

Advanced Research & Technology EMbedded Intelligent Systems ARTEMIS

ARTEMIS Industry Association (since 2007)

ARTEMIS-IA

www.artemis-ia.eu

Jan Lohstroh, Secretary General

2019 April 17

Overlaps, non-orthogonality and European Fragmentation



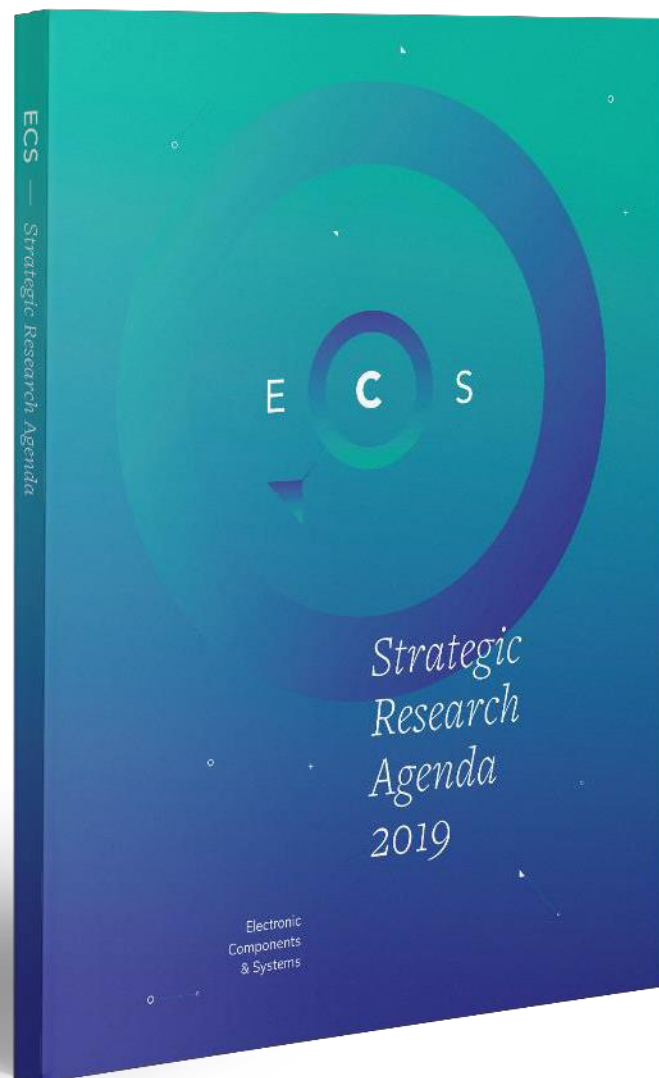
- There are many associations with quite some overlap
- Topics like Cyber-Physical Systems, IoT, AI, Big Data, etc. are not to be seen as isolated orthogonal topics, but as different, but inter-related, viewing angles or centres of gravity on the complex systems that we are building today and tomorrow
- 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)

