

# Joint Undertaking: status and outlook

Jornada preparación ENIAC Call 2

Isabel Vergara, European Commission  
Barcelona, 16 March 2009



# Presentation outline

- The JTI concept
- Call 1 in 2008 – results
- Call 2 in 2009 – outlook
- Are we delivering?



# ENIAC Joint Technology Initiative in a nutshell

● What?

**Industrial R&D programme with coordinated public support**

● Why?

**Boosting the competitiveness of EU industry whilst building the European Research Area**

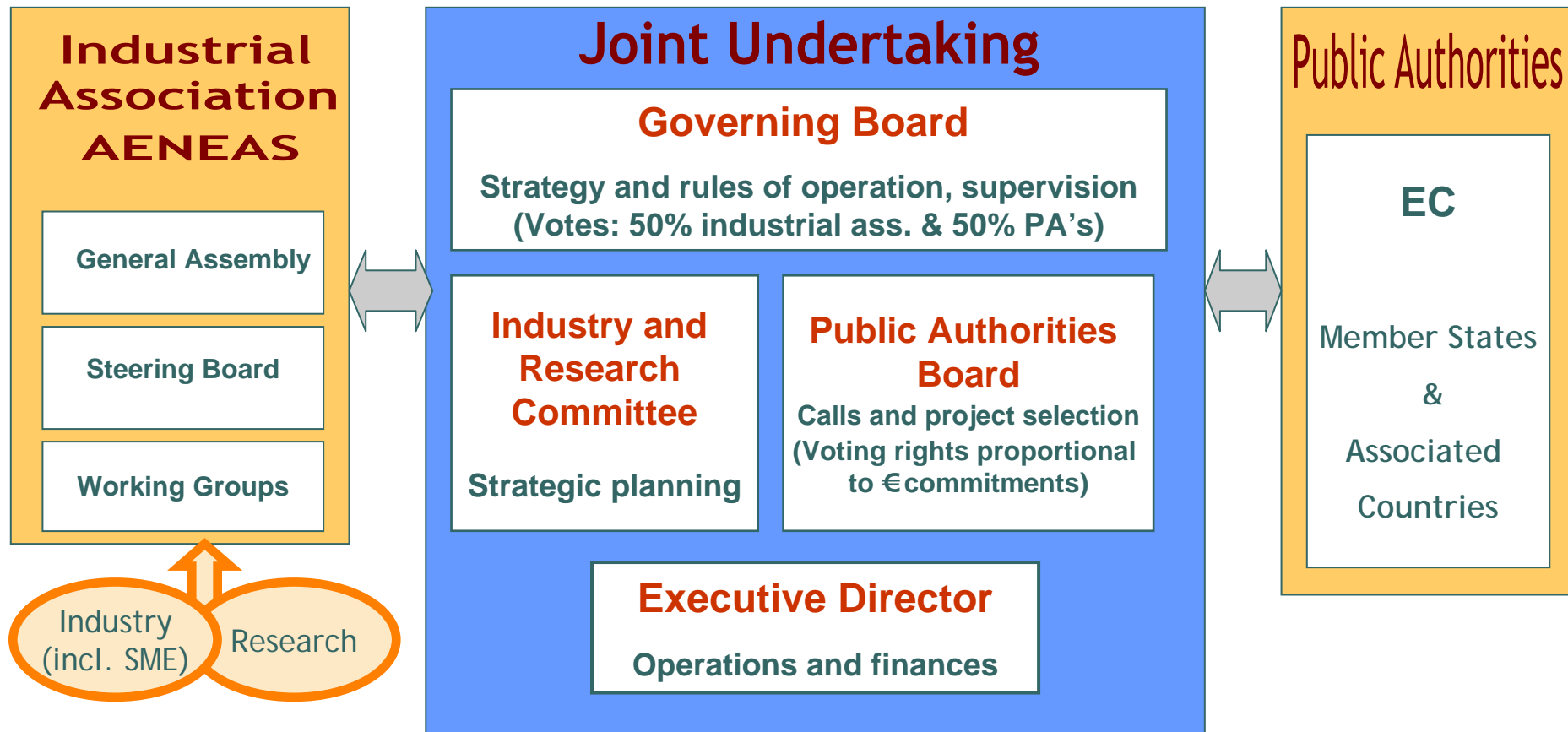
● How?

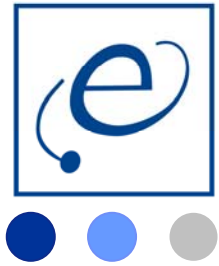
Pioneering approach in **pooling public and private efforts:**

- **Public-Private Partnership: industry, Member States and Commission**
- Common objectives and strategy
- Single evaluation, selection and project monitoring processes
- First time ever: large scale co-funding of R&D by Community and Member States



# Implementing the JTI: ENIAC Joint Undertaking





# Budget of ENIAC Joint Undertaking 2008-2017

- **Total R&D budget:**

- Community: up to €440 million (FP7: 2008-2013)
- States: > 1.8 x Community contribution
- R&D actors: in-kind > 50% of costs

