



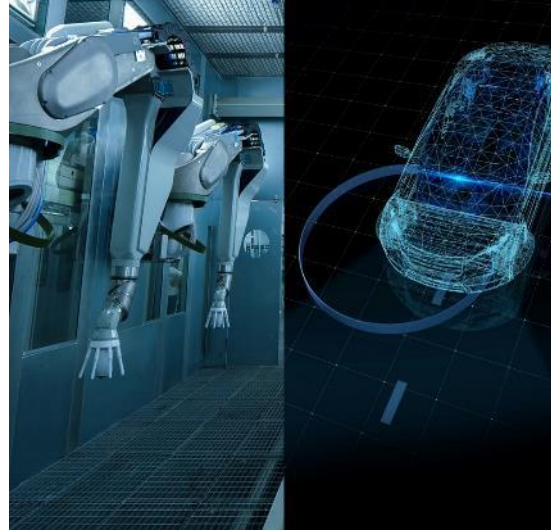
arm

# Arm Limited Roadshow Slides Q1 2020

# Technology trends that will redefine all industries



Artificial Intelligence in every device



Autonomous machines



Augmented reality



Hyperscale cloud and connectivity



Security and Privacy

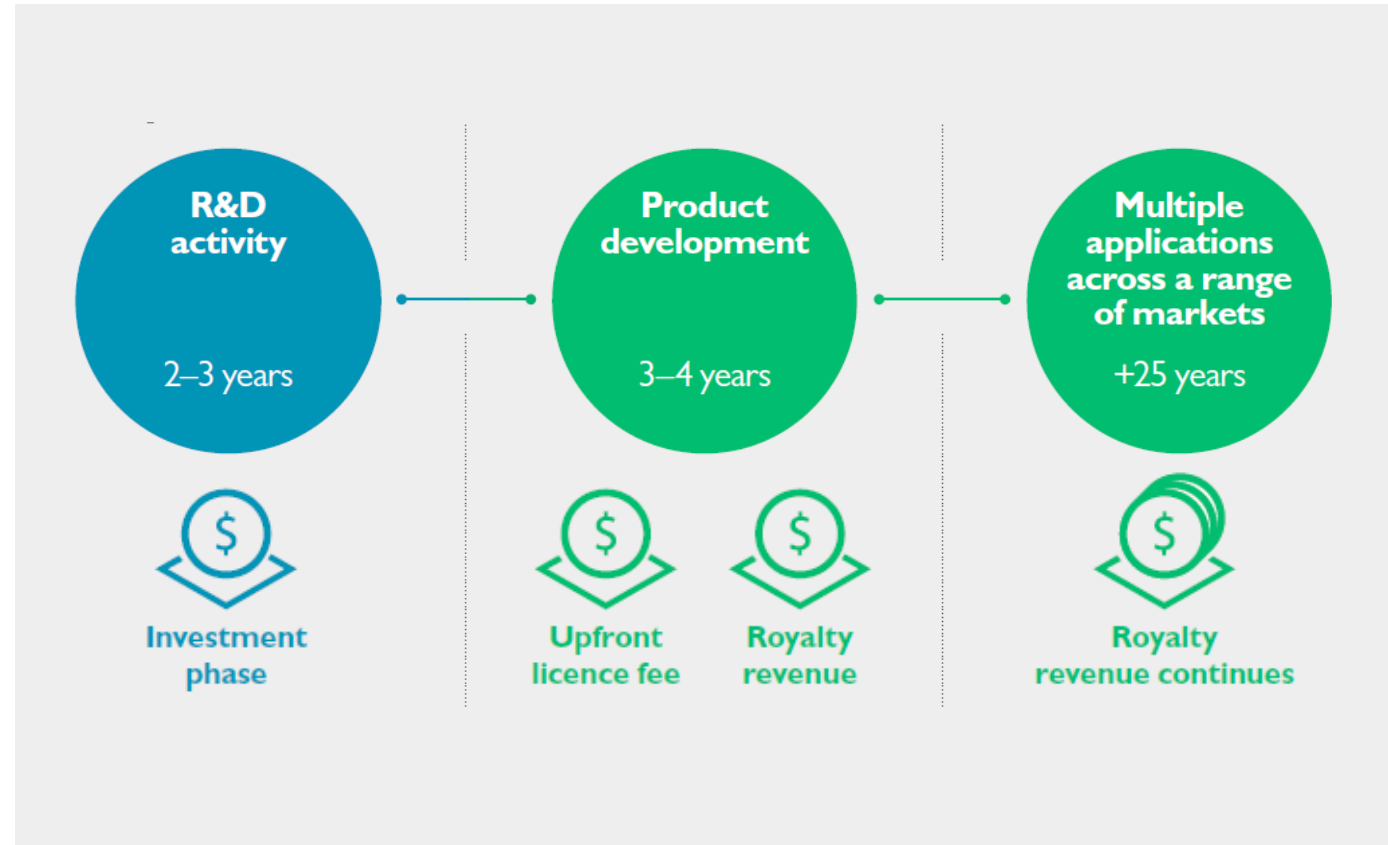
# Arm defines the technology that will redefine all industries



