

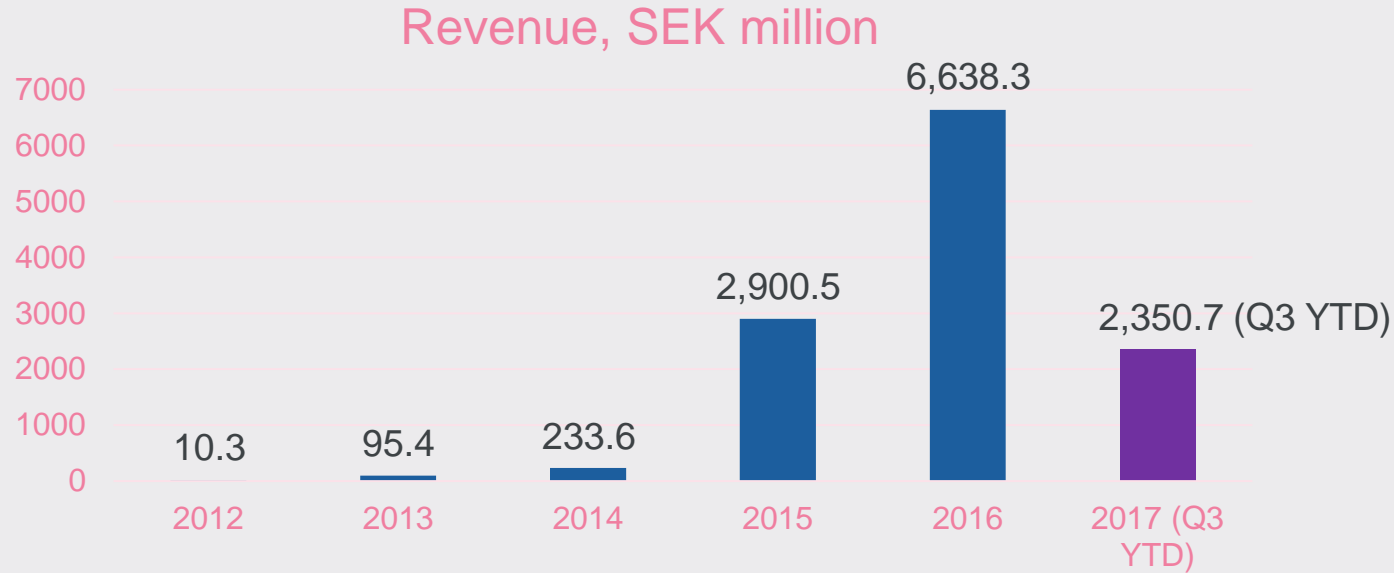
REDEYE TECHNOLOGY SEMINAR

CHRISTIAN FREDRIKSON, CEO
STOCKHOLM, NOVEMBER 23, 2017



FINGERPRINTS

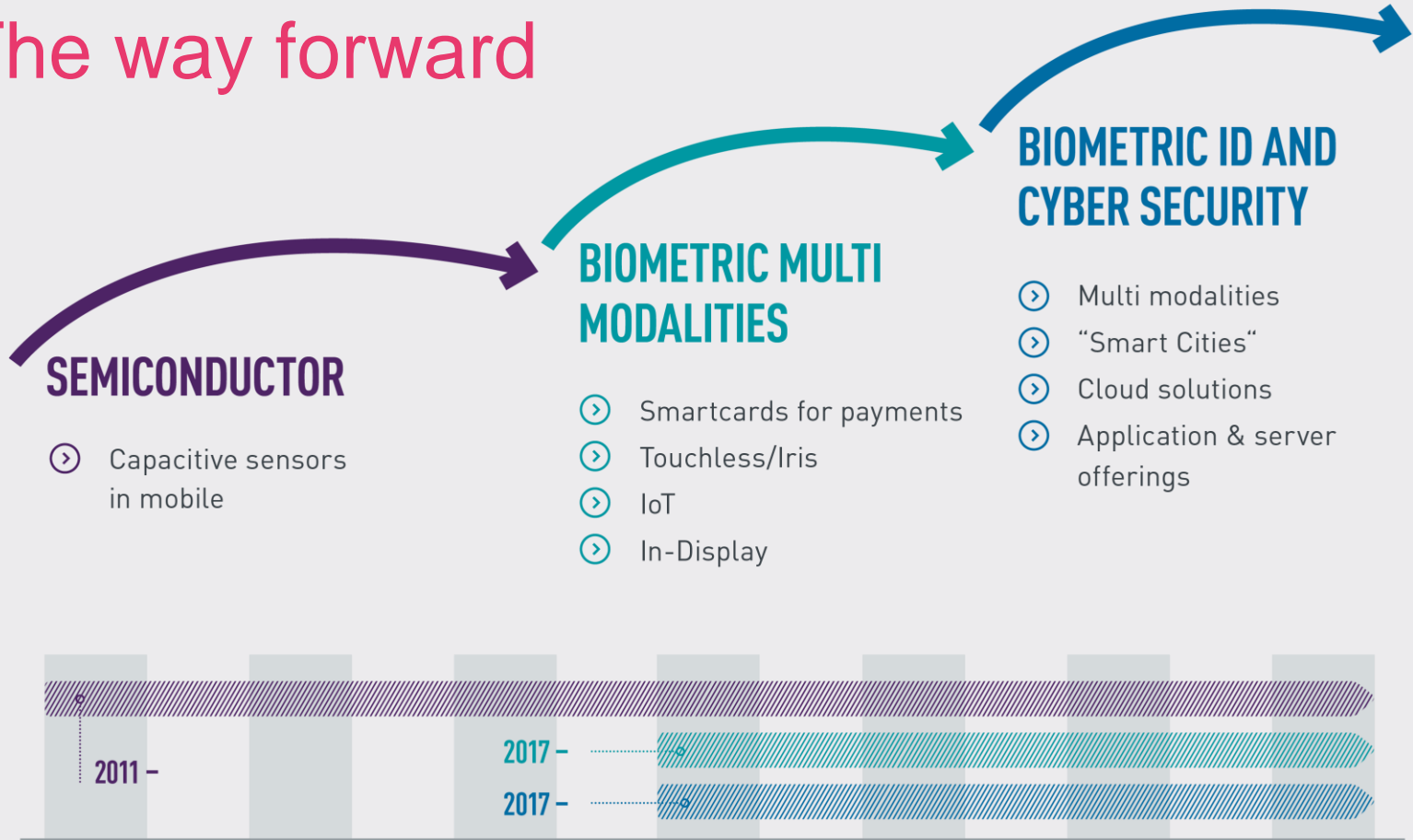
Fantastic and challenging journey



Maturing smartphone market

- ⤵ We are the global **market leader** and we continue to innovate
- ⤵ **Our total addressable market** is growing but is impacted by OEM customer cautiousness, and slower-than-expected growth in fingerprint sensor penetration, as previously communicated
- ⤵ Rate of decline in **Average Selling Price** currently amounts to approximately 30 percent annually, as previously communicated
 - ⤵ The **price level** has dropped as a result of commoditization
 - ⤵ The **product mix** for smartphones has shifted towards cheaper sensors, mounted on the back of the device

The way forward



Focus areas

- ⤵ Capacitive sensors
- ⤵ Payments/Smartcards
- ⤵ Touchless/Iris
- ⤵ IoT/Cloud
- ⤵ In-Display

- ⤵ Reallocation of R&D*, >50% of resources towards new areas, outside of capacitive sensors for mobile

- ⤵ In 2018, around 10%(e) of revenues from outside capacitive mobile*



A large, faint, circular fingerprint graphic is centered on the slide, serving as a background for the title text.

Q&A

A large, faint, circular fingerprint graphic is centered in the background of the slide. It consists of concentric, wavy lines that form a circular pattern, typical of a fingerprint.

APPENDIX

Capacitive sensors in mobile

➤ Market

- 2017 – below 750 million units
- 2018 – Fingerprint sensors volume market growth at about 20% y/y (e)
- A commodity market
- Consolidation phase

➤ Market drivers

- Reliability, flexibility and speed
- Cost efficiency and security
- Innovation

➤ Fingerprints' strengths

- Market leader
- Efficient and high production capacity
- System capabilities
- Technology competence
- Customer relationships
- Patents

Payments/Smartcards