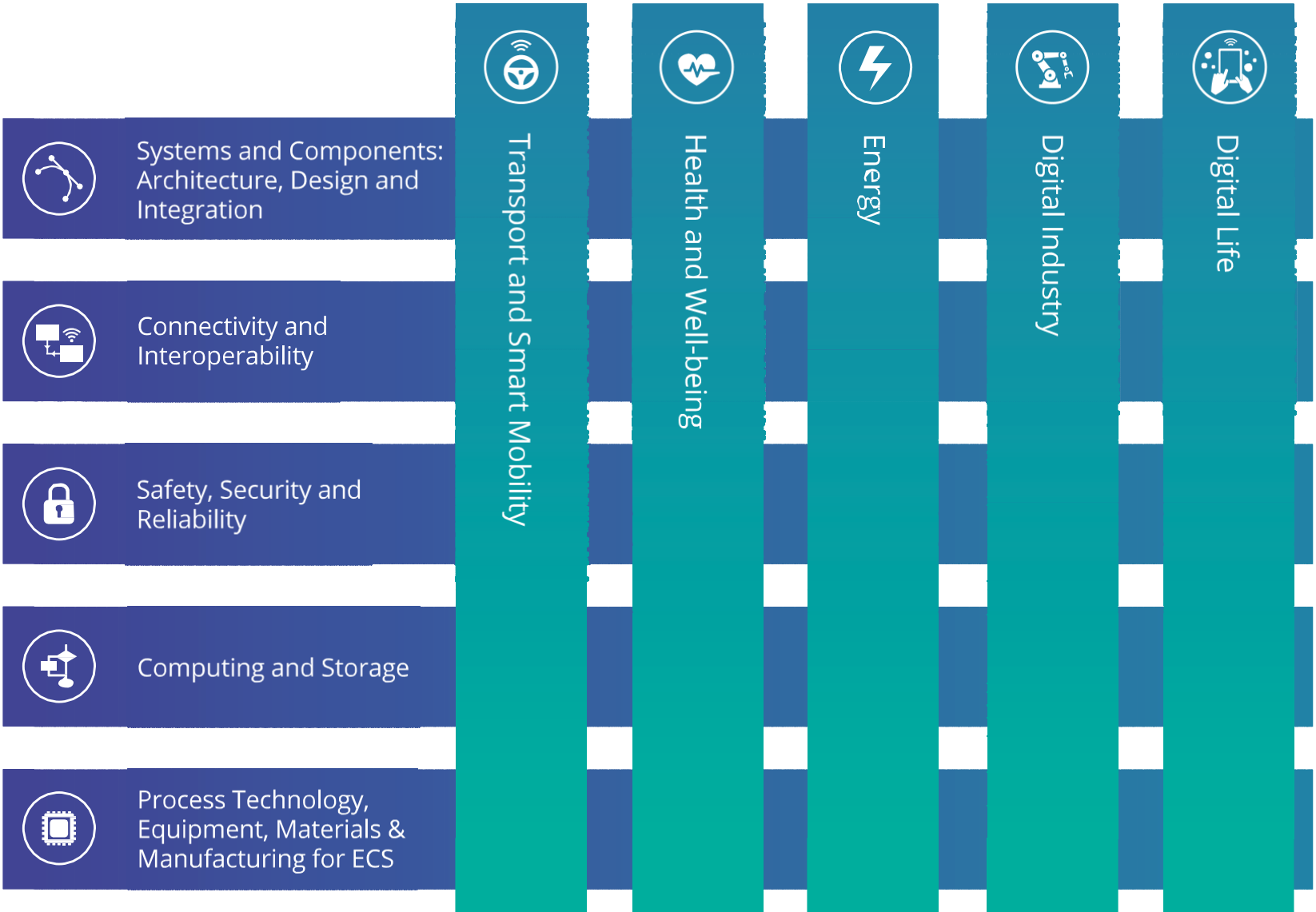
Downloadable from www.artemis-ia.eu

ECS-SRA

KEY APPLICATION AREAS

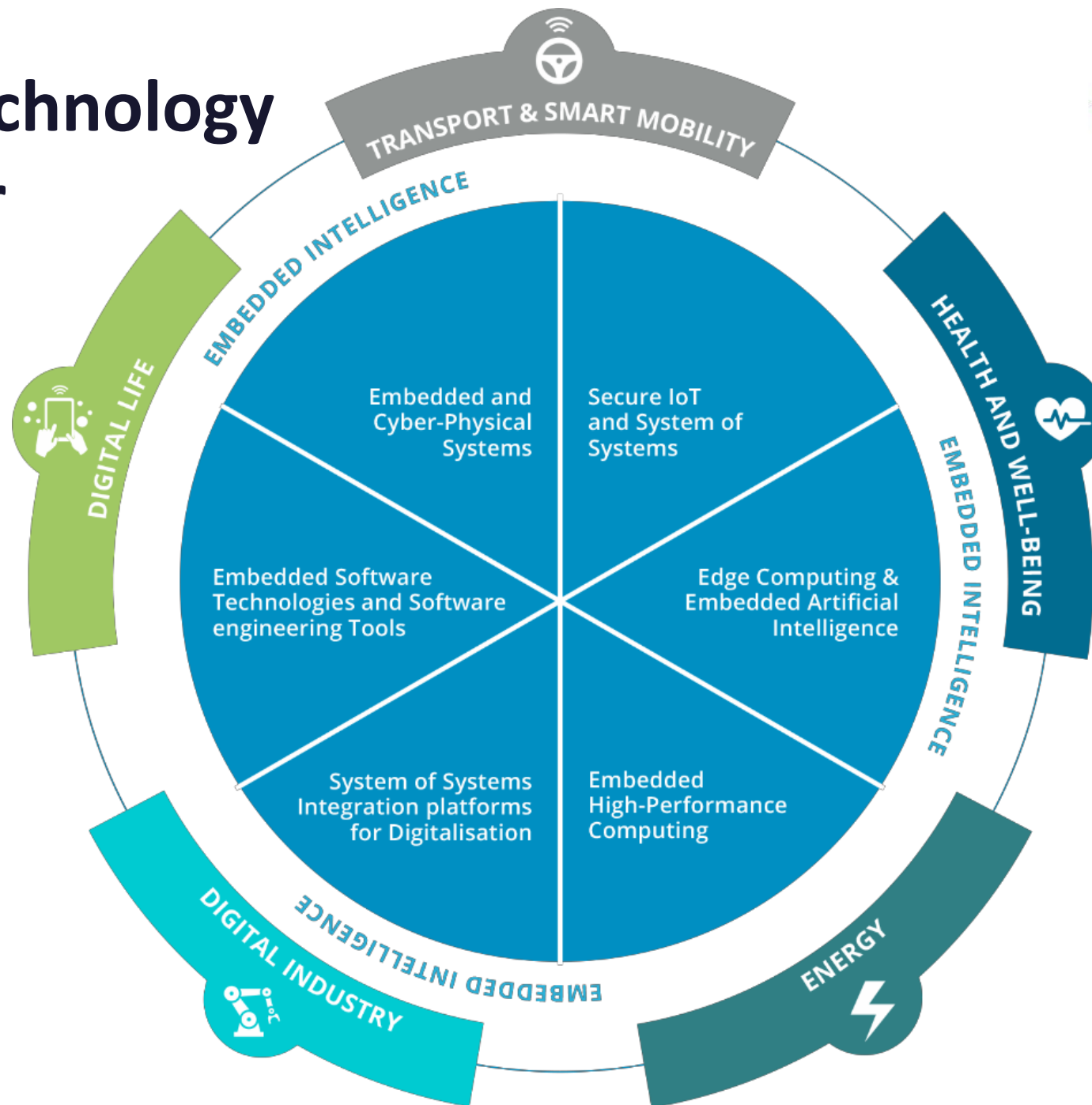


