

# ECSEL in 2015

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**ECSEL JU**

# ECSEL in 2015

- What is ECSEL about anyway?
- Call 2014 outcome
- Securing the Future
  - Call 2015



# Why JTIs?

- The EU 7th FP identifies Joint Technology Initiatives (JTIs) as:
  - Means to support trans-national cooperation in key areas where research and technological development can contribute to European competitiveness and quality of life.
- With the purpose to
  - Boost European research investments by providing a clear framework, which encourages both industry and Member States to increase their involvement



# What are JTIs?

- JTIs were set up in fields of high industrial and policy significance:
  - Fuel Cells and Hydrogen (FCH)
  - Aeronautics and Air Transport (Clean Sky)
  - Innovative Medicines (IMI)
  - Nanoelectronics Technology (ENIAC)
  - Embedded Computing Systems (ARTEMIS)

Merged to ECSEL-JU in H2020



# What is ECSEL? - Principles

## ➤ **Implement Horizon 2020:**

- **Develop favourable conditions for investing in knowledge and innovation**
- **Achieve smart, sustainable and inclusive growth**

## ➤ **Build upon ARTEMIS/ENIAC JU experience: establish an autonomous organization:**

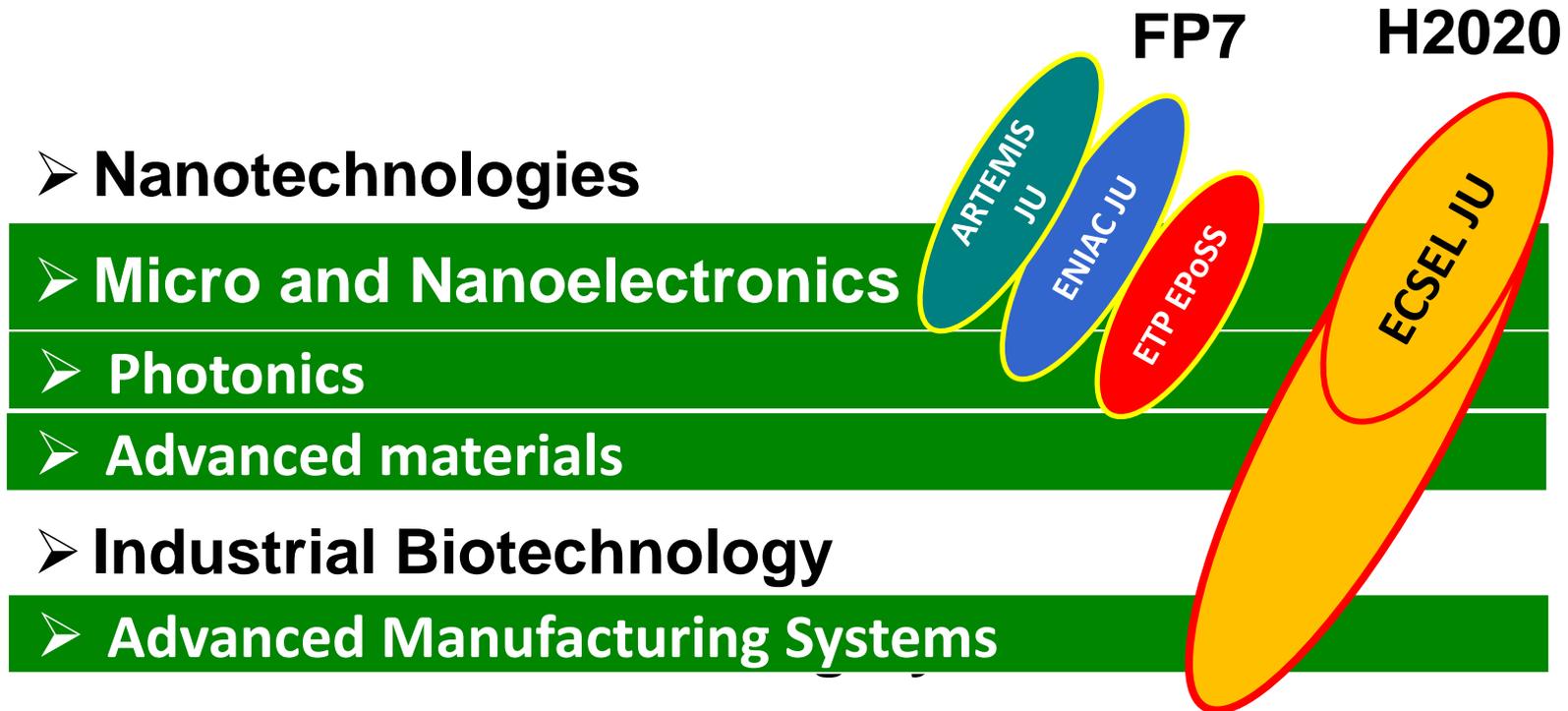
- **Joint Undertaking**

## ➤ **Build upon ARTEMIS/ENIAC JU achievements: 3-way funding**

- **The Union (1.17B€)**
- **The ECSEL Participating States (>1.17B€)**
- **The Private Members (~ 5B€, minus grants)**



# Going to Horizon 2020



**Cross-cutting-/Multi – KETs !**

Commission communication “Preparing for our future: Developing a common strategy for key enabling technologies in the EU, Brussels, 30.09.2009”, COM(2009) 512



# First Important Things to Know

- **ARTEMIS, ENIAC and now ECSEL JU** are **INNOVATION**-oriented, public-funded RD&I programmes
  - Market-facing developments (higher TRL) ...
  - ... drawing on new basic technologies (lower TRL) that serve these needs
- So: “**INDUSTRY**” refers to the eco-systems of:
  - Large, Medium and Small Enterprises
  - Private / Public Research Organisations
  - Universities
- **Eco-Systems create the critical mass needed for sustainable businesses!**



# ECSEL JU ?



# What is ECSEL?

**ECSEL = Electronic Components and Systems for European Leadership**

**Electronic Components and Systems** are a pervasive **Key Enabling Technology**, impacting all industrial branches and almost all aspects of life.

