



From transceivers to IoT

DNB TMT Conference, August 22 2017

Svenn-Tore Larsen, CEO Nordic Semiconductor ASA

Nordic Semiconductor at a glance



Key Facts:

Founded in 1982, HQ in Norway

> 580 employees

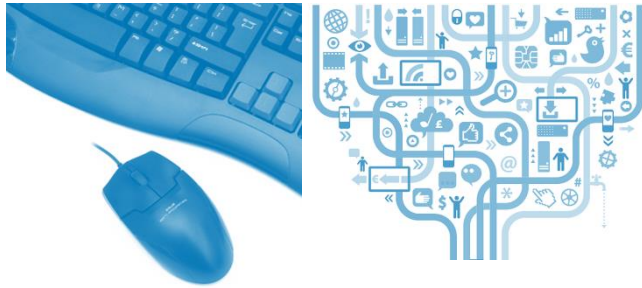
R&D in Norway, Finland, Poland and US

Publicly Listed: OBX:NOD

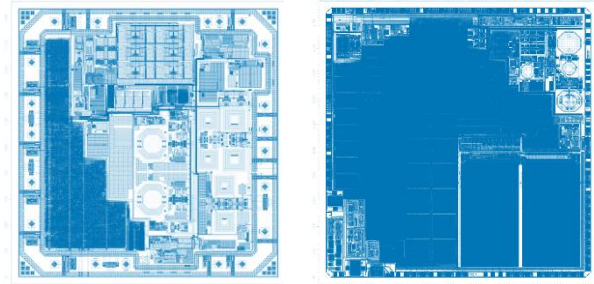
Key partners: TSMC, AMKOR, ASE

- Fabless semiconductor IoT company
- Low power wireless connectivity and embedded processing
- *Bluetooth*[®] low energy / ANT / 2.4GHz RF
- Market leader in *Bluetooth*[®] low energy
- > 2 billion wireless ICs shipped since 2002
- Low power cellular IoT development in Finland

A perspective on the last 5 years



from wire replacement to
Internet-of-things



from transceivers to
System-on-Chips

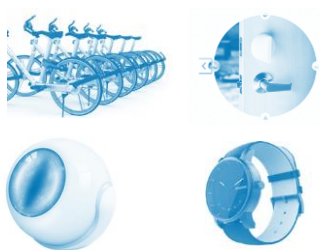
Nordic transformed into an IoT company

Leadership in
Bluetooth low energy



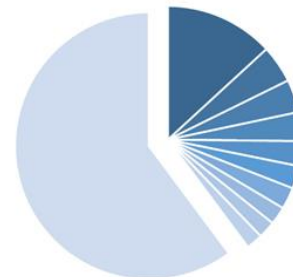
- The driving technology for low power short-range IoT
- Technology and market leader
- > 100MUSD business in 2016

Connecting things
to the internet



- Smarter things and services
- Incredible breadth of applications

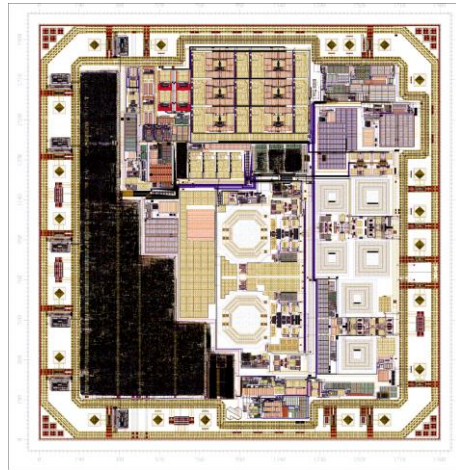
Built a large and diversified
customer base



- Close to tripled our base customers vs. since 2012
- A key characteristic of IoT
- The emergence of non-consumer

Transceivers to System-on-Chips

nRF24L01 Transceiver
(180nm CMOS)