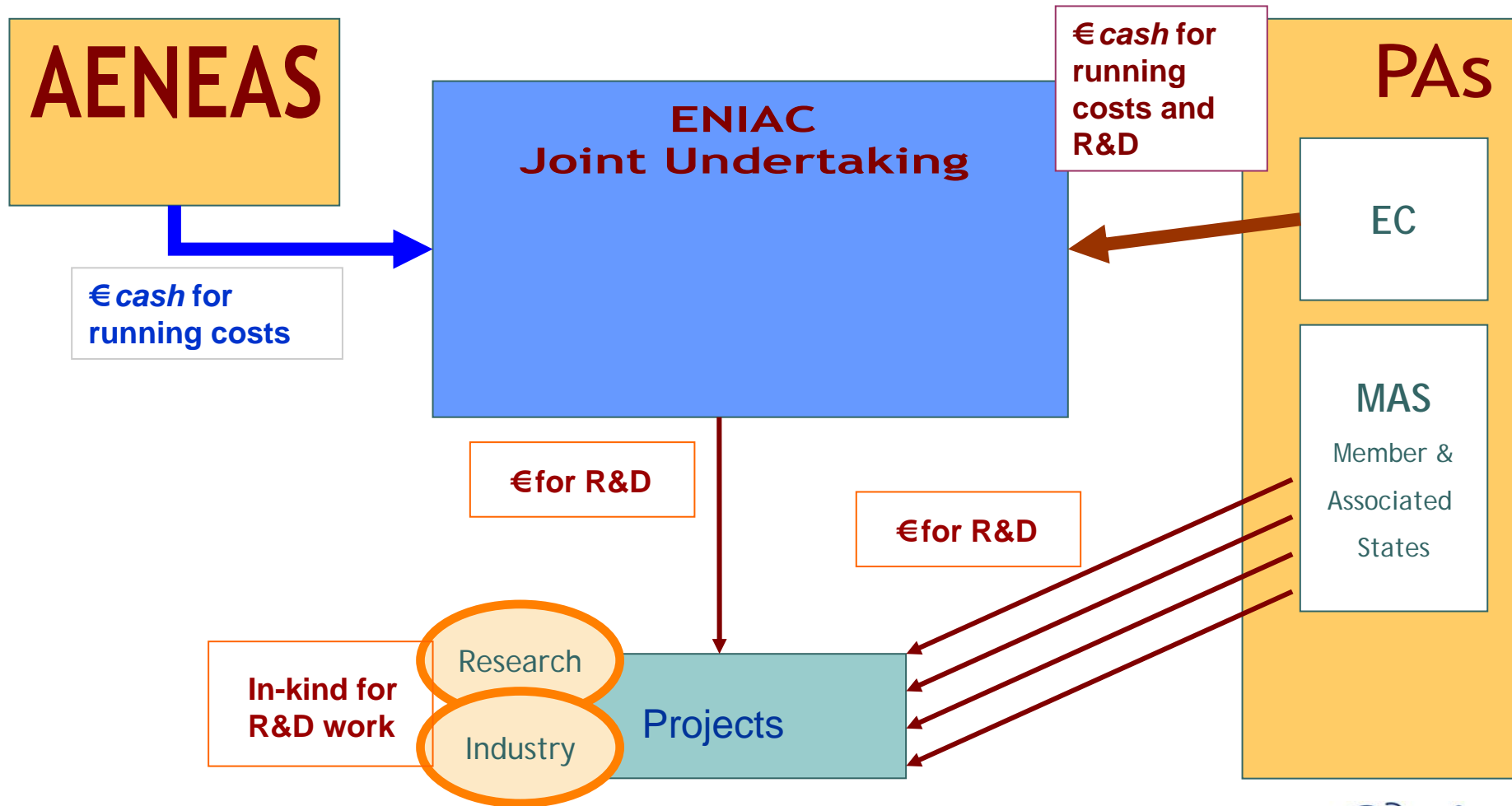
~ €3 billion invested in nanoelectronics R&D activities

**Calls for Proposals open to all participants  
from EU and Associated Countries**

- **Total JU running costs:** max €30 million



# Joint Undertaking funding flow





# Summary of Progress

- Set up of Joint Undertaking largely completed
  - Most internal rules and procedures established
  - Rules and guidelines for Calls for Proposals published
  - Administrative Agreements signed with all funding authorities
  - JU is fully operational ...but in transitory period
  - JU autonomy expected in mid-2009
  - Ongoing recruitment of staff
  
- Call for proposals 2008 completed
  - Published in May 2008; deadline in September
  - Evaluation, selection and project negotiation completed



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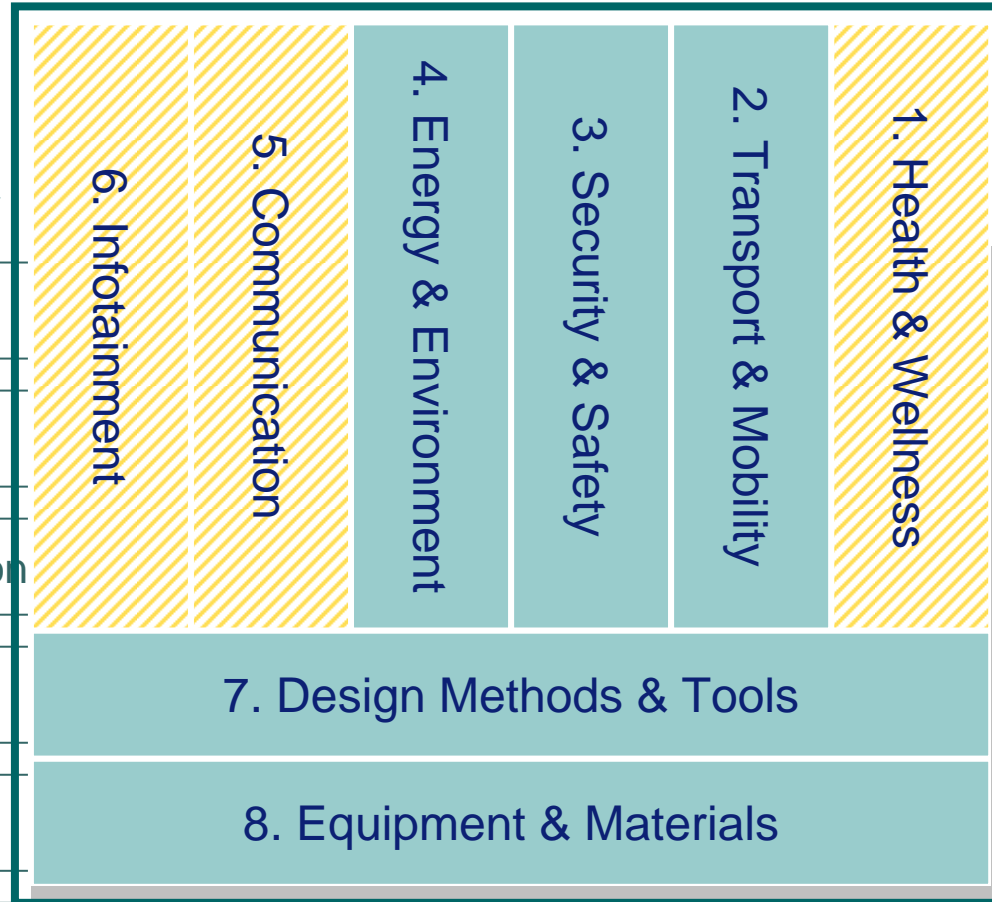
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# Annual Work Programme 2008