**ECSEL JU is:**

**The Public-Private Partnership keeping Europe at the Forefront of Technology Development**



# Industrial Reality

- Electronic components and systems are the fabric on which Information and Communication Technology (ICT) works
- ICT increasingly permeates all industrial branches and most aspects of societal life
- The electronics value chain from components to systems to services has an increasing economic and strategic footprint
- European players lost considerable market share and are still on a downward trend



# Nanoelectronics Provides the “Smart” of Everything

Smartphone

Smart Card

Smart Grid

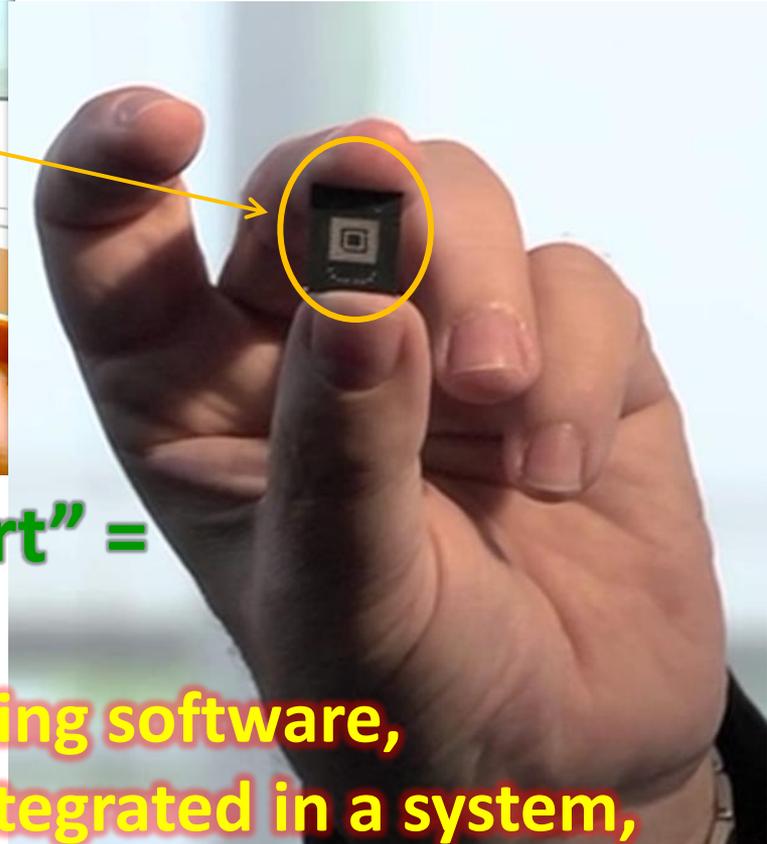
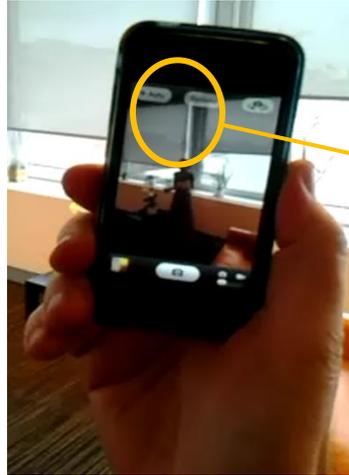
Smart Cities

