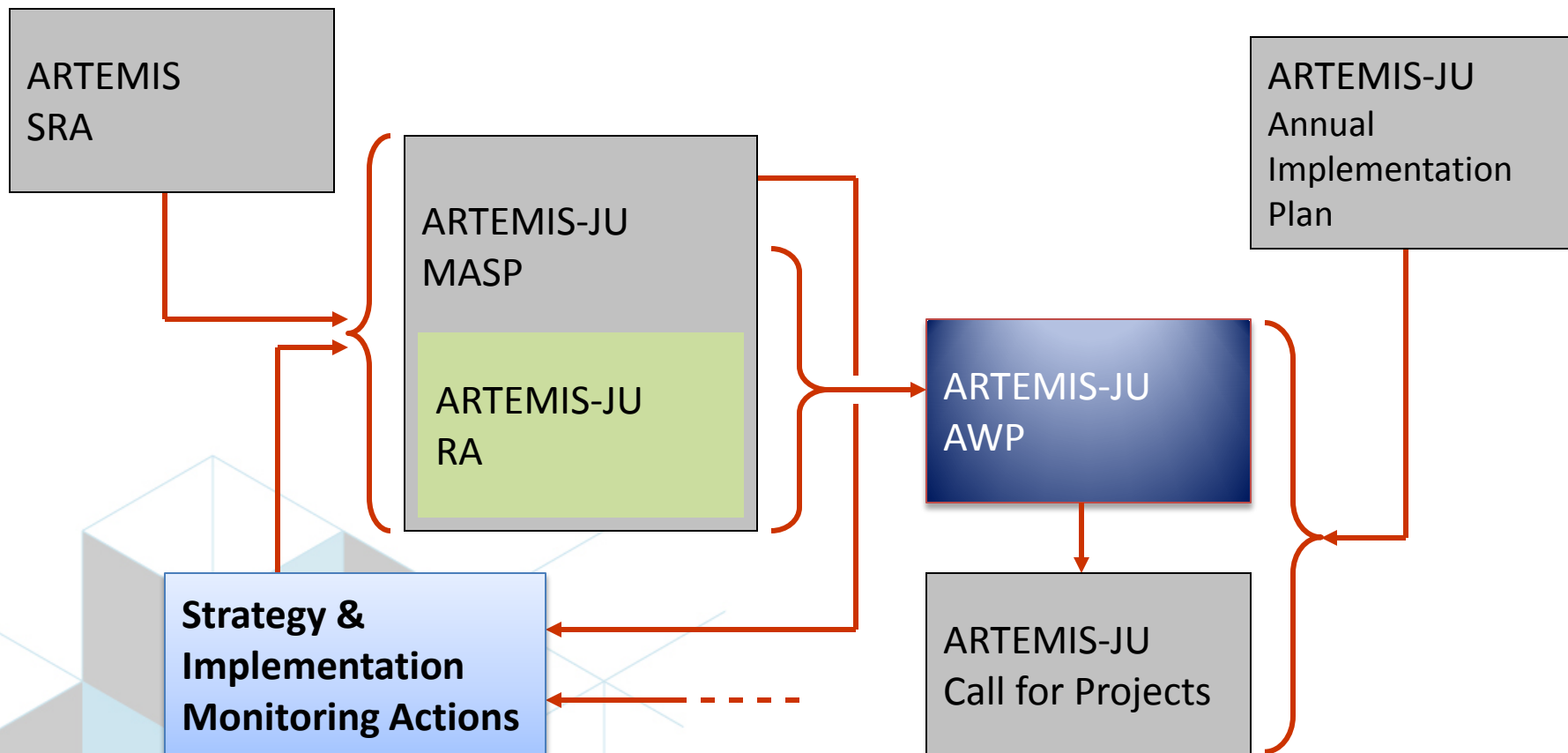# Preparing
Annual Work Programme 2013

Laila Gide - Thales

ARTEMIS Summer Camp - Copenhagen
June 06, 2012

Advanced Research & Technology for Embedded Intelligence and Systems

ARTEMIS Process for deriving the AWP

The ARTEMIS vision nurtures the ambition to Strengthen the European position in Embedded Intelligence and Systems and ensure its achievement of world-class leadership in this area

▶ Establish an environment that supports **innovation**,

▶ Stimulate the **emergence of a new supply industry** and

▶ **Avoid fragmentation of investments in R&D**.

