

arm

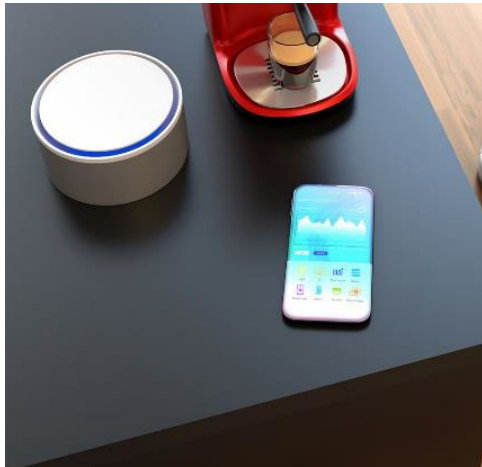


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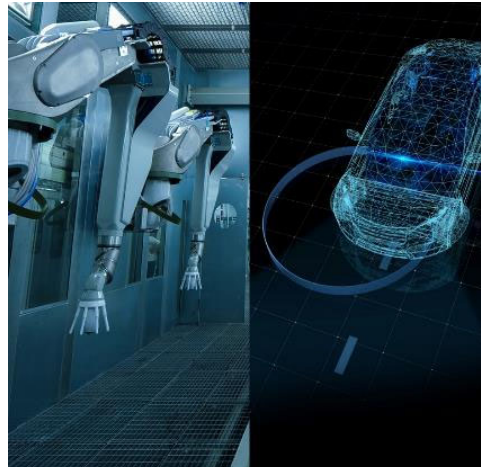
# Arm Limited Roadshow Slides

Arm Limited is a subsidiary of  SoftBank

# Technology trends that will redefine all industries



Artificial Intelligence in every device



Autonomous machines



Augmented reality

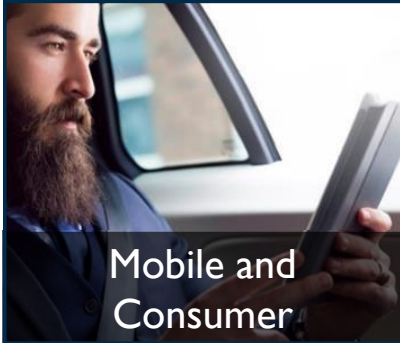





Hyperscale cloud and connectivity



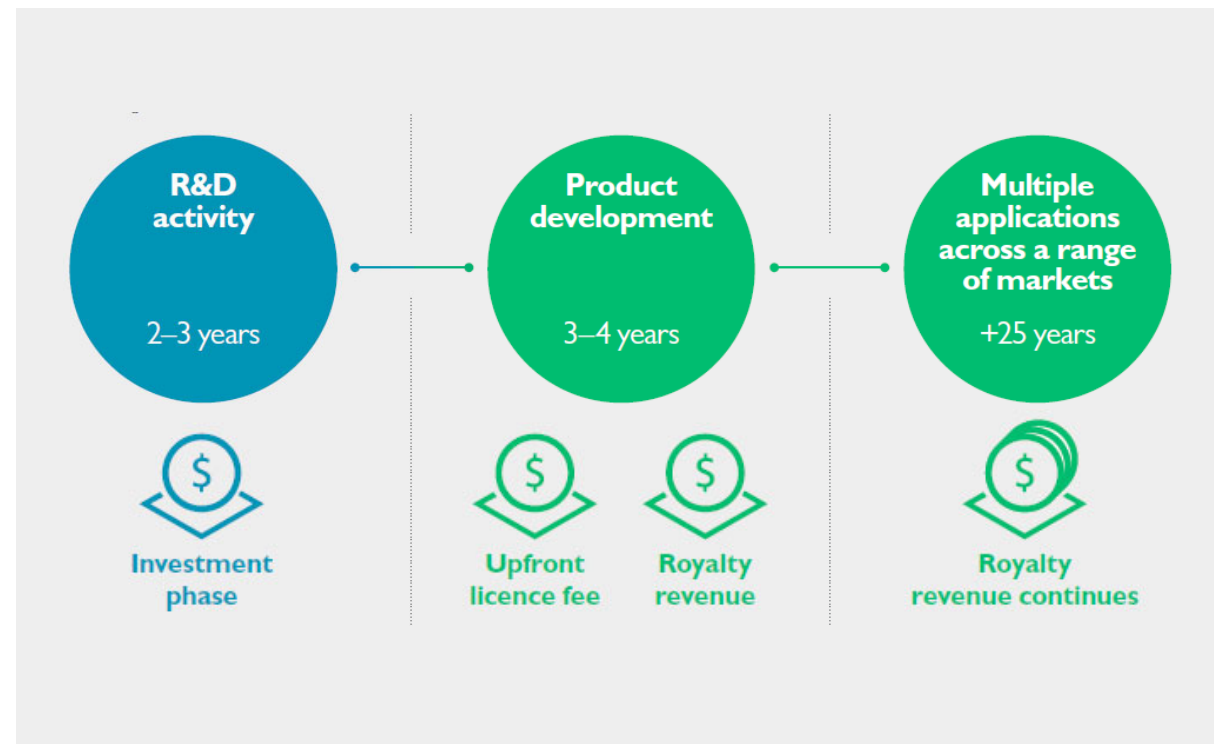
Security and Privacy

# Arm defines the technology that will redefine all industries

	 Mobile and Consumer	 Networking and Servers	 Automotive and Robotics	 Internet of Things
Artificial Intelligence in every device	✓	✓	✓	✓
Autonomous machines			✓	✓
Augmented reality	✓		✓	
Hyperscale cloud and connectivity		✓		✓
Security and Privacy	✓	✓	✓	✓

