



# IFX Day 2018

## Thomas Rosteck

### Division President Chip Card & Security

London, 12 June 2018



# Infineon's security solutions are widely used



Security solutions from Infineon are part of our everyday life

Security solutions for ePassports

Security solutions for credit and debit cards

Embedded SIM for emergency calls in cars

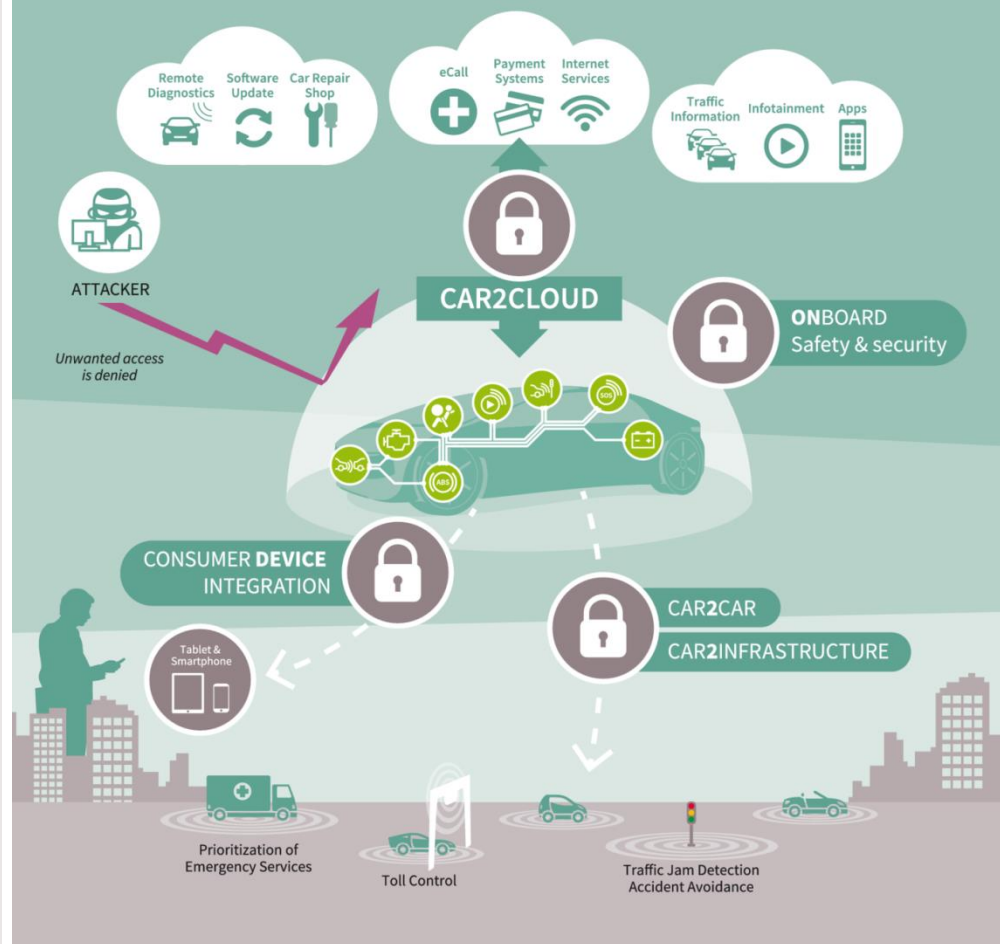
TPM for secure computing

Embedded secure elements for smart wearables

# Security is a system approach

- › As humans, machines, 'things' are getting connected, the risks of security attacks increase strongly as attack paths increase
- › Accordingly, there is a greater need for security in fields like smart home, connected cars, information and communication technologies, Industry 4.0
- › Many manufacturers of devices and systems do not have the necessary security know-how

## Example: Automotive Security





# Security is a rather unique area of competence and needs long-term experience and commitment



Rules of engagement change everyday in the world of security



Security solutions require system expertise and related threat modeling – being functionally correct is not enough



Security must be ahead of tomorrow's requirements and threats

Preparedness for distant future is a key element of success, e.g. world's first PQC resistant implementation on a security chip by Infineon



# Infineon offers security for the connected world



# CCS is the leader in security solutions for the connected world



#1 in microcontroller-based smart card ICs\*

Industry's broadest coverage of security-relevant applications; leading position in growth segments

