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5. Conclusions
1. Genesis

2. Setup

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5. Conclusions
Amazon exec and Super Micro CEO call for retraction of spy chip story. (Time)

The US Cloud Act v The EU's GDPR - Data Privacy & Security

A jet sale to Egypt is being blocked by a US regulation, and France is over it

Car hacking remains a very real threat as autos become ever more loaded with tech
But...

HPC for

Citizens
Addressing major societal challenges of modern society (e.g. health, more efficient public services, cybersecurity, safer and greener transport)

Researchers and scientists
Underpinning innovation in almost all scientific disciplines
Deeper insights into unexplored systems of high complexity

Industry
- innovative
- efficient (resources and time)
- costly

Currently, EU industry provides about 5% of supercomputing resources worldwide, but consumes one third of them.

Compared to its competitors in the USA, China and Japan, Europe is underinvesting in supercomputing, with an annual funding gap of €500-750 million.

In June 2012, the EU had 4 machines in the global top 10 supercomputers. Today the fastest system in the EU ranks 13 on the global list – about 10 times slower than the world’s fastest machine.

EC expectations from ICT-42 & EPI value proposal

EPI expected impacts (as per EC request)

▶ Get a world class processor for the Exascale machines supplied by EuroHPC in 2023

▶ Develop a sustainable economic model

EPI is an H2020 project but with industrial mindset & product delivery oriented

Technology drive

High Performance Computing needs for Exascale machines and beyond

Connected mobility & Advanced Driver Assistance Systems (ADAS) computing needs beyond 2023

Servers, Cloud, Edge Low Power CPU needs

Business drive
EPI is an essential part of EuroHPC

- **European High Performance Computing Joint Undertaking (EuroHPC JU):**
  - Setup in Nov 2018 (operational until 2026)
  - Composed of public and private members
  - Budget of ~1B€ (50% EU, 50% participating countries) + 400M€ from private entities
  - Will provide financial support
  - (public procurement, Research and Innov. Grants)
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23 partners: Wide expertise and excellent combo
EPI 23 partners, from research to industry from consortium to EU high-tech fabless

EPI Common Platform PCI card
EPI HPC Blade
EPI Mother Board
EPI BMW Adas demo

OEM’s

RHEA family

Fabless company
Industrial hand of EPI Incorporated by a couple EPI members
EPI : End2End Solutions for both Servers and Edge

- Synergies
- Fast-time to market
- Cost controlled
Unique in the universe of H2020 programs:
From IP to Product/Solution

IP

SOLUTION

European Processor Initiative

European Silicon Technologies
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Scalability allows wide market potential coverage

Core Developments
- HPC
- eHPC (Automotive)
- AI & BigData

Cost driven
- Cloud & Servers

Safety critical
- Space
- Industry 4.x

Committed future
EPI technologies will be everywhere to protect you or your business

To control your autonomous car safely

To help National and European sovereignty, science and research

To protect your digital life and your personal data’s
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EPI Common Platform

HPC System PreExascale

HPC System Exascale

Automotive CPU

Pan European Research Platform for HPC & AI

EPI IP’s launch pad

Adv. 64bits core & RISC-V

Adv. 64bits core & RISC-V

Gen 1 GPP

Gen 1

Gen 2

Gen 2 GPP

Gen 3

Many IPs

Some IPs

Few IPs Integration

External IPs

2021

2022

2023

2024
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Challenge 1: Cost of Advanced Design SoC

9 digits budget....Building such a Product needs lots of cash...
While EPI is warming up, out there…

E-PANIC Reaps $58M To Speed Development of Its 7nm AI Chip, Set to Raise $100 Million

Cyrus Raises US$100 Million In Series A Funding, President launches new company with backing from Carlyle Group

Intel Leads $75 Million Investment in AI Chip Startup

A stealthy startup called C raised around $25 million to build deep learning hardware in its $50M Series C Round.
Challenge 2: What is really European?

Design Tools

Architects & Design team

VC’s

Backend / Packaging Sub-Contractors

RHEA

E.S.T

European Processor Initiative

IP

INTELLECTUAL PROPERTY

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EPI Moon Shot

Airbus
(1969) → 2003 to take over Boeing

With EPI, Europe has the ambition to repeat the Airbus success

EPI program
(2018) → 2023 for ExaScale
To anticipate our 2019 Financial Roadshow
THANK YOU

European Processor Initiative

contact@european-processor-initiative.eu