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

| 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 partner sales
- Technology reused across multiple applications

Long-term, secular growth markets

>1,650 licences
Growing by >100 every year
>525 potential royalty payers

>21 bn Arm-based chips shipped in 2017
~15% CAGR over previous 5 years
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.

1) Arm licenses technology to chip Partners

2) Partners develop chips and ship them to OEMs

3) OEMs sell products containing Arm-based chips

Business Development

Per chip royalty

License Fee

Technology

Chip shipment

Chip payment
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 Devices
- Smartphones, tablets and laptops
- Apps processor, modem, connectivity, touchscreen and image sensors
- Growth coming from higher-value Arm technology such as Arm v8-A, octa core, multimedia

**$77bn**
TAM 2026

### Networking & Servers
- 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

**$41bn**
TAM 2026

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

**$85bn**
TAM 2026

---

$77bn
TAM 2026

$41bn
TAM 2026

$85bn
TAM 2026
History of Arm

Joint venture between Acorn Computers and Apple

Designed into first mobile phones and then smartphones

Now all electronic devices can use smart Arm technology

1990

1993 onwards

Today
Smart devices contain many Arm processors

**Applications Processor** chips can contain multiple Arm technologies
- Arm v8-A processor for OS and apps
- Cortex-R controller for modem
- Cortex-M controllers for peripherals
- Arm Mali multimedia processors: GPU, video, display, camera, etc.
- Arm physical IP

When new functions are added to smartphones it creates opportunity for new Arm IP
Arm-based chip shipments

Arm-based chips shipped to date: 138bn
Market share in 2017: 39%

Arm-based chip shipments to date: 21.3bn
Arm-based chip shipments to date: 17.7bn

Calendar Years

1991 2017
Arm's opportunity continues to broaden

Semiconductor industry continues to grow: 8% by volume, 3% by value over past five years

Proportion of chips with processors is increasing over the medium term: 65% in 2017

Arm is gaining share within the “chips with processors” segment of the industry: 39% in 2017

* Data source: WSTS, April 2018 and Arm, Industry volume excluding analog and memory
** Arm estimates
From revenue to profits

Financial numbers aligned with SoftBank reporting periods (01 April 2017 to 31 March 2018)

<table>
<thead>
<tr>
<th>FY 2017 Revenues</th>
<th>$m</th>
<th>%revs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensing</td>
<td>618</td>
<td>33%</td>
</tr>
<tr>
<td>Royalty</td>
<td>1,087</td>
<td>60%</td>
</tr>
<tr>
<td>Software and Services</td>
<td>126</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,831</td>
<td>100%</td>
</tr>
</tbody>
</table>

| Costs ($m) | 1,395 |
| Adjusted EBITDA ($m) | 436 |
| Operating Margin | 24% |
| Other expenses ($m) | 242 |
| IFRS EBIT ($m) | 194 |

License revenues have been maintained at the same flattish level since 2014

Royalties are a growing proportion of revenues

Cost increase as Arm accelerates investment in R&D for future product developments

10% move in $/£ impacts profits by ~15% (forex impacts £ revenues and costs)

Operating margins will be lower than in recent periods as investments grow faster than revenues

Excludes amortisation of intangibles related to the acquisition of Arm by SoftBank
## Qtr. ending Dec. 2018 – Financial summary

<table>
<thead>
<tr>
<th>Revenues ($m)</th>
<th>Q3 2017</th>
<th>Q3 2018</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensing</td>
<td>190</td>
<td>125</td>
<td>-34%</td>
</tr>
<tr>
<td>Royalty</td>
<td>297</td>
<td>305</td>
<td>3%</td>
</tr>
<tr>
<td>Software and Services</td>
<td>33</td>
<td>56</td>
<td>70%</td>
</tr>
<tr>
<td>Total ($m)</td>
<td>520</td>
<td>486</td>
<td>-7%</td>
</tr>
</tbody>
</table>

| COGS ($m)              | 28      | 34      | 21%    |
| R&D ($m)               | 206     | 175     | -15%   |
| SG&A ($m)              | 163     | 158     | -3%    |
| Costs ($m)             | 397     | 367     | -8%    |
| Adjusted EBITDA ($m)   | 123     | 119     | -3%    |

| Depreciation & amortisation ($m) | 23 | 35 | 52% |
| Other operating (income) expenses ($m) | 46 | 5  | -89% |
| IFRS EBIT ($m)             | 54     | 79     | 46%   |