Complete portfolio of hardware, software and turnkey solutions – offering ease of integration based on system competence

Broad application competence and solution-oriented go-to-market

CCS is well positioned to benefit from the growth trends in the security market

\*Source: Based on or includes content supplied by IHS Markit, Technology Group, "Smart Card Semiconductors Report", July 2017

# Smart card leadership serves as the foundation for future growth



**~\$3bn**  
smart card ICs market

Smart cards will continue to exist for a long time



A broad portfolio of security microcontrollers, software and turnkey solutions; active support for open standards like CIPURSE™



Market trends like contactless, robust security are highly favorable to Infineon



Smart card IC market offers manifold profitable opportunities (e.g. wearables)

**24.8%**  
market share for micro-  
controller-based chip card ICs

Infineon is the #1 in smart card ICs (#1 in payment, #1 in government ID)

Source: Based on or includes content supplied by IHS Markit, Technology Group, "Smart Card Semiconductors Report", July 2017

# Growth is driven by securing IoT devices with embedded security controllers



#1 position in established embedded security markets such as enterprise laptops and automotive security (e.g. eCall)



A broad portfolio of security solutions combining hardware and software addressing a broad set of embedded markets including mobile and IoT

**P2S** Product to system

Offering complete security solution with system competence instead of just a chip to a multitude of IoT edge applications



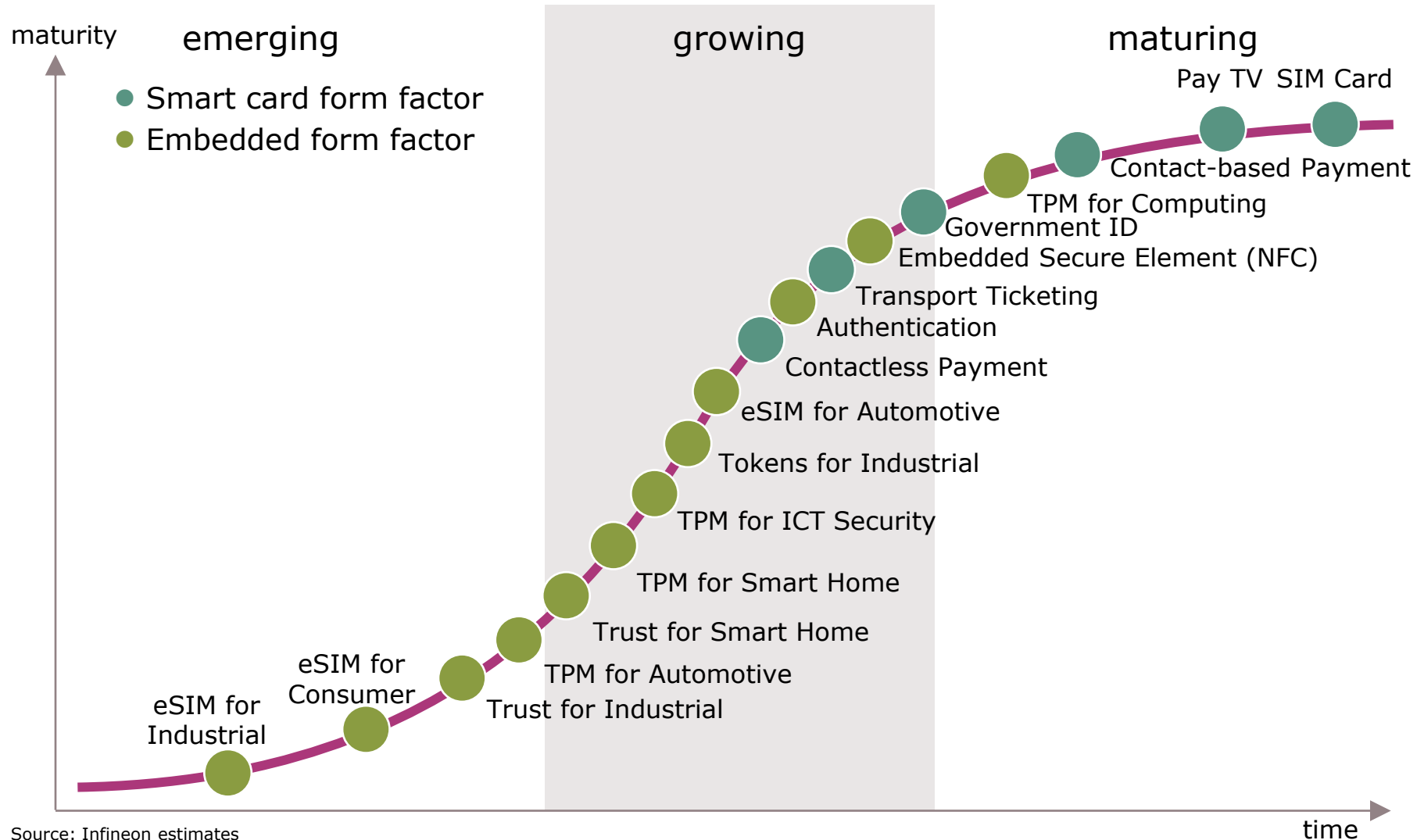
Security becomes more and more a key feature and Product-to-system business win factor for ATV, PMM and IPC applications



