

CRITIS Workshop 2006

# An Overview of R&D activities in Europe on Critical Information Infrastructure Protection (CIIP)



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# The preamble

This work reports some of the results obtained by the EU IST co-funded project **CI<sup>2</sup>RCO**

More information on the **CI<sup>2</sup>RCO** project and all the detailed data are available at the project web site [www.ci2rco.org](http://www.ci2rco.org)

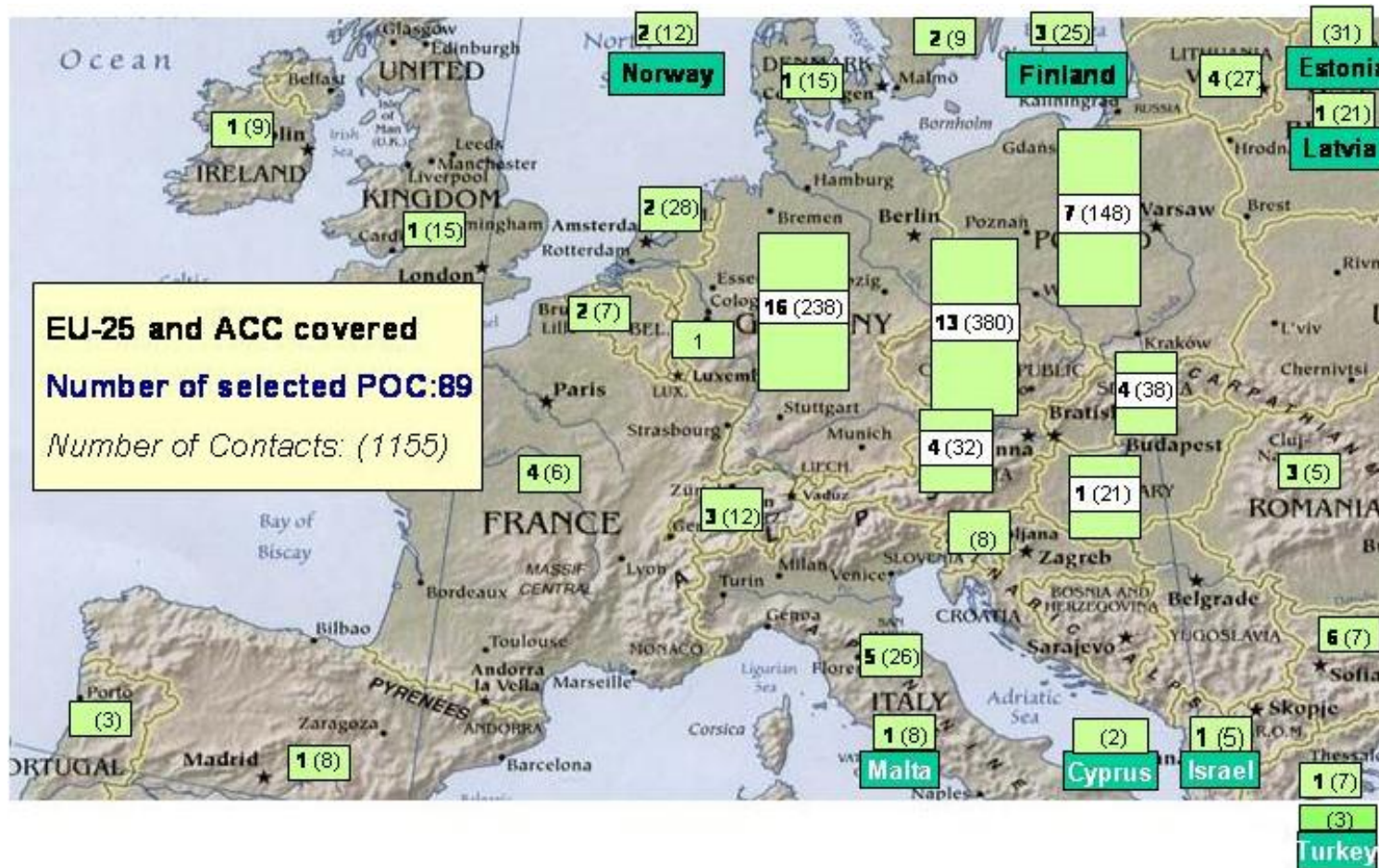
# The CI<sup>2</sup>RCO project

**CI<sup>2</sup>RCO** is coordinated action devoted to snapshot the R&D initiatives about CIIP existing in EU-25 countries plus ACC, to identify possible research gaps or areas not adequately investigated and to promote the creation of an European Research Area (ERA) on CIIP.