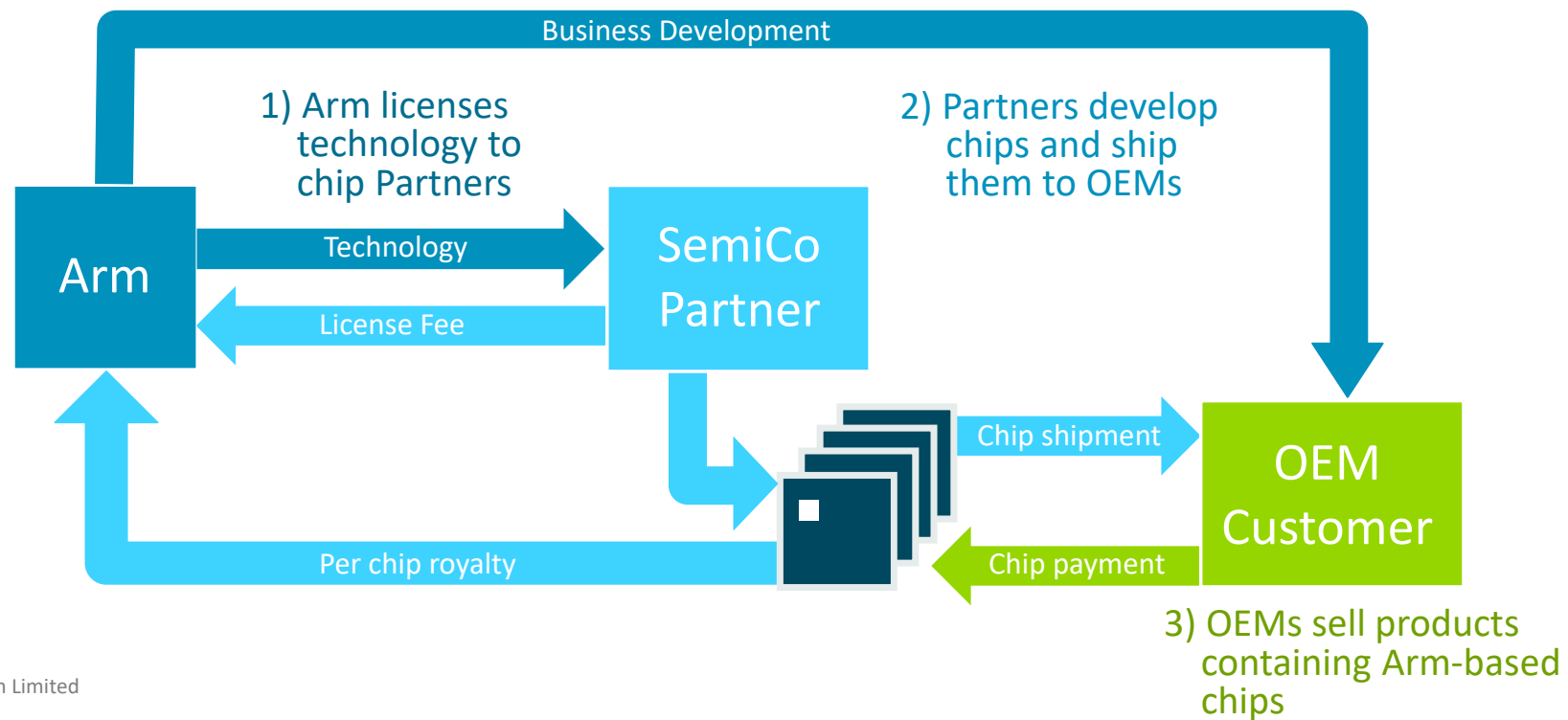
# Arm introduction

- Global leader in technology licensing
  - R&D outsourcing for semiconductor companies
- Innovative business model
  - Upfront licence fee – flexible licensing models
  - Ongoing royalties on customer sales
  - Technology can be reused across multiple applications
- Long-term, secular growth markets



# Arm's business model

- Arm develops technology that is licensed to semiconductor companies
- Arm receives an upfront license fee and a royalty on every chip that contains its technology





# Arm's strategy

- Maintain or gain share in long-term growth markets
  - From mobile phones to networking infrastructure and servers to embedded smart devices and automotive
- Increase value of Arm technology per smart device
  - Invest in developing more advanced processors with higher royalty rates
  - Physical IP and multimedia IP further increase Arm's value per chip
- Explore and exploit new opportunities in emerging applications created by the Internet of Things
- Invest to create a sustainable business, fit for the long term
  - Create superior returns by developing new technology that will deliver increased profits and cash generation in the future



# Arm's main growth markets

## Mobile and Consumer



**\$108bn**  
TAM 2028

- Smartphones, tablets and laptops
- Apps processor, modem, connectivity, touchscreen and image sensors
- Growth coming from higher-value Arm technology such as Arm v8-A, more cores per chip, multimedia


## Networking & Servers



**\$48bn**  
TAM 2028

- Base stations, routers, switches, and servers for cloud and data centres
- Networks evolve to cope with increased data at lower latency: virtualisation, integration and programmability
- Most major chip vendors have announced Arm-based products

## Embedded Markets



**\$94bn**  
TAM 2028

- Automotive, white-goods, wearables, smart devices in industrial and utilities
- Microcontrollers, smartcards, embedded connectivity chips
- Over 300 companies have licenced Arm processors for use in embedded computing devices