The ARTEMIS High level targets

▶ To realise the full potential of the SRA, the stakeholders should strive to realise targets contained in the SRA 2006 and reconducted in the SRA 2011
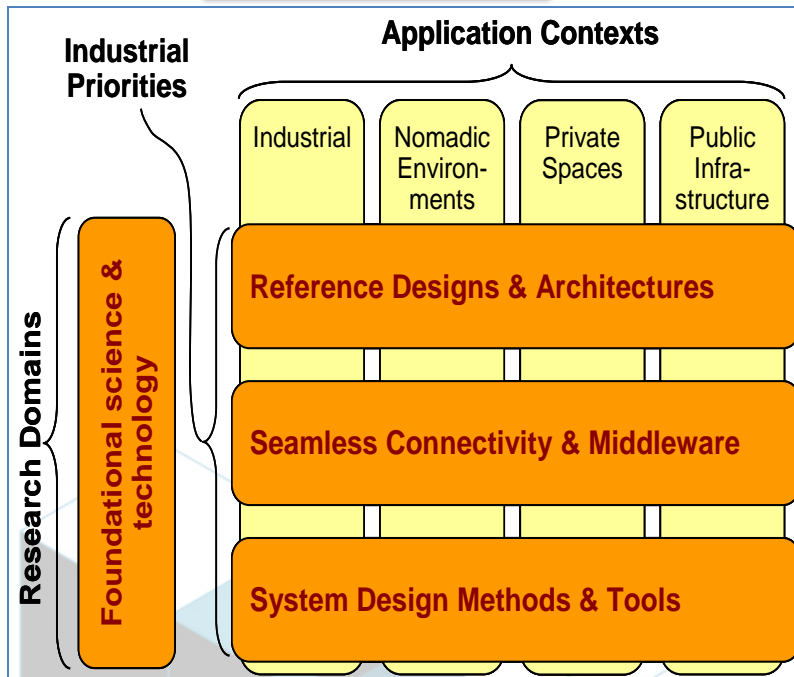
Common objectives:

Sustainability

Design Efficiency

Ease of Use

High added value

Time to market

Modularity

Safety / Security

Robustness

Competitiveness

Innovation

Cost reduction

Interoperability
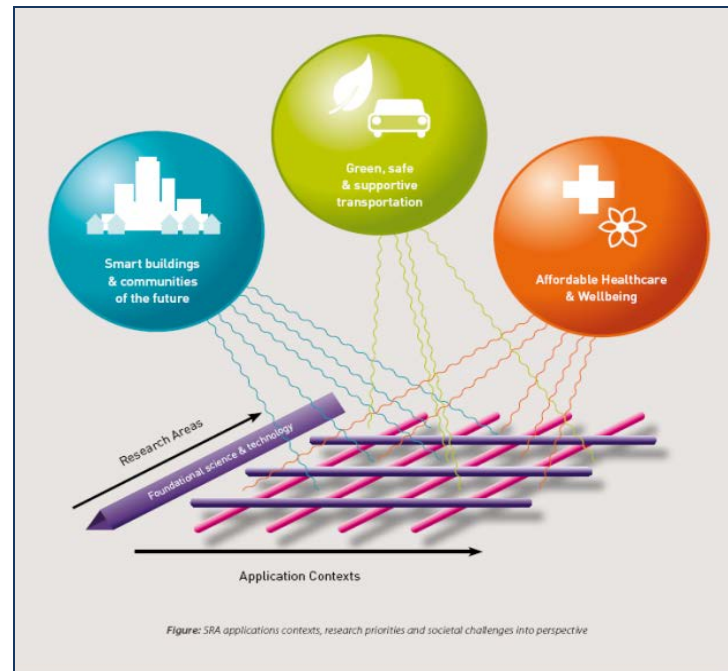
ARTEMIS Strategic Research Agenda
Vision, high level targets & Strategy