	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	✓	✓	✓	✓

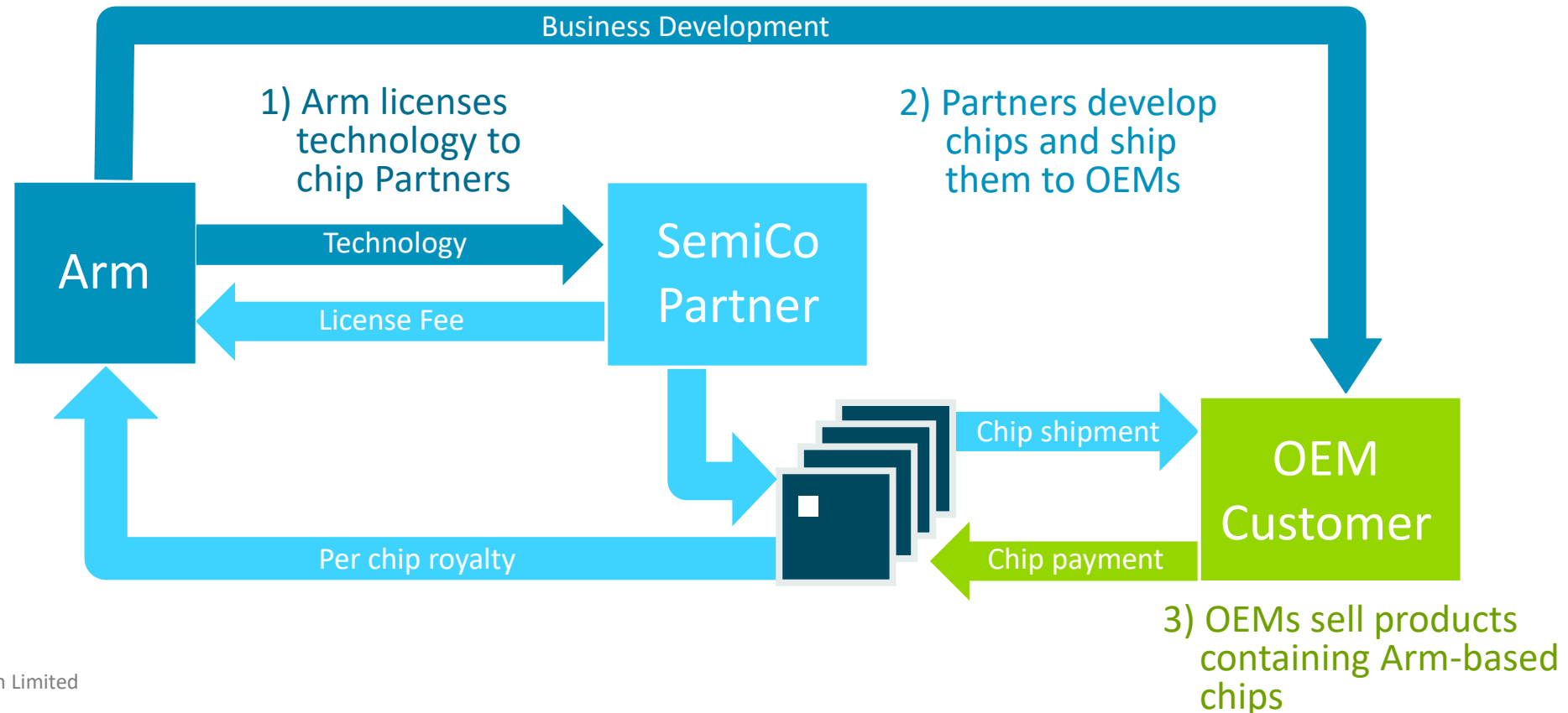
# Arm introduction

- 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



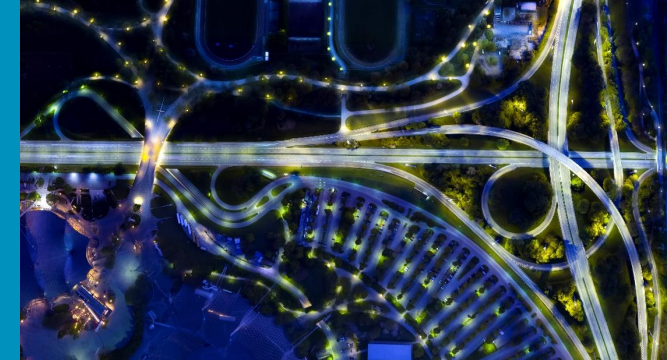
