



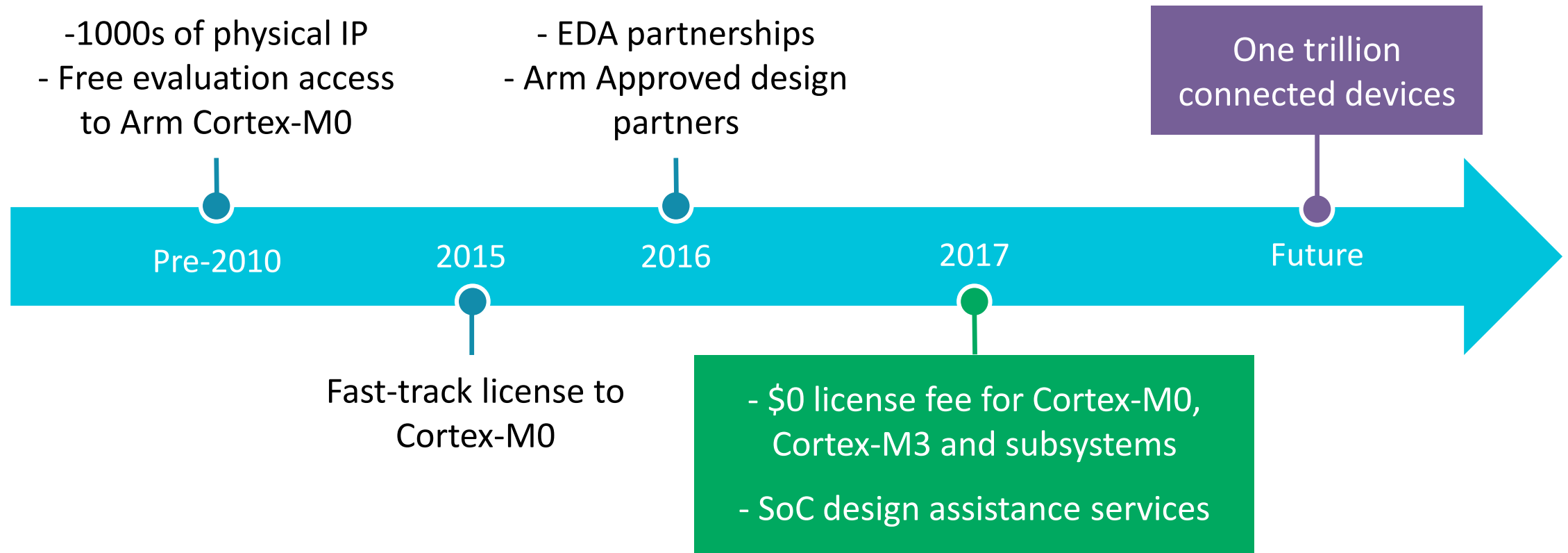
# arm

How to design an IoT SoC  
and get Arm CPU IP for no  
upfront license fee

# An enhanced Arm DesignStart

Building on a strong foundation

Successfully used by 1000s of designers, researchers and students



# Accessing proven, trusted IP has never been easier

## Evaluate

with DesignStart Eval



*Start designing within minutes*



Instant, free access to  
evaluate, design, and prototype



No signature  
Just a simple click-through EULA

## Commercialize

with DesignStart Pro



*Commercialize with no upfront fee*



Quick, web-based access to full IP  
for a commercial SoC



Simplified contract  
Success-based royalty model

Cortex-M0, Cortex-M3 and subsystems available at [designstart.arm.com](https://designstart.arm.com)