# The CI<sup>2</sup>RCO methodology

- Identify inside the different EU-25 countries competent expert about CIIP related R&D activities
- Contact them and establish as many POC (Point of Contact)
- Acquire information about R&D activities via suitable questionnaires
- Complete information provided by POCS with other elements collected by open documentation and WWW
- Analyses this data and infer useful hints to define an ERA

# POCs identification



# Collected questionnaires

Each POC was asked to fill in a questionnaire(s) in order to collect information about national Critical Information Infrastructure Protection (CIIP) strategies and specifically about CIIP-related R&D initiatives

It was collected, in a first time, **87 questionnaires** which report information on about **135 projects**: 77 national initiatives and 58 projects co-funded by EU-commission.

These projects were augmented to a total number of **156 projects** (**88 national projects** and **68 EU co-funded projects**) with additional information collected from open document and Internet researches

# Quality of data

To a detailed analysis, it was clear that many of the projects are not, or only marginally, related with CIIP.

This is largely due to the confusion that still exists about this topic.

This imposed the need to perform a selection of the projects in order to identify that specifically focused on CIIP.

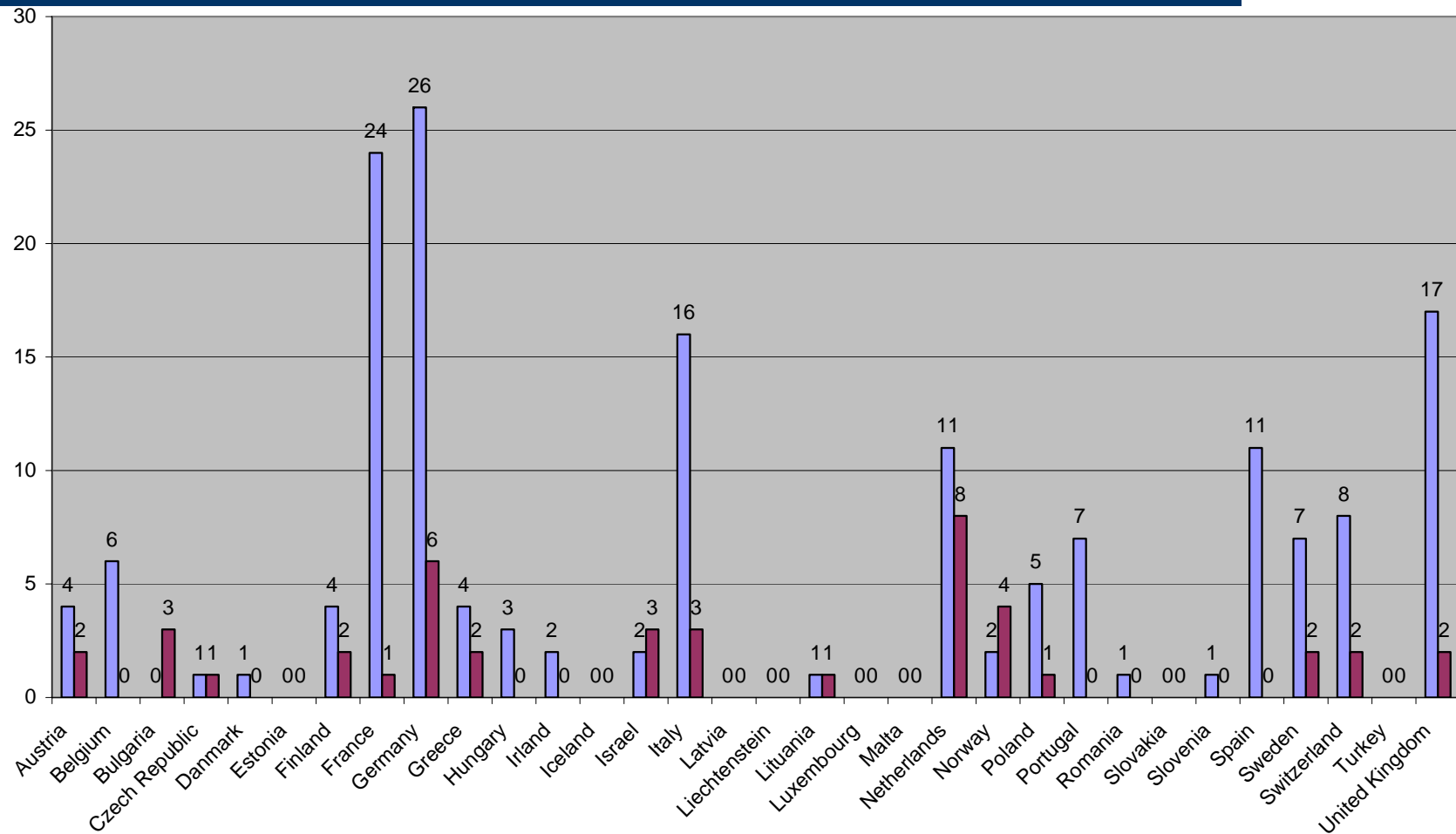
## CIIP relevant R&D initiatives

This procedure identified as CIIP relevant **72 projects** out of the original 156.