MASP Sub-Programmes

- More Moore
- More than Moore
- Heterogeneous Integration
- Design Methods & Tools
- Equipment & Materials
- Beyond CMOS



*Industry priorities for 2013 and beyond*





## Call 1 2008 Budget

- Member States: 58 M€
- JU contribution: 32 M€  
(55% of 58 M€)  
→ Total funding: 90 M€
- R&D actors: minimum 90 M€  
(in kind)



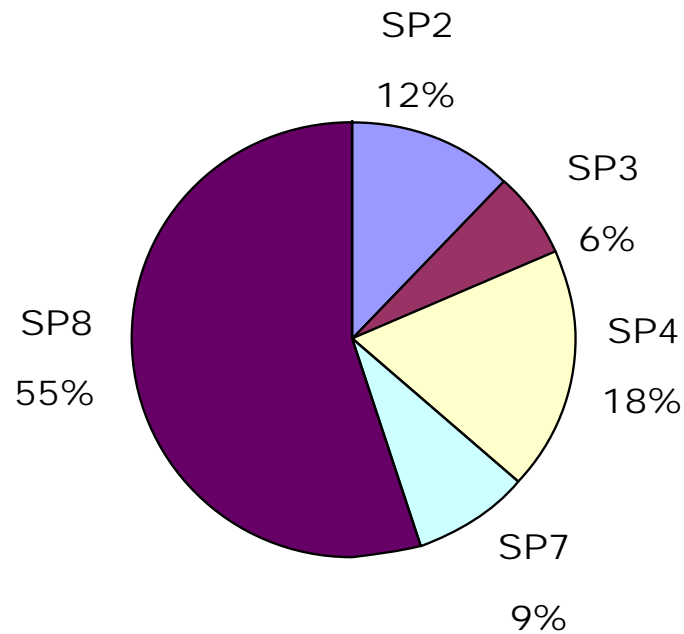
Austria	4
Belgium	1.5
Czech Republic	1.5
Estonia	0
France	8
Germany	15
Greece	0.5
Hungary	1.32
Ireland	1
Italy	10
Netherlands	10
Norway	1.5
Poland	1
Portugal	0.5
Spain	1
Sweden	1
United Kingdom	0



