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

<table>
<thead>
<tr>
<th>Artificial Intelligence in every device</th>
<th>Mobile and Consumer</th>
<th>Networking and Servers</th>
<th>Automotive and Robotics</th>
<th>Internet of Things</th>
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<tbody>
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<td>Autonomous machines</td>
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<td>✔</td>
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<td>Augmented reality</td>
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<td>Hyperscale cloud and connectivity</td>
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</table>
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

>1,620 licences
Growing by >100 every year
>510 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
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
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
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

130bn
Arm-based chips shipped to date

39%
Market share in 2017

21.3bn
Arm-powered SoCs shipped (billions)

17.7bn

Calendar Years

1991

2017

Arm-powered SoCs shipped (billions)
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

Over 95% of revenues earned in US dollars

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

Financial numbers aligned with SoftBank reporting periods (01 April 2017 to 31 March 2018)
## Financial Summary Qtr. ending Sept. 2018

### Revenues ($m)

<table>
<thead>
<tr>
<th></th>
<th>Q2 2017</th>
<th>Q2 2018</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensing</td>
<td>123</td>
<td>124</td>
<td>1%</td>
</tr>
<tr>
<td>Royalty</td>
<td>271</td>
<td>285</td>
<td>5%</td>
</tr>
<tr>
<td>Software and Services</td>
<td>28</td>
<td>47</td>
<td>68%</td>
</tr>
<tr>
<td><strong>Total ($m)</strong></td>
<td>422</td>
<td>456</td>
<td>8%</td>
</tr>
</tbody>
</table>

### Revenues (£m)

<table>
<thead>
<tr>
<th></th>
<th>Q2 2017</th>
<th>Q2 2018</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total (£m)</strong></td>
<td>319</td>
<td>345</td>
<td>8%</td>
</tr>
</tbody>
</table>

### Costs (£m)

<table>
<thead>
<tr>
<th></th>
<th>Q2 2017</th>
<th>Q2 2018</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>COGS (£m)</td>
<td>21</td>
<td>27</td>
<td>26%</td>
</tr>
<tr>
<td>R&amp;D (£m)</td>
<td>130</td>
<td>167</td>
<td>28%</td>
</tr>
<tr>
<td>SG&amp;A (£m)</td>
<td>95</td>
<td>133</td>
<td>40%</td>
</tr>
<tr>
<td>Costs (£m)</td>
<td>246</td>
<td>327</td>
<td>33%</td>
</tr>
<tr>
<td>Adjusted EBITDA (£m)</td>
<td>73</td>
<td>18</td>
<td>-75%</td>
</tr>
<tr>
<td>Depreciation &amp; amortisation</td>
<td>16</td>
<td>20</td>
<td>25%</td>
</tr>
<tr>
<td>Other operating (income) expenses (£m)</td>
<td>22</td>
<td>(87)</td>
<td>-</td>
</tr>
<tr>
<td><strong>IFRS EBIT (£m)</strong></td>
<td>35</td>
<td>85</td>
<td>146%</td>
</tr>
</tbody>
</table>

### Notes:

- Licensing can fluctuate quarter to quarter. In Q2, lower revenues are primarily due to contract delays as Arm China was established.
- Royalty revenue growth driven by market share gains and increasing royalty per chip.
- Includes $12m from recent acquisitions of Treasure Data and Stream Technologies.
- Includes FlexPot which previously fell into Q3.
- Additional consideration related to Arm China JV.
Q2 Licensing: 35 is in the normal range

The number of licenses for Cortex-M processors has been reduced since the introduction of the DesignStart Pro (DS Pro) program in June 2017.

Under DS Pro Cortex-M processors are available for no upfront fee.