These CIIP relevant projects are **44 national initiatives** and **28 EU co-funded projects**



# Geographical allocation



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■ EU project 
 ■ National project 
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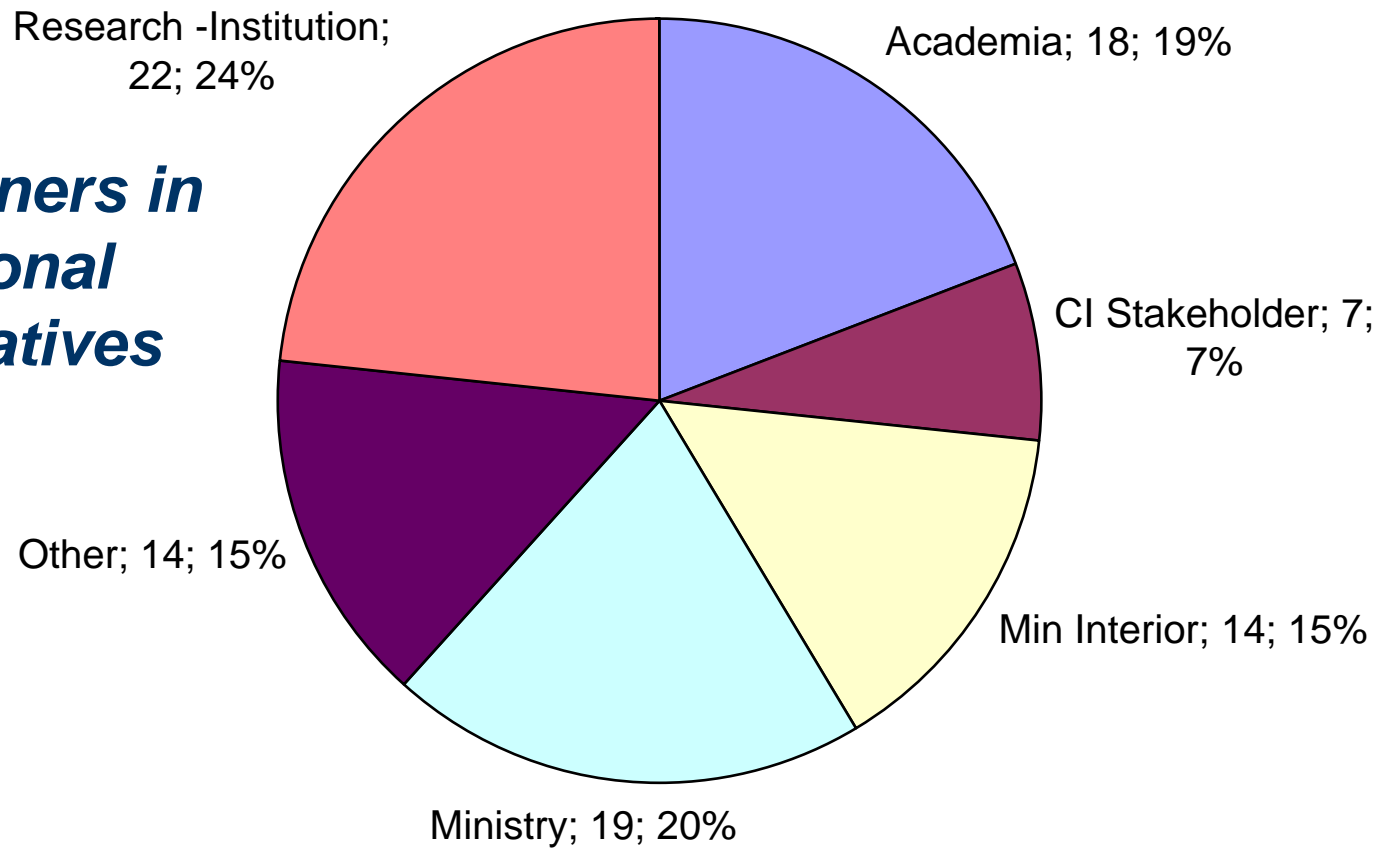
# National initiatives – time schedule

The investigated projects span the period 2000 to 2013: **12 project (28%) have just ended, while 19 (44%) are still on-going, even if 5 projects (12%) will end in 2006.** Unfortunately for 12 projects (28%) there is no information available about time their schedule.

