Advanced Research & Technology
EMbedded Intelligent Systems
ARTEMIS

ARTEMIS Industry Association (since 2007)
ARTEMIS-IA
www.artemis-ia.eu
Jan Lohstrophy, Secretary General
2019 April 17
Overlaps, non-orthogonality and European Fragmentation

• There are many associations with quite some overlap
• Topics like Cyber-Physical Systems, IoT, AI, Big Data, etc. are not to be seen as isolated orthogonal topics, but as different, but inter-related, viewing angles or centres of gravity on the complex systems that we are building today and tomorrow
• Fragmented funding comes from
  • EU (H2020/HEU)
  • EU and EU member States (tri-partite funding in iPPP (ECSEL-JU)) for transnational projects
  • Eureka member States for transnational projects
  • National funding schemes for national projects
• Associations should cooperate to complement their SRA’s (are there forgotten areas for Europe?)
  • The Lighthouse Initiatives as started in ECSEL are a good start to cross-connect key projects and SRA’s in specific application areas.
ARTEMIS-IA community profile (200+ members):
• Cross industry and cross domain
• Working on complex digital systems in its almost complete value chain
  • Core: Embedded software for many different applications communicating via hardware interfaces to physical devices and via communication interfaces to cloud and (enterprise) SW systems
• Aiming to find synergy between the various application areas

Its SRA is fully integrated in the complete-value-chain ECS SRA by AENEAS, ARTEMIS-IA and EPoSS
ECS-SRA by AENEAS, ARTEMIS-IA and EPoSS (input for ECSEL-JU MASP)

Downloadable from www.artemis-ia.eu
ARTEMIS Technology Domains for Embedded Intelligence
EMBEDDED INTELLIGENCE:
TRENDS AND CHALLENGES

Economic and technical outlook for Embedded Intelligence in the context of the Electronic Components and Systems value chain.

A study by Advancy, commissioned by the ARTEMIS Industry Association.

Downloadable from www.artemis-ia.eu
Global 2016 value

Global 2025 value

EU share 25%

SOFTWARE CONTENT < 10%

Not included in market figures

FULLY INTEGRATED SYSTEMS

- TRANSPORT & SMART MOBILITY
- HEALTH & WELLBEING
- ENERGY
- DIGITAL INDUSTRY
- DIGITAL LIFE

INTEGRATED PLATFORMS

SYSTEMS OF SYSTEMS / SOLUTION

SW CONTENT: > 30%

CONSERVATIVE ESTIMATE: IoT only

BUILD SELF-AMPLIFYING NETWORKS & AGILE ECOSYSTEMS

CREATE EUROPEAN GLOBAL MARKET LEADERS, ENSURING EU COMPETITIVENESS

Note: rounded figures. (1): 2025 estimate value potential for the Internet of Things, not the full potential for ECS end-applications.
Source: Decision, IDC, MGI, Advancy research & analysis
Pan European (social) challenge

History

All

H2020 projects

ECSEL projects

EUREKA projects

National projects
The EC has limited overview: only H2020 and ECSEL
The Member States have limited overview: only ECSEL and EUREKA and per MS x National projects.
Pan European (social) challenge

Companies (and associations) have not a complete overview
Pan European challenge: Mobility

Lighthouse cornerstone project

LIASE Group to propose to GB additional cornerstone and key stones from all programmes
Pan European challenge: Mobility

Lighthouse corner and key stone projects

LIASE Group to propose to GB additional cornerstones and key stones from all programmes
LIASE group = Lighthouse Initiative Advisory Service group

- Group of key experts from companies and/or associations
  - Invited by the ECSEL JU office
- To build bridges to other programmes and invite key projects from all programmes to join the specific Lighthouse
- Organise common workshops
- Construct a common roadmap
- Focus on real KEY PROJECTS
- Find missing elements to reach the pan European goal(s)
- Provide recommendations for projects in standardisation / regulation / field tests / marketing / etc.
Sofar, the ECSEL Governing Board decided on three Lighthouses based on ECSEL cornerstone projects supported by ECSEL CSA’s:

INDUSTRY4.E  MOBILITY.E  HEALTH.E
Thank you!

Jan Lohstroh