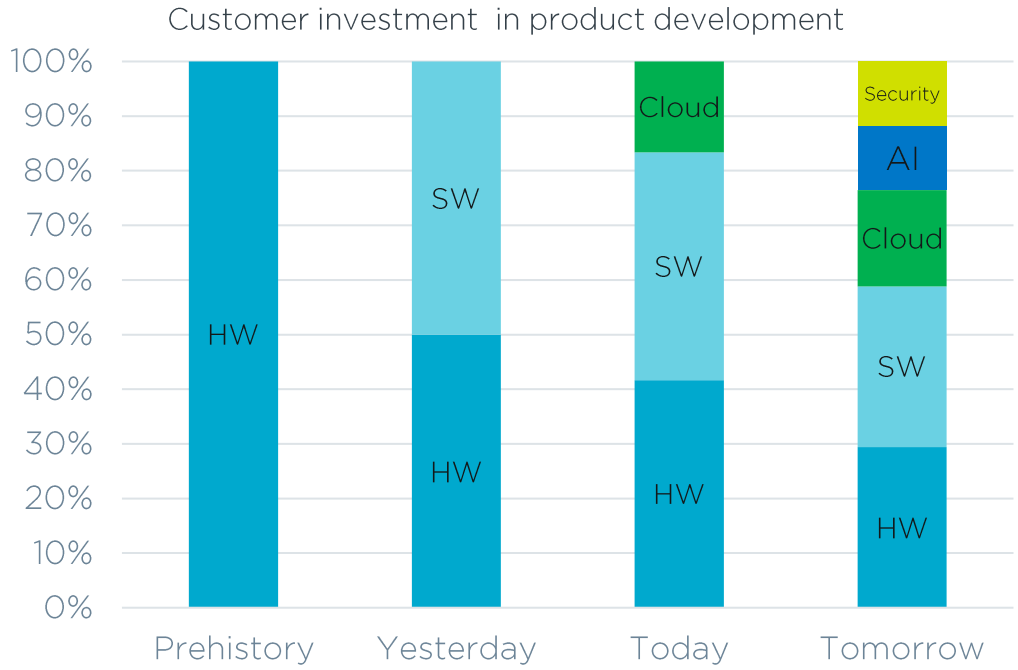
Platform ecosystems

Alignment across platforms will further fuel market growth

Industrial IoT

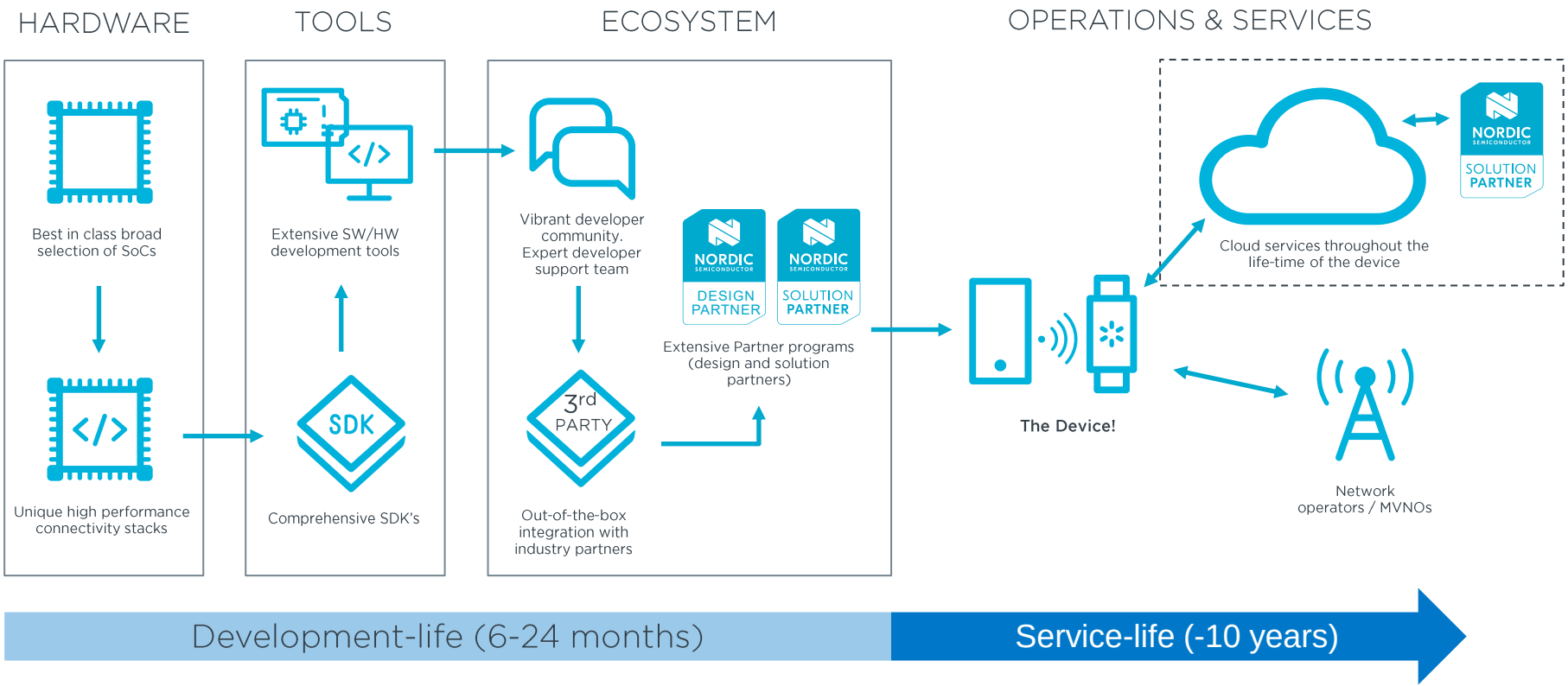
Connecting the physical world and the digital world; Sensors – Cloud computing – Analytics - Actuators

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