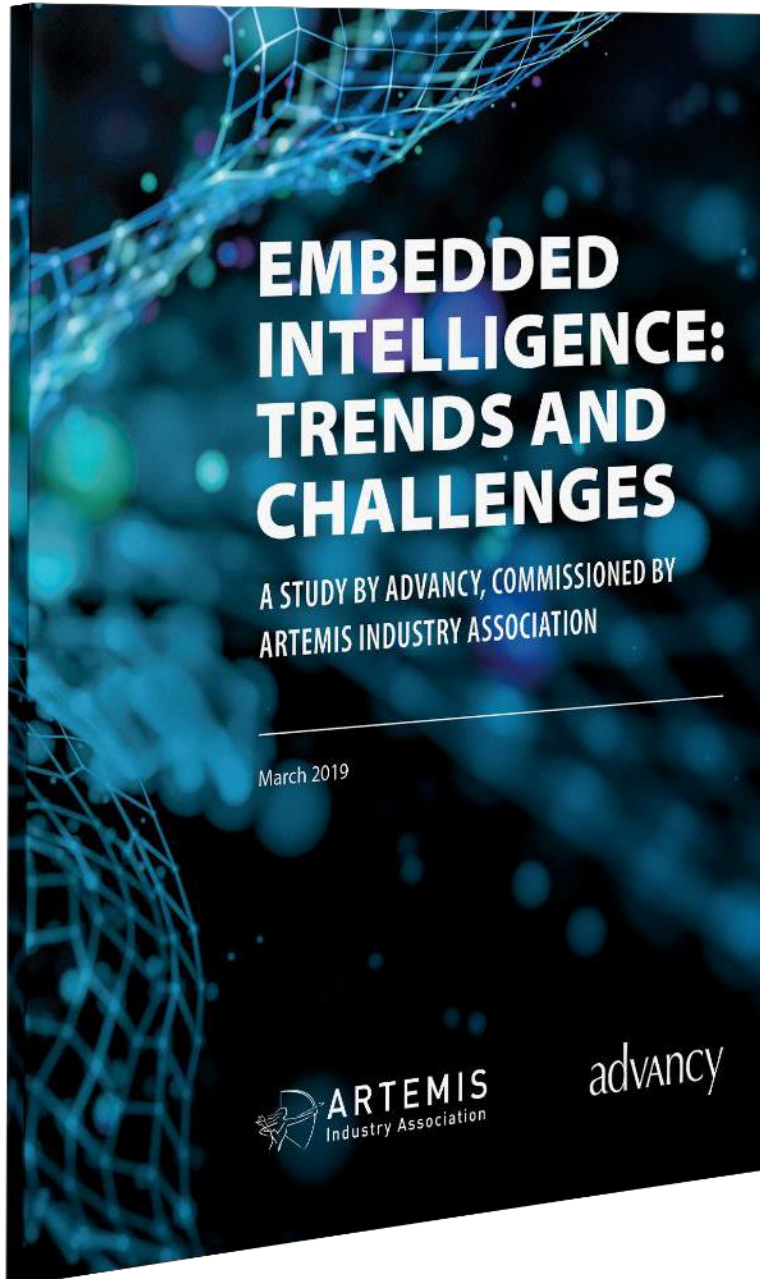
ESSENTIAL CAPABILITIES



ARTEMIS Technology

Domains for Embedded Intelligence





EMBEDDED INTELLIGENCE: TRENDS AND CHALLENGES