# Arm's business model

- 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



\$89bn  
TAM 2029

- 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



\$67bn  
TAM 2029

- 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



\$76bn  
TAM 2029

- 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



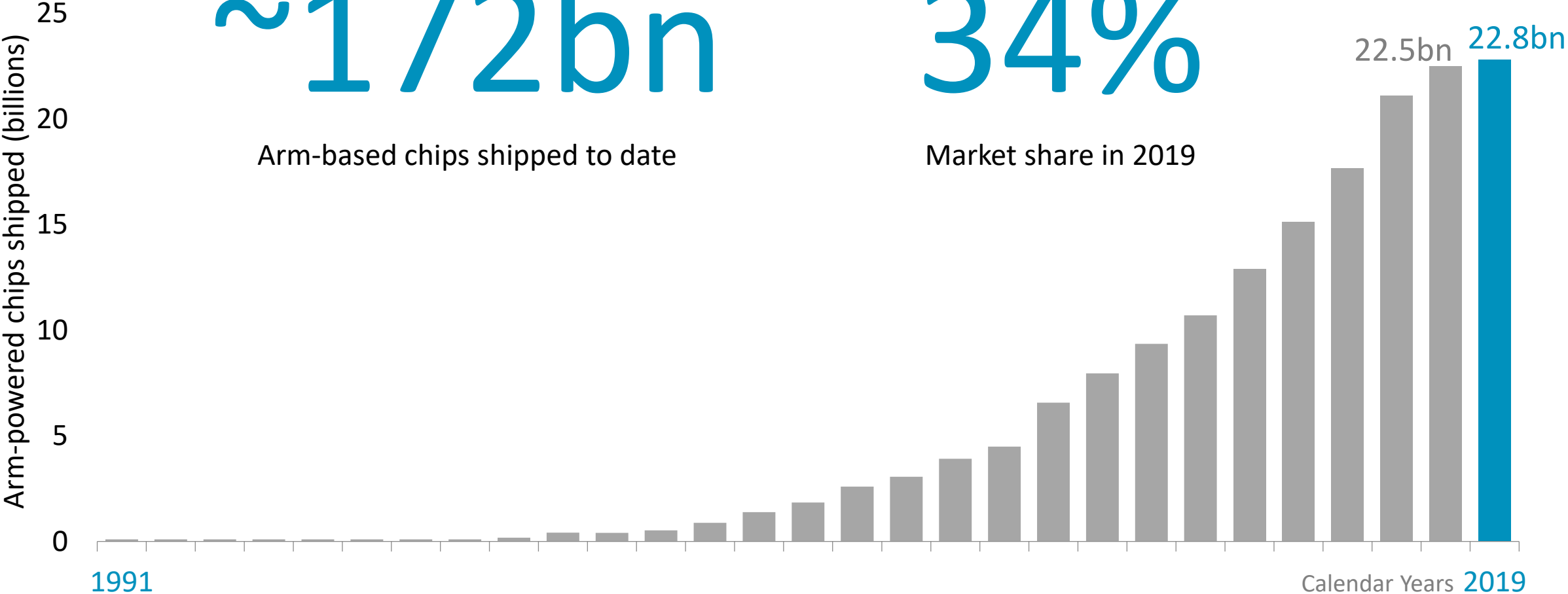
# Arm-based chip shipments

~172bn

Arm-based chips shipped to date

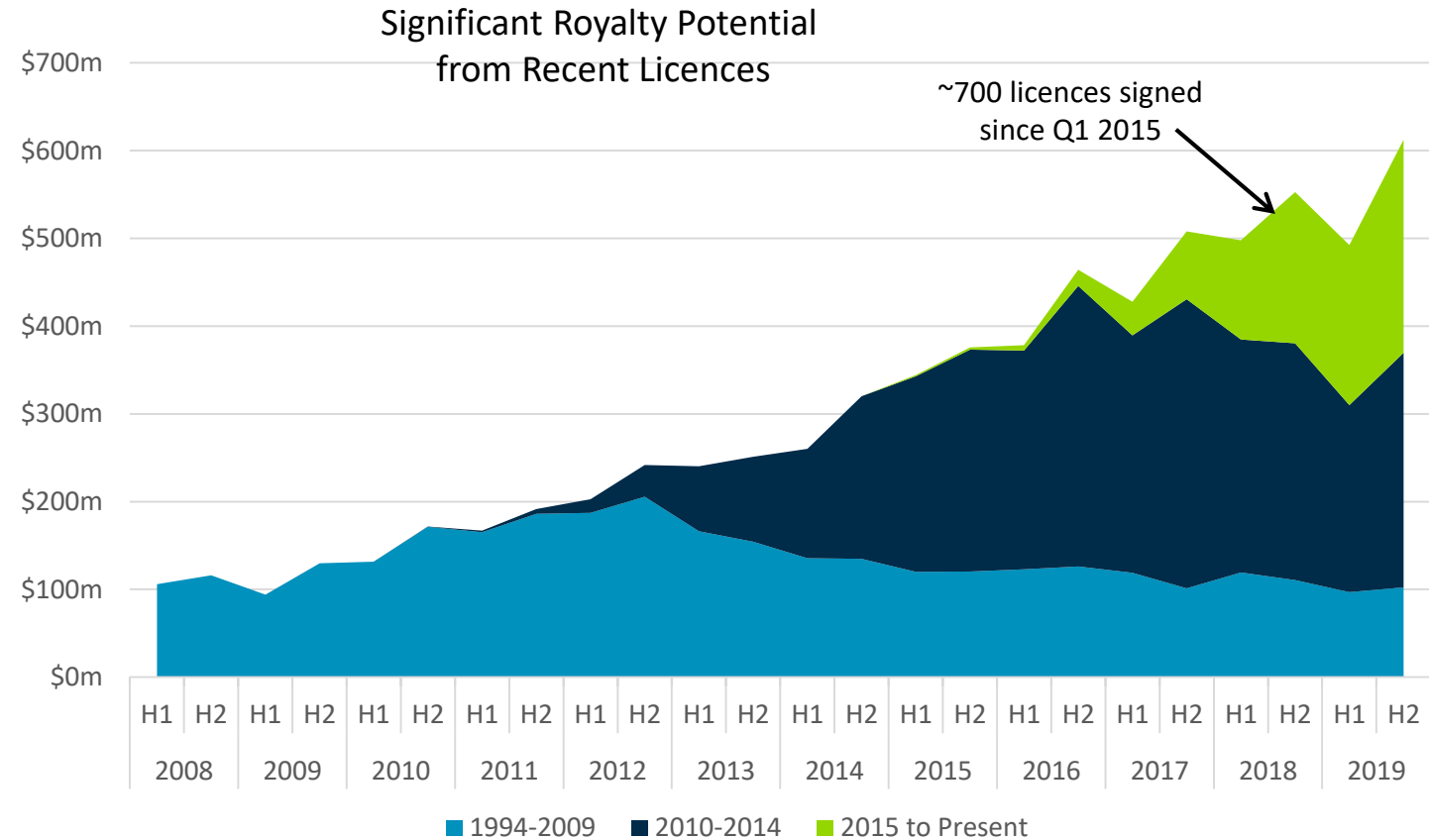
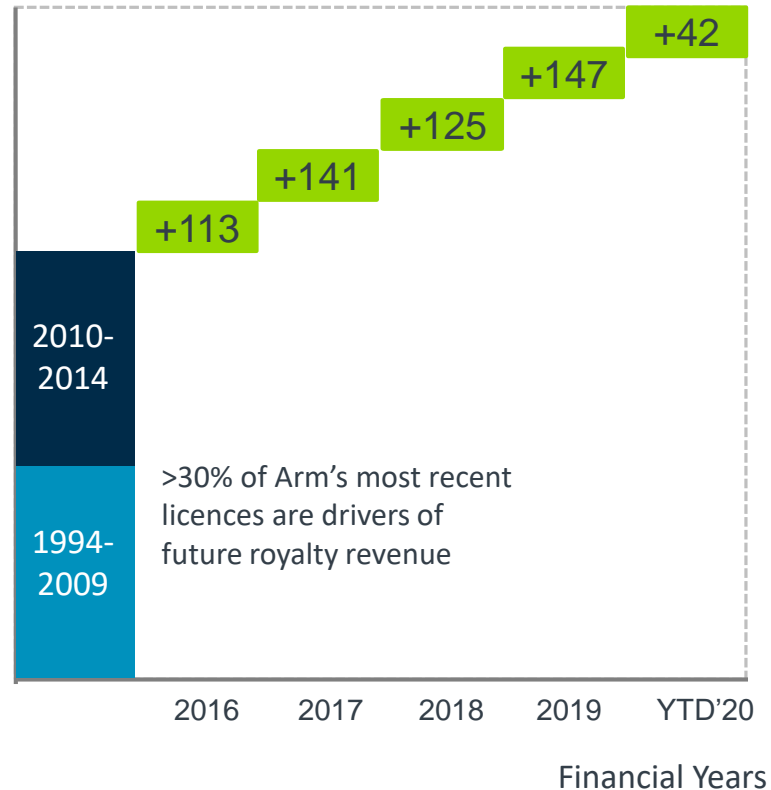
34%