# DesignStart: The fastest route to silicon

Fast, simple  
and no-risk access

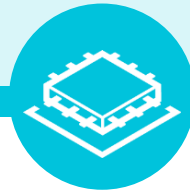


*Start designing today!*

\$0 license fee

Success-based  
royalty model

Design with  
confidence



*World's most proven  
processors*

Cortex-M0 & Cortex-M3

Comprehensive  
subsystems

The most accelerated  
route to success



*Most comprehensive  
services, tools, and  
software*

Design assistance

Largest technology  
ecosystem

# Enabling the broadest range of smart devices

Proven  
Trusted  
Widely deployed

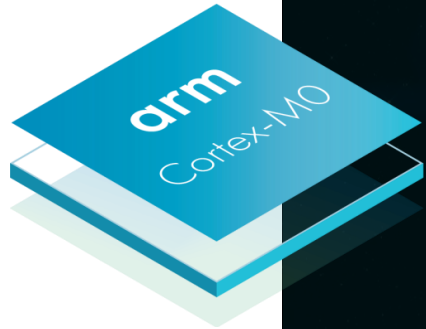
# 20 Billion

Cortex-M0 or Cortex-M3 based  
SoCs shipped



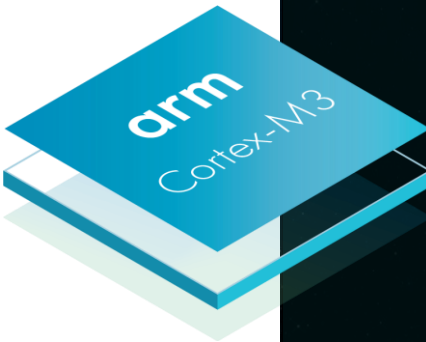


# Enabling the broadest range of smart devices



## Cortex-M0

- Exceptionally small
- Energy sipping
- Invisible processing



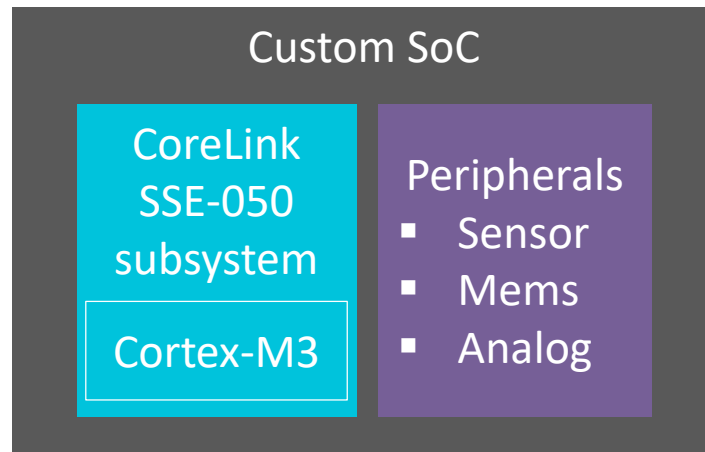
## Cortex-M3

- Small
- Mainstream devices
- Balanced performance & efficiency



# Subsystem and software speed time to market

Fastest time to market with  
proven subsystem



■ Arm IP  
■ Partner IP

10x IoT software productivity  
gain with mbed OS

arm MBED



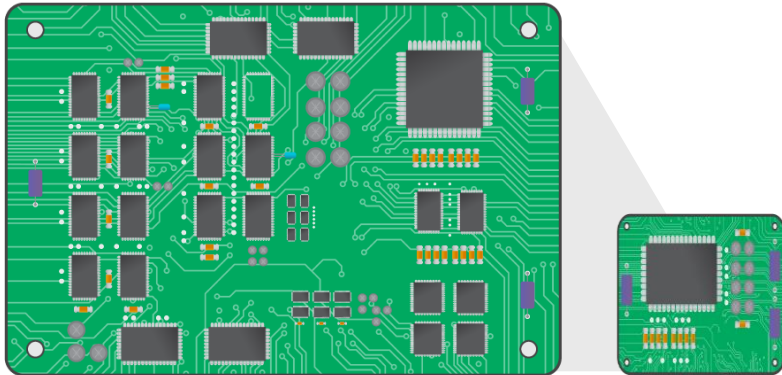
With out-of-the-box support  
on Cortex-M3 and FPGA