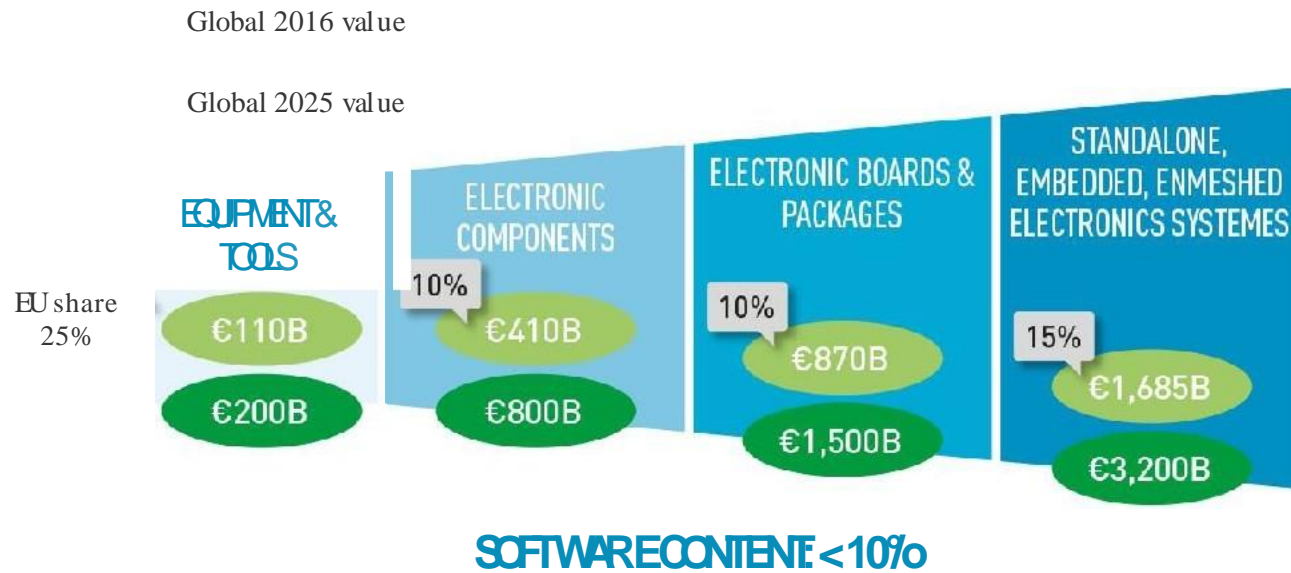
Economic and technical outlook for Embedded Intelligence in the context of the Electronic Components and Systems value chain.