# Call 1 – input by thematic area

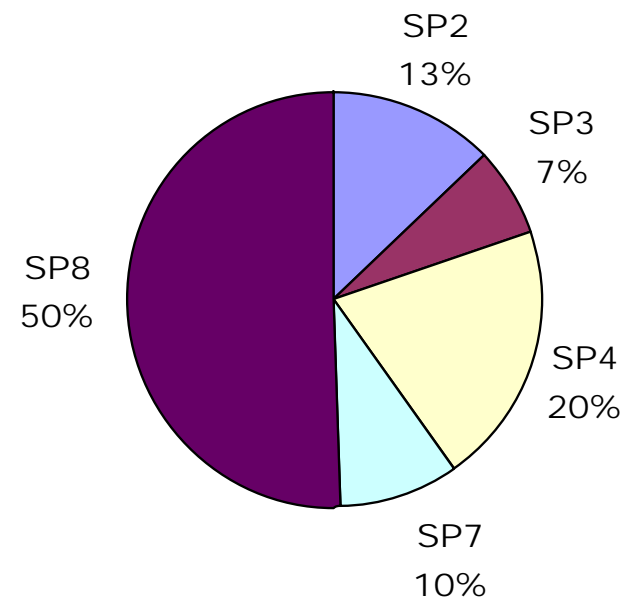
12 Proposals submitted

**Total eligible costs**



**Total: 427 M€**

**Requested funding (EC + Nat)**

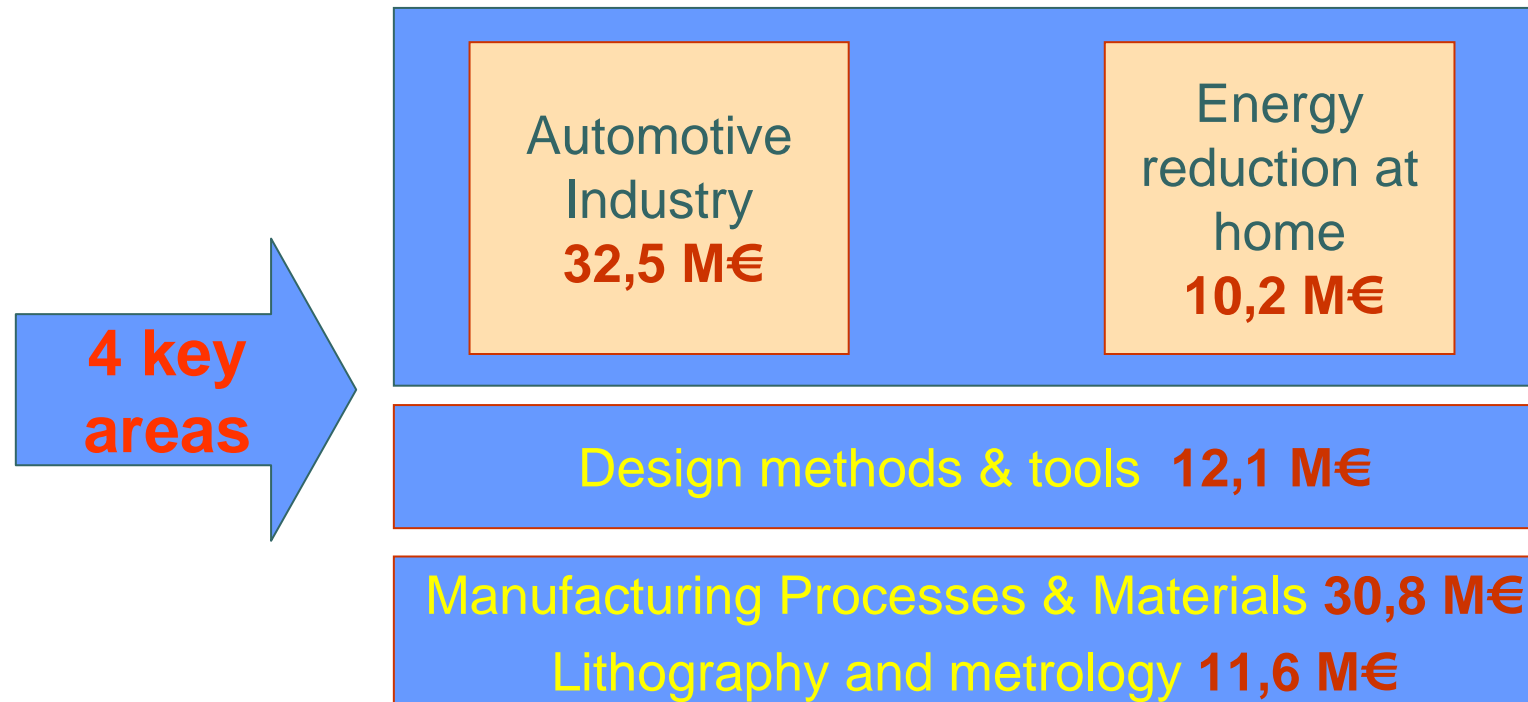


**Total: 193 M€**



## Call 1 – Results

- 8 projects currently starting (**funding**):