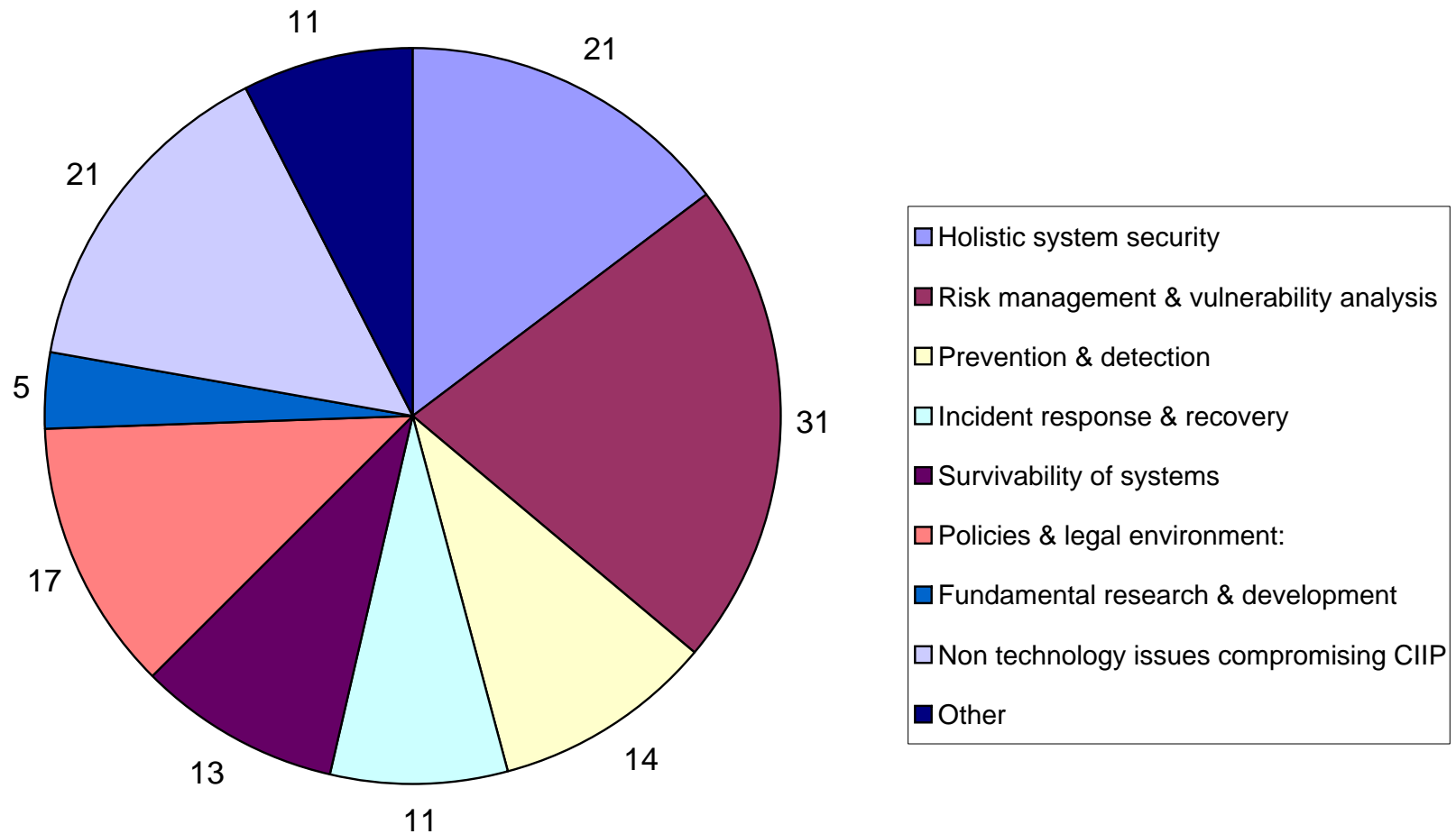
There is a large inhomogeneity in projects duration: some projects extend for few months, while others are planned over a long period.