Smart Mobility

Smart Governance

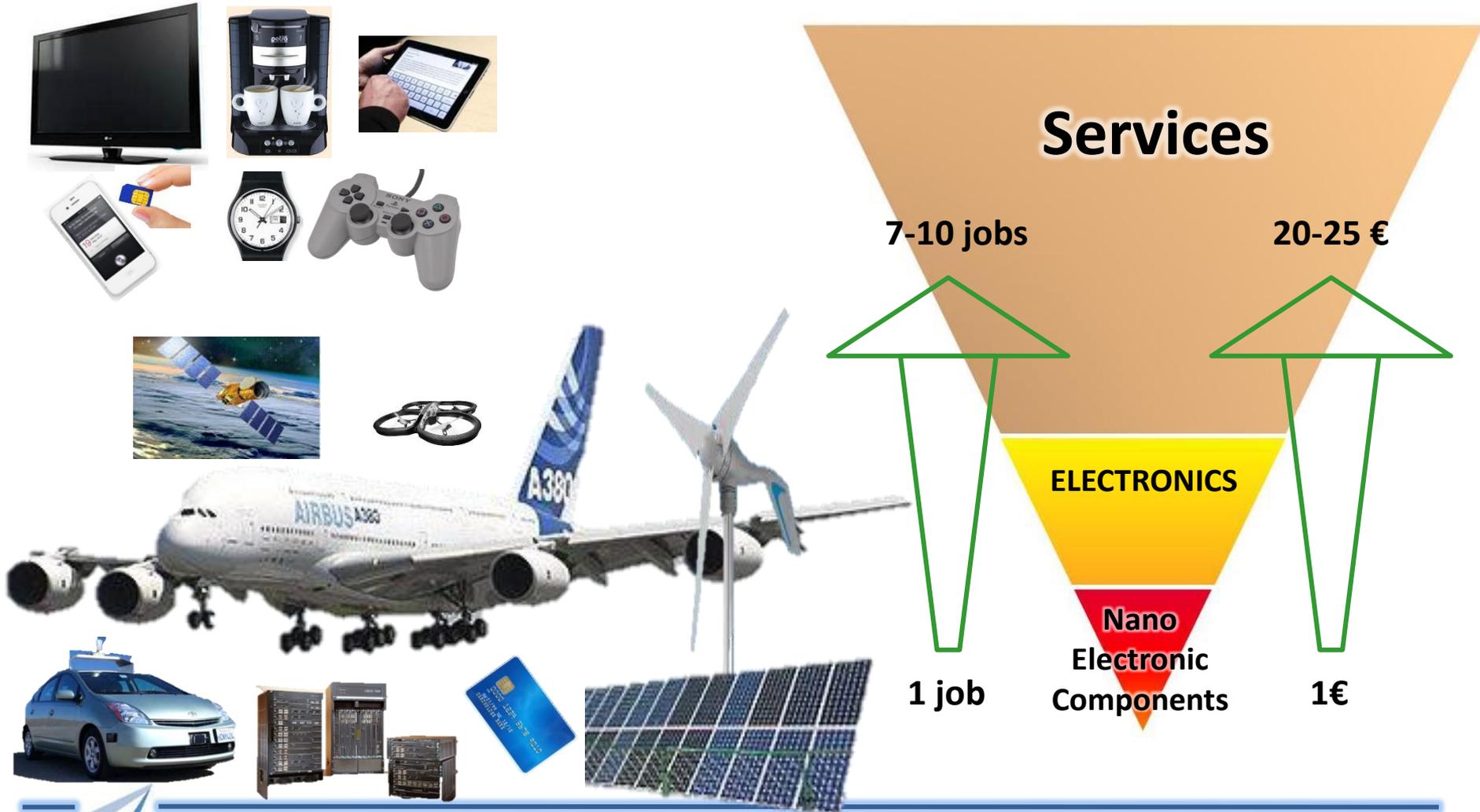
....

**Smartanything !**



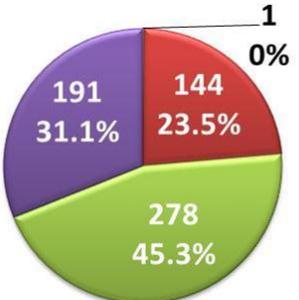
**“Smart” =**  
**chips**  
**running software,**  
**integrated in a system,**  
**enabling applications !**