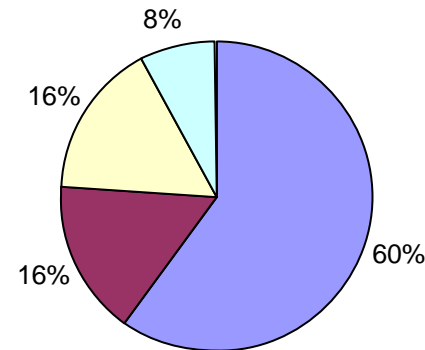




# 8 Selected projects : costs & funding

## Accepted eligible costs

From 427 to 211,5 M€

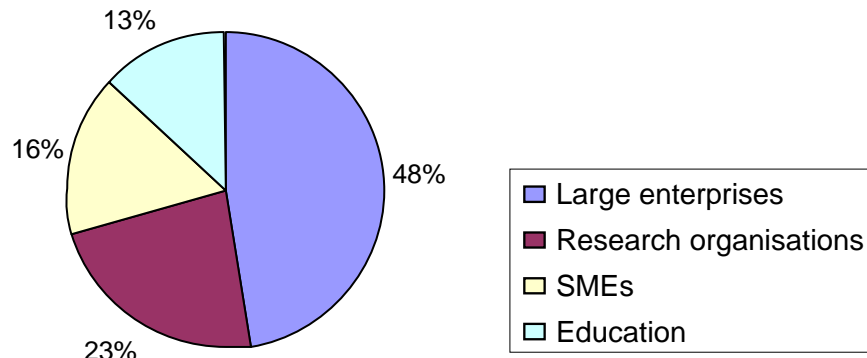


Ratio input/output: 2:1

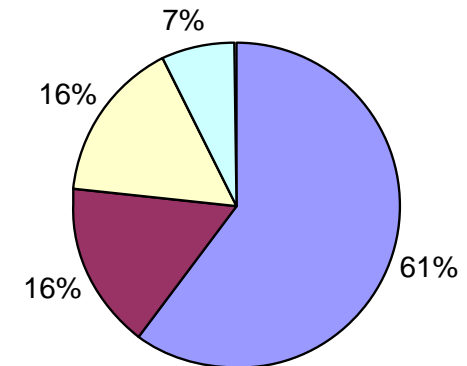
## Public funding

From 193 to 97,2 M€

National funding: 60,8 + 1,3 M€



JU funding: 35,1 M€

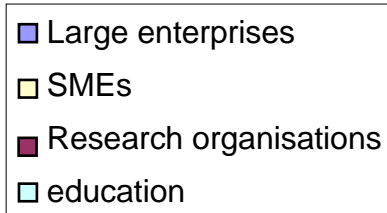
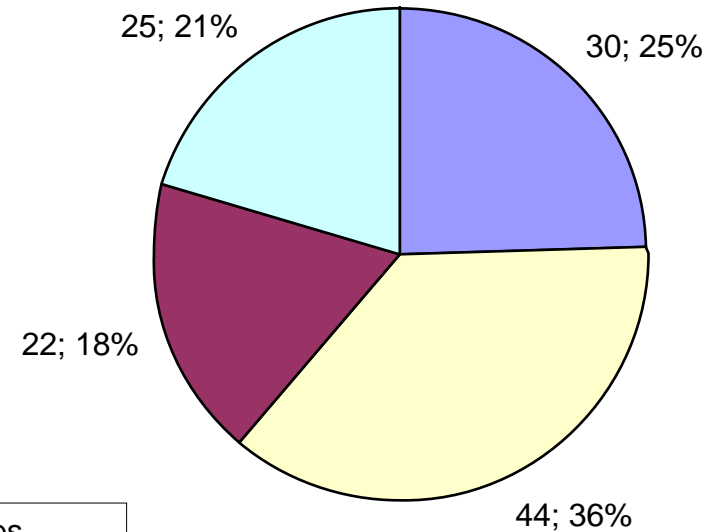
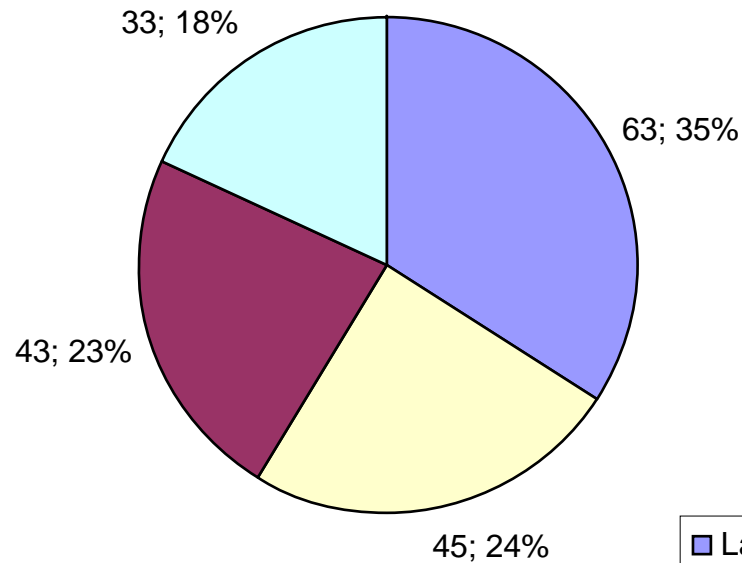




# Number of participations

From 265 to 184 participants

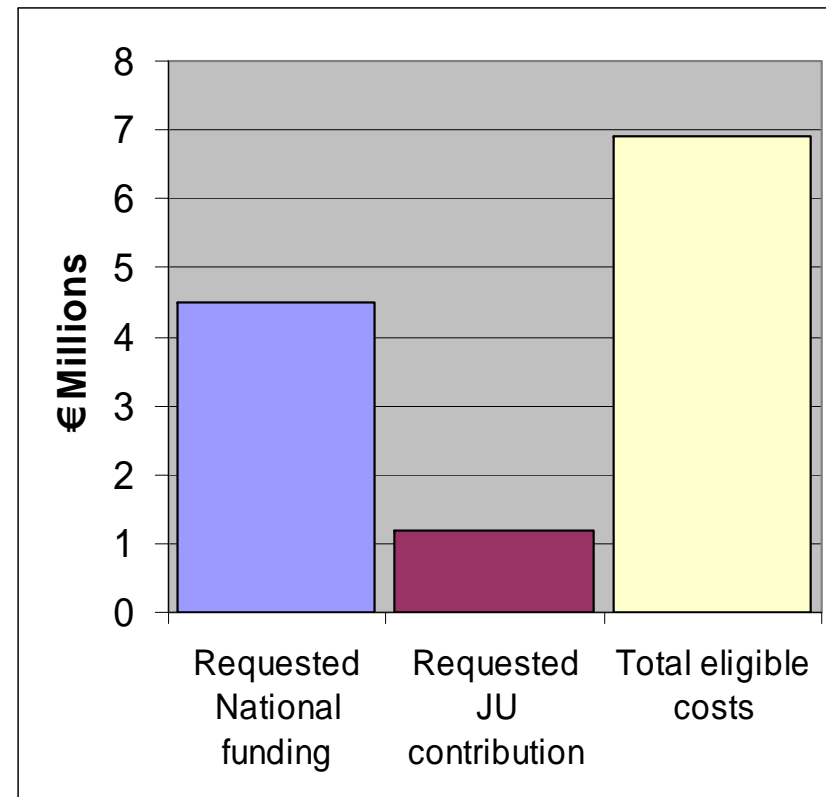
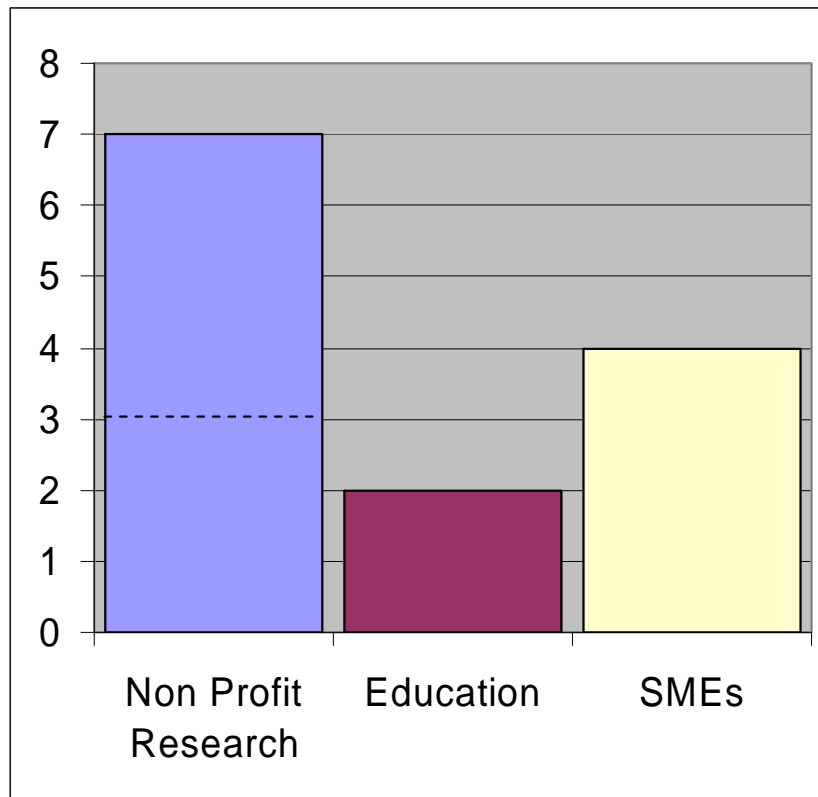
From 167 to 121 different organisations