SRA 2006

SRA 2011

Industrial Priorities

Application Contexts

Research Domains

Foundational science & technology

| Industrial | Nomadic Environ-ments | Private Spaces | Public Infra-structure |

Reference Designs & Architectures

Seamless Connectivity & Middleware

System Design Methods & Tools

Smart buildings & communities of the future

Green, safe & supportive transportation

Affordable Healthcare & Wellbeing

Research Areas

Foundational science & technology

Application Contexts

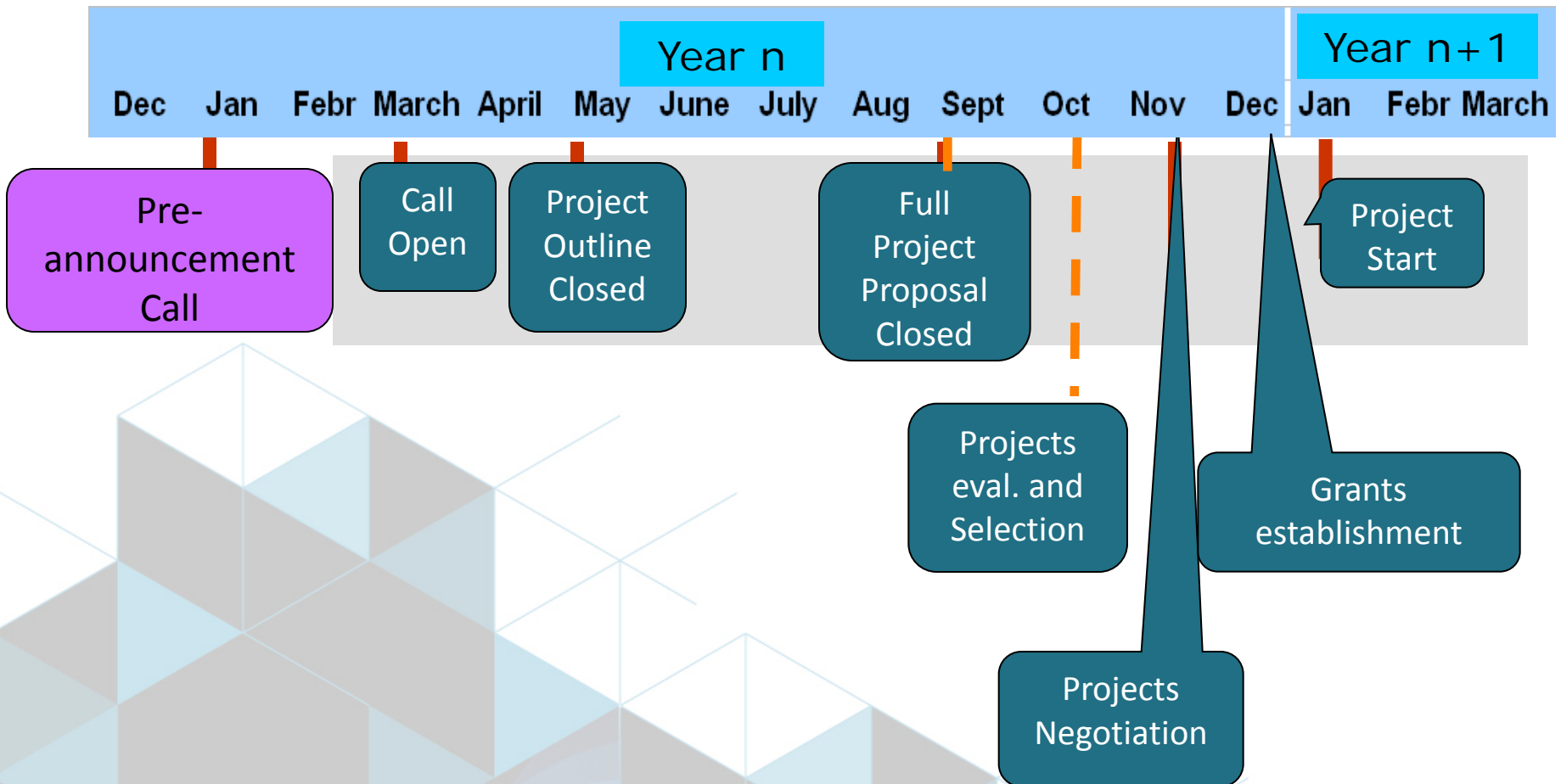*Figure: SRA applications contexts, research priorities and societal challenges into perspective*

▶ The **HORIZONTALISATION** to overcome the fragmentation, while mastering the complexity, for yielding **multi-domain reusable results**

▶ The **ARTEMIS matrix approach extended** to put applications contexts, research priorities and **societal challenges into perspective**

The Strategy Implementation

▶ Through a yearly call based on an Annual Work Programme and a two-step submission process

	Year n												Year n+1		
Dec	Jan	Febr	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Febr	March

Pre-announcement Call

Call Open

Project Outline Closed

Full Project Proposal Closed

Projects eval. and Selection

Projects Negotiation

Grants establishment

Project Start

The Strategy Implementation

▷ **"Think BIG"**

    ► = **Projects** with appropriate critical mass and significant societal impact

▷ **"Act Socio-Economic"**

    ► = **Projects** with improved industrial efficiency "... to strengthen European competitiveness and allow the emergence of new markets and societal applications."