# History of Arm

Joint venture between  
Acorn Computers and Apple



1990

Designed into first mobile  
phones and then smartphones



1993 onwards

Now all electronic devices can  
use smart Arm technology



Today



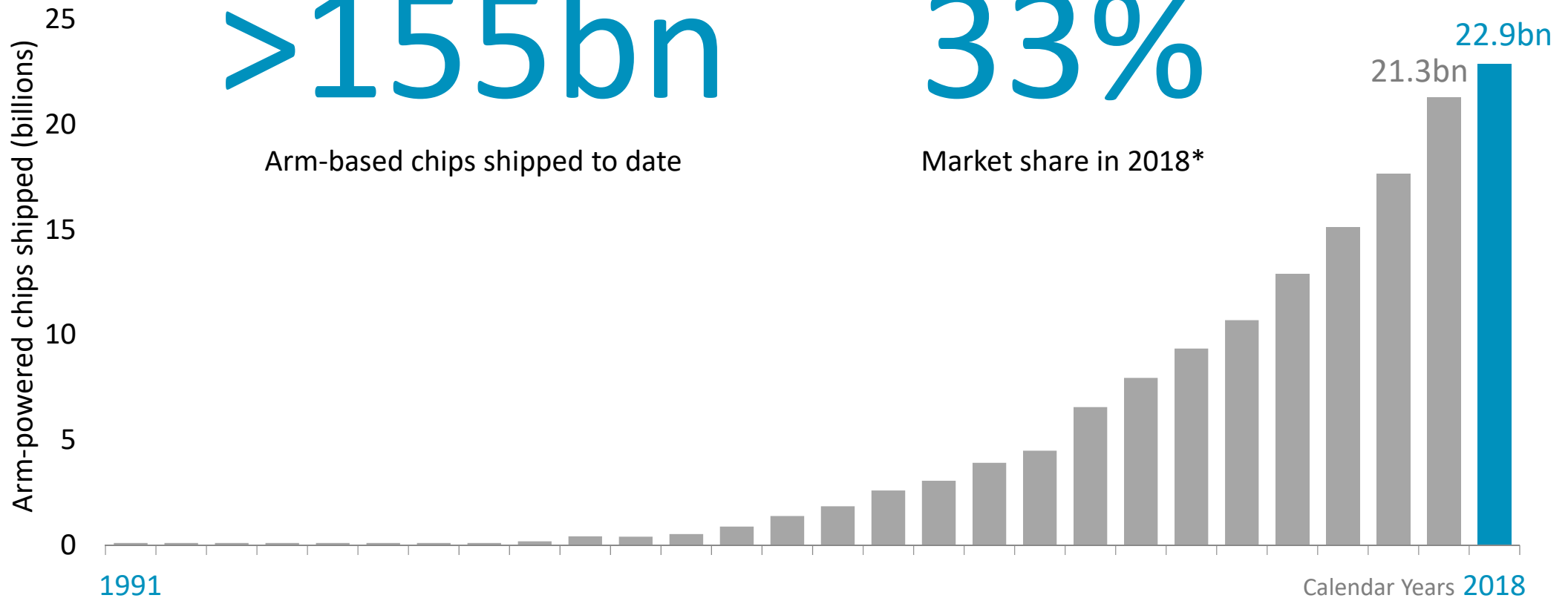
# Arm-based chip shipments

>155bn

Arm-based chips shipped to date

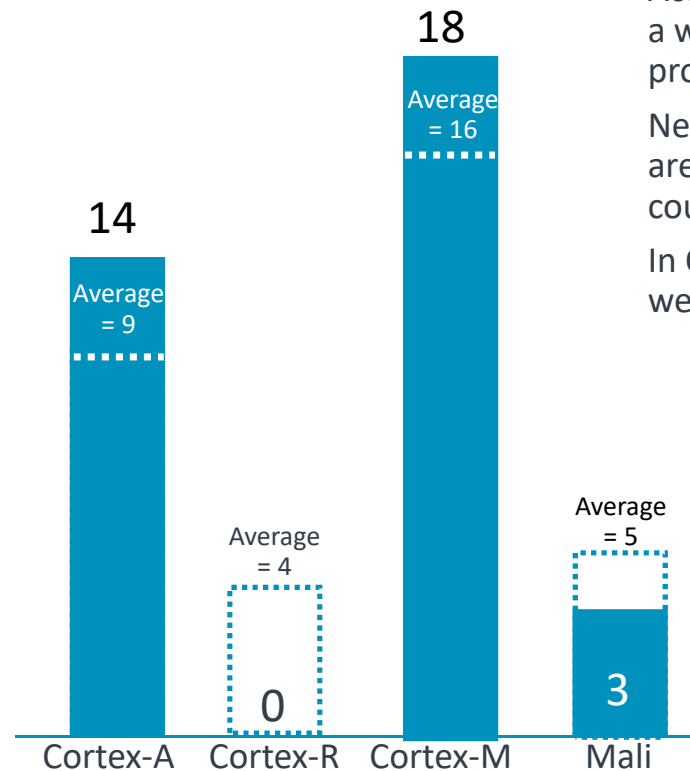
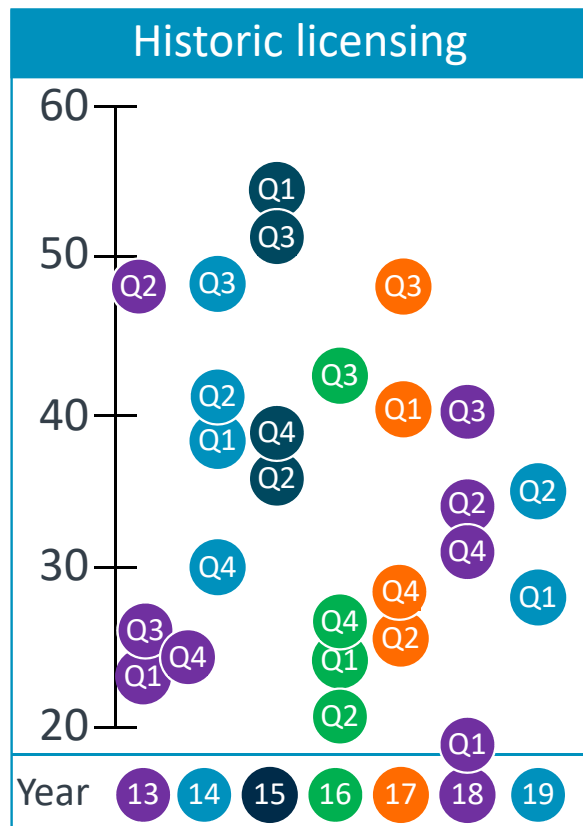
33%