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

Downloadable from www.artemis-ia.eu



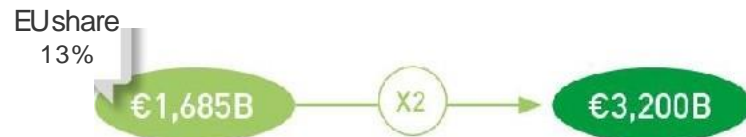
advancy



Not included in market figures



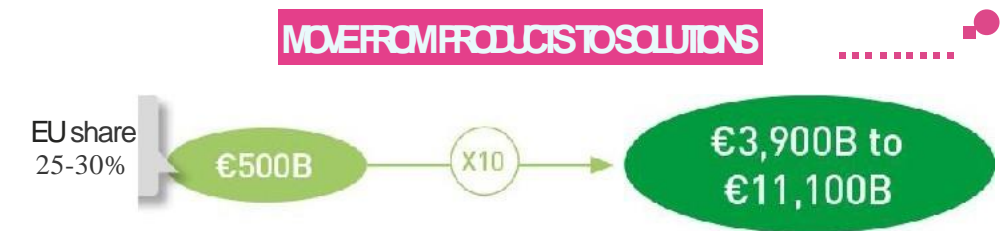
Global annual
Key success
factor for



SET UP EFFICIENT SUPPLY CHAINS & REACH CRITICAL MASS WITH VOLUMES

SECURE EU SOVEREIGNTY THROUGH TECHNICAL CAPABILITIES