Market share in 2019




# Licensing enables future royalties

- Arm signed 42 processor licences in Q1 2020
- 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

**Mobile**



Applications processor  
Other mobile chips

**Infrastructure**



Networking  
Data Center/Cloud

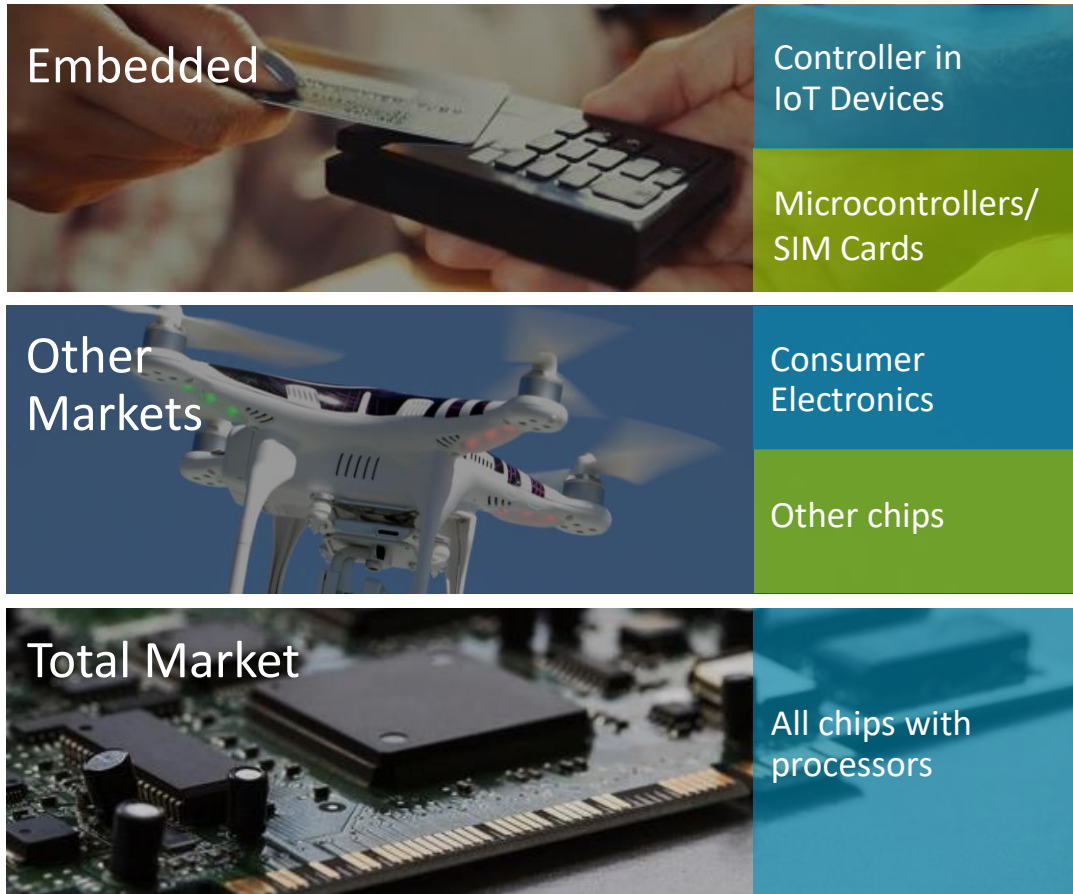
**Automotive**



IVI and ADAS  
Other automotive chips

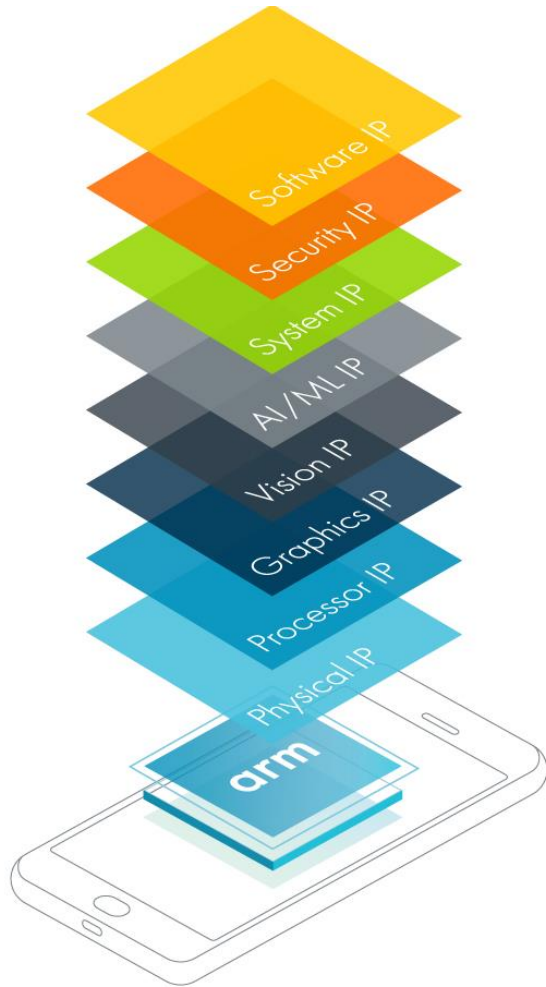
2019		2029
Market Share	Market Value	Market Value