# Nanoelectronics Permeates All Aspects of Societal Life, Drives Innovation in All Industries, Creates Jobs and Growth

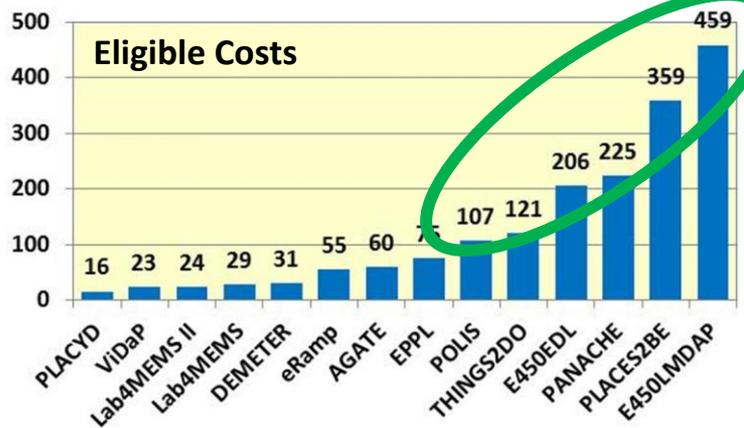
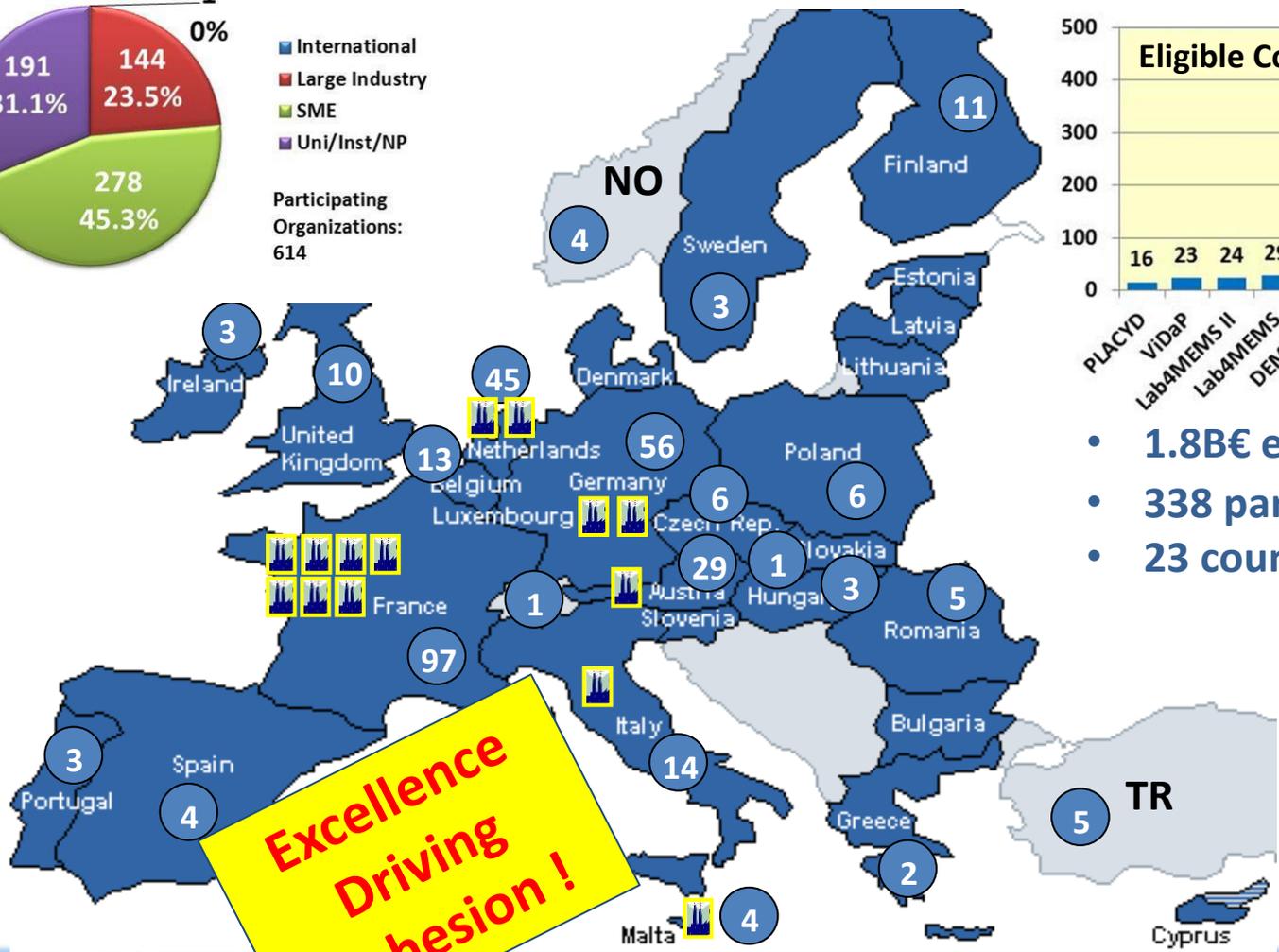


# Building on FP7 Success: ENIAC Pioneering KET Pilot Line Projects

## 14 Large Projects, Large Participation from All Around Europe !



Participating Organizations: 614



- 1.8B€ eligible costs
- 338 participations
- 23 countries

+ ARTEMIS JU Innovation Pilot Projects

H2020 Innovation Actions

**Excellence Driving Cohesion !**

ECSEL JU Implementation





# ECSEL Joint Undertaking Implementing H2020

- ❖ Established on the basis of Article 187 TFEU
- ❖ Body entrusted with the implementation of a PPP, discharged by the European Parliament on the Council recommendation (derogation Art.209, Reg. 966/2012)
- ❖ Implementing a Joint technology Initiative under Horizon 2020 Title “Leadership in Industrial and Enabling Technologies” using 3-way funding:
  - Industry engages in actions with total eligible costs exceeding **5B€**
  - European Union reimburses up to **1.17B€** through ECSEL JU grants
  - ECSEL Participating States reimburse (envisaged) **1.17B€** through national grants
- ❖ Launching calls, evaluating and selecting proposals



# Administrative Arrangements with the Public Authorities

- ❖ EU / EC: yearly Delegation Act entrusting ECSEL JU with the budget execution
- ❖ ECSEL Participating States have three options:
  - Administer the national grants independently (exchanging information with ECSEL JU)
  - Entrust ECSEL JU with cost recognition but not with the payments of national grants
  - Entrust ECSEL JU with the cost recognition and the payment of national grants (transfer to ECSEL JU the national contributions)



# ECSEL JU Governance

## Autonomous Union Body with Legal Personality

### Governing Board

ECSEL Members  
(Public Authorities, Private Members)

- **Strategic orientation and operations**

Membership, financial rules, budget and staff  
Adopts MASP, WP, Annual Activity Report etc.

### Executive Director

Programme Office

- **Chief Executive, day-to-day management**

Legal representative accountable to the board  
Consolidates Multi Annual Strategic Plan (MASP)  
Elaborates Work Plan (WP)

### Public Authorities Board

European Commission,  
ECSEL Participating States

- **Funding decisions**

Rules of procedure for calls for proposals  
Proposals ranking, allocation of public funding

### Private Members Board

AENEAS, ARTEMIS-IA, EPoSS

- **Research agenda**

Multiannual Strategic R&I Agenda (MASRIA)  
Annual R&I Activities Plan (RIAP)



# ECSEL JU Multi Annual Strategic Plan



# Summary:

- ECSEL JU:
  - Is European funding instrument for RD&I in electronics systems
  - Based on the Public-Private Partnership model
    - Public sector plus Industry Associations
  - Using a tri-partite funding model
    - National, EU and Industrial funds
  - **Complements other funding instruments with a market-facing programme of high impact**



# The Calls of 2014



# Full Project Proposals in Calls 2014-1 and 2014-2 (preliminary)

FPP	TYPE	Received	a	b	c
2014-1	RIA	34	18	26	18
2014-2	IA	14	11	7	5
<b>TOTAL</b>	-	<b>48</b>	<b>29</b>	<b>33</b>	<b>23</b>
CALL	Costs (M€)	EU grants request	a	b	c
2014-1	Eligible	792.0	254.6	345.0	192.3
	EU Grants	396.6 (49.8%)	126.8 (49.8%)	172.1 (49.9%)	95.7 (49.8%)
2014-2	Eligible	1,039.5	Oversubscription ~ 5,3	402.3	222.7
	EU Grants	321.4 (30.9%)		107.1 (33.2%)	67.6 (30.9%)
<b>TOTAL</b>	Eligible	1,831.4		447.3	415.0
	EU Grants	718.0 (39.1%)		313.4 (36.1%)	239.3 (43.7%)

a: semiconductors; b: embedded software; c: system integration



# Calls 2014 - Close to Conclusion

(M€)	National funding	EU funding	TOTAL Public Funding
Expert Evaluation Outcome	95.9	153.1	249.0
PAB Proposal after Corrections	144.5	155.0	299.0

## Proposal submitted to PAB for selection

3Ccar            ADMONT  
EXIST            InForMed  
MANTIS          POWERBASE  
OSIRIS          R2Power300  
Robustsense    SeNaTe  
SWARMS        WayToGo Fast

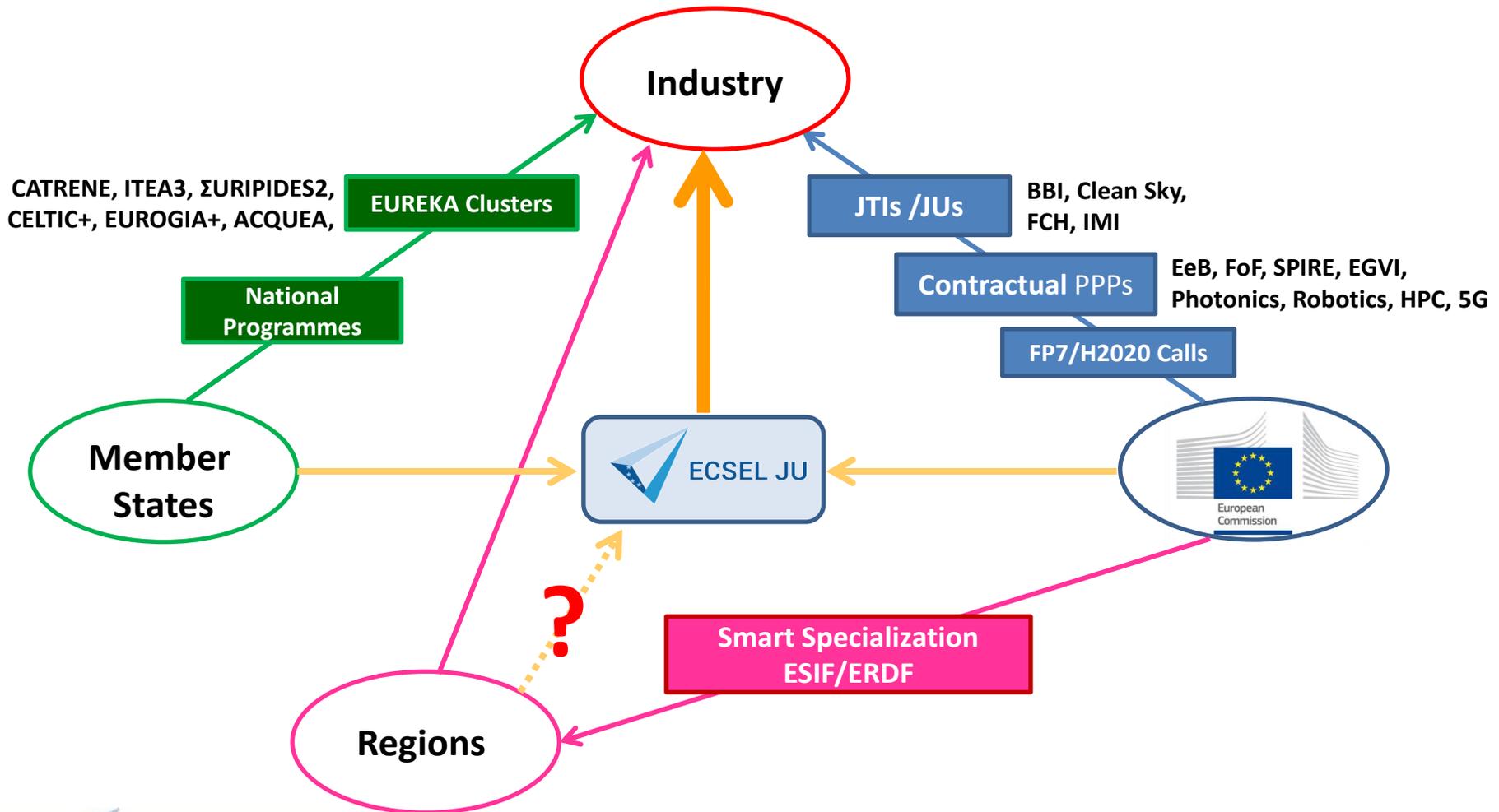
- **48 FPP submissions**
- **12 projects selected**
- **Success rate ~ 1 in 4**

**Eligible costs: 729 (National), 686 (H2020)**

# Securing the Future



# The Tripartite Joint Undertaking: a Mechanism among Many

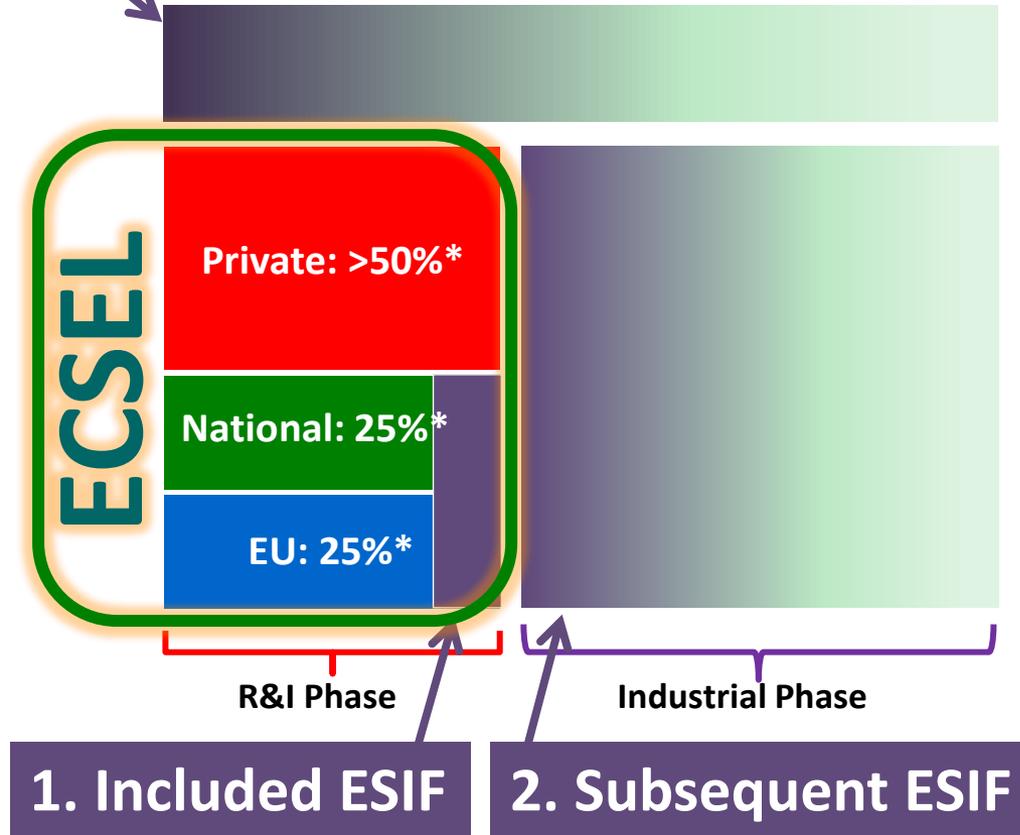


# Synergy H2020 – ESIF in ECSEL

- Working with the leaders: synergy excellence – convergence  
[http://ec.europa.eu/regional\\_policy/sources/docgener/guides/synergy/synergies\\_en.pdf](http://ec.europa.eu/regional_policy/sources/docgener/guides/synergy/synergies_en.pdf)
- Basic condition: no double funding
- Detailed “how-to”: ECSEL Guide for Applicants 2014\*\*  
\*\*: [http://www.ecsel.eu/web/downloads/documents/ECSEL\\_JU\\_Call%202014-1\\_and\\_Call\\_2014-Guide\\_for\\_applicants\\_v7.4.pdf](http://www.ecsel.eu/web/downloads/documents/ECSEL_JU_Call%202014-1_and_Call_2014-Guide_for_applicants_v7.4.pdf)
- **Case 1:** An ECSEL project may include ESI Funds to support:
  - **One or more participants**
  - **One or more cost items**
  - ESIF can be awarded in 2015 when all pre-conditions are met
  - 2014 Full Project Proposals need ESIF risk mitigation plan
- **Case 2:** ESIF can be used for **subsequent** actions or
- **Case 3:** ESIF can be used for **parallel** actions

# Co-Funding Possibilities

## 3. Parallel ESIF



\*: percentages for illustration only, actual value will vary according to different criteria

# Kick-starting access to the Structural Funds

- **Workshop - “*Smart Regional Financing for Key Enabling Technologies (KETs)*”**



- Driven by **ECSEL** in association with **ERRIN**

- Thanks to Helmut ENNEN,  
Special Advisor, ECSEL JU

- Held on Nov. 6th in ECSEL JU Office building  
(White Atrium)

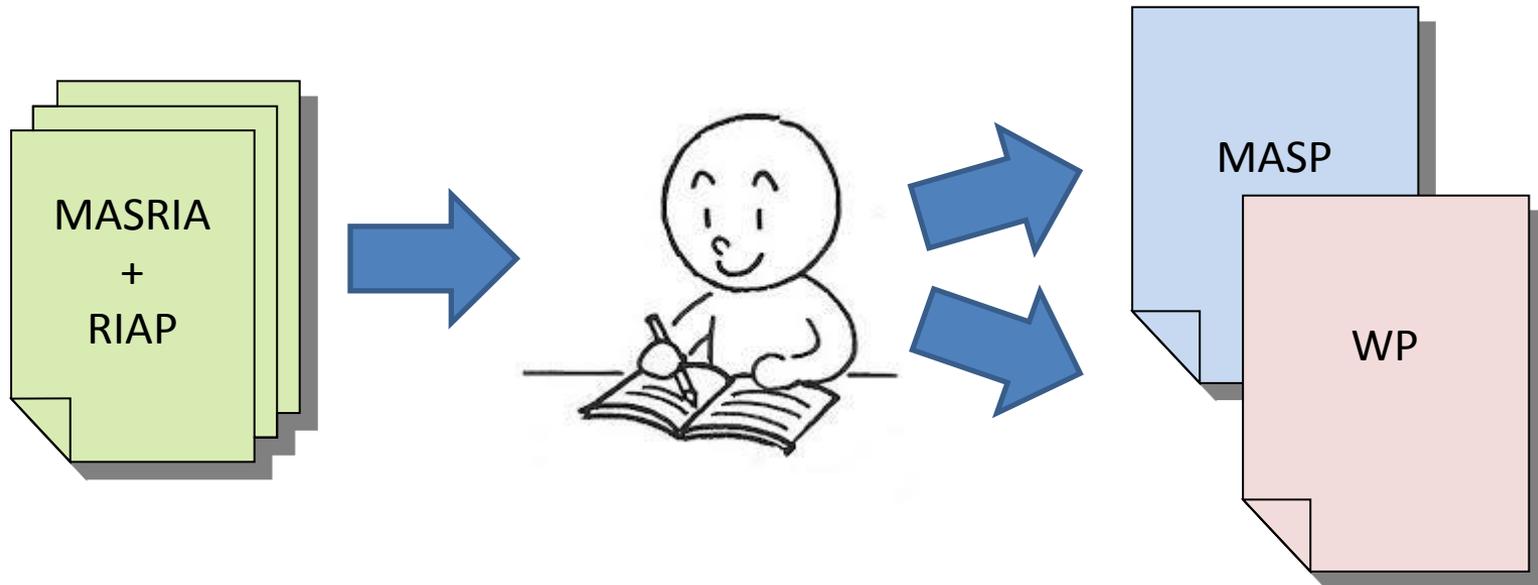
- Information workshop to operational staff of  
regional management offices

- Follow-up meeting being planned in 1Q2015



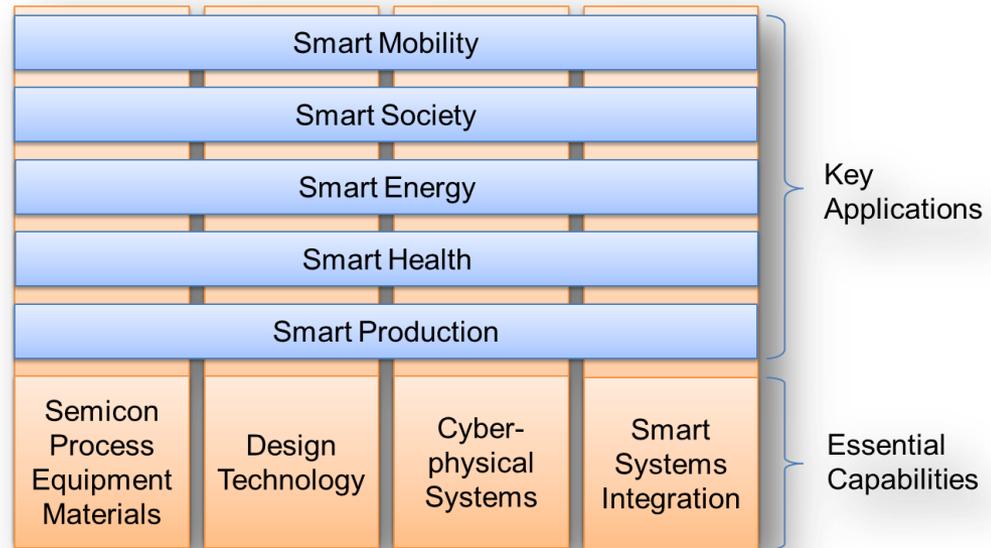
# Securing the future – Prepare Calls in 2015

- Strategic Plan and Work Plan 2015
  - Basic documents approved on November 5<sup>th</sup>
  - MASP adopted in December 2014
  - Work Plan 2015 to be adopted in February



# Basis of the Multi-Annual Strategic Plan

- MASP 2014 as a good basis
- MASRIA 2015 follows the same format
  - Refinements
  - Update of priorities
  - Clarifications
  - Fine-tuning of Strategic directions
  - ...



- **MASP 2015 then follows MASRIA very closely**



# Calls for 2015

- No decision yet on precise timing
  - Later Calls give more time to Participating Member States to engage their budgets
  - ... But the funding decision must be published before year end.



# 2015 Provisional Planning

- 2 x 2-phase Calls in parallel: RIA, IA
- Call launch : End Feb 2015
- PO deadline : beginning of May 2015
- FPP deadline : mid-September 2015
- Funding decision : first half of December 2015



# Call 2015 – Decision process

- Pending issues:
  - Balance of EU and National funding
  - National budget commitments
    - EU provisionally ~ 145M€ (up from 95M€ original plan)
  - MASP topics to open for the call
- A Working Group is active to refine these
  - Public Authorities Board plus invited representatives
- Final details published after Governing Board meeting of Feb 26th
  - = Call open end February



# New in 2015 (compared to Calls of 2014)

- **2-phase call**
  - PO phase helps to align / improve proposals
  - Elaborates the “Excellence” and “Impact” criteria
  - **PO is MANDATORY and GATING (!)**
- **Criteria**
  - Same top-level criteria (H2020)
  - **Improved depth and explanation**
  - Briefing of participants and experts
- **Extended definition of “TRL”**
  - Different interpretations in different industries

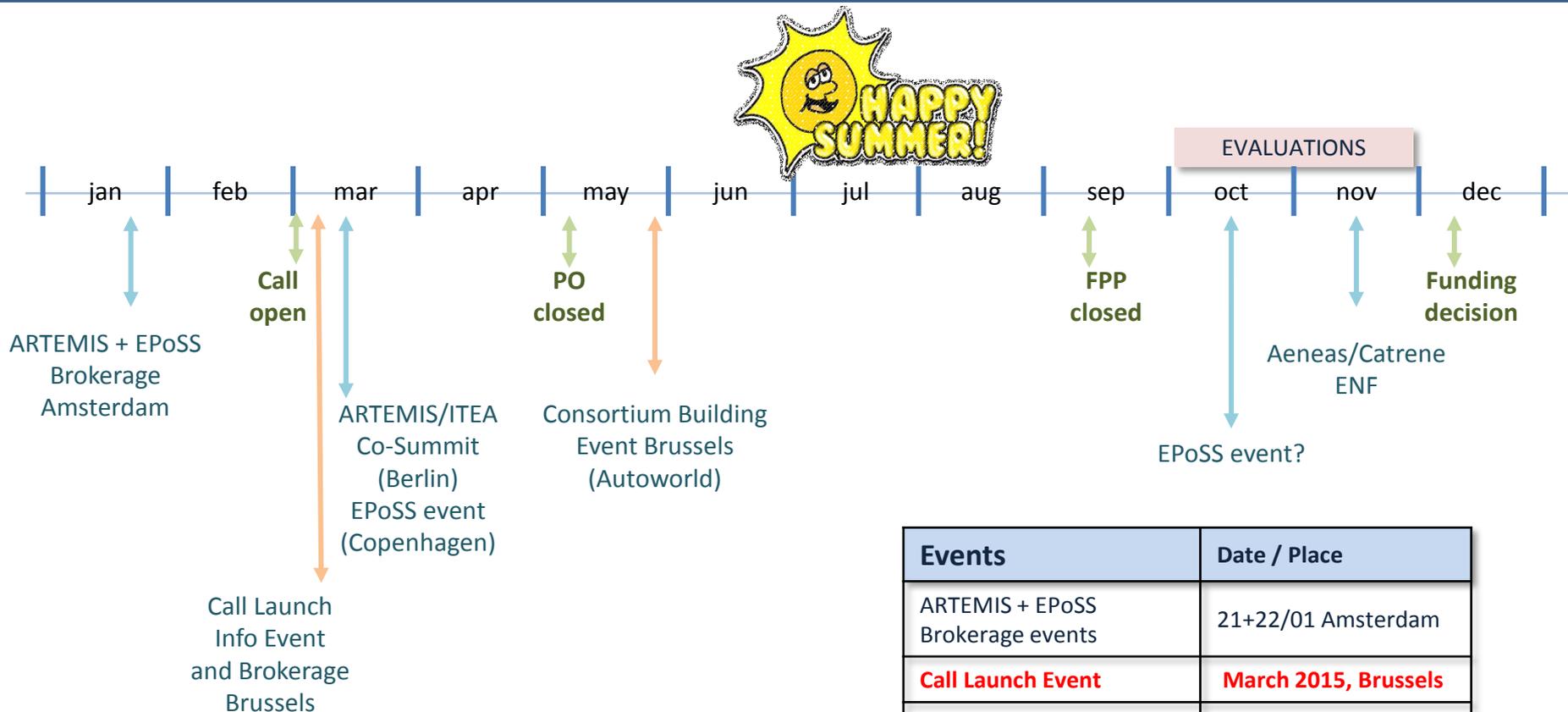


# Topics in Calls for 2015

- **RIA**
  - All topics open (probably)
  
- **IA**
  - Some topics may not be open (possibly)
  - Decision will be based on Industry inputs (MASRIA) and National priorities



# Provisional Timeline 2015 – Call and related events



Events	Date / Place
ARTEMIS + EPoSS Brokerage events	21+22/01 Amsterdam
<b>Call Launch Event</b>	<b>March 2015, Brussels</b>
ARTEMIS/ITEA CoSummit + EPoSS event	10+11/3/2015 Berlin + Copenhagen
<b>Consortium Building Event</b>	<b>End May / early June 2015</b>



CONCLUSION ...



## Who is it?

- **Population: 23,197,947**
- **GDP US\$474 billion, ~3% of the EU GDP (2012)**
- **GDP per capita in 1960s: \$170 (PPP \$1,353)**
- **Importing 98% of the energy needs**
- **First university: 1912**
- **First research institute in electronics: 1973**
- **First semiconductor license acquisition: 1976, first pilot runs on 3": 1977**
- **World's first pure play foundry: 1987**



# Everything is Possible!

#1 semiconductor  
manufacturer in  
the world



# Airbus of Chips Vision



**Shouldn't we be looking for an "Airbus of Chips"?**

Neelie Kroes, Vice President of the European Commission



ECSEL JU



We can debate at length about growth, jobs and prosperity, but prosperity will only happen in the world regions where the newest products are made.



# Thank you for your attention!

- [www.ecsel.eu](http://www.ecsel.eu)



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