Conservative estimate: IoT only



BUILD SELF-AMPLIFYING NETWORKS & AGILE ECOSYSTEMS

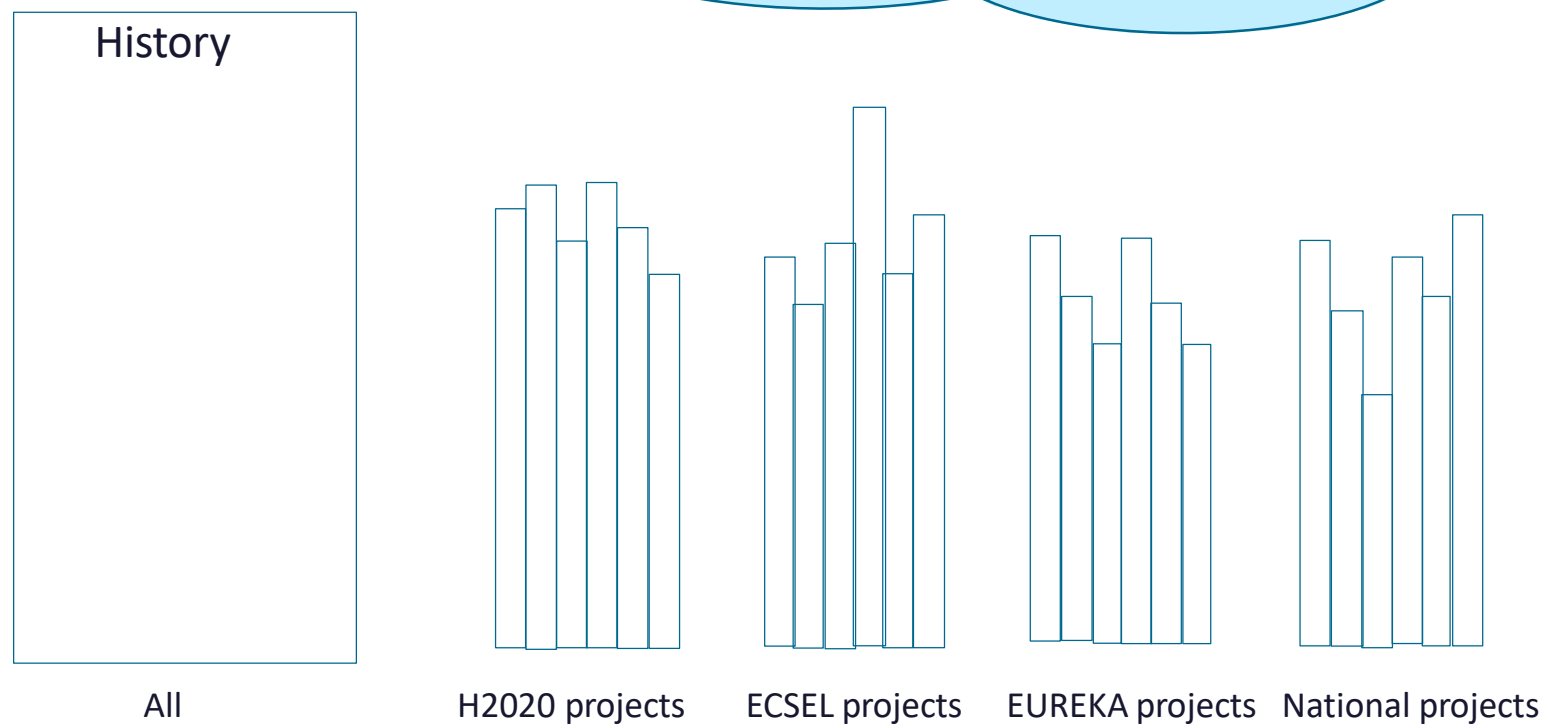
CREATE EUROPEAN GLOBAL MARKET LEADERS, ENSURING EU

COMPETITIVENESS

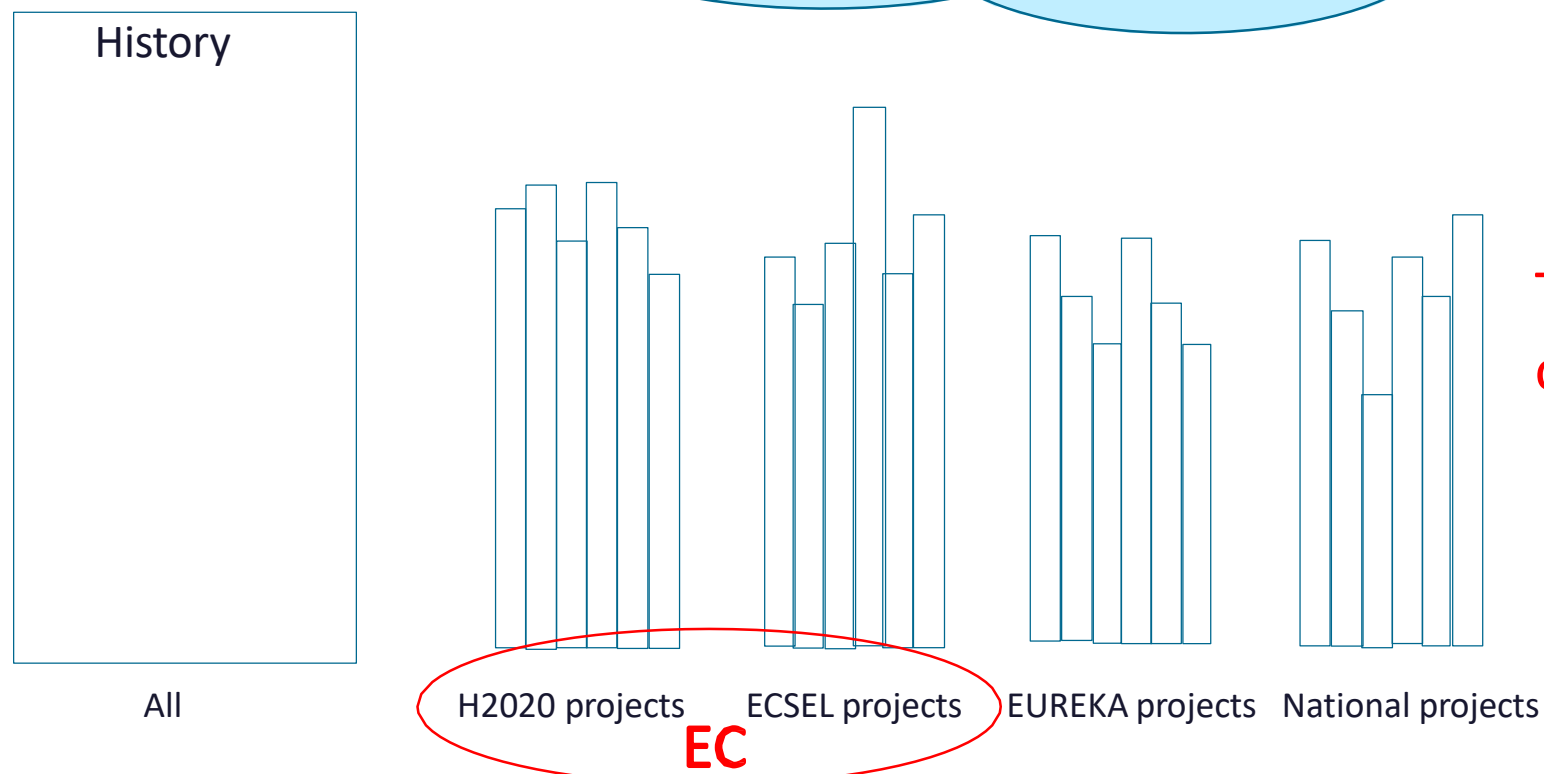
Note: rounded figures. (1): 2025 estimate value potential for the Internet of Things, not the full potential for ECS end-applications.