Broad market access due to cross-selling with ATV, PMM and IPC and leveraging Infineon's position in the distribution channel



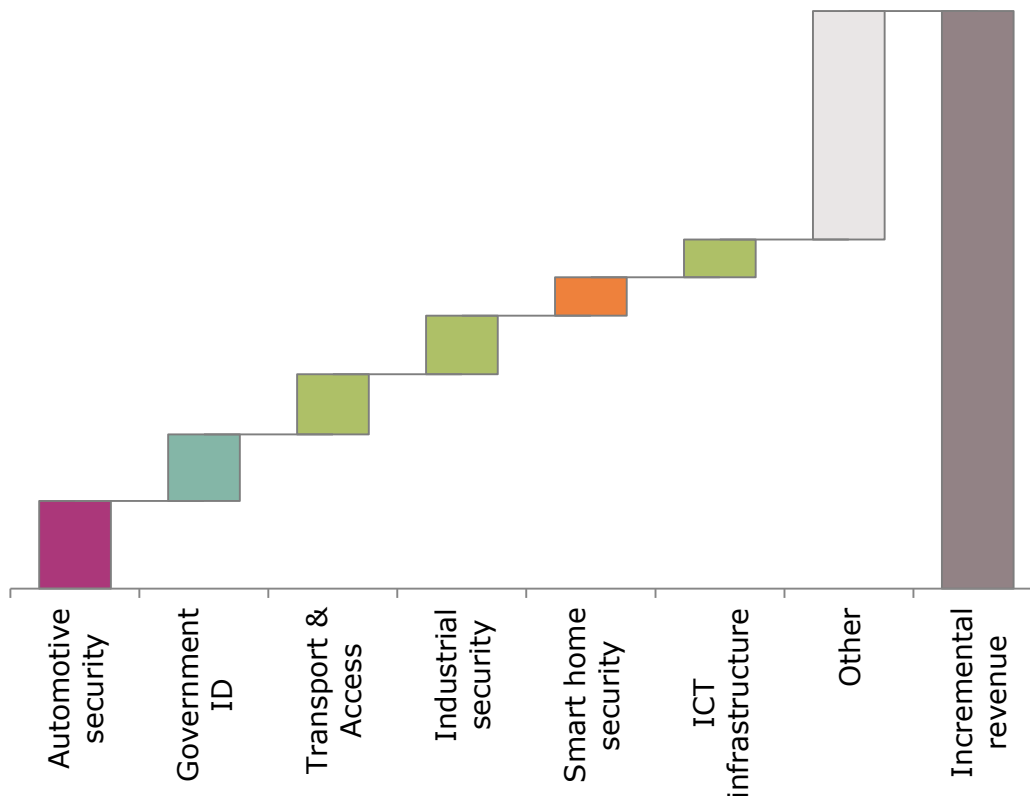
# Continuous stream of new topics aging and exiting



# Applications of both embedded and smart card segments will drive mid-term growth



Composition of incremental € revenue over five year planning horizon by application



## Automotive Security

Securing automotive applications is a newer area of growth; Infineon's security solutions are used widely here

## Government ID

Growth fueled by project wins over the recent years across regions and customer groups

## Smart Home Security

New area of connected devices at home including networking devices requiring security

## Other areas of growth

Several other applications like mobile, brand identity will drive growth in the mid term

CCS trendline growth:  
mid single-digit %

# Key take-aways

A close-up, slightly blurred image of a circular microchip or wafer. The surface is covered in a grid of small, colorful squares in shades of yellow, orange, red, and blue, representing different circuit components or data points.