# National Initiatives - partners

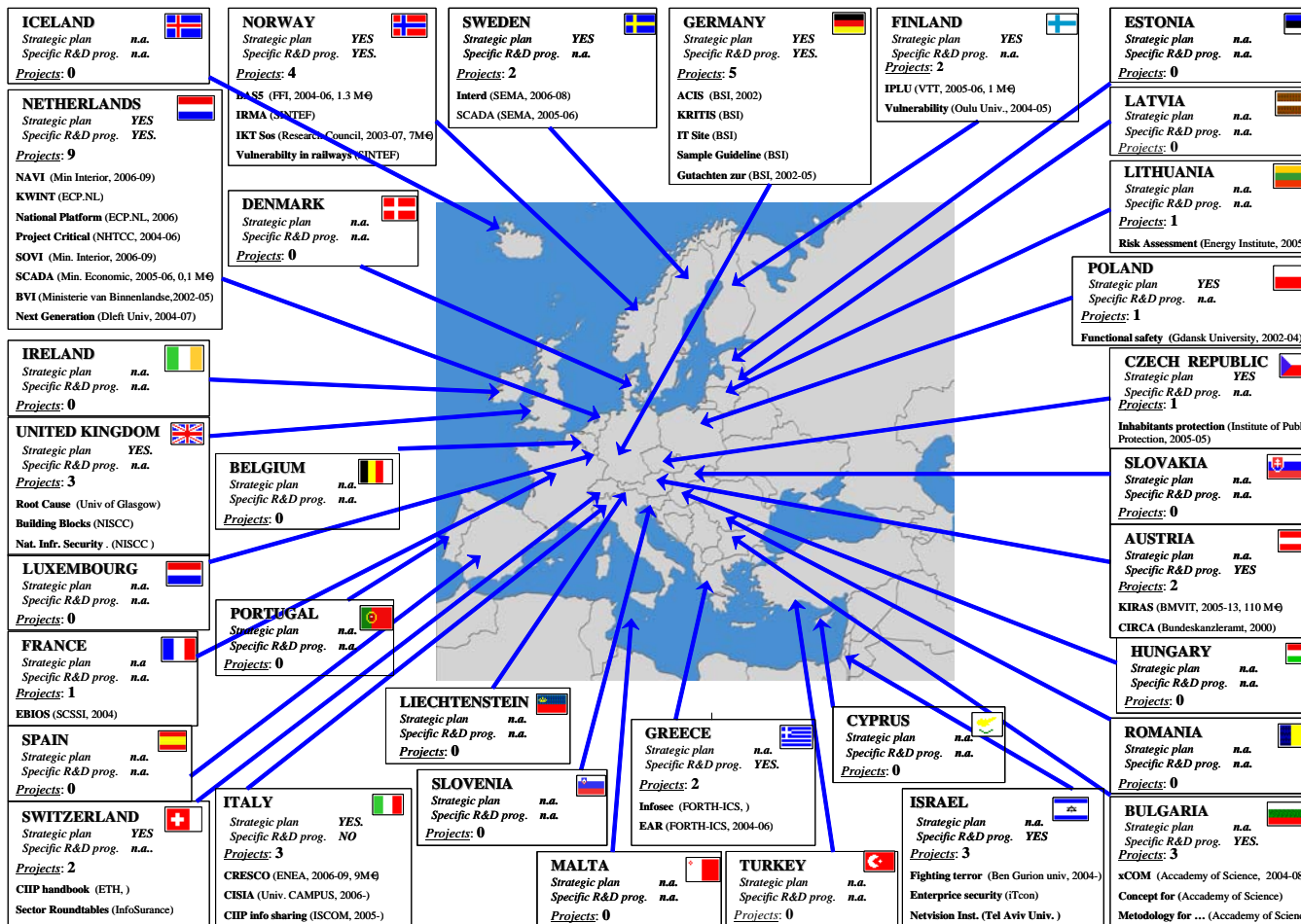
## *Partners in national initiatives*



# National initiatives – R&D topics



# National initiatives - overview



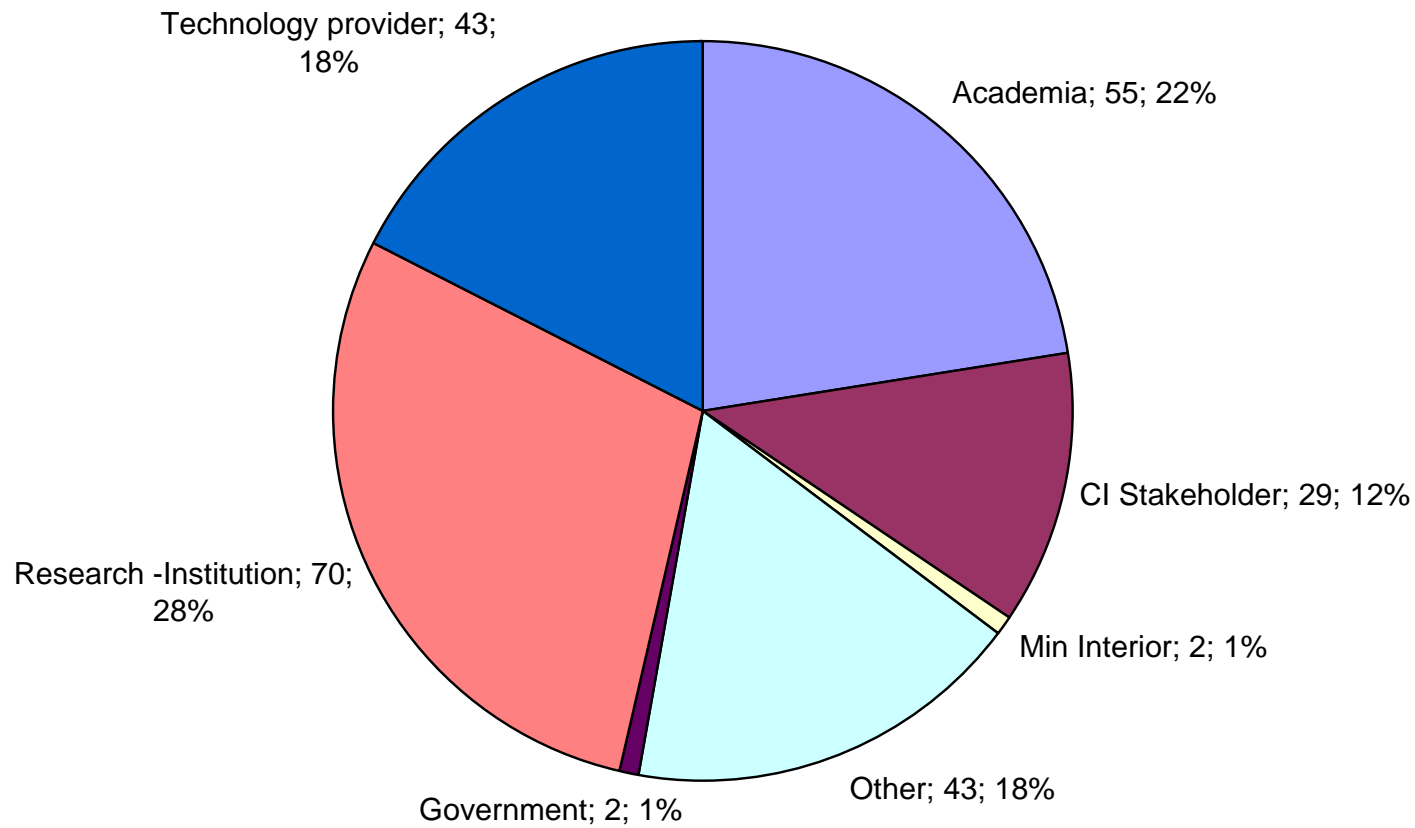