In Q2, 65 DS pro licenses were signed for Cortex-M processors...
Licensing enables future royalties

Arm signed 51 licences H1 2018

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

Growing base yields royalty revenues over long period

>35% of Arm’s most recent licences are drivers of future royalty revenue

Cumulative Licences

<table>
<thead>
<tr>
<th>Year</th>
<th>Pre-2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>H1-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>~550</td>
<td>+180</td>
<td>+113</td>
<td>+141</td>
<td>+51</td>
</tr>
</tbody>
</table>

~500 licences signed since Q1 2015

~550 licences

~550 licences

~500 licences signed since Q1 2015

Significant Royalty Potential from Recent Licences

Pre-2014 2015 2016 2017 H1-2018
Arm’s expanding opportunity

<table>
<thead>
<tr>
<th>Market Share</th>
<th>2017 Market Value</th>
<th>2026 Market Value</th>
</tr>
</thead>
<tbody>
<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>Networking</td>
<td>20%</td>
<td>$14bn</td>
</tr>
<tr>
<td>Servers</td>
<td>~1%</td>
<td>$17bn</td>
</tr>
<tr>
<td>IVI and ADAS</td>
<td>50%</td>
<td>$4bn</td>
</tr>
<tr>
<td>Other automotive chips</td>
<td>10%</td>
<td>$8bn</td>
</tr>
</tbody>
</table>
Arm’s expanding opportunity

- **Embedded**
  - Controller in IoT Devices: 90% share, $7bn in 2017, $24bn in 2026.
  - Microcontrollers/SIM Cards: 20% share, $17bn in 2017, $21bn in 2026.

- **Other Markets**
  - Consumer Electronics: 40% share, $21bn in 2017, $27bn in 2026.
  - Other chips: 40% share, $7bn in 2017, $10bn in 2026.

- **Total Market**
  - All chips with processors (current TAM): 39% share, $130bn in 2017, $200bn in 2026.
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

- >150 Customers to novate from Arm Limited to Arm China
- ~20% Arm’s revenue came from China in 2017
- 341 Employees transferred to Arm China in Q1
- 10-20 Licenses signed in a typical quarter with Chinese customers

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 expected to get back to BAU by year end

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 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 Connectivity Management

Single pane of glass for easy connectivity management

One simple bill for global connectivity usage

Zero-touch onboarding of devices

Support for any network - LoRa, cellular, satellite

Built-in security, network resilience

GSMA eUICC compliant
Choice of networks
Network security
Unified view
API availability
Granular billing
Pelion Device Management

Secure identity on-boarding, connection and lifecycle management services for all IoT devices

One simple portal interface for all IoT device management services

Support for any device, any vendor, and any cloud

Built-in security from device to cloud

- Secure asset and identity provisioning
- Energy efficient connectivity
- Endpoint and gateway device management
- Firmware deployment and update campaigns
- Endpoint / Gateway compute and access management
Pelion Data Management

Collect and unify diverse data from heterogeneous devices, enterprise data and 3rd party sources

Security in trusted data - encryption in transition and at rest, control permissions

Rich ecosystem of data integrations

Fully managed solution that processes over 30 trillion records/day

Reduces the complexity with iteration and exploration of data
Pelion Data Management

- Customer Data & Insight Solutions
  - Collect and Unify
    - Multiple Sources
    - Efficient Storage
    - Management
    - ID Syndication
  - Analyze
    - BI Direct Connect
    - High Performance Querying
    - Machine Learning
  - Access and Activate
    - Multiple Destinations
    - Dashboard Reporting
    - Alerting
    - Personalization API

- Device Data Solutions

- Partner & Customer Applications & Solutions

Data Sources

Business Systems
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.
Investment philosophy

“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 £1.1bn of net cash and no debt
Increase in H1 2018 is due to sale of Arm’s stake in the Arm China Joint Venture, net of the acquisition of Treasure Data Inc. and Stream Technologies Ltd.
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

Timeline:
- 2008: Research into 64-bit computing
- 2009: Arm v8-A Development starts
- 2010: Architecture development and processor design
- 2012: First generation of processors
- 2015 onwards: Multiple processors in development
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 higher in 2018 as Arm expands R&D capability

Cost increases are expected to be consistent with increases in headcount

- £246m Costs in Q2 2017
- £27m increase in headcount
- £22m increased IT, facilities and other investments
- £2m bad debt provision
- £30m annual FlexPot* accrual
- £327m Costs in Q2 2018

*Part of Arm employee remuneration (for individual development)

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 1223 400796</td>
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<td><a href="mailto:ian.thornton@arm.com">ian.thornton@arm.com</a></td>
</tr>
</tbody>
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More content available on
- Arm’s website: https://www.arm.com/company/investors