Addressing the customer and the device journey



Nordic a company in continuous transition

A complete IoT solution provider

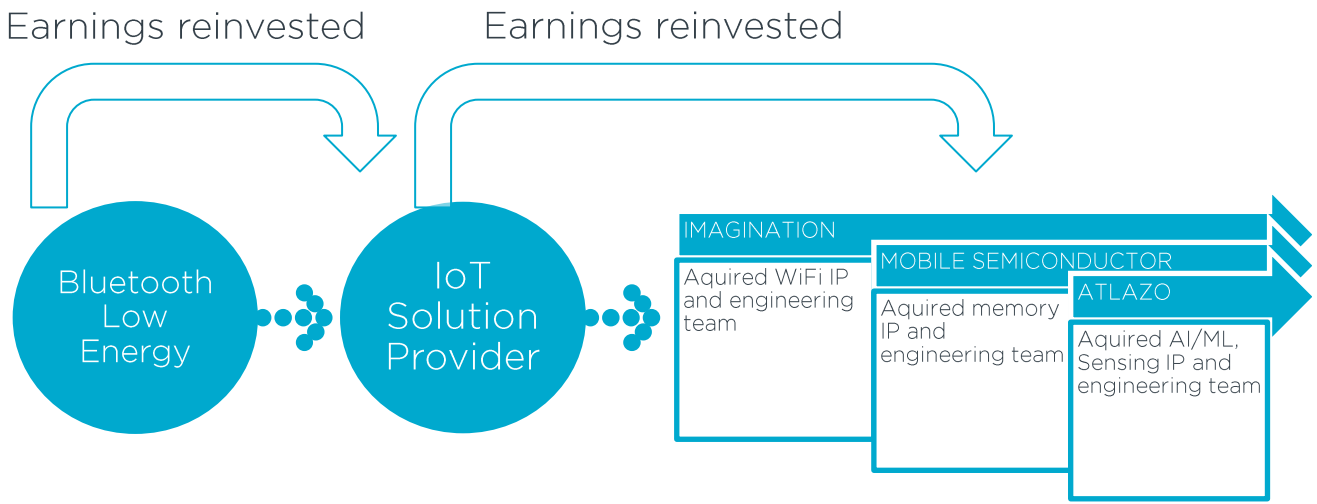
In the past

- Proprietary and BLE main revenue driver
- Broad portfolio of smaller customer
- High single source technology node dependency