# Enabling a new wave of custom SoCs



# Unlock a greater potential with custom SoCs

From PCB to custom SoC



Increase margins by reducing

- Cost
- Complexity
- Size

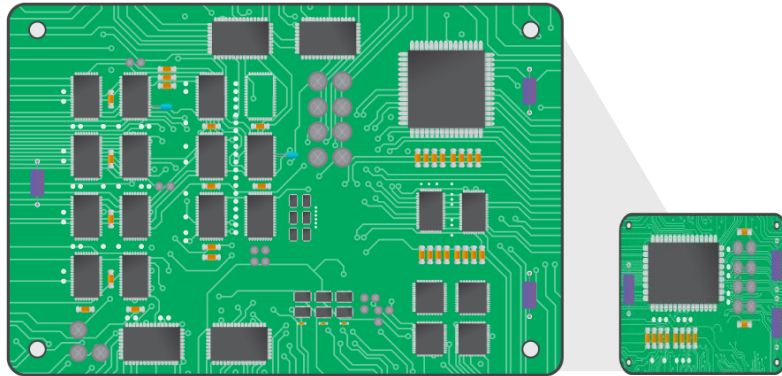


Enhance designs with greater

- Efficiency
- Reliability
- Differentiation
- IP protection

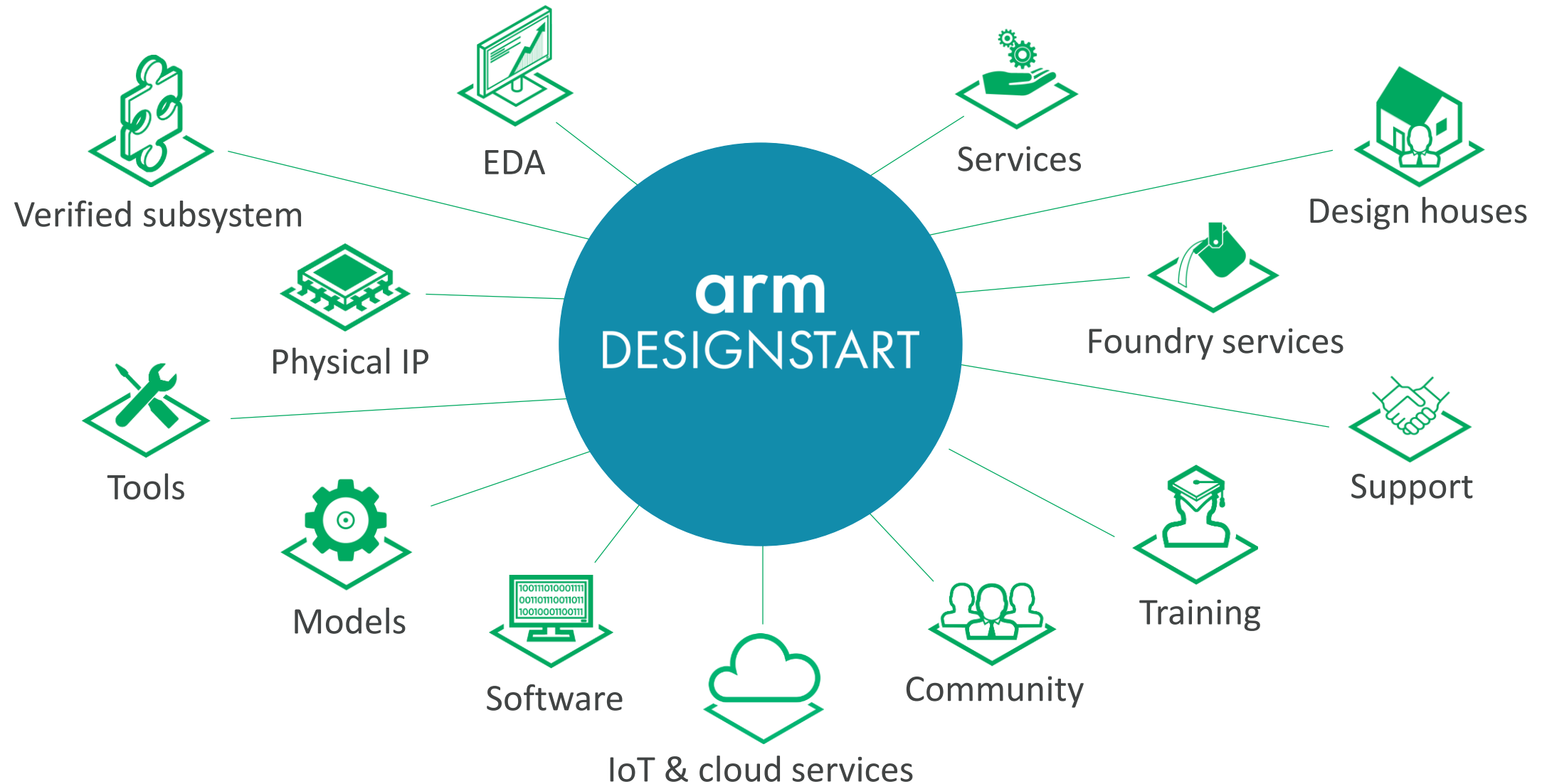
# Custom SoCs enhance industrial control

- Valve controller for oil & gas industry
- Pressure, temperature, diagnostics & control



- >70% power reduction
- >75% smaller
- Improved reliability
- New revenue streams
- >80% BOM reduction
- Feature differentiation
- Hard to copy
- Simple inventory management

