INNOVATION IN ACTION

JOINT TECHNOLOGY INITIATIVES

ARTEMIS

eniac JOINT UNDERTAKING

Clean Sky

New Energy World JU

fuel cells & hydrogen for sustainability

imi

Innovative Medicines Initiative

STOA

Joint Exhibition

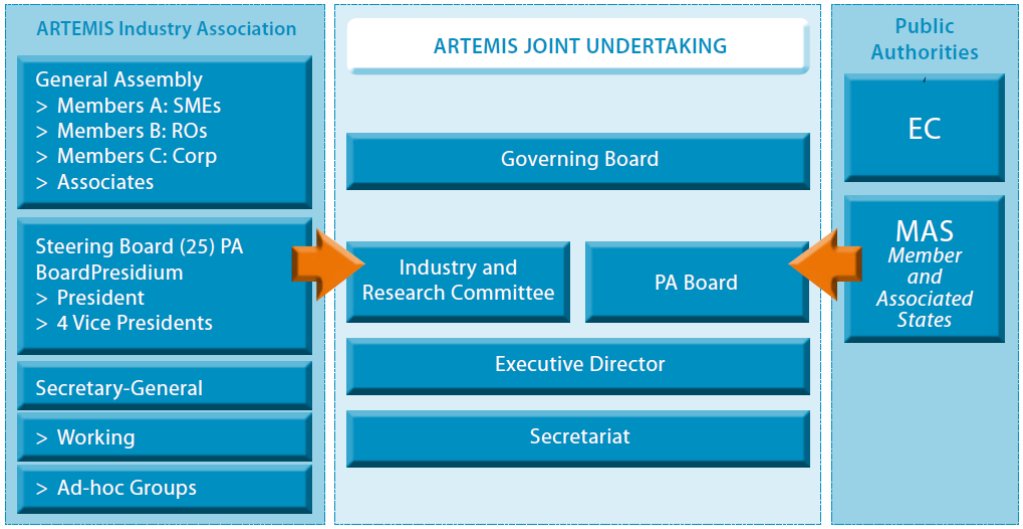
30 September - 4 October 2013

THE ARTEMIS PROGRAMME & SUCCESSES

Alun Foster

ARTEMIS-JU

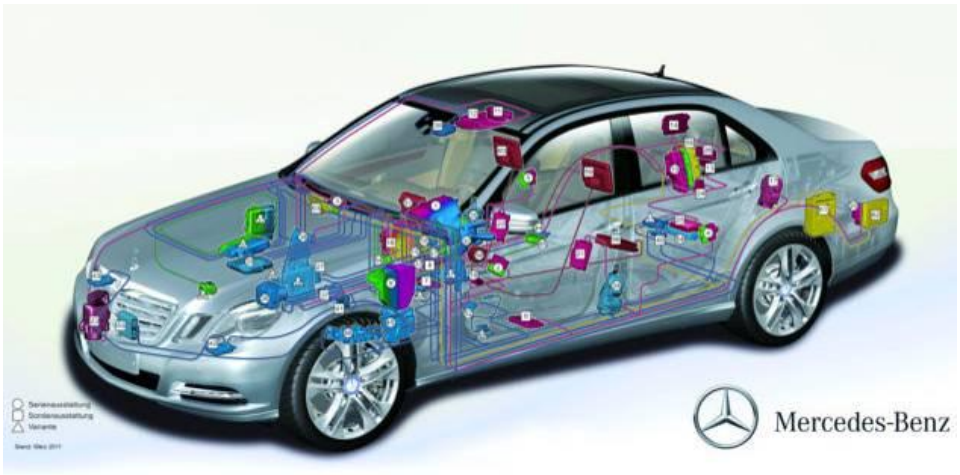
is a Public-Private Partnership funding R&D&I on EMBEDDED COMPUTING SYSTEMS with a 3-PARTITE FUNDING MODEL (EU + Participating Member States + Industry)



'Industry' is represented by the ARTEMIS Industry Association – "ARTEMIS-IA"

INNOVATION IN *ACTION*

JOINT TECHNOLOGY INITIATIVES



Embedded Systems and Society

Increase of electronic systems, especially as Embedded Systems, is required for

- **mastering complexity**
- **meeting environmental challenges**
- **competitiveness**
- **cost efficiency**

This impact will even increase !

