



# **Horizon 2020: LEIT – ICT WP2016-17**

## **ICT-05-2017: Customised and low- energy computing**

**Connect A 3**

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# ICT-05 in the workprogramme

## High Performance Computing

Towards Exascale  
Access to HPC  
Excellence in HPC applications

## ICT-06 Cloud computing

Decentralised clouds  
Cloud networking  
Trust and security  
Evolution of architectures

## ICT-05 Customised and low-energy computing

## ICT-01 Smart cyber-physical systems

Science of system integration

## The big picture

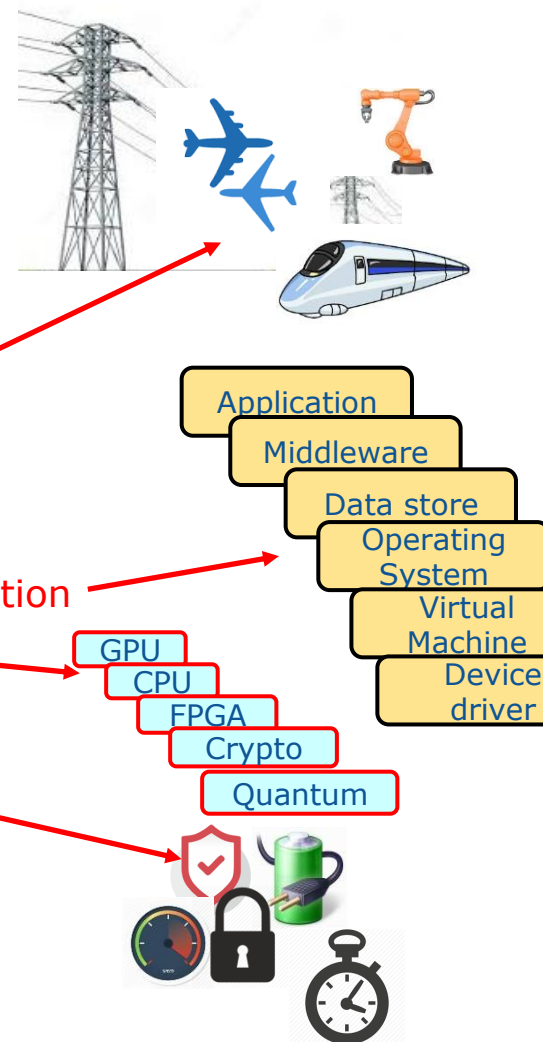
- ICT is becoming a **core component** of any product and service
- European industry should become leader in the **digital platforms** of tomorrow
- **Software development** is the challenge for digital platforms
- We need to develop better **tools for software development**, aiming specifically at the professional markets (cyber-physical systems, industrial and professional applications, Internet of Things, connected smart objects , etc...)

# ICT 5 - Customised and low energy computing

## What we ask for (RIA)

### Programming environments and toolboxes for low energy and highly parallel computing

- optimised for specific application domains
- ideally covering complete software stack from runtime to application
- supporting multicore and heterogeneous architectures
- supporting non-functional requirements: time criticality, power, reliability, security, etc...
- reuse and extension of existing solutions is OK



**Suggested EU contribution: 4 to 6 million (not binding!)**

CSA

Deadline  
25 April 2017



Budget  
2 M€

## ICT 5 - Customised and low energy computing

### What we ask for (CSA)

### Structuring and connecting the European academic and industrial research and innovation communities

- platform building, constituency building, consultations
- clustering of projects
- road-mapping for future research and innovation

# ICT4 - Customised and low energy computing

## What we expect (impact)

- Reinforce Europe's position in low-energy computing by **reducing the effort needed** to include digital technology inside any product or service
- Availability of **software development environments** and tools usable in **realistic use cases** and **increasing productivity**
- **Higher share** of European SMEs and mid-caps in the **reference markets** (e.g. avionics, automotive, robotics, Internet of Things)

*(You do not need to address all the impact criteria – focused impact is OK)*

# THANK YOU

Digitising European Industry

<http://ec.europa.eu/digital-agenda/en/digitising-european-industry>

Horizon 2020 on the web:

[http://ec.europa.eu/research/horizon2020/index\\_en.cfm](http://ec.europa.eu/research/horizon2020/index_en.cfm)

Advanced computing (ICT 5) on the web:

<https://ec.europa.eu/digital-agenda/en/advanced-computing>