Source: Decision, IDC, MGI, Advancy research & analysis

Pan European (social) challenge

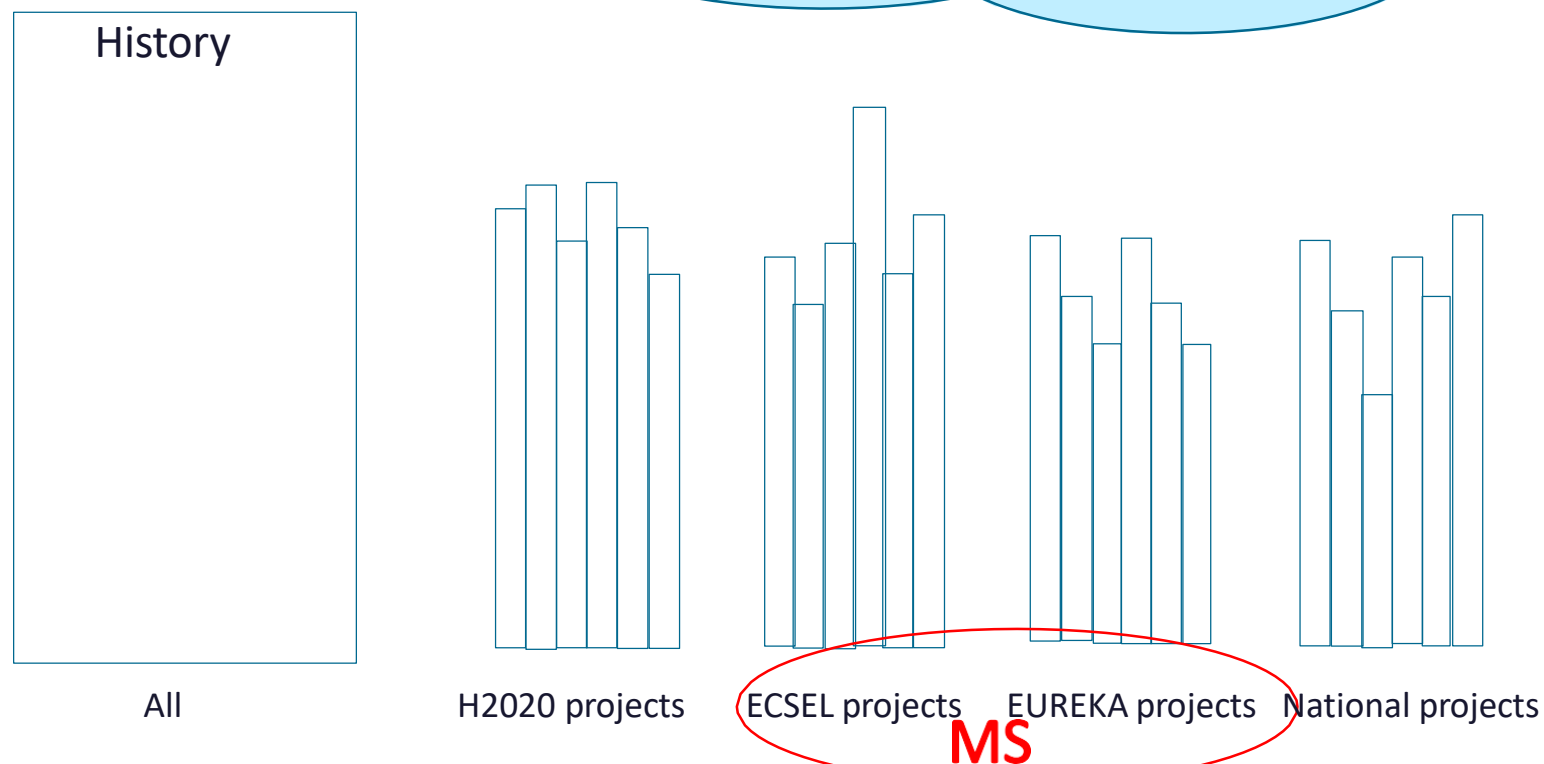


Pan European (social) challenge



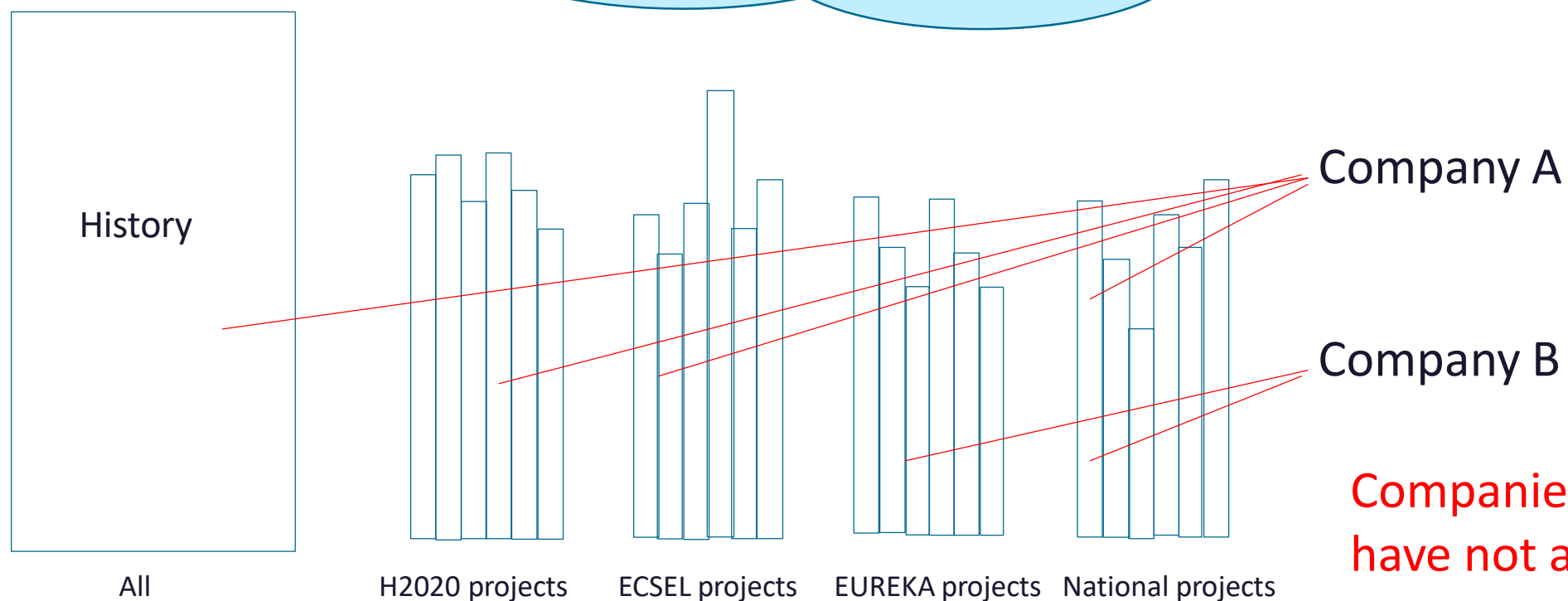
The EC has limited overview:
only H2020 and ECSEL