# EU co-funded R&D projects

EU co-funded projects are generally characterised by a large number of partners w.r.t national initiatives and consortium composition is more heterogeneous.

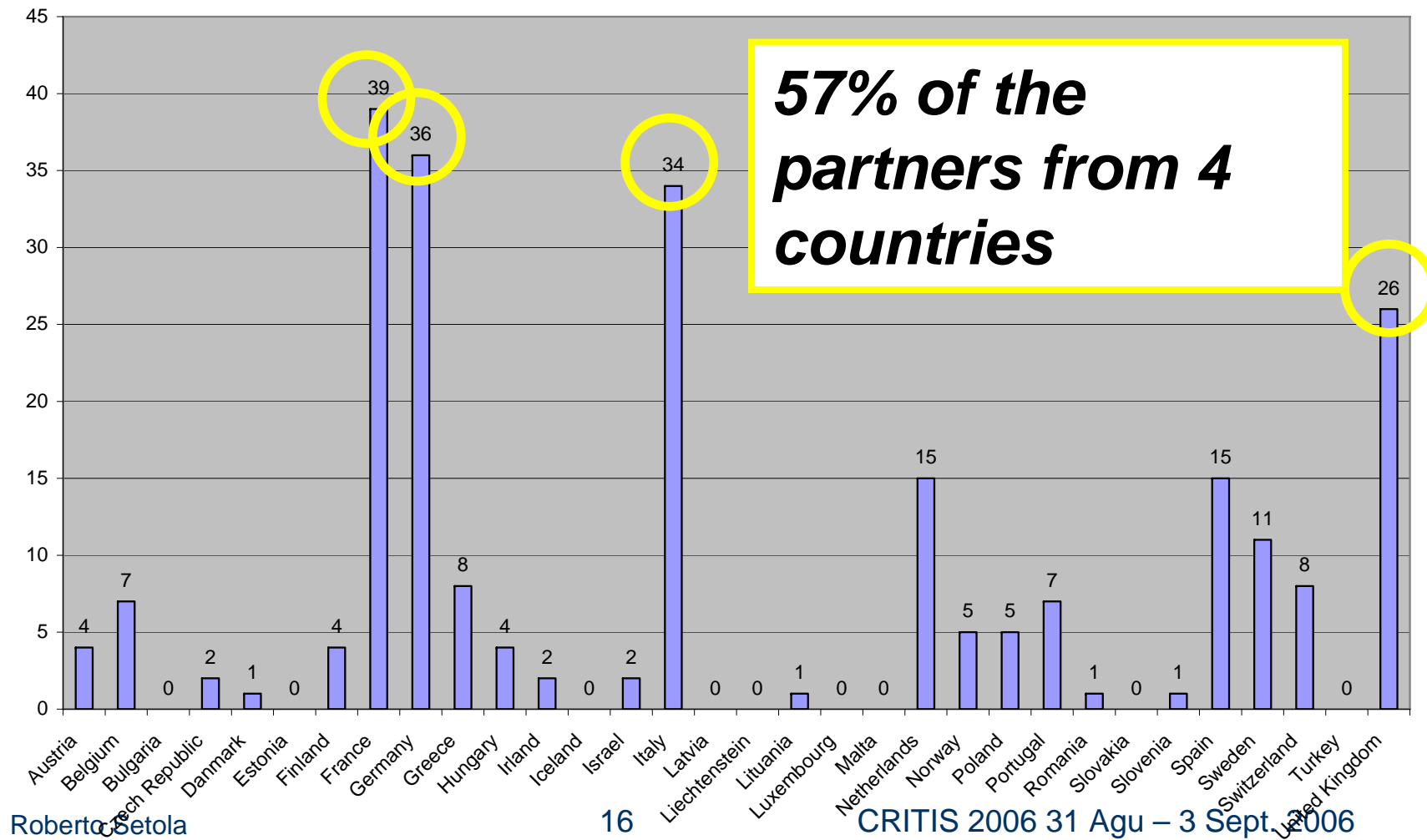
Most of these projects have a project duration of two or three years.

