

# ARTEMIS TECHNOLOGY CONFERENCE 2016

4-6 October | Madrid, Spain



**ECSEL Joint Undertaking**  
Electronic Components and Systems for European Leadership



# Introduction to ARTEMIS Technology Conference

- **ARTEMIS has proven to be a unique ‘initiative’** that in just a few years succeeded in establishing largest R&D&I projects ever in the area of Embedded Intelligent Systems

To name a few

CRYSTAL



R5-COP



Adaptive Cooperative Control  
in Urban (sub) Systems



HQIDes

SafeCer



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# ARTEMIS-IA Innovation Strategy & Research Priorities

## From Vision and Strategy to Products and Services

- **The emerging Digital evolution relies heavily on Embedded Intelligent Systems technologies, CPS and IoT in domains where it is paramount that Europe takes a leadership role.**



**"Digital inside"**

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# ARTEMIS-IA

## Innovation Strategy & Research Priorities

### From Vision and Strategy to Products and Services

**As from 2006,**

**ARTEMIS subscribed to a Vision and Strategy to position Europe as a world-class initiative in the area of Embedded Intelligence**

- **Overcome the fragmentation:**
  - in the European supply base, in research and in investments
- **Remove barriers between application contexts,**
  - to yield multi-domain, reusable solutions, **allowing cooperation across sectors and value chain.**

**And now,**

**ARTEMIS is moving forward to play a major role in the DSM :**

- Consolidate the pathway to the **digital Revolution**
- Enable more **agile and shorter development** cycle
- Extend the use of **digital platforms** to build eco-systems needed for accelerating the innovation and the creation of new business models

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# ARTEMIS-IA

## Innovation Strategy & Research Priorities

### From Vision and Strategy to Products and Services

ARTEMIS innovation strategy developed in the previous SRA is two-pronged:

- one is to **'Build on the leading positions where Europe is strong'**
- And the other to **'Create new opportunities'** for Europe to be positioned at the forefront of **new or emerging markets with high potential growth rates**

The renewed strategy adds a user-centric dimension

- To take into account the user's benefit and experience, over the whole value chain
- By building better and more efficient technological solutions

# ARTEMIS-IA

## Innovation Strategy & Research Priorities

### The drivers of Digital transformation:

- **Leadership of vertically integrated companies**
  - GAFA extend their range down in the value chain and others are moving up.
- **The “Always Connected Society”**
  - Connectivity changed our society and the way information and knowledge are exchanged
- **The Platform concept and new hyper-scalability business models**
  - Platforms are cost efficient, provide facilities to experiment innovative products & services
- **Data value**
  - Data deluge generated by connected smart ‘Things’ and openly exchanged
- **Safety , Trust, Privacy and Security**
  - Are essential considerations for open and connected smart products – IoT.
- **The software value**
  - a stronger software ecosystem is needed to nurture sustainable, interoperable CPS

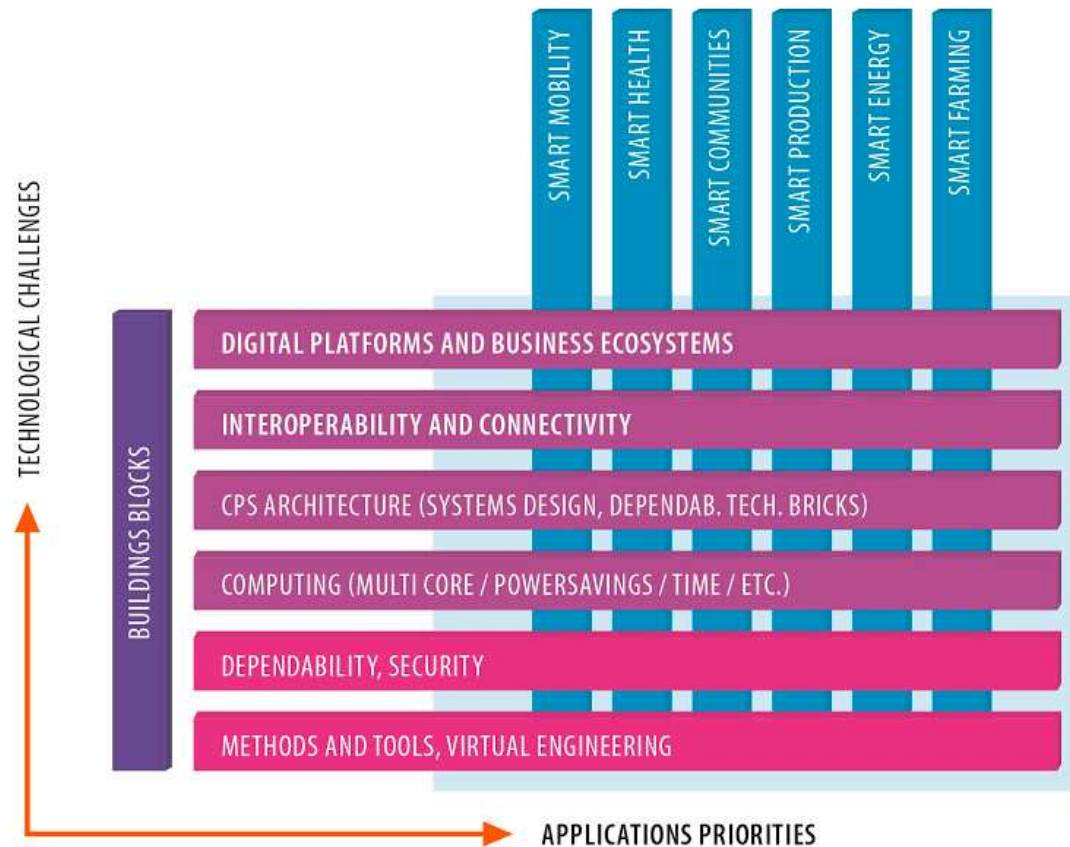
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# Innovation Strategy & Research Priorities