90%	\$41bn	\$43bn
40%	\$10bn	\$13bn
32%	\$17bn	\$36bn
5%	\$20bn	\$32bn
75%	\$3bn	\$12bn
10%	\$7bn	\$10bn

# Arm's expanding opportunity



2019		2029
Market Share	Market Value	Market Value
90%	\$4bn	\$16bn
25%	\$10bn	\$15bn
42%	\$15bn	\$33bn
38%	\$11bn	\$23bn
34%	\$138bn	\$232bn

# Arm's current business



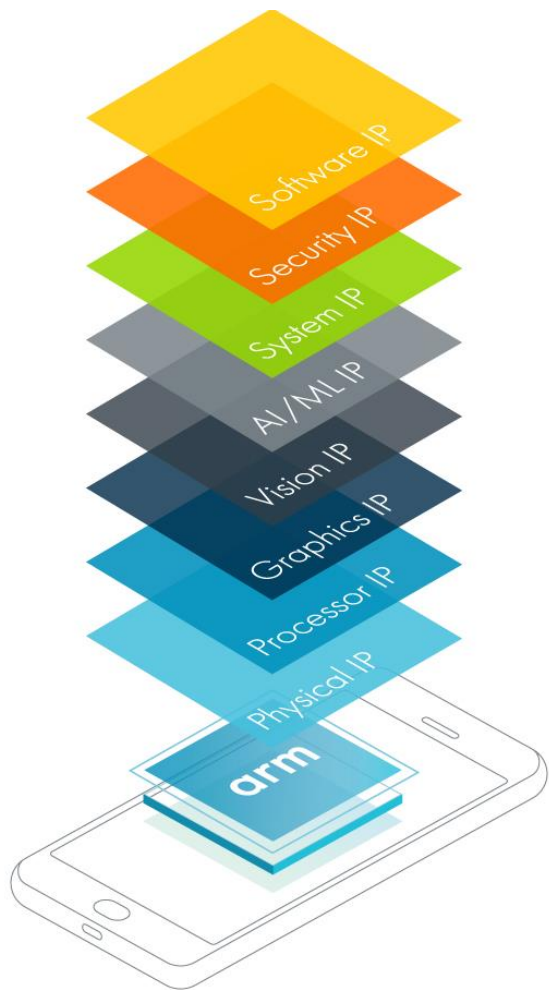
Arm primary business is the development of **intellectual property** (IP) blocks which are used in silicon chips