# Spanish participation in Call 1

Total participation in 7 proposals:  
13 partners – 9 unique organisations





# Spanish presence in 4 selected projects

- 2 partners
- 1.1M€ costs
- 0.88M€ funding

**Automotive Industry**  
**32,5 M€**

- 1 partner
- 0.23M€ costs
- 0.23M€ funding

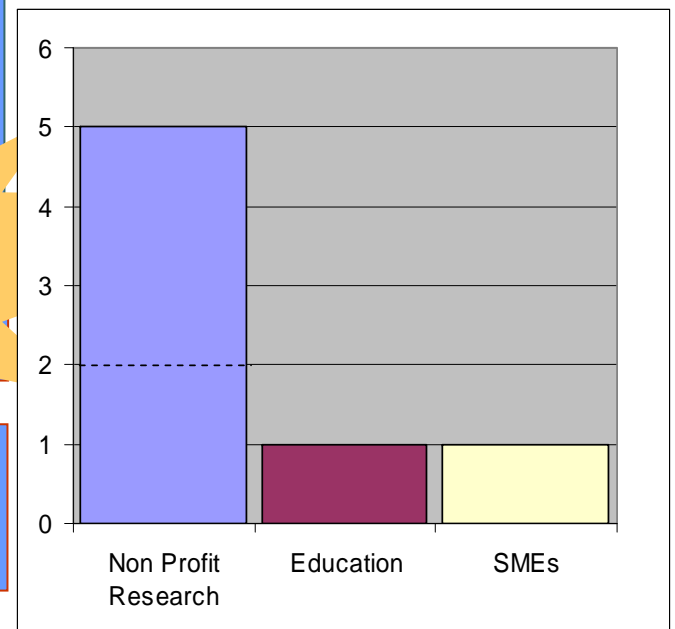
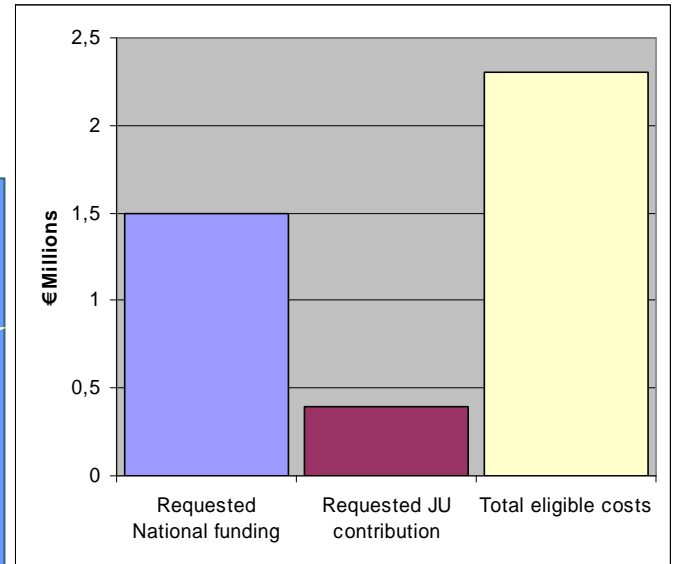
**Production at home**  
**12,2 M€**

- 2 partners
- 0.54M€ costs
- 0.4M€ funding

**Processes & Materials**  
**30,8 M€**

- 2 partners
- 0.45M€ costs
- 0.37M€ funding

**Graphy and metrology**  
**11,6 M€**





# Call 1 – Funded proposals facts and figures

- Proposals: 8 selected for a total cost of 211,5 M€
- Funding: 97,2 M€
- Member & associated states involved: 19
- Participation: 184 participations
- Industry: 59% of participation
- SME participation: 24% of total participants requesting 16% of funding
- Large companies: 35% of total participants for 60% of the total cost requesting 51% of the total funding
- Universities, institutes,...: 41% of total participants, cover 24% of the total cost requesting 33% of funding
- Most major actors in European semiconductor industry involved