# Much more than a CPU for silicon success



# The most supported development with Cortex-M

Largest choice of proven  
OS and tools



40+  
RTOS

20+  
IDE  
compiler

21+  
Debug &  
trace

Thriving developer base

250k+

mbd OS registered  
developers

2+

million

Eclipse/GCC (ARM)  
downloads in 2016

5+

million

CMSIS pack  
downloads in 2016

Largest open-access  
development resources



arm Community  
arm Developer

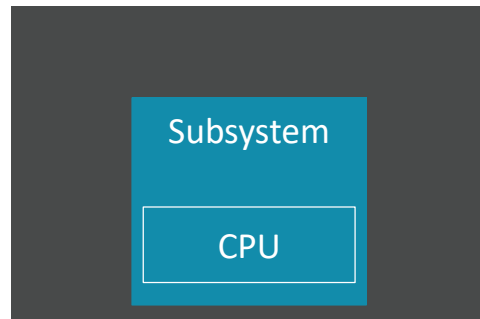
1000's of how-to guides,  
articles, and online  
development resources

# Making it easy to design and prototype



DesignStart Eval

Easy simulation



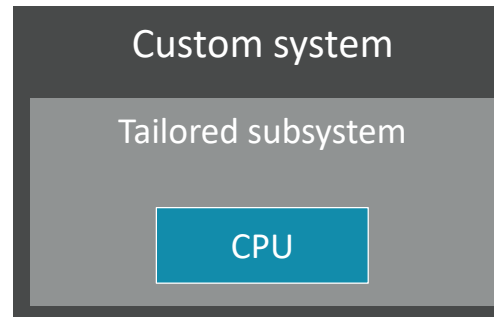
■ DesignStart IP

Ready to run system for rapid evaluation

Cortex-M3 Cycle Model included



Easy design



Flexible subsystem for fast customization



Easy prototyping



Cortex-M Prototyping System

Simple FPGA prototyping  
Out-of-the-box support for mbed OS  
Trial license of MDK included

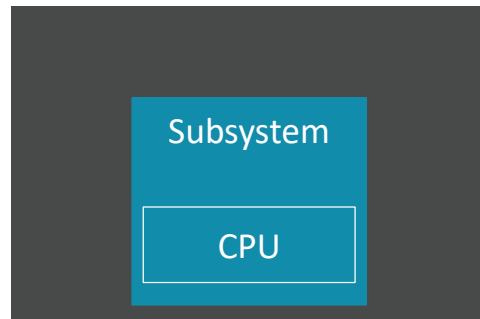


# Making it easier to build custom SoCs



DesignStart Pro

Start with verified subsystem

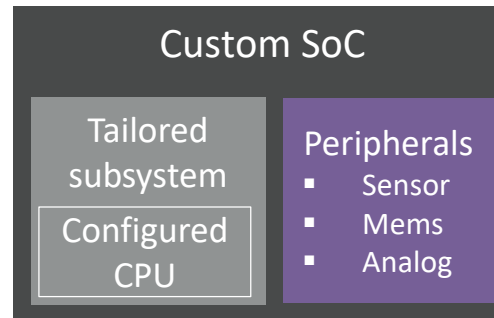


■ DesignStart IP

Reduce design time with proven subsystem and CPU



Innovate

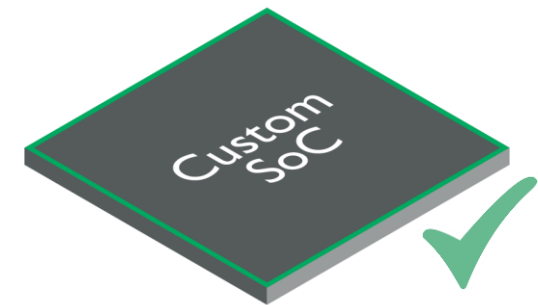


■ Partner IP

Customize to meet own design needs



Produce



Implement with industry-leading physical IP

# DesignStart: Accelerate silicon success

- The simplest, fastest route to proven, trusted CPUs and subsystems
  - Proven IP enabling the broadest applications
  - Instant evaluation access
- Design with confidence
  - \$0 upfront license. Low-cost, success-based royalties
  - The most comprehensive services, tools, and software ecosystem
- Access the widest market

**arm**  
DESIGNSTART

Thank You!

Danke!

Merci!

谢谢!

ありがとう!

Gracias!

Kiitos!

arm

To find out more:

[designstart.arm.com](https://designstart.arm.com)  
[community.arm.com](https://community.arm.com)

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