*Licenseing can fluctuate quarter to quarter. In Q3, customers were worried about potential global industry slowdown in 2019.*

*Royalty revenue growth driven by market share gains and increasing royalty per chip.*

*Includes $15m from recent acquisitions of Treasure Data and Stream Technologies.*

*Q3 2017 includes FlexPot which fell into Q2 2018.*
The number of licenses for Cortex-M processors has been reduced since the introduction of the DesignStart Pro (DS Pro) program in June 2017. DS Pro Cortex-M processors are available for no upfront fee. In Q3, 38 DS pro licenses were signed for Cortex-M processors.
Licensing enables future royalties

Arm signed 93 licences Q1 to Q3 2018

Arm’s current royalty revenues are derived from licences signed many years ago

Growing base yields royalty revenues over long period

Cumulative Licences

Pre-2014 2015 2016 2017 YTD18

1500 1100 700 300 0

>1,650 >550 >550 >550

>30% of Arm’s most recent licences are drivers of future royalty revenue

Cumulative Licences

Financial Years

Significant Royalty Potential from Recent Licences

- 1994-2009
- 2010-2014
- 2015 to Present

~550 licences signed since Q1 2015

~550 licences
# Arm’s expanding opportunity

<table>
<thead>
<tr>
<th>Market Share</th>
<th>2017</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applications processor</td>
<td>90%</td>
<td>$21bn</td>
</tr>
<tr>
<td>Other mobile chips</td>
<td>45%</td>
<td>$14bn</td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Networking</td>
<td>20%</td>
<td>$14bn</td>
</tr>
<tr>
<td>Servers</td>
<td>~1%</td>
<td>$17bn</td>
</tr>
<tr>
<td>Automotive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IVI and ADAS</td>
<td>75%</td>
<td>$4bn</td>
</tr>
<tr>
<td>Other automotive chips</td>
<td>10%</td>
<td>$8bn</td>
</tr>
</tbody>
</table>

- **2017 Market Value: $30bn**
- **2026 Market Value: $32bn**

- **2017 Mobile Market Share:** 90%
- **2026 Mobile Market Share:** 45%

- **2017 Infrastructure Market Share:** 75%
- **2026 Infrastructure Market Share:** 10%

- **2017 Automotive Market Share:** 10%
- **2026 Automotive Market Share:** 45%
### Arm’s expanding opportunity

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<tr>
<th>Market</th>
<th>2017</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Market Share</td>
<td>Market Value</td>
</tr>
<tr>
<td><strong>Embedded</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controller in IoT Devices</td>
<td>90%</td>
<td>$7bn</td>
</tr>
<tr>
<td>Microcontrollers/ SIM Cards</td>
<td>20%</td>
<td>$17bn</td>
</tr>
<tr>
<td><strong>Other Markets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer Electronics</td>
<td>40%</td>
<td>$21bn</td>
</tr>
<tr>
<td>Other chips</td>
<td>40%</td>
<td>$7bn</td>
</tr>
<tr>
<td><strong>Total Market</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All chips with processors (current TAM)</td>
<td>39%</td>
<td>$130bn</td>
</tr>
<tr>
<td>All addressable chips (future TAM)</td>
<td>25%</td>
<td>$165bn</td>
</tr>
</tbody>
</table>
Establishing Arm China JV in Fiscal Q1 2018
Building a bigger business; built on strong foundations

>150 Licensees

10bn Chips shipped by Chinese partners using Arm processor technology

95% Chinese designed SoC based on Arm processor technology

x140 Growth in volume shipment by Chinese partners 2006-2017

Arm China will be able to better access new local technology opportunities, especially in server, smart meter/grids and IoT
Establishing Arm China JV in Fiscal Q1 2018
Building a bigger business; built on strong foundations

Arm China JV establishment was initiated in early Q1 2018 and completed at the end Q1.

Novation (transfer) process or historical contracts resulted in a delay to contract signing in the H1 2018.

As expected, licensing started to recover in Q2 and was at a normal level in Q3.