➤ Market

- 2017: Approximately 4 billion smartcards produced/year
- 2018: Commercial deliveries happening, larger volumes in 2019/2020
- A market with high expected growth

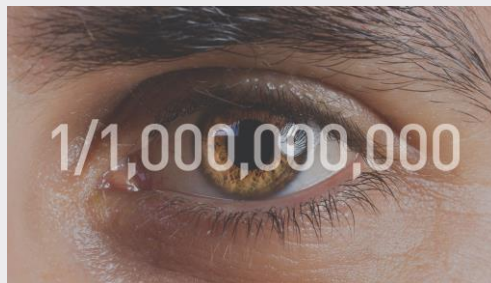
➤ Market drivers

- Convenience and security
- Contactless payments without cap
- Reduced fraud
- New innovation and revenue opportunities

➤ Fingerprints' strengths

- Strong experience in volume production, robust HW & stable SW
- Offering biometric performance in a low computing power environment
- Low power consumption, essential in smartcards
- Strong collaboration with smartcard industry leaders

Touchless/Iris



➤ Market

- 2018: Over 80 million units (including Samsung)

➤ Market drivers

- Touchless in mobiles and in automotive
- Secure access applications
- High security requirements
- Demographic coverage

➤ Fingerprints' strengths

- Expanding number of customers and regions through iris
- Leading supplier of iris recognition technology
- Existing customer base (India, Japan, US)
- Multimodal solution: Strong combination of fingerprint sensor and iris

IoT and Cloud

➤ Market

- 2018: For example, door locks and bank applications market at 5 to 10 million units (e)
- Fragmented
- Biometrics as-a-Service
- New business model
- Start-up phase

➤ Market drivers

- Security (cyber security)
- Cost efficiency
- Public cloud deployments – Smart Cities
- IoT drives Cloud solutions

➤ Fingerprints' strengths

- Leadership position within biometry
- System competence
- Cloud competence
- Understanding of biometric identity
- ActiveIRIS®

In-Display

➤ Market

- Disruptive
- Initially high-end

➤ Market drivers

- Full display
- Better user experience
- Industrial design development



➤ Fingerprints' strengths

- Leadership position in biometrics
- Works anywhere on the display
- Works with both LCD and OLED panels
- Works on metal as well as glass

THANK YOU!



FINGERPRINTS