Present

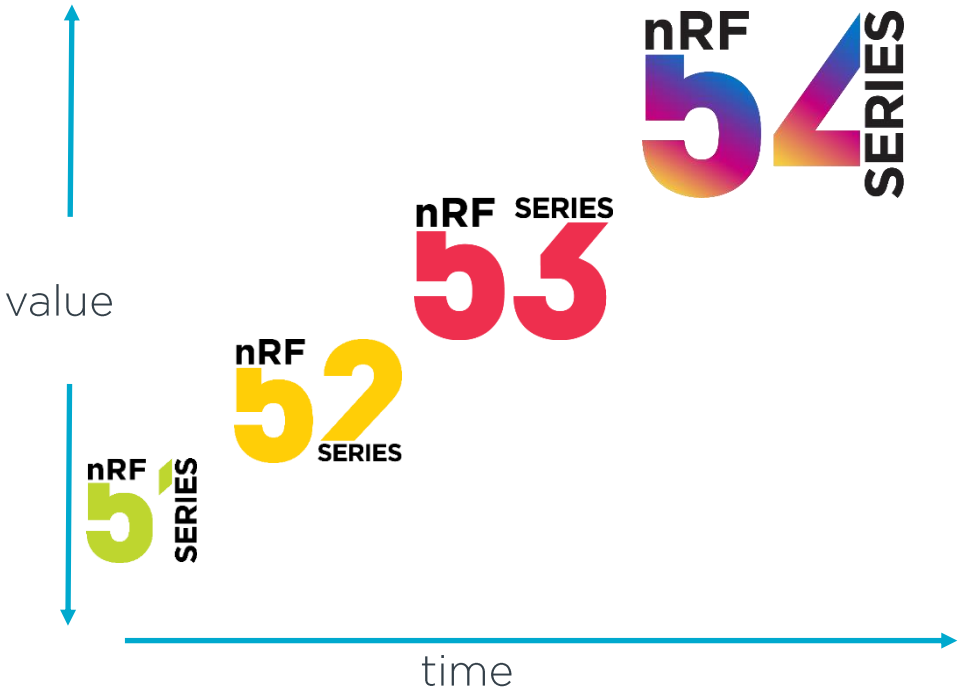
- Broad device portfolio with BLE, Cellular, PMIC, Wi-Fi, Cloud based services and AI/ML
- Strong Tier1 relationships while continue catering to broad market
- Strategic partner with key customers, shaping roadmap and IoT future
- Expanding into new technology nodes and new foundry partners

Nordic roadmap strengthen by strategic acquisitions



- Capitalizing on external opportunities together with organic growth
- Strong strategic fit complementing internal innovation
- Shaping the future of IoT

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

nRF54, driving the future of IoT

New nRF54H20 SoC

- Lower Power
- More security features
- More processing power
- More peripherals

Bluetooth® 5.4 LE Audio mesh

matter

THREAD

ANT+

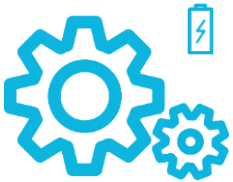
2.4 GHz

nRF54H20 first product in this platform:

- Multi Processor (ARM+RISC V)
- 2MB Non-Volatile memory
- 1MB RAM
- High speed USB (480Mbps), I3C, CAN FD, 14b ADC, more
- Lower power Radio – best in class sensitivity; Nordic multi-protocol
- Higher security (Designed for PSA Certified Level 3)