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

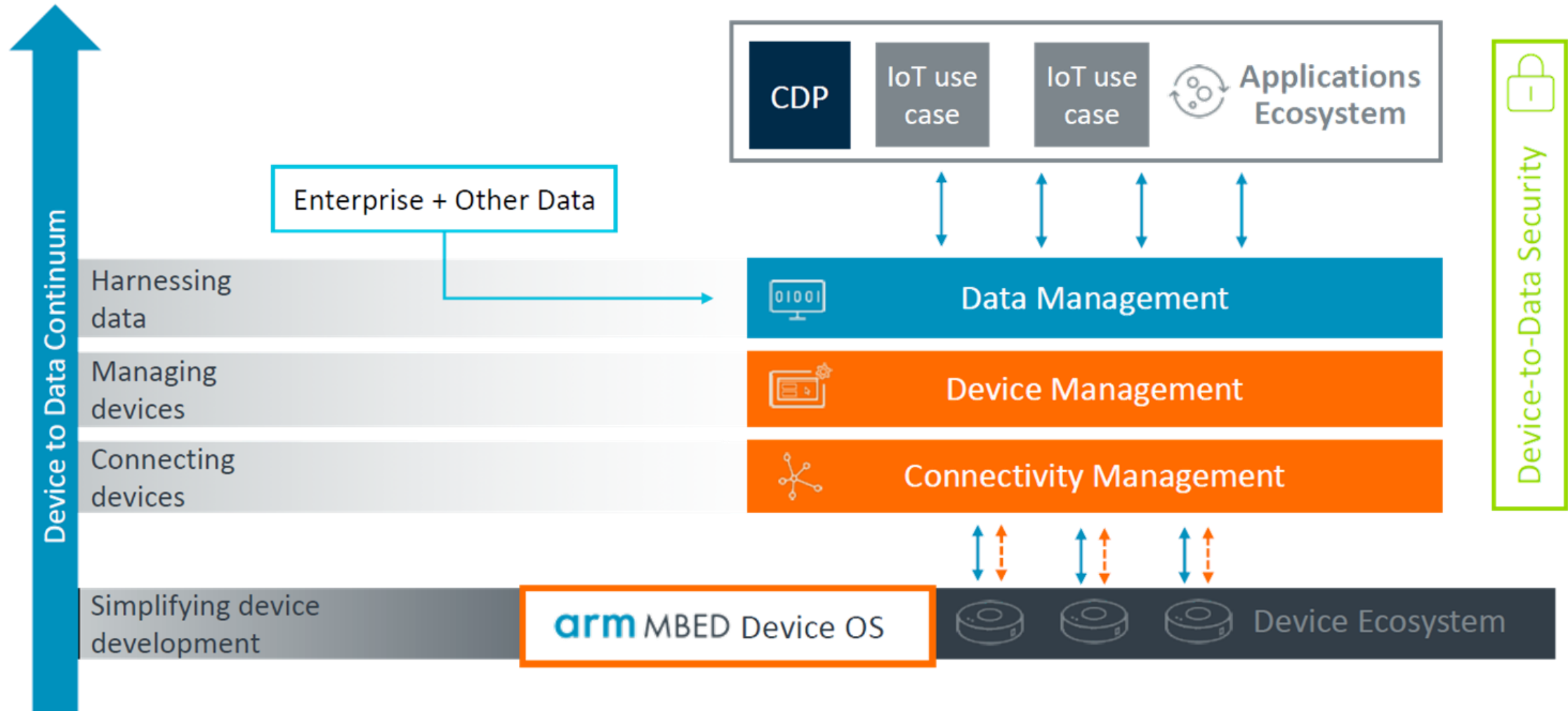
- Machine learning processors
- Computer vision
- Augmented reality
- Platform security

## Investing in new IoT software and services

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

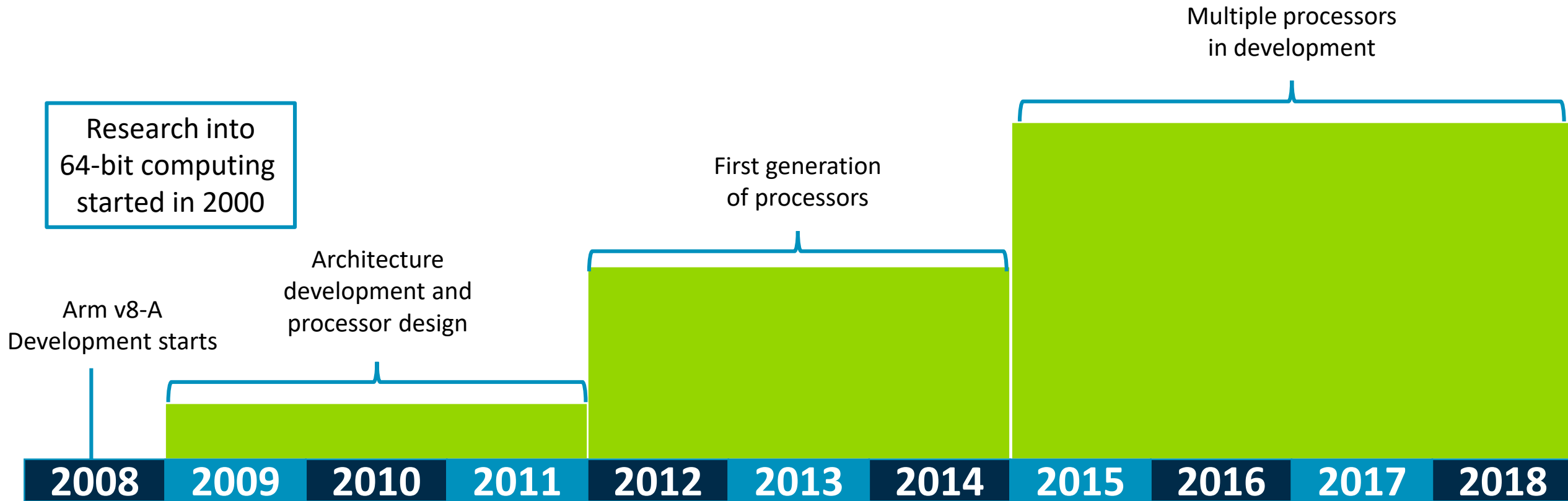
# Pelion – Combining physical and digital insights