Of the total, **15 projects (54%) have already ended, 11 projects (39%) are still on going, 3 will be ended in 2006** and for two of them we couldn't find any information on time schedule.

# EU co-funded partners

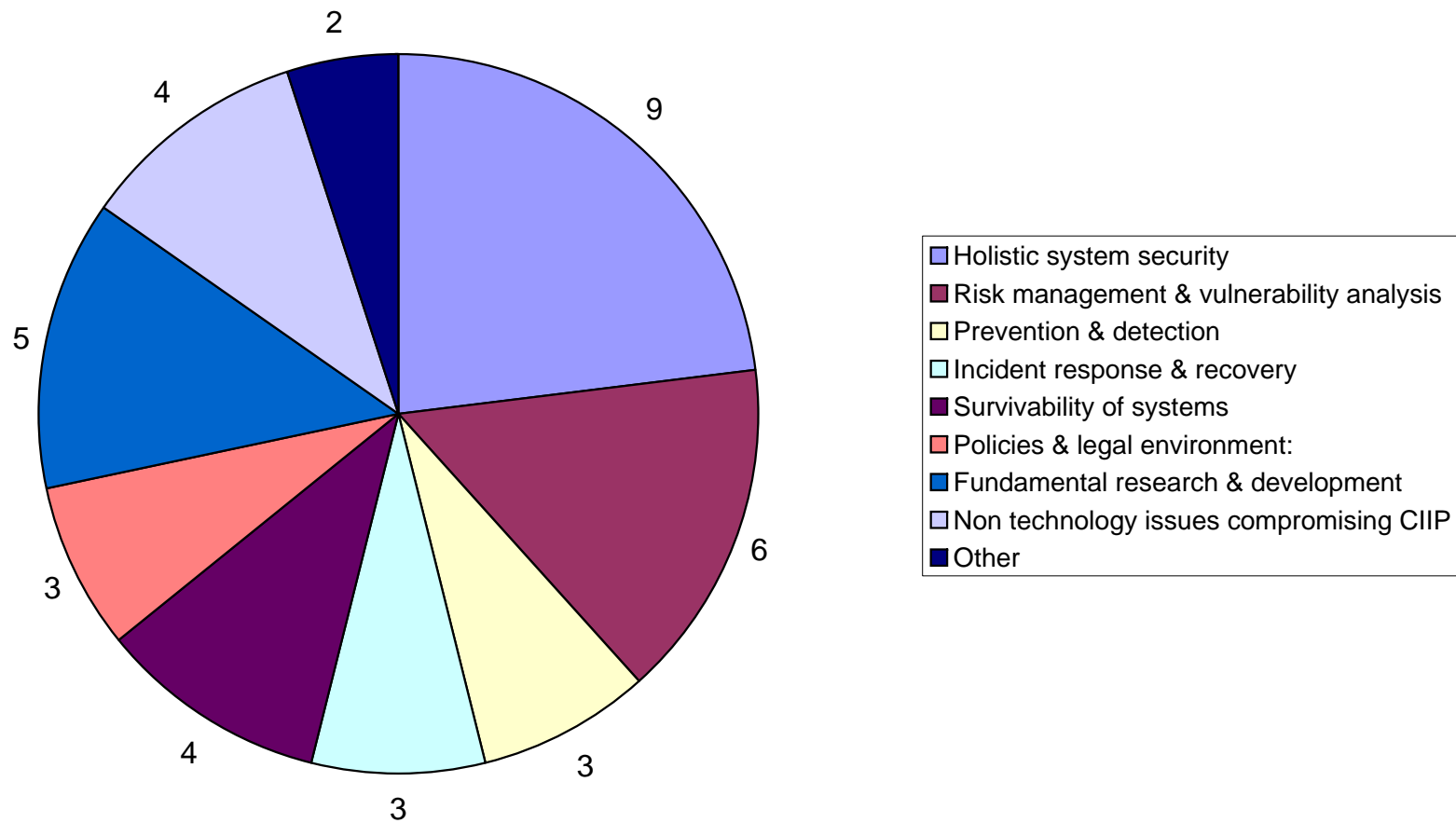


# Geographical distribution of partners

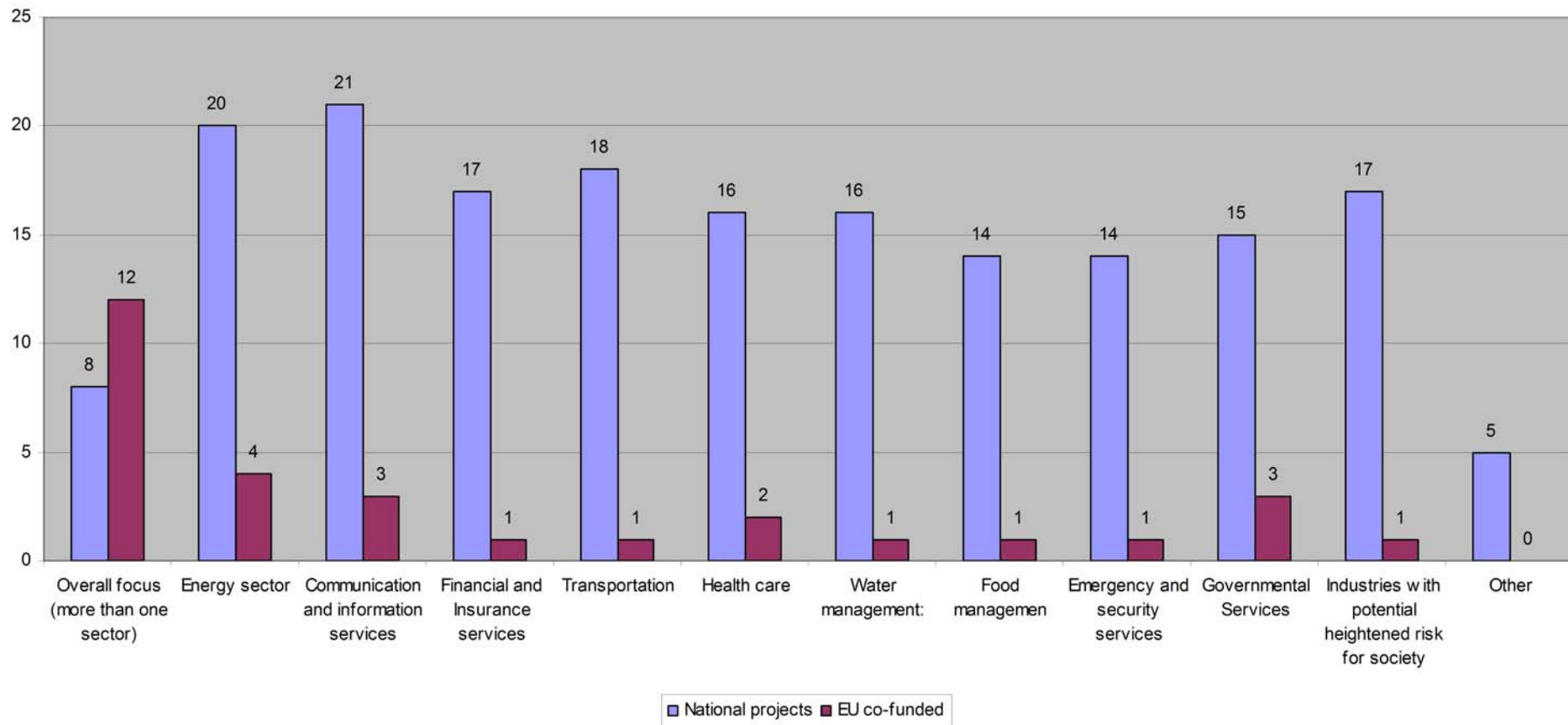