Market share in 2018\*



\* Note that market share is lower than previously shown as market definition has been expanded

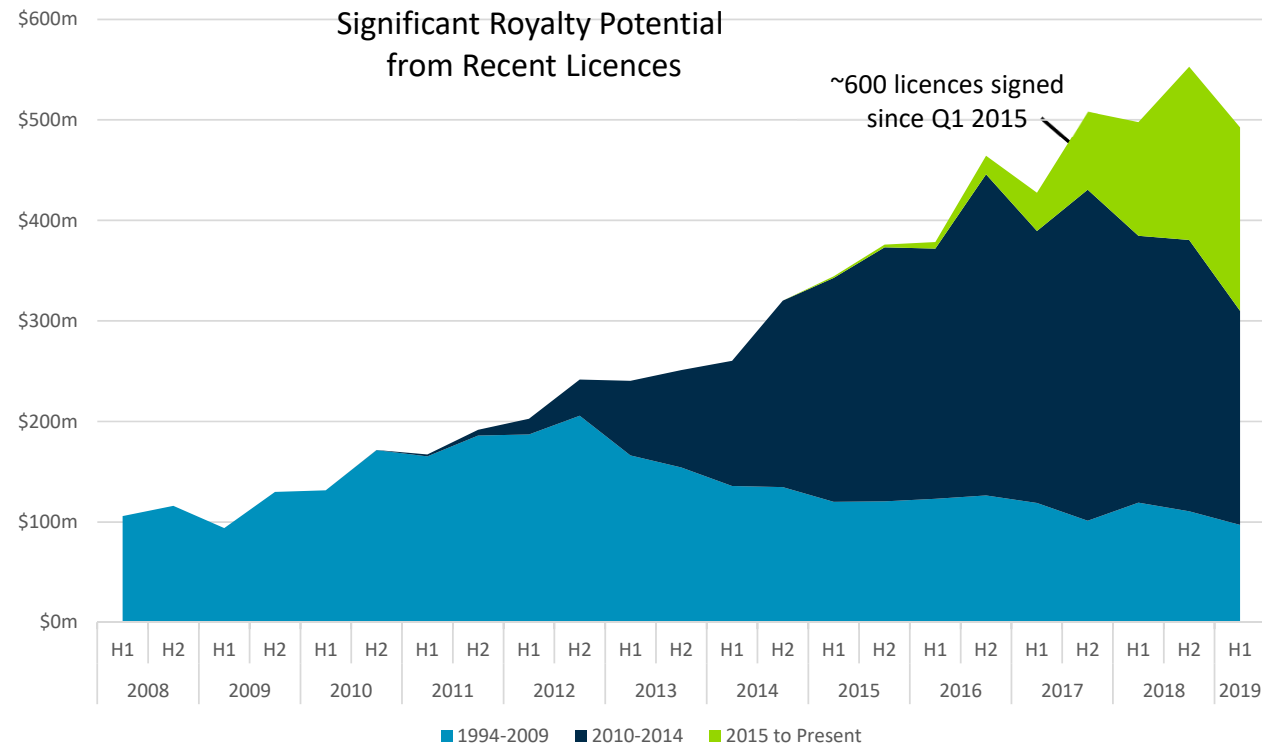
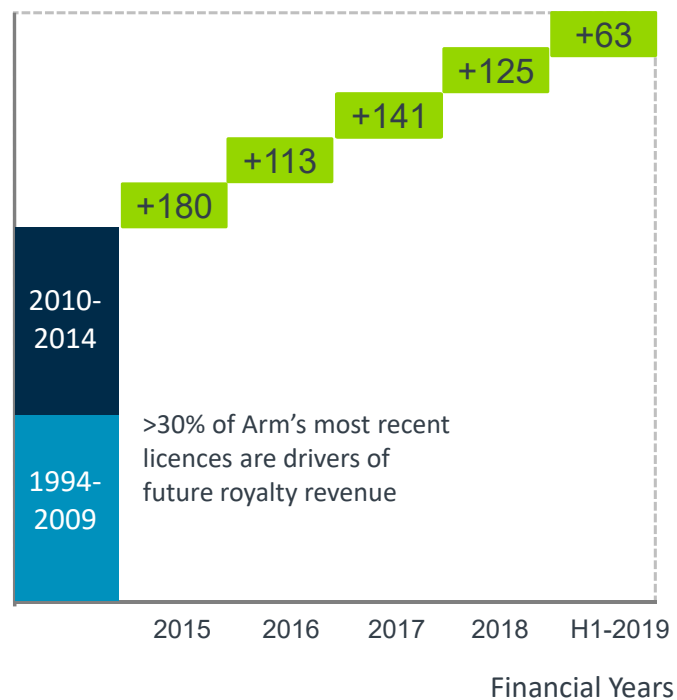
# Q2 Licensing: 35 is within the normal range