## The Cross-domain approach



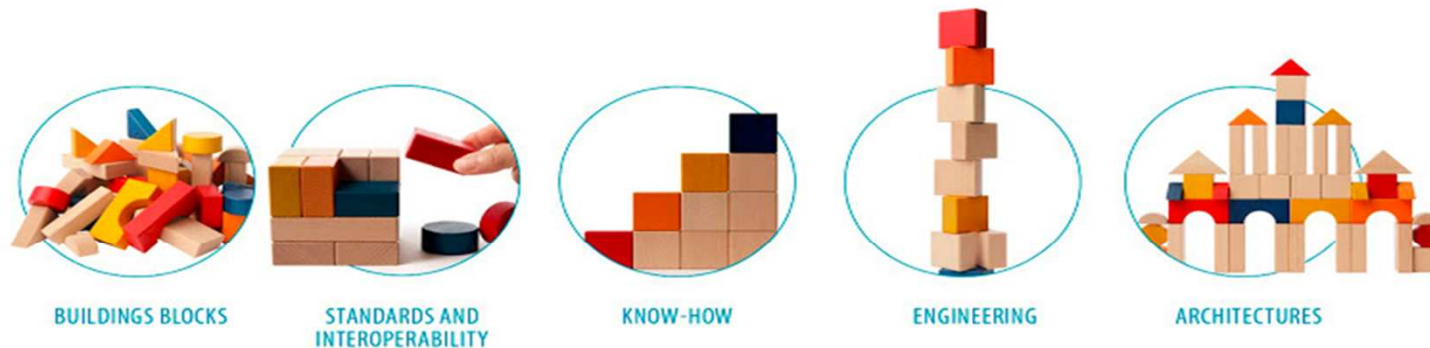
To share communalities and Foster synergies to overcome the fragmentation and create critical mass for the investments

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# Innovation Strategy & Research Priorities

## ARTEMIS feeds innovations through



Across the CPS System design flow / supply chain

*To make significant advances in 'design by composition'*

*To meet the challenges of dependability, cost effectiveness, time to market, ...*

In order to break domain barriers and boost innovation, research activities should continue developing the cross-domain approach and seek greater synergies by using common **building blocks** for smart products and services

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# ATC 2016

## From Research to Innovation

**We need increased investments to support our Research Agenda and to sustain our proposition of an 'Innovation Environment' allowing high value creation in the new generations of smart products and services.**

**The ATC events are meant to:**

- **Give the right economic visibility of Embedded Intelligence /CPS and IoT**
- **Show Project results** that directly contribute to Products' development, thus fulfilling ARTEMIS vision to digitally transform Europe and stay ahead of the competition

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# ATC 2016

H2020 and ECSEL

Pre-Brokerage 2017 and  
Networking



Focusing on the Embedded Intelligence part of the coming H2020 Call, and on the ECSEL Calls, to help with the preparing projects' proposals and finding consortium partners.

Technology Workshops  
and Themed Projects  
Presentations



Focusing on Projects to give a “deep” dive in the project's achievements and their state-of-the-art technology

# Programme

Wednesday 5 October 2016

Thursday 6 October 2016

<b>08:30</b>	<b>Registration &amp; Welcome coffee</b>	<b>08:30</b>	<b>Registration &amp; Welcome coffee</b>
<b>09:00</b>	Opening speech by Laila Gide, President (acting) ARTEMIS-IA	<b>09:00</b>	In Parallel <ul style="list-style-type: none"> <li>• <a href="#">EMC2 Workshop</a></li> <li>• <a href="#">R5COP Workshop</a></li> <li>• <a href="#">Theme-based project presentations</a></li> </ul>
<b>09:20</b>	"Digital Transformation: Opportunities & Challenges" - keynote speech by <a href="#">Dieter Rombach</a> (Fraunhofer)		
<b>10:00</b>	Coffee break & Poster session	<b>10:30</b>	Coffee break
<b>10:30</b>	In Parallel <ul style="list-style-type: none"> <li>• <a href="#">Arrowhead Workshop</a></li> <li>• <a href="#">CP-SETIS Workshop</a></li> </ul>	<b>11:00</b>	In Parallel <ul style="list-style-type: none"> <li>• <a href="#">EMC2 Workshop</a></li> <li>• <a href="#">R5COP Workshop</a></li> <li>• <a href="#">Theme-based project presentations</a></li> </ul>
<b>12:30</b>	Lunch & Poster session		
<b>13:30</b>	In Parallel <ul style="list-style-type: none"> <li>• <a href="#">Arrowhead Workshop</a></li> <li>• <a href="#">ACCUS Workshop</a></li> <li>• <a href="#">Theme-based project presentations</a></li> </ul>	<b>12:30</b>	Lunch
<b>15:00</b>	Coffee break & Poster session	<b>13:30</b>	In Parallel <ul style="list-style-type: none"> <li>• <a href="#">EMC2 Workshop</a></li> <li>• <a href="#">R5COP Workshop</a></li> <li>• <a href="#">Theme-based project presentations</a></li> </ul>
<b>15:30</b>	In Parallel (until 18:00): <ul style="list-style-type: none"> <li>• <a href="#">Arrowhead Workshop</a></li> <li>• <a href="#">ACCUS Workshop</a></li> <li>• <a href="#">Theme-based project presentations</a></li> </ul>		
<b>19:00</b>	Networking Dinner	<b>15:30</b>	Closing session
		<b>16:00</b>	Coffee break

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# Next up:

The Digital Transformation is one of opportunities and Challenges

- Presentation by Dieter Rombach (Fraunhofer)

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