Significant advantages provided by the nRF54H20

High-performance and ultra-low-power



Heterogeneous processors

Multiple Arm® and RISC-V cores optimized for specific types of workload

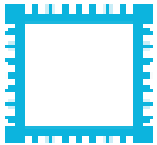
GlobalFoundries 22FDX®

FD-SOI and MRAM

DVFS

dynamic voltage & frequency scaling

Highly integrated



Will replace multiple ICs on the same PCB

4th generation radio

Ample internal memory

Advanced peripherals

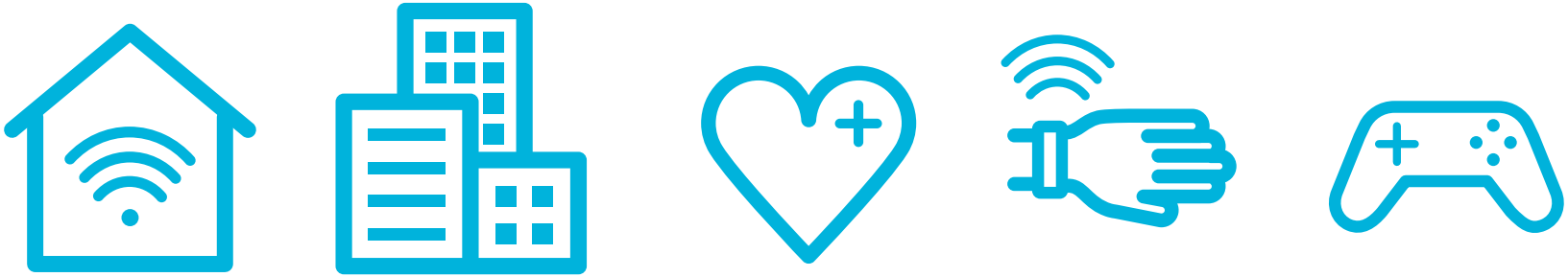
State-of-the-art Security

Physically separated advanced security services

Tamper and side-channel protection

Designed for PSA Certified Level 3

nRF54 series strong fit with exiting application segments



nRF54 family decrease customers' BOM and increases customers' product performance

Securing leadership in ultra-low power memory

"We are very excited to bring on-board this world class team, recognized as an industry leader in optimized, low voltage embedded SRAM designs. A team we know intimately from years of working together."

Svein-Egil Nielsen CTO/EVP R&D and Strategy

- Technology acquisition of Mobile Semiconductor
  - Market-proven track record of delivering ultra-low power-performance-optimized, leading-edge static RAM (SRAM) memory technology for various MCUs and SoCs
  - Small team based in the US (Seattle, Washington)
- Mobile Semiconductor's memory technology already used in our nRF52, nRF53 and nRF91 Series devices
  - Also engaged for the next generation Nordic products
- Ultra-low power operation is a vital sustainability requirement

Nordic to acquire AI/ML technology in the US

"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

- Technology acquisition:
  - IP portfolio of US-based artificial intelligence and machine learning company Atlazo
  - Atlazo's core engineering team
- Nordic's acquisition of the Atlazo IP brings:
  - Cutting edge AI/ML technology
  - Advanced sensor front end technology for health-related applications
  - On-device technology allowing any computing processor to operate at the lowest possible energy point for a given task

The transaction is dependent on regulatory approval, and completion of the transaction is expected by the end of 2023.

Nordic investing into RISC-V

- Establishing a new company together with Semiconductor Industry Players:
  - Robert Bosch GmbH, Infineon Technologies AG, Nordic Semiconductor, NXP® Semiconductors, and Qualcomm Technologies, Inc.
- Formed in Germany, driving RISC-V ecosystem and hardware development
  - Company will aim to accelerate the commercialization of future products based on the open-source RISC-V architecture.

The company formation will be subject to regulatory approvals in various jurisdictions.

Welcome to the Future

NORDIC®
SEMICONDUCTOR