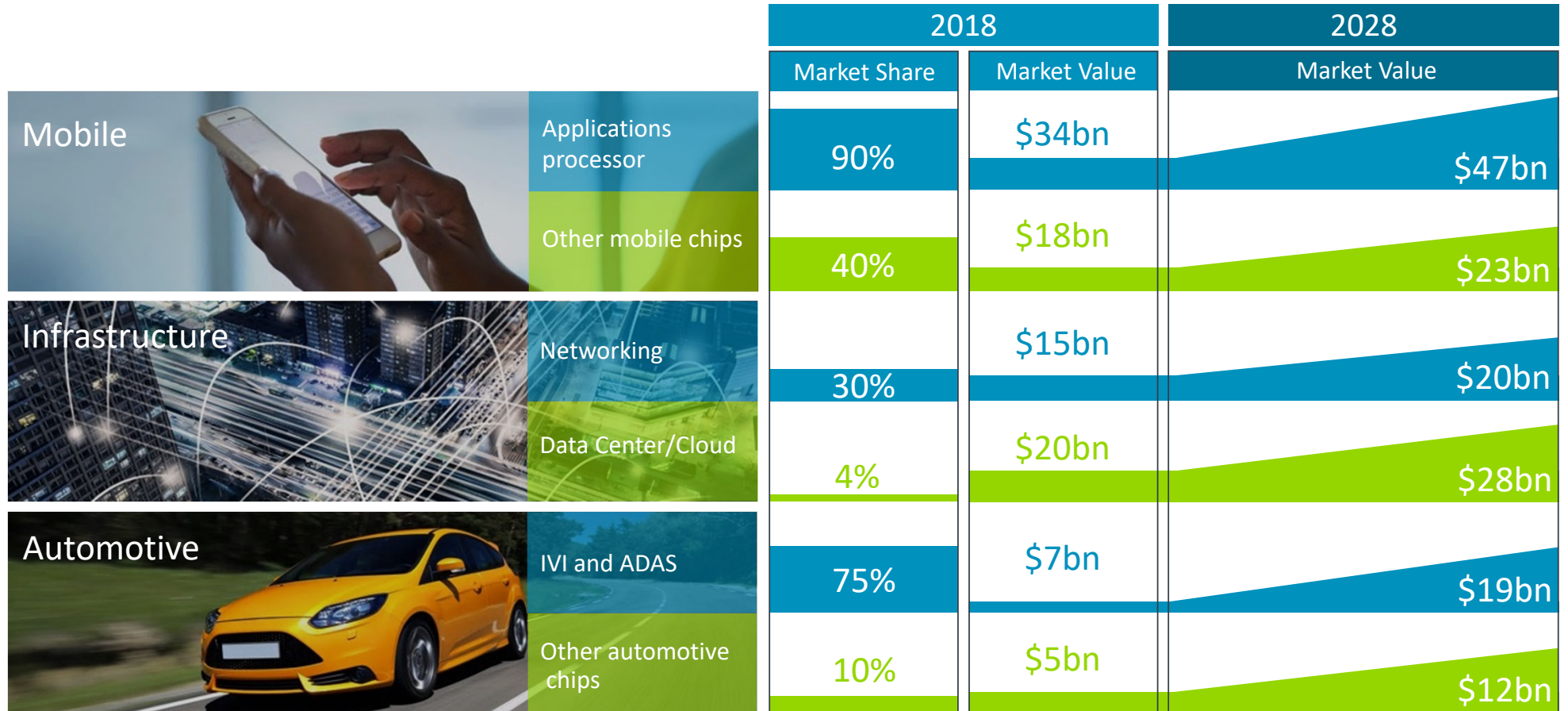
In June 2017, Arm introduced the DesignStart Pro (DS Pro) program which makes some Cortex-M processors available but for no upfront fee. In July 2019, Arm introduced Arm Flexible Access licensing program which provides a wide range of Arm's most popular processors for no upfront fee. Neither DS Pro nor AFA licenses are included in the licensing count. In Q2 21 DS Pro and 6 AFA licenses were signed.

# Licensing enables future royalties

- Arm signed 35 processor licences in Q2 2019
- Arm's current royalty revenues are derived from licences signed many years ago
- Growing base yields royalty revenues over long period