        ▷ i.e. a focus on key technical issues, solving high-visibility issues with commercially valorisable results

▷ **"Act Multi-national"**

    ► = **Projects** considering national/regional strategic priorities

▷ **"Think Different"**

    ► = **Projects** with significant and complementary added-value and impact

Update of AWP for 2012
…*The motivation and guiding principles*

▶ **Fulfil ARTEMIS high level targets to achieve a world class position in Embedded Systems**

▶ **Implement the "SRA" research topics and challenges and insure good coverage through the AWPs and projects**

▶ **Maximize the use of the available budget**

  ▶ Foster the concept of "pilot lines"; adapted to Embedded Systems : Innovation Pilot Projects

  ▶ Based on selected /focused domains

▶ **Sustain the road-map approach**

  ▶ ARTEMIS is now having a **good portfolio** of projects producing **significant results** . They are '**clustering**' around axis in line with the societal challenges *(Mapping of the 35 projects is available)*

  ▶ the **CoIE environment** is growing- having complementary specificities

    ▷ CoIEs provide strategic guidance (tool Platforms , smart manufacturing, ..).

The proposed AWP 2012 is composed of two parts

▷ Part A : similar structure and approach as the previous AWPs

▷ Part B : a new approach to build and deliver "Innovation Pilots Projects"

AWP 2012 "Part A"
….*The Approach*

Integrate the SRA 2011 impact

▶ **Technical**

Foster the "open networks"
Embedded Systems become the Neural System of Society

▶ **Societal**

Foster the Societal Challenges as they drive the R&D
strategy to support the European Competitiveness

AWP 2012 "Part A"
….*Proposal for* coverage and content

▶ The AWP is ASPs oriented

▷ All the ASPs are included

▶ 3.2 ARTEMIS Sub-Programmes

▷ 3.2.1   ASP1: Methods and processes for safety-relevant embedded systems

▷ 3.2.2   ASP2: Embedded Systems for Healthcare systems

▷ 3.2.3   ASP3: Embedded systems in Smart environments

▷ 3.2.4   ASP4: Manufacturing and production automation

▷ 3.2.5   ASP5: Computing platforms for embedded systems

▷ 3.2.6   ASP6: ES for Security and Critical Infrastructures Protection

▷ 3.2.7   ASP7: Embedded technology for sustainable urban life

▷ 3.2.8   ASP8: Human-centred design of embedded systems

AWP 2012 "Part A"
....Proposal for coverage and content

▶ # Chapter 4   **Requirements**

"the additional" AWP for 2012 : Part B
…. *The approach*

▶ Why:

  ▷ Speed-up "the innovation process"

  ▷ The number of proposals submitted is at an all time low – is it a systemic problem?

▶ How:

  ▷ Strengthen the dialogue with PAB (recommended in the mid-term evaluation report)

  ▷ Take account of the Embedded Systems specificities

  ▷ Build on the ARTEMIS assets

"ARTEMIS Innovation pilot Projects"

