



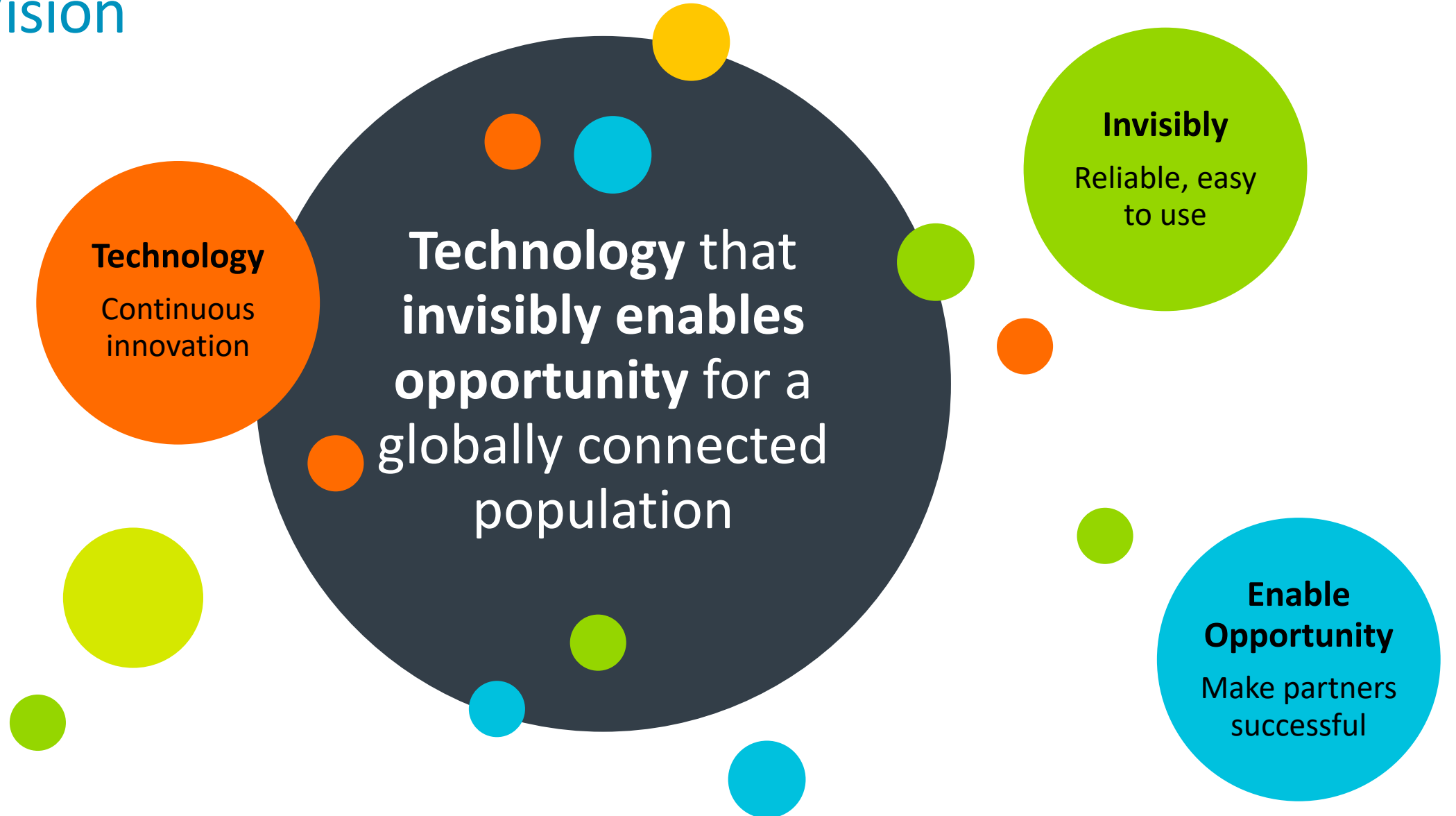
arm

# Innovation Starts Here!

## Low-cost Access to the World's Best System-on-Chip Portfolio

**Mike Eftimakis** – Director Business Innovation Strategy  
3<sup>rd</sup> December 2019

# Arm's Vision



# 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

# Arm Flexible Access – a New Licensing Model

Standard Arm licensing

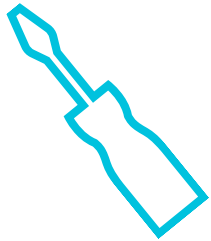


Arm Flexible Access



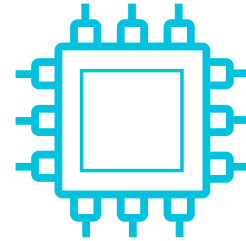
**Freedom to design and innovate**  
**Lower barrier to entry**