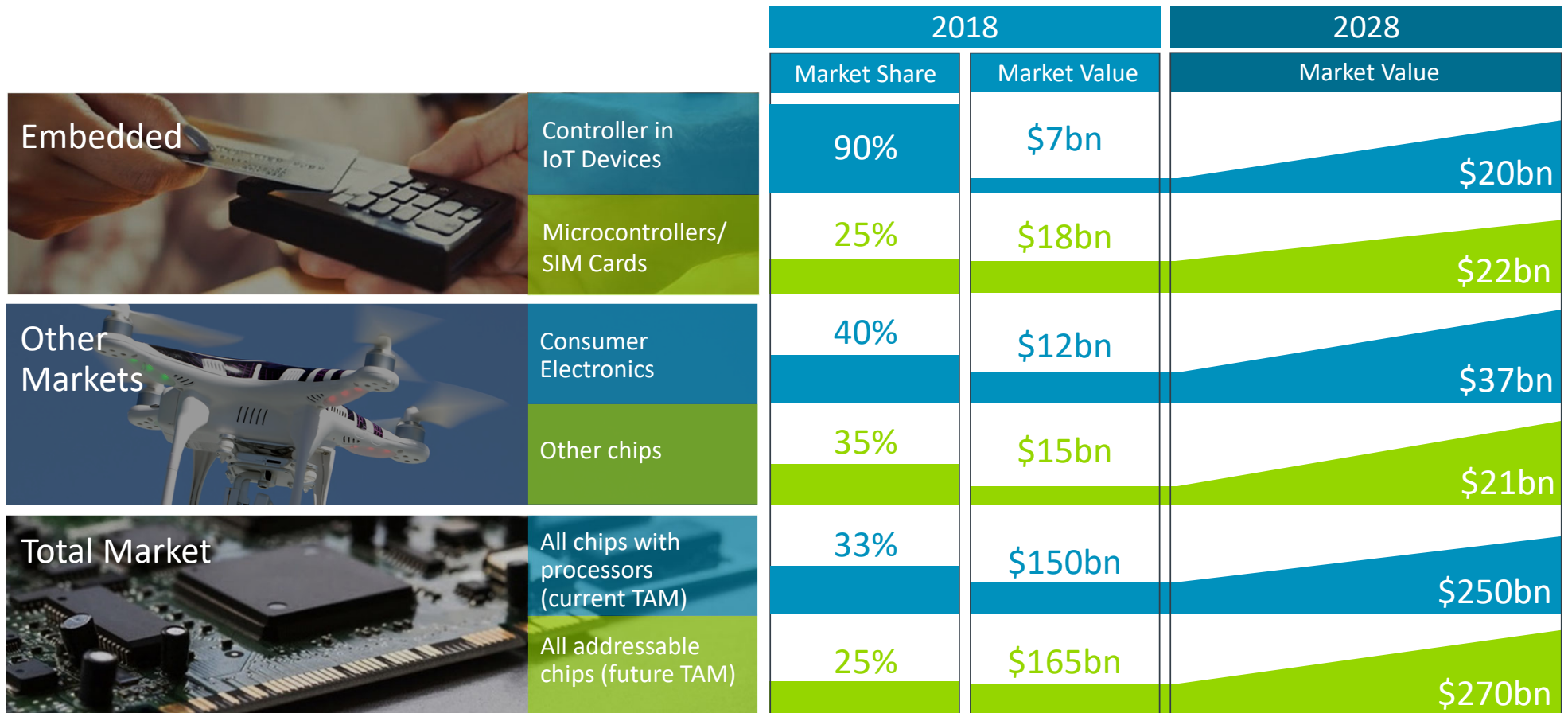


# Arm's expanding opportunity

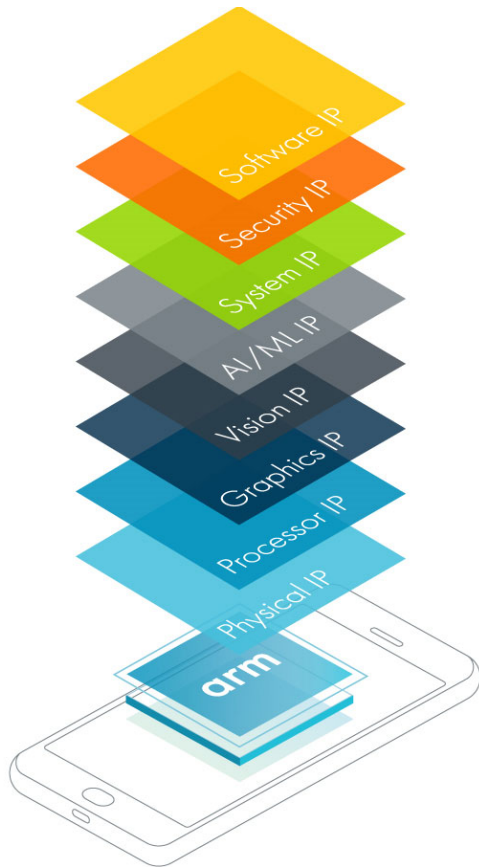




# Arm's expanding opportunity



# Arm's current business



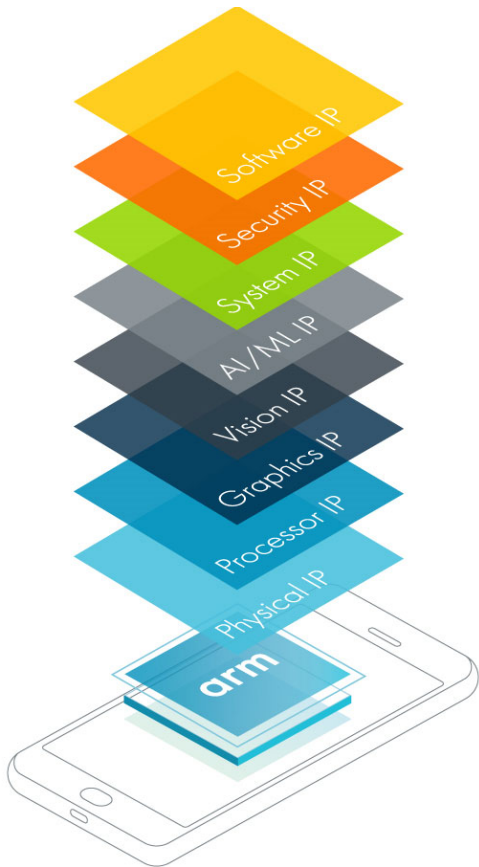
Arm primary business is the development of **intellectual property** (IP) blocks which are used in silicon chips

Our partners combine Arm IP with their own IP to create complete chip designs

We earn **license fees** when we deliver Arm IP to our partners and **royalties** when our partners ship chips that contain Arm IP