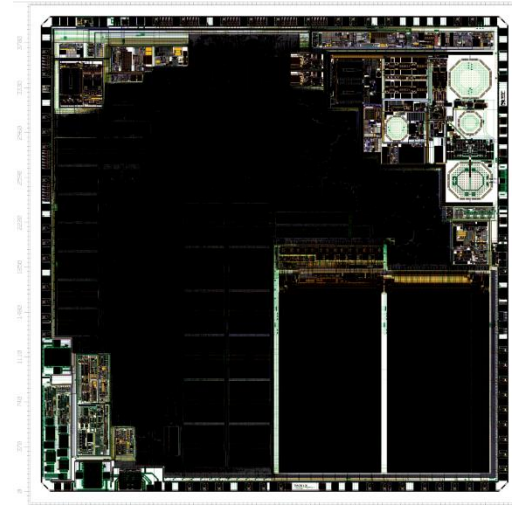


Complexity

80X

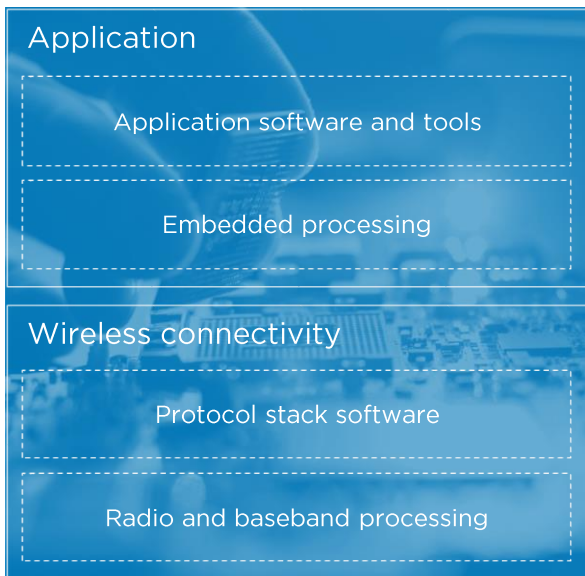
Application and
Wireless Connectivity

nRF52840 SoC
(55nm CMOS)



SoC integration and solutions - key to success

Nordic solution stack



Delivering more value to our customers

- Wireless connectivity + application
- Single chip SoC for power, size and cost
- Robust Bluetooth ASP from 0 to 100MU/y

Competitive differentiation

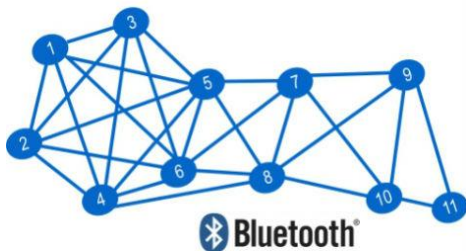
- Leadership position on integration and overall solution including software and tools
- System level power consumption and performance

Driving market growth and diversification

- Easy-to-use and complete solution
- Lowering barriers of adoption
- Enabling new application

Our goals moving forward

Growth and expansion in low power short-range IoT



- Building on our leading position in Bluetooth low energy
- Selected and strategic expansion
- Value add to our customers
- Expanding our addressable market

Build a leading position in low power cellular IoT



- Leverage our strategic investment since 2015
- Leverage synergies with short range – technology and market
- Establish a second growth vehicle

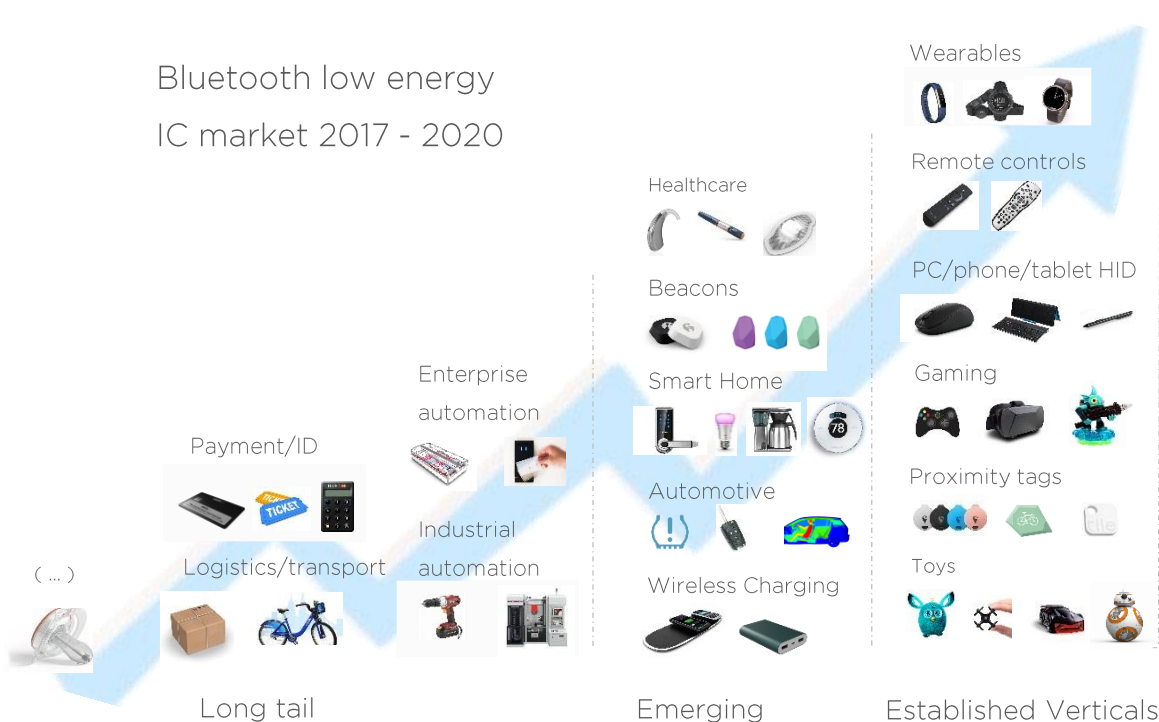
Continue with value add integration and solutions