Simplifying deployment and enabling scale



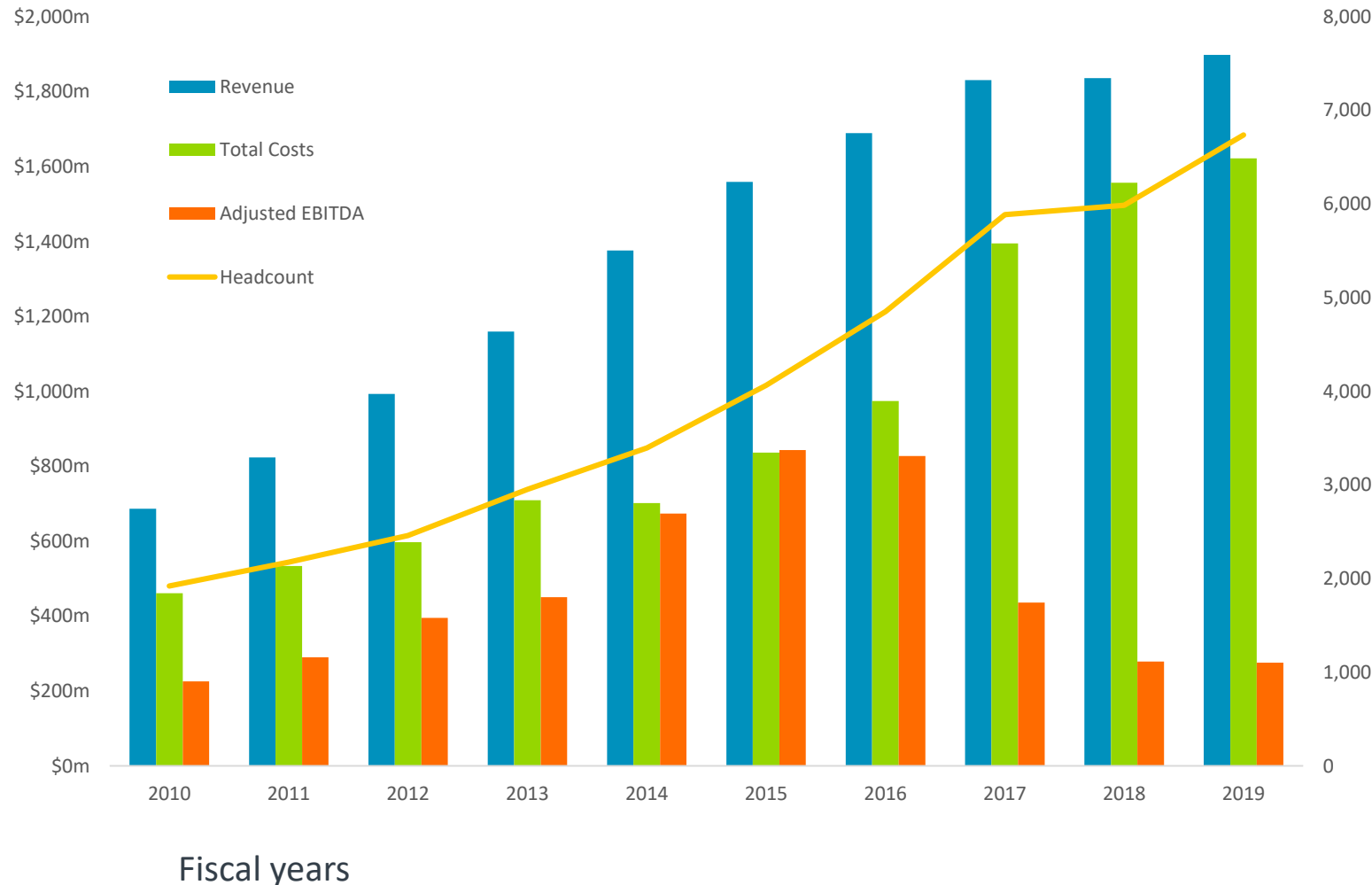
# Return on Investments – Arm v8-A case study

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





# Revenues, investments and profits



- 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 since Fiscal 2018 excludes employees transferred to Arm China Joint Venture (341 employees as of June 2018).

# Arm Investor Relations Contact

Contact	Title	Contact
Ian Thornton	Head of Investor Relations	+44 776 885 6503 ian.thornton@arm.com

## More content available on

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