Pan European (social) challenge



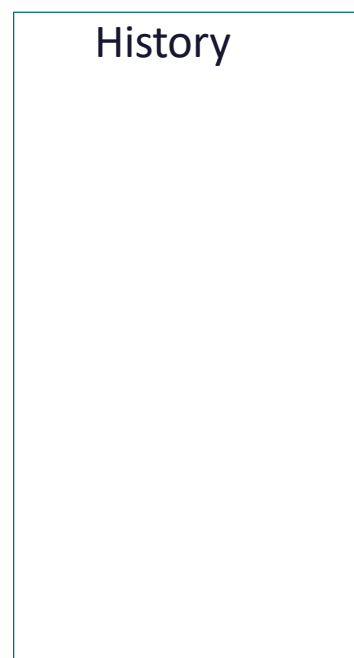
The Member States have limited overview:
only ECSEL and EUREKA and per MS x National projects

Pan European (social) challenge



Companies (and associations)
have not a complete overview

Pan European challenge: Mobility



All

H2020 projects

ECSEL projects

EUREKA projects

National projects

Lighthouse cornerstone project



LIASE Group to
propose to GB
additional
cornerstones and
key stones from all
programmes

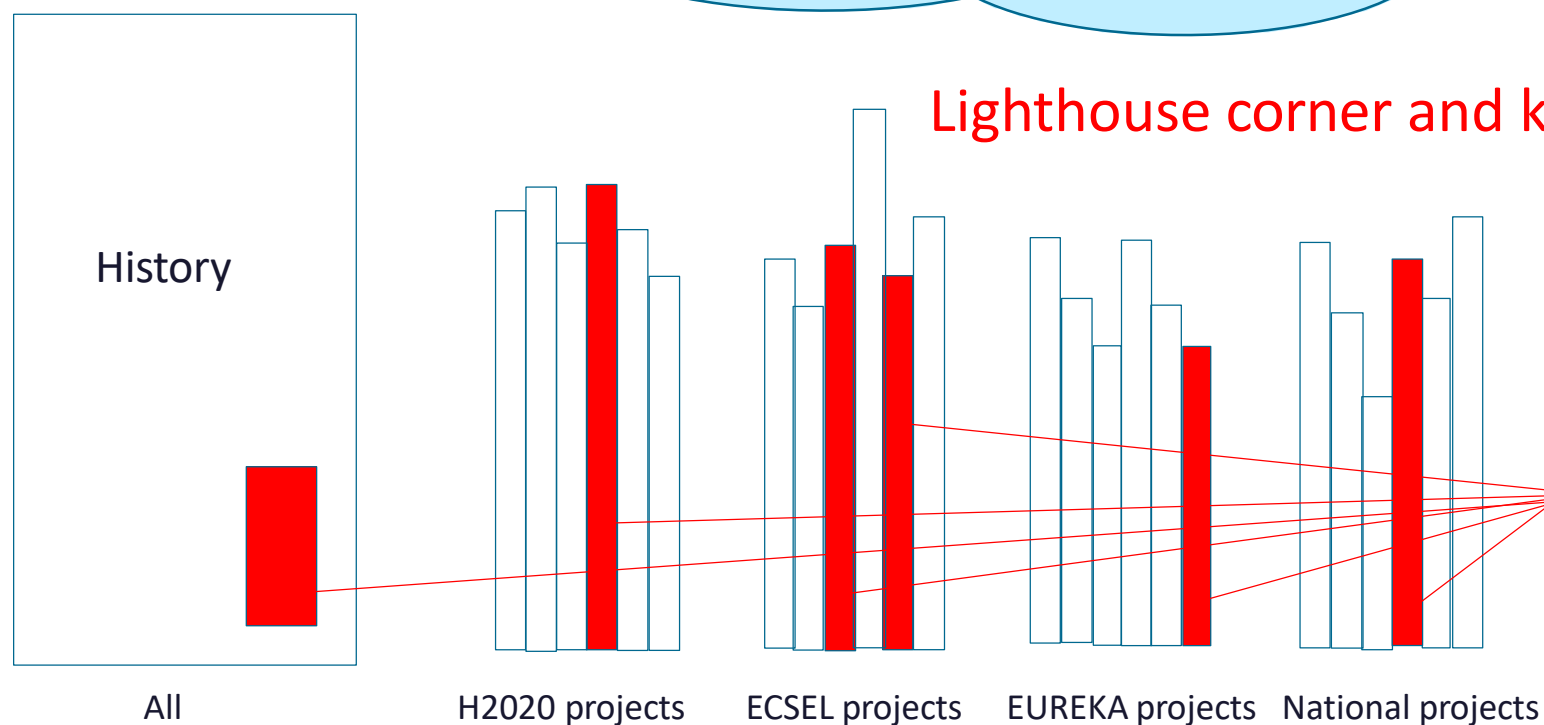
**LIGHTHOUSE
"MOBILITY.E"**



Pan European challenge: Mobility

LIGHTHOUSE "MOBILITY.E"

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