Leveraging on leading market position in establishing security in new markets.

Making security easy to use utilizing contactless, security and system competence.

Scaling the business through cross-divisional application know-how and broad market access.



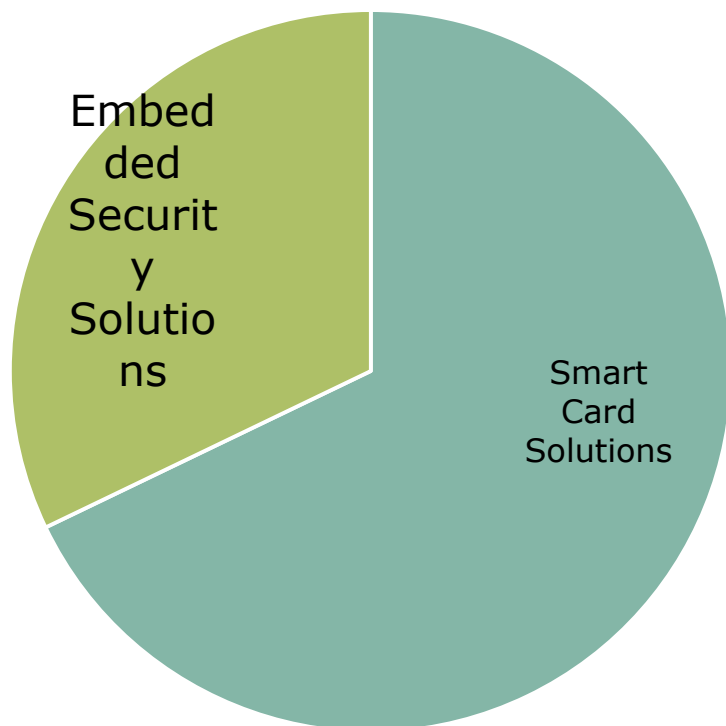
Part of your life. Part of tomorrow.