## Presentation outline

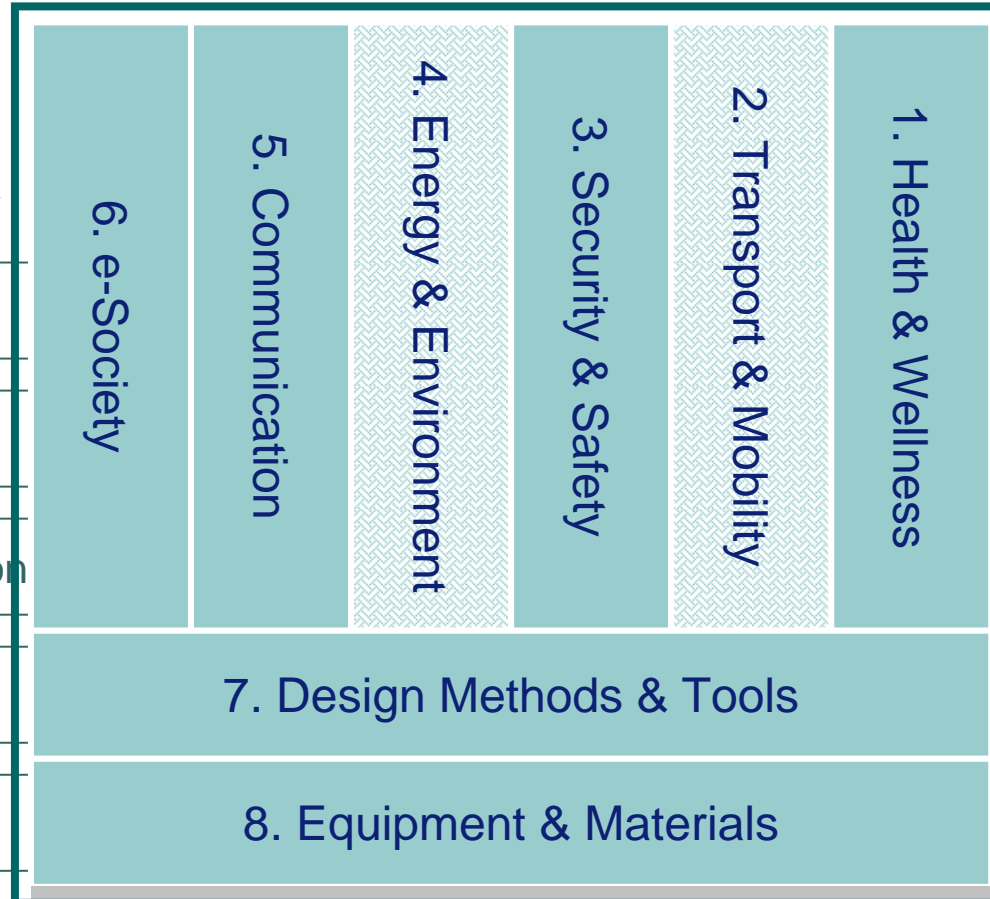
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*Industry priorities for 2013 and beyond*



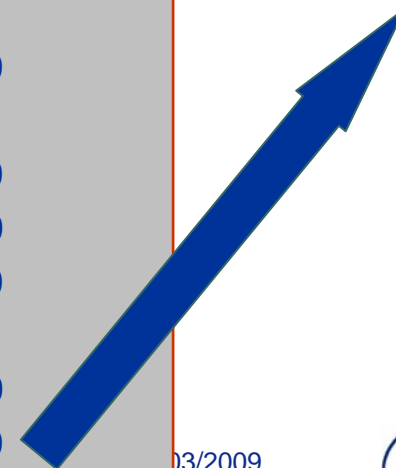


# Call 2 2009 Budget

	2008 (M€)	2009 (M€)
Austria	4	4
Belgium	1,500	2,500
Czech Republic	1,500	1,500
Estonia	0	0,300
France	8	7
Germany	15	12(+9)
Greece	0,500	1,500
Hungary	1,320	1,320
Ireland	1	1
Italy	10	12
Latvia	-	0
Netherlands	10	7
Norway	1,500	1,500
Poland	1	1
Portugal	0,500	0,500
Slovak Republic	-	0,500
Spain	1	2,250
Sweden	1	1
United Kingdom	0	1,500
<b>Total</b>	<b>57,820</b>	<b>67,370</b>

**Total:**  
**104,420 M€**

**EC commitment:**  
**37,053 M€**





# Call 2 – draft timetable



<b>Publication of Call</b>	<b>Mid March 2009</b>
<b>Deadline for submission of the Project Outline (PO)</b>	<b>15th April 2009</b> <i>17h00 Brussels time</i>
<b>Provision to the applicants with an assessment of PO</b>	<b>15th May 2009</b>
<b>Deadline for submission of the Full Project Proposal (FPP)</b>	<b>3rd September 2009</b> <i>17h00 Brussels time</i>
<b>Evaluation and selection of proposals</b>	<b>October 2009</b>
<b>Start of negotiations for the selected proposals</b>	<b>Late October 2009</b>



## Call 2 – participation

- Participation in the two phases, Project Outline (PO) and Full Project Proposal (FPP), is mandatory
- The PO is only for assessment - no scoring. The evaluation and selection of proposals will be done on the FPP
- The PO is maximum 10 pages and follows the same structure as the FPP
- PO and FPP must be submitted using the **ENIAC Proposal Service (EPS)**. Proposals arriving by any other means are regarded as 'not submitted', and will not be accepted



## Call 2 – PO contents

- Table of contents of Part B (max. 10 pages):
  - Cover page
  - Abstract (copied from Part A) (½ page)
  - Section 1. Relevance and contributions to the content and objectives of the Call (½ page)
  - Section 2. R&D innovation and technical excellence (2 pages)
  - Section 3. S&T approach and work plan (2 pages)
  - Section 4. Market innovation and impact (3 pages)
  - Section 5. Quality of consortium and management (1 page)