- SoC, software and tools
- Short-range and cellular IOT
- Increase our value offering per design socket
- Competitive differentiation

Market outlook – Bluetooth low energy

Bluetooth low energy
IC market 2017 - 2020



30 to 45% 3-year CAGR

- Growth in existing verticals
- New verticals/applications
- Fast paced and innovative
- Emergence of non-consumer

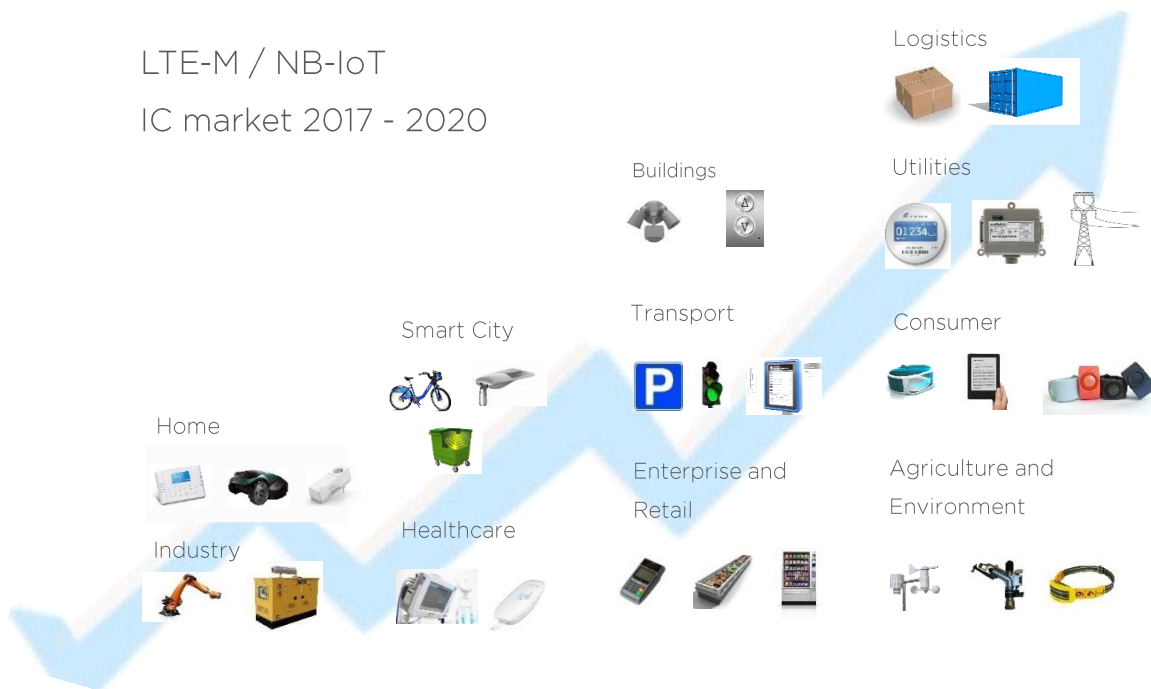
Diversification in types of ICs

- High-end SoCs
- Mainstream SoCs
- Baseline SoCs
- Network processors

Market outlook – low power cellular IoT

LTE-M / NB-IoT

IC market 2017 - 2020



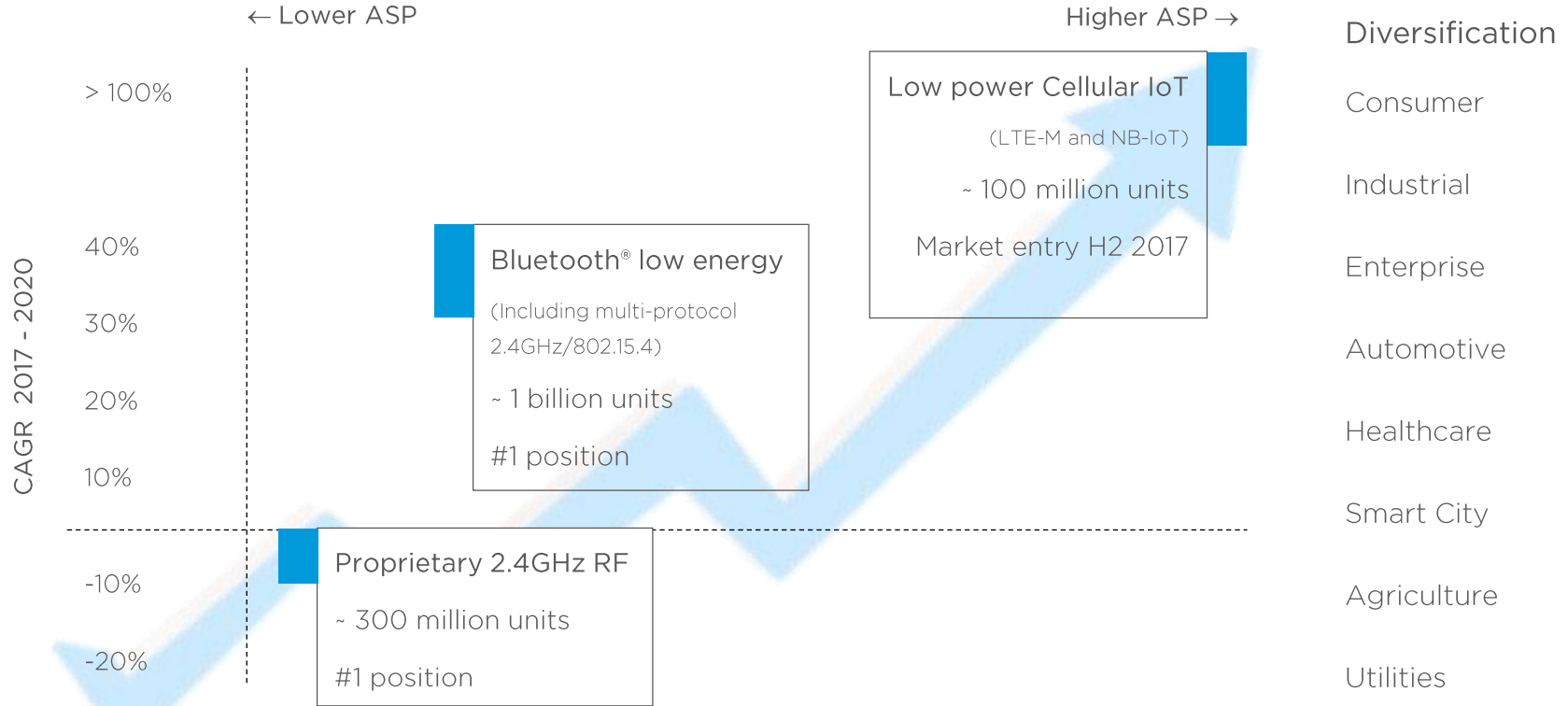
100%+ 3-year CAGR

- 2G/3G replacement
- Growth in existing applications
- Emergence of new applications

Driving use cases

- Remote monitoring
- Predictive & remote maintenance
- Remote operations
- Internet connectivity

Uniquely positioned in fast growing markets





Last 5 years

- Transformed into a leading IoT company
- Transceivers to highly integrated SoC solutions
- Achieved leadership in Bluetooth low energy
- Strategic investment in low power Cellular IoT

Next 5 years

- Continued investments for growth
- Growth and expansion in Bluetooth / short-range IoT
- Build a leading position in low power cellular IoT



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