Highly **profitable and cash generative**

## Accelerating investment to increase share gains



**Generating profits and cash to be reinvested**



## Investing in new processor technology

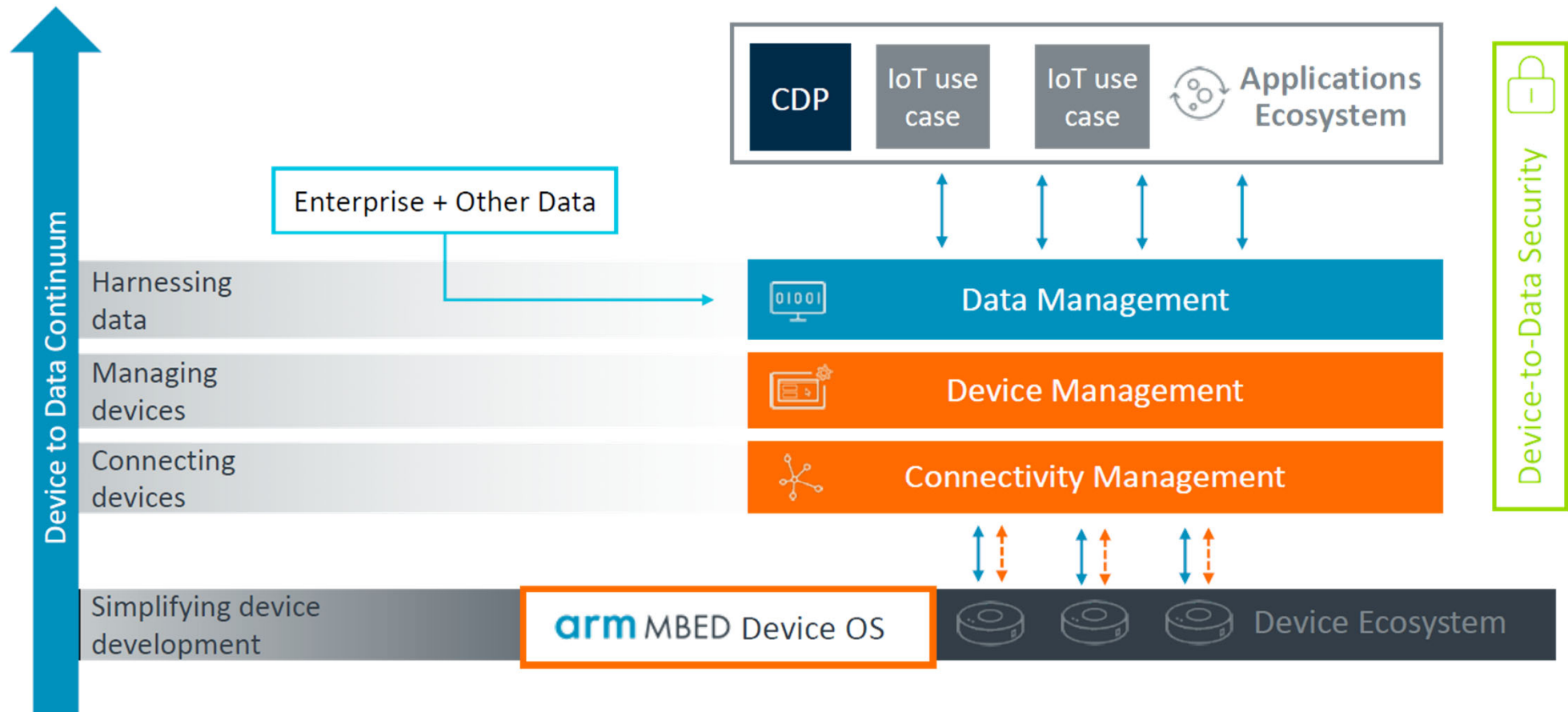
- Machine learning processors
- Computer vision
- Augmented reality
- Platform security

## Investing in new IoT software and services

- Device Management
- Connectivity as a Service
- Data Management as a Service
- Pelion platform

# Pelion – Combining physical and digital insights

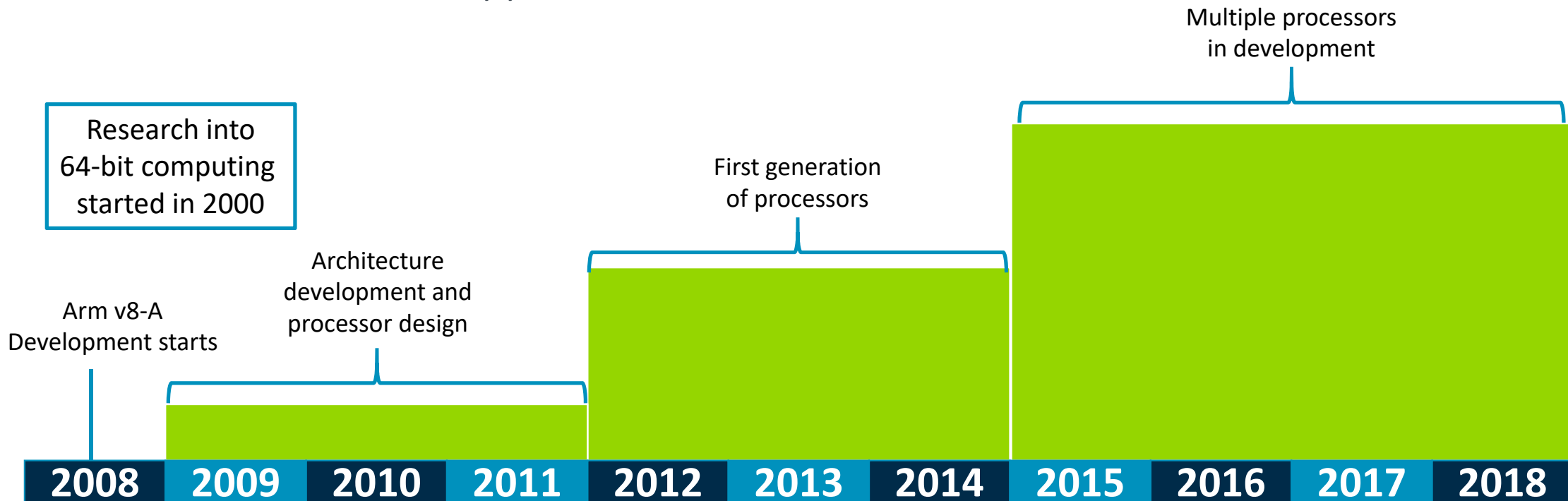
Simplifying deployment and enabling scale