AWP 2012 "Part B"
Sustaining the ARTEMIS Innovation Environment
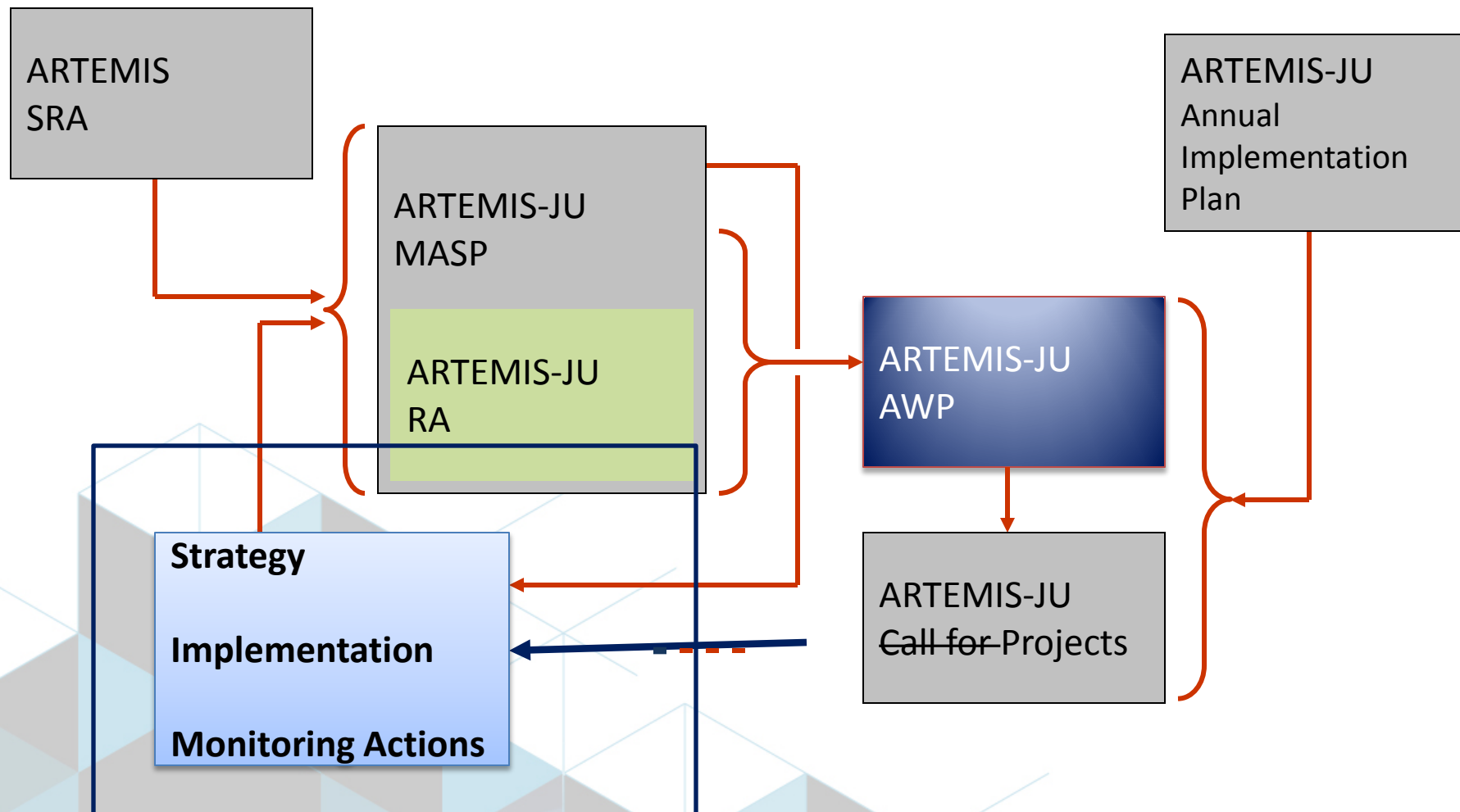
ARTEMIS Innovation Pilot Projects are expected

▶ Creating new business innovating eco-systems,

▶ Efficiently using Public, Private Partnership in the Embedded Systems arena to overcome the resource deficit for R&D and foster innovation & collaboration in Europe,

▶ Aligning implementation of R&D&I priorities in Europe to turn European "diversity" into a strength,

▶ Achieving a "European Dimension" by combining the R&D efforts across Europe while pulling resources in key areas, and involving relevant players having the ability to insure successful valorisation and take-up of the results.

▶ Establishing and sustaining a holistic approach to R&D&I, by undertaking projects of critical mass, reconciling the market silos/ business efficient approach with the cross-domain synergies.

▶ Risk sharing by allowing projects that otherwise would not be undertaken, setting and sharing of R&D&I infrastructures.

▶ providing market driven solutions based on prototypes and demonstrations,

▶ Pooling industrial resources to foster synergies between various environments, to keep leadership position in traditional markets, and gain worldwide positions and more market in new areas.

AWP 2012 "Part B"

▶ AIPP 1: Critical Systems Engineering Factories.

▶ AIPP 2: Innovative Integrated Care Cycles.

▶ AIPP 3: Seamless Communication & interoperability- smart environment (the neural system of society).

▶ AIPP 4: Production and Energy System Automation.

▶ AIPP 5: Computing platforms for embedded systems.

▶ AIPP 6: "Intelligent-Built" environment and urban infrastructure for sustainable and "friendly" cities.

ARTEMIS Process for deriving the AWP

ARTEMIS
SRA

ARTEMIS-JU
MASP

ARTEMIS-JU
RA

ARTEMIS-JU
Annual
Implementation
Plan

ARTEMIS-JU
AWP

ARTEMIS-JU
~~Call for~~ Projects

Strategy

Implementation

Monitoring Actions

Thank you for your attention!

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