Innovation Starts Here!
Low-cost Access to the World’s Best System-on-Chip Portfolio

Mike Eftimakis – Director Business Innovation Strategy
3rd December 2019
Arm’s Vision

Technology that invisibly enables opportunity for a globally connected population

Invisibly
Reliable, easy to use

Enable Opportunity
Make partners successful
Three Biggest Hurdles with Custom Silicon Designs

- Time to market
- Return on investment
- Development risk
Three Biggest Hurdles with Custom Silicon Designs

- **Time to market**: Simple licensing. Start immediately.
- **Return on investment**: Pick the optimal IP when you need it.
- **Development risk**: Explore Agile development.

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Arm Flexible Access – a New Licensing Model

Standard Arm licensing

Arm Flexible Access

New!

Freedom to design and innovate
Lower barrier to entry
Everything you Need for an SoC

Tools & Models
Faster design & development

IP
Core functionality for any SoC

Support & Training
Design with confidence
# What is Included?

## Processors
- Cortex-A53
- Cortex-A35
- Cortex-A34
- Cortex-A32
- Cortex-A7
- Cortex-A5 (UP and MP)
- Cortex-R52
- Cortex-R8
- Cortex-R5
- Cortex-M33
- Cortex-M23
- Cortex-M7
- Cortex-M4
- Cortex-M3
- Cortex-M0+
- Cortex-M0

## Graphics Processors
- Mali-G52
- Mali-G31
- Also includes Mali DDKs

## CoreLink Interconnect
- CoreLink NIC-450
- CoreLink NIC-400
- CoreLink CCI-400
- CoreLink CCI-500
- CoreLink CCI-550
- ADB-400 AMBA domain bridge
- XHB-400 AXI-AHB bridge

## System Controllers
- CoreLink GIC-500
- CoreLink GIC-400
- PL192 VIC
- CoreLink TZC-400
- CoreLink L2C-310
- CoreLink MMU-500
- BP140 Mem. Intf
- BP141 TrustZone Mem. Wrapper

## Security IP
- CryptoCell-312
- CryptoCell-712
- True Random Number Generator

## Peripheral Controllers
- PL011 UART
- PL022 SPI
- PL031 RTC
- CoreLink DMA-230
- CoreLink DMA-330

## CoreSight Debug & Trace
- CoreSight SoC-400
- CoreSight SDC-600
- CoreSight STM-500
- CoreSight System Trace Macrocell
- CoreSight Trace Memory Controller

## Physical IP*
- Artisan physical IP platform, TSMC
- Artisan PIK for Cortex-M33, TSMC 22ULL

## Corstone Foundation IP
- Corstone-101
- Corstone-201

## Tools & Models
- Socrates IP Tooling
- Arm DS-Gold
- Virtual system models (fast & cycle accurate)

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Legend:
- IP Products
- Tools & Models

* 75% of Arm Cortex licenses over past 2 years
# Transparent and Predictable Pricing

## Annual access fee
Includes
- Access to IP, tools & models
- Design and dev rights (including FPGA proto)
- Support and maintenance for registered projects

## Product licence fees
- Per-product manufacture licence fee at tape-out
- Transparent pricing
  - Simple
  - Full price list upfront
- Discount for multiple Arm IP
- Only pay for what you need

## Royalties
- Per-product royalty rate
- Known upfront
- Rate applies perpetually for product configuration
- Simple flat %ASP rate
- Discount for multiple Arm IP
- Royalty calculator available
# Annual Access Fee - Mainstream Package Tiers

<table>
<thead>
<tr>
<th></th>
<th>Academia / Research</th>
<th>Entry</th>
<th>Standard</th>
</tr>
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<tbody>
<tr>
<td>Access to IP</td>
<td>✓ (Except Crypto)</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Technical support</td>
<td>Community based</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Onboarding session</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Evaluation, exploration and design</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Number of tape-outs per year</td>
<td>Unlimited</td>
<td>1</td>
<td>Unlimited</td>
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<tr>
<td>Online training seats</td>
<td>5</td>
<td>5</td>
<td>25</td>
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<tr>
<td>Arm Development Studio (Arm DS Gold)</td>
<td>1 seat</td>
<td>1 seat</td>
<td>3 seats</td>
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<tr>
<td>Arm configuration tool - Socrates</td>
<td>1 seat</td>
<td>1 seat</td>
<td>1 seat</td>
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<tr>
<td>Arm virtual system models</td>
<td>1 seat</td>
<td>1 seat</td>
<td>2 seats</td>
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<tr>
<td>Arm Service Tokens (training/support/…)</td>
<td>No</td>
<td>Purchased separately</td>
<td>15 Service Tokens</td>
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<th>$0k per annum</th>
<th>$75k per annum</th>
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1. Available early 2020
2. Available now – See full details on Arm Web site
Three Ways to Access Arm Technology

Arm DesignStart
- Fast, lowest-cost access to a select mix of IP

Arm Flexible Access
- Explore a wide range of IP before licensing
  - New!

Standard Licensing
- Range of licensing terms across the full Arm portfolio
Unleashing Innovation

Easy design exploration

Simple contract

Broad IP portfolio

Faster innovation

flexibleaccess.arm.com
Thank You
Danke
Merci
谢谢
ありがとうございました
Gracias
Kiitos
감사합니다
धन्यवाद
شكرًا
תודה