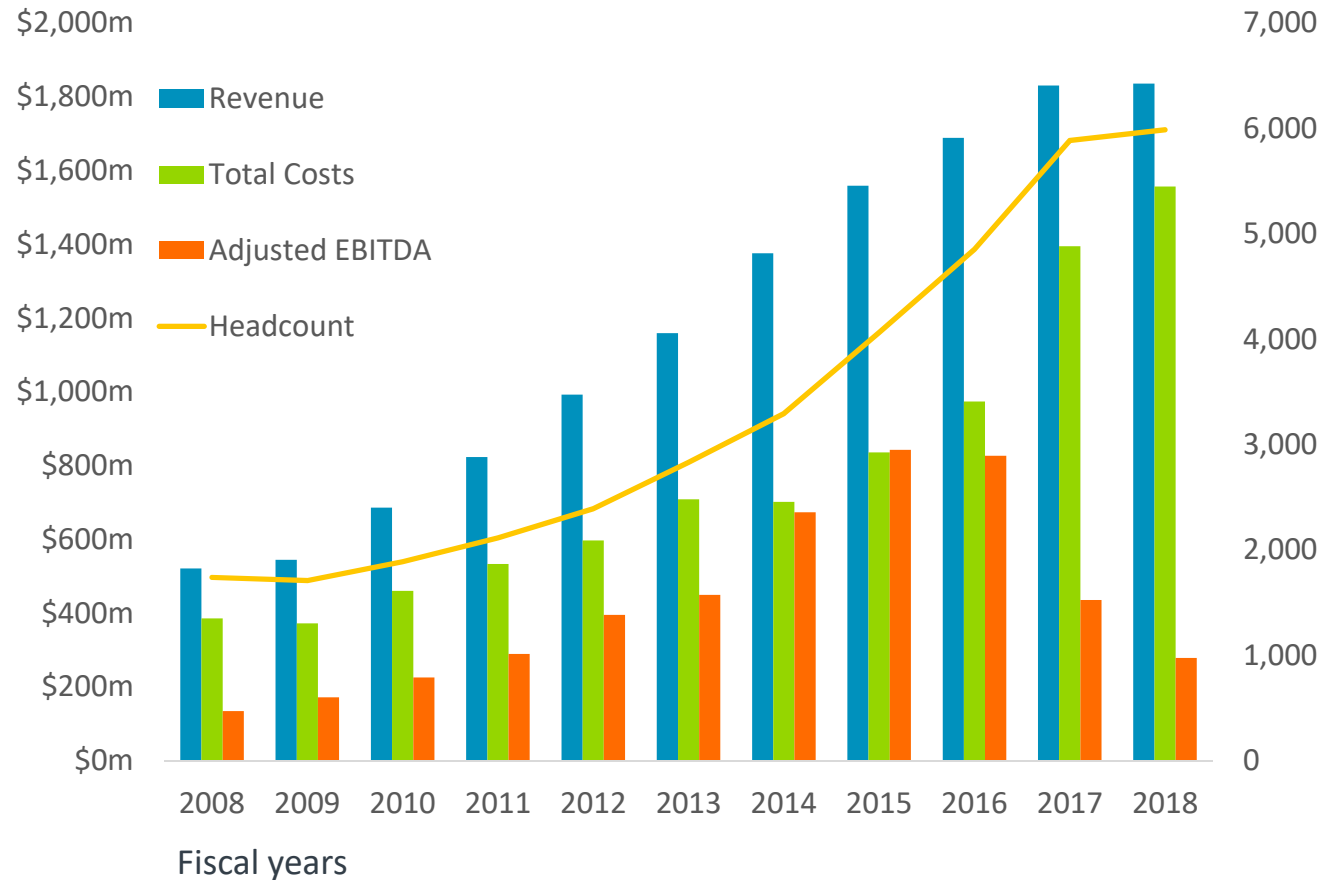
# Return on Investments – Arm v8-A case study

- Arm incurs R&D costs many years before revenue starts



# Revenues, investments and profits

- Investment strategy



- Until 2016 revenues grew faster than costs as Arm constrained investment in R&D to enable increasing profits
- For the current phase of investment Arm expects costs to grow faster than revenues
- This should yield even greater profits in the future
- Note: Headcount in 2018 excludes 341 employees transferred to Arm China Joint Venture in June. By the end of Fiscal 2018, Arm China had 439 employees

# Arm Investor Relations Contact

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## More content available on

- Arm's website: [arm.com/ir](https://arm.com/ir)
- SoftBank Group's website: [group.softbank/en/corp/irinfo/](https://group.softbank/en/corp/irinfo/)