>150
Customers to novate from Arm Limited to Arm China

341
Employees transferred to Arm China in Q1

\(~20\%\)
Arm’s revenue came from China in 2017

10-20
Licenses signed in a typical quarter with Chinese customers

Significant proportion of future revenues will be passed back to Arm Limited.
Arm's current business

Arm develops *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

Investing to create new revenue streams

- Arm Pelion IoT Platform SaaS business
- Early-stage investment but many years in research
- Securely connect and manage any device, using any communications technology, supporting any cloud platform
  - Device Management: secure device identification, on-boarding and configuring
  - Connectivity Management: manage IoT networks using standard-based comms
  - Data Management: Ingestion and aggregation of data

Generating profits and cash to be reinvested

Arm Pelion Partners

[Arm Pelion Partner Logos]
Arm IoT Services

Secure and scalable innovation from Device to Data

✦ > 30 PB of customer data managed
✦ > 2 million records per second ingested
✦ > 300K queries per day
✦ 55 TB network data flow per month
✦ Smart grid technology partnership with KEPKO, the largest electric power utility in South Korea
✦ China Unicom partnership for China based services

800+ customers
140+ Ecosystem partners
350k+ Developers
Pelion IoT Platform Overview

Pelion IoT Platform

- **Data Management Services**: Ingest, Integrate, Store, Prepare
- **Device Management Services**: Identity, Access Mgt., Lifecycle Mgt.
- **Connectivity Management**: SIM Mgt., Network Orchestration, Service Quality

**One View of Networks**

**Unified Identity**

**Unified Security Model**

**Unified operational view**

**One View of Devices**

**One View of Data**

**One View of Networks**

**Unified Identity**

**Unified Security Model**

**Unified operational view**

**One View of Devices**

**One View of Data**

**Deployment diversity**

**Simplification for faster time to value**

**Business value creation**

Partner and Customer Applications

- Marketing
- Asset Visibility
- Energy Management
- Workflow SaaS
- Email
- Analytics
- Industrial Automation
- In-home Patient Care

Business Value Creation

- Business Systems
- Marketing
- SaaS
- Email
- Machine Learning
- In-home Patient Care
- Business Intelligence
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How Arm makes money from IoT Devices

Semiconductor technology

Arm Integrated SIM technology (Arm iSIM)

2x Arm Cortex-M3

MBED OS

2x Arm Cortex-M3
How Arm makes money from IoT Services
Connectivity, Device and Data Management

OEM

Control of devices
Recurring Device and Data Management Fees

Other data sources

Data collected from IoT devices

Control of IoT devices

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.
“Now is the time to be sowing, not harvesting”

- Rate of investment is discretionary and under Arm's control
- SoftBank has asked Arm to accelerate investments and to increase risk appetite
- All costs are expected to be financed from IP business’ revenue streams
- During this accelerated investment phase, costs are expected to grow faster than revenues

Arm has over $1.4bn of net cash and no debt
Return on Investments – Arm v8-A case study

Arm incurs R&D costs many years before revenue starts

- Research into 64-bit computing started in 2000
- Arm v8-A Development starts
- Architecture development and processor design
- First generation of processors
- Multiple processors in development

- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
Return on Investments – General case

Arm incurs R&D costs many years before revenue starts

Research into 64-bit computing started in 2000

New technology development starts

Initial development phase

New technology announced

First technology agreements

Investment ramps

Technology delivery

Recurring revenue starts

New technology development starts

Initial development phase

Revenue continues for many years after the investment phase, yielding high profits over time
Investing in people, infrastructure to create new products

Costs are expected to be higher in FY2018 as Arm expands R&D capability

Cost increases are expected to be consistent with increases in headcount

Q3 2017 Costs: $397m
- 5% increase in headcount: $17m
- Increased IT, facilities and other investments: $20m
- Annual FlexPot* Accrual: ($59m)

Q3 2018 Costs: $367m
- Impact of stronger dollar: ($8m)

*Part of Arm employee remuneration was accrued in Q2 2018. In 2017 this accrual was in Q3.
Arm Investor Relations Contact

<table>
<thead>
<tr>
<th>Contact</th>
<th>Title</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ian Thornton</td>
<td>Head of Investor Relations</td>
<td>+44 776 885 6503</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:ian.thornton@arm.com">ian.thornton@arm.com</a></td>
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More content available on
- Arm’s website: [arm.com/ir](http://arm.com/ir)