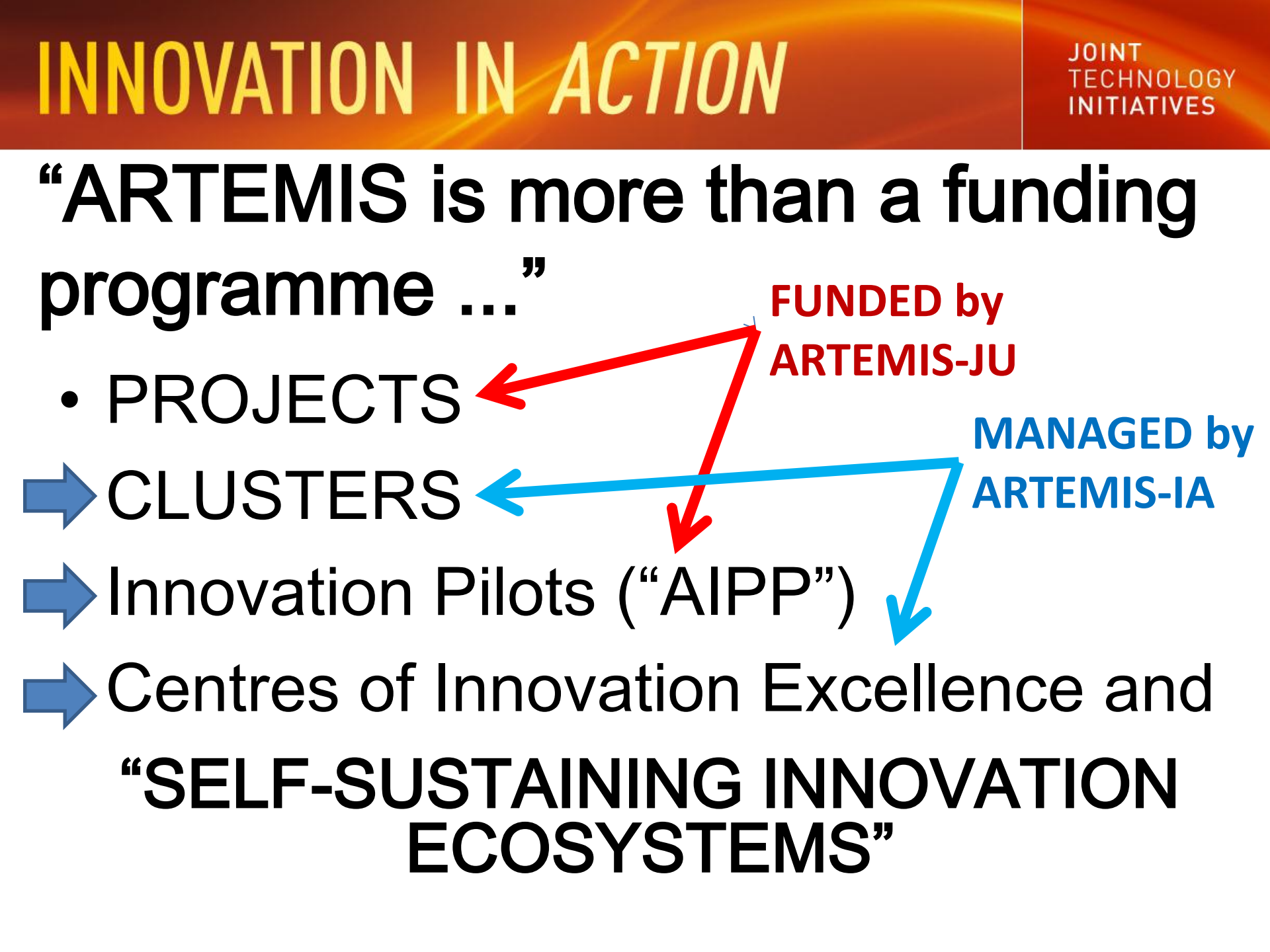
INNOVATION:

HOW ?

