



Horizon 2020: LEIT – ICT WP2016-17

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



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

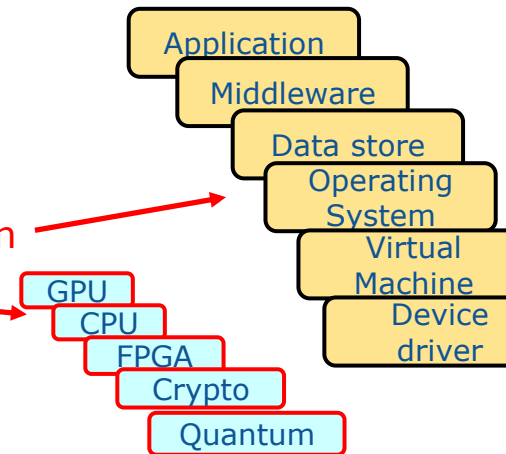
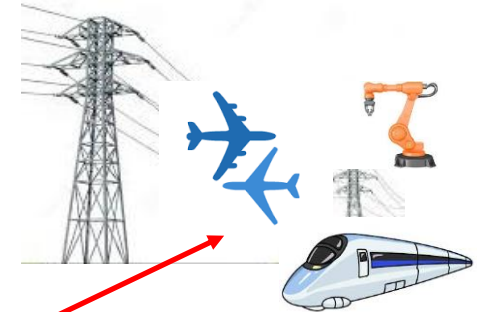
- ICT is becoming a **core component** of any product and service
- European industry should become leader in the **digital platforms** of tomorrow
- **Software development** is the challenge for digital platforms
- We need to develop better **tools for software development**, aiming specifically at 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€

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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)

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

Horizon 2020 on the web:

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>