# Everything you Need for an SoC



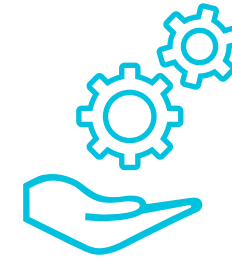
## Tools & Models

Faster design & development



## IP

Core functionality for any SoC



## Support & Training

Design with confidence

# What is Included?

## Mainstream package

### 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)

**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

	Academia / Research <sup>1</sup>	Entry <sup>2</sup>	Standard <sup>2</sup>
Access to IP	✓ (Except Crypto)	✓	✓
Technical support	Community based	✓	✓
Onboarding session	✓	✓	✓
Evaluation, exploration and design	✓	✓	✓
Number of tape-outs per year	Unlimited	1	Unlimited
Online training seats	5	5	25
Arm Development Studio (Arm DS Gold)	1 seat	1 seat	3 seats
Arm configuration tool - Socrates	1 seat	1 seat	1 seat
Arm virtual system models	1 seat	1 seat	2 seats
Arm Service Tokens (training/support/...)	No	Purchased separately	15 Service Tokens
	<b>\$0k per annum</b>	<b>\$75k per annum</b>	<b>\$200k per annum</b>

<sup>1</sup> Available early 2020

<sup>2</sup> 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



New!

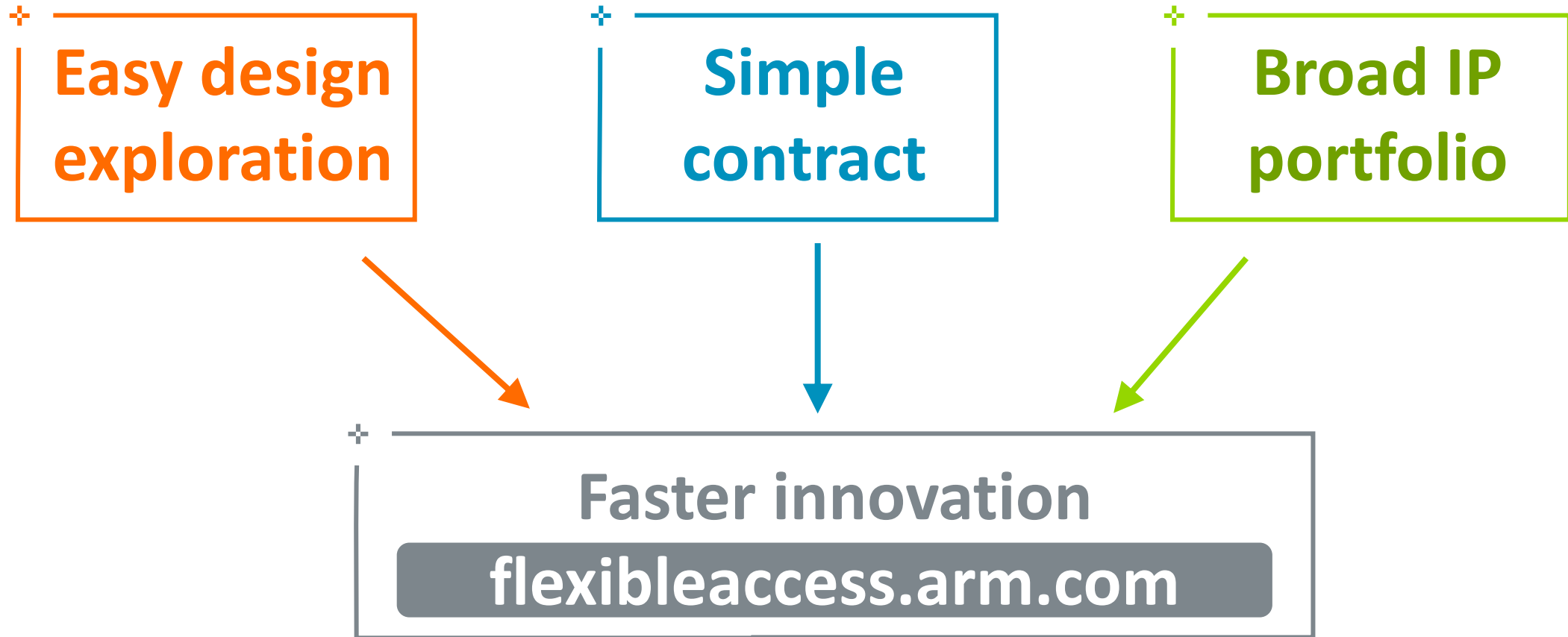
Explore a  
**wide range of IP**  
before licensing

## Standard Licensing



Range of licensing  
terms across the  
**full Arm portfolio**

# Unleashing Innovation



arm

Thank You

Danke

Merci

谢谢

ありがとう

Gracias

Kiitos

감사합니다

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