INNOVATION = achieve critical mass through "Self Sustaining Innovation Ecosystems"

"ARTEMIS is more than a funding programme …"

- PROJECTS
- CLUSTERS
- Innovation Pilots ("AIPP")
- Centres of Innovation Excellence and



"SELF-SUSTAINING INNOVATION ECOSYSTEMS"

Major Achievements: What has ARTEMIS built?

1. The largest programme ever focused on **Safety Critical Systems**
2. **The** largest programme ever, focused on **Multi-core Technology: Low power, high performance**
3. ARTEMIS has created the **AIPPs**: the **largest Pilot Projects on Embedded Systems**, addressing key societal challenges

The ARTEMIS Portfolio Analysis

Available at www.artemis-ju.eu

Core of the

"ARTEMIS Book of Successes"

What Next ?

Step up to CPS !

- Nano-scale semiconductors (a **KET**)

+ Smart systems of sensors/actuators

+ Embedded Computing and Control

= Mastering "**Cyber-Physical Systems**"

= **MASTERING the ELECTRONICS COMPONENTS and SYSTEMS VALUE CHAIN**

= **ECSEL Joint Undertaking**

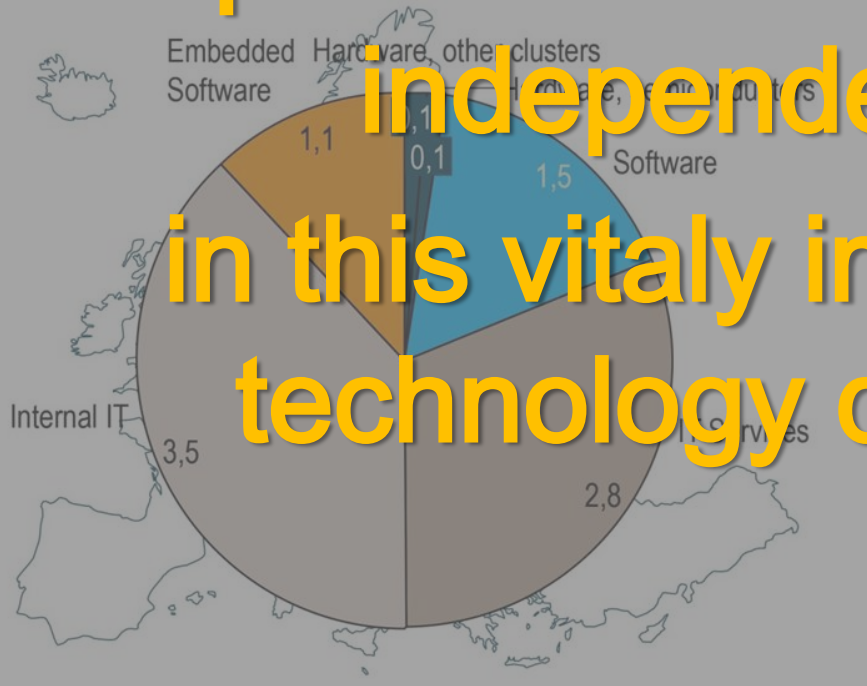
WHY ?

WHY ???

- **ICTs** drive INNOVATION
- **INNOVATION** leads to COMPETITIVE INDUSTRIES
- **COMPETITIVE INDUSTRIES** lead to JOBS

Europe accounts for approx. 20% of jobs in Digital Technology, corresponding to 9.1 m jobs

Europe must assure strategic independence in this vitaly important technology domain



Key assumptions

- > Broad definition of IT specialists applied, excluding management overhead, sales and support functions
- > Total number of jobs estimated by [illegible] employees relative to European workforce
- > Split by cluster based on available workforce sizing of hardware cluster and global market size share for the other clusters
- > Definition of European market does not include Turkey

Number of jobs in European Digital Technology: 9.1 m

5% growth per year "creates" ca. 450.000 jobs per year

→ ca. 50.000 for ES/CPS / year

Source: EU; IDC; Destatis; Roland Berger

THANK YOU