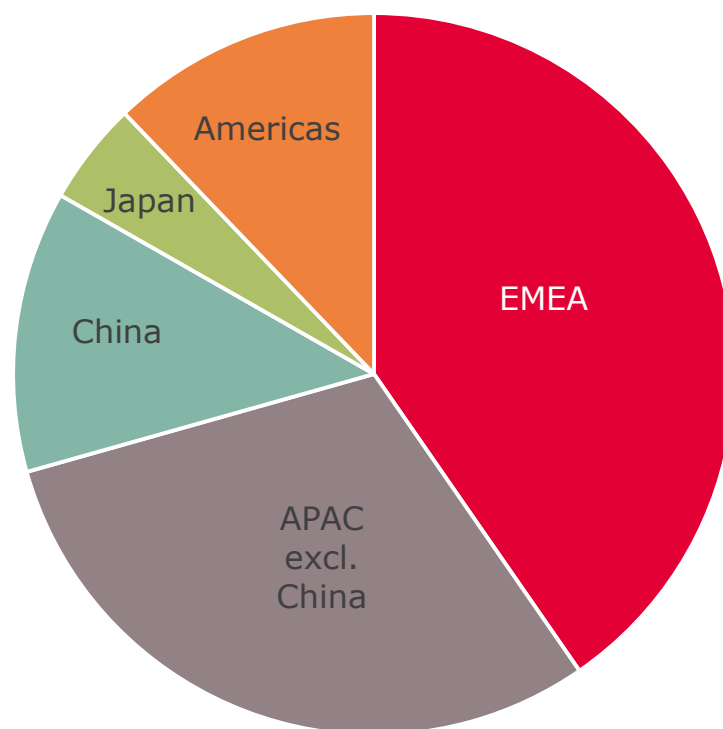


# Dashboard

CCS FY17 revenue by application

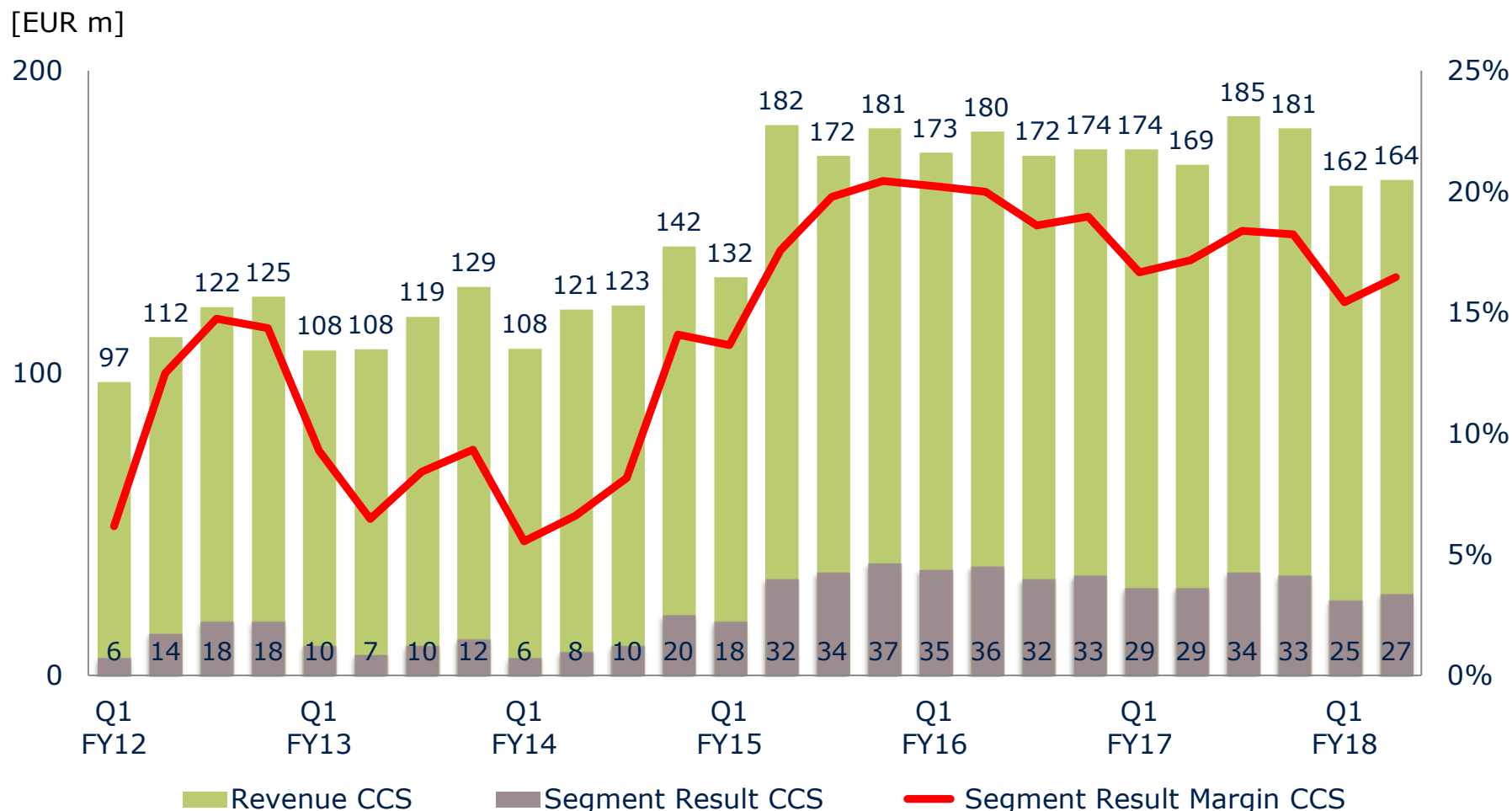


CCS FY17 revenue by region



# CCS historical financial figures

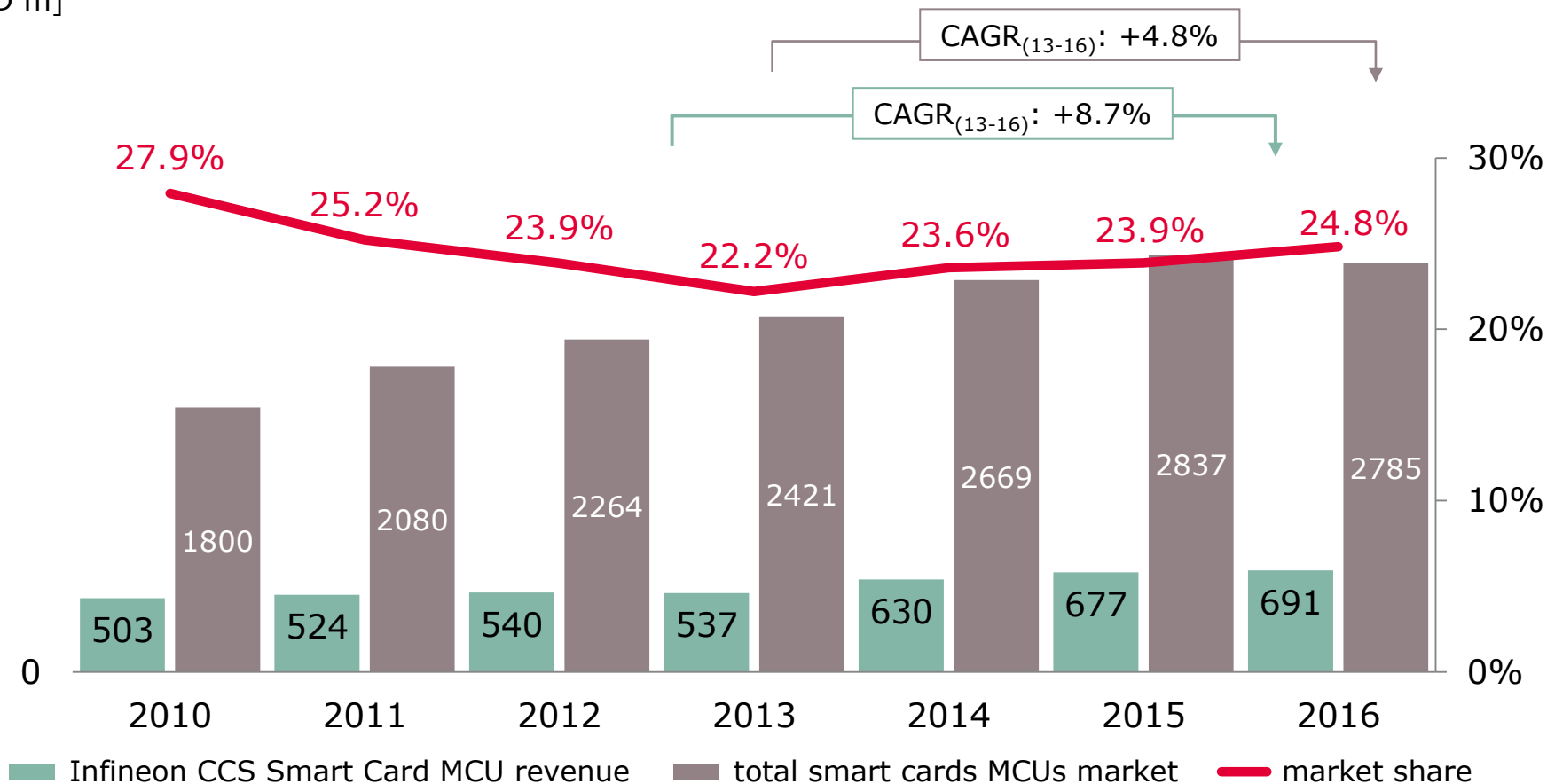
## Revenue and segment result development



# CCS is gaining back market share

## Infineon Smart Cards MCUs share development

[USD m]



Source: Based on or includes content supplied by IHS Markit, Technology Group, "Smart Card Semiconductors Report", July 2017

# Glossary

eCall	emergency call
eSIM	embedded SIM
IC	integrated circuit
ICT	information and communications technology
ID	identification
IoT	Internet of things
NFC	near field communications
PQC	post quantum cryptography
TPM	trusted platform module
SIM	subscriber identity module



# Thomas Rosteck, Division President Chip Card & Security



- › Thomas Rosteck has been the Division President Chip Card & Security at Infineon Technologies AG since 2017.
- › Thomas Rosteck was born on 2 March 1966 in Offenbach am Main, Germany. He studied Business Administration and Computer Science at the Technical University of Darmstadt.
- › He joined Infineon in 1998.

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