## Call 2 – PO assessment criteria

- Relevance will be considered in relation to the topic(s) of the work programme open in a given call and to the objectives of a call
- Relevance and contribution to the overall ENIAC targets
- Soundness of the concept
- Clarity and quality of the objectives and expected results
- Contribution, at the European and/or international level, to the expected impacts listed in the work programme under the relevant sub-programme
- Degree of innovation in the context of the sub-programmes addressed
- Expected market impact of the results for the industrial partners
- Quality of the consortium as a whole including complementarities, balance and involvement of SMEs



## Call 2 – Full Project Proposal

- FPP same as in Call 1 but there must be an explanation of the changes included in the FPP, consequence of taking into account the comments received in the PO phase
- Part C
  - For some participants, the submission of a PDF or ZIP file according to the guidelines is also required by their national administration



## Call 2 – FPP evaluation

### Evaluation Criteria :

1. Relevance and contributions to the objectives of the Call (Weight=1)
2. R&D innovation and technical excellence (Weight=1)
3. S&T approach and work plan (Weight=1)
4. Market innovation and market impact (Weight=2)
5. Quality of consortium and management (Weight=1)



## Call 2 - documentation

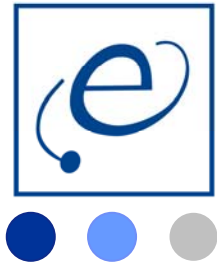
- Check carefully following documents:
  - Guide for Applicants (contacts, funding rates)
  - Eligibility criteria
  - Annual Work Programme 2009
- All relevant information soon on ENIAC web:

[www.eniac.eu](http://www.eniac.eu)



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# Call 1: Living up to the expectations ?

? Industrially-driven applied research?

**76% of the work, 67% of the funding, 59% of participants**

? Level of SME participation?

**36% of companies, 24% of participants, 16% of funding**

? Time to delivery?

**8 months**

? Large strategic initiatives ?

**avg # 25 participants / project; 6-10 countries**

? Enough funding?



# The ENIAC JTI tomorrow: delivering on its promises

- Public Authorities should **keep to their commitment**, even during difficult times when **innovation is a must**

	Agreed annual R&D budget plan					
	97,2	104,4	2010	2011	2012-3	Total R&D
ENIAC MS	75,45 M€	100 M€	124,55 M€	154,55 M€	345,45 M€	800 M€
ENIAC JU	41,5 M€	55 M€	68,5 M€	85 M€	190 M€	440 M€

55%

- Industry should show a **clear overall strategy** and present **proposals of sufficient quality**



**Thank you**

More information:

<http://www.eniac.eu>

<http://cordis.europa.eu/fp7/ict/nanoelectronics/>

[Isabel.vergara-ogando@ec.europa.eu](mailto:Isabel.vergara-ogando@ec.europa.eu)

Courtesy Fraunhofer IZM





# Priorities for the AWP 2009 – Call 2

## ○ **SP1. Nanoelectronics for Health and Wellness**

- Miniaturised biochemical sensor for diagnostics
- Targeted therapy (imaging/therapy, smart drug-delivery systems)
- Advanced imaging capability for diagnostics and healthcare (e.g. surgery)
- Ultra-low power devices and energy-scavenging
- Remote patient supervision

Indicative project size: 100-150 person year, over 3 years

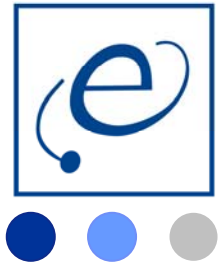


# Priorities for the AWP 2009 – Call 2

- **SP2. Nanoelectronics for Transport & Mobility**
  - Components and miniaturized (sub)systems for assisted driving
  - Technology, Components and miniaturized (sub)systems for advanced engine control systems and exhaust and combustion control
  - Power/HV electronics and smart miniaturized systems for hybrid and electrical cars
  - Development of fail safe and fault tolerant electronic systems

SE2A  
E3Car

Indicative project size: 10-20 person year, over 2-3 years



# Priorities for the AWP 2009 – Call 2

## ○ **SP3. Nanoelectronics for Security & Safety**

- Trusted devices and smart secure portable systems
- All-in-one imaging sensors

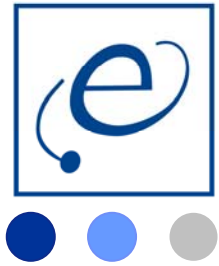
Indicative project size: 200 person year

## ○ **SP4. Nanoelectronics for Energy & Environment**

- Intelligent drive control
- Efficient power supplies and power management solutions

SmartPM

Indicative project size: 10-20 person year, over 2-3 years



# Priorities for the AWP 2009 – Call 2

## ○ ***SP5. Nanoelectronics for Communications***

- More Moore
- More than Moore

Indicative project size: 150-300 person year, over 3 years

## ○ ***SP6. Nanoelectronics for e-Society***

- Personal services
- Work and business
- Environment protection

Indicative project size: 100-200 person year, over 3 years



# Priorities for the AWP 2009 – Call 2

## ○ ***SP7. Design Methods and Tools for Nanoelectronics***

- More Moore
- More than Moore

Indicative project size: 2000-300 person year, over 3 years

## ○ ***SP8. Equipment & Materials for Nanoelectronics***

- Advanced CMOS technology
- Equipment and materials for sub 22nm lithography
- Maskless lithography
- More than Moore technologies
- Packaging and final testing
- Fab automation and flexibility

Indicative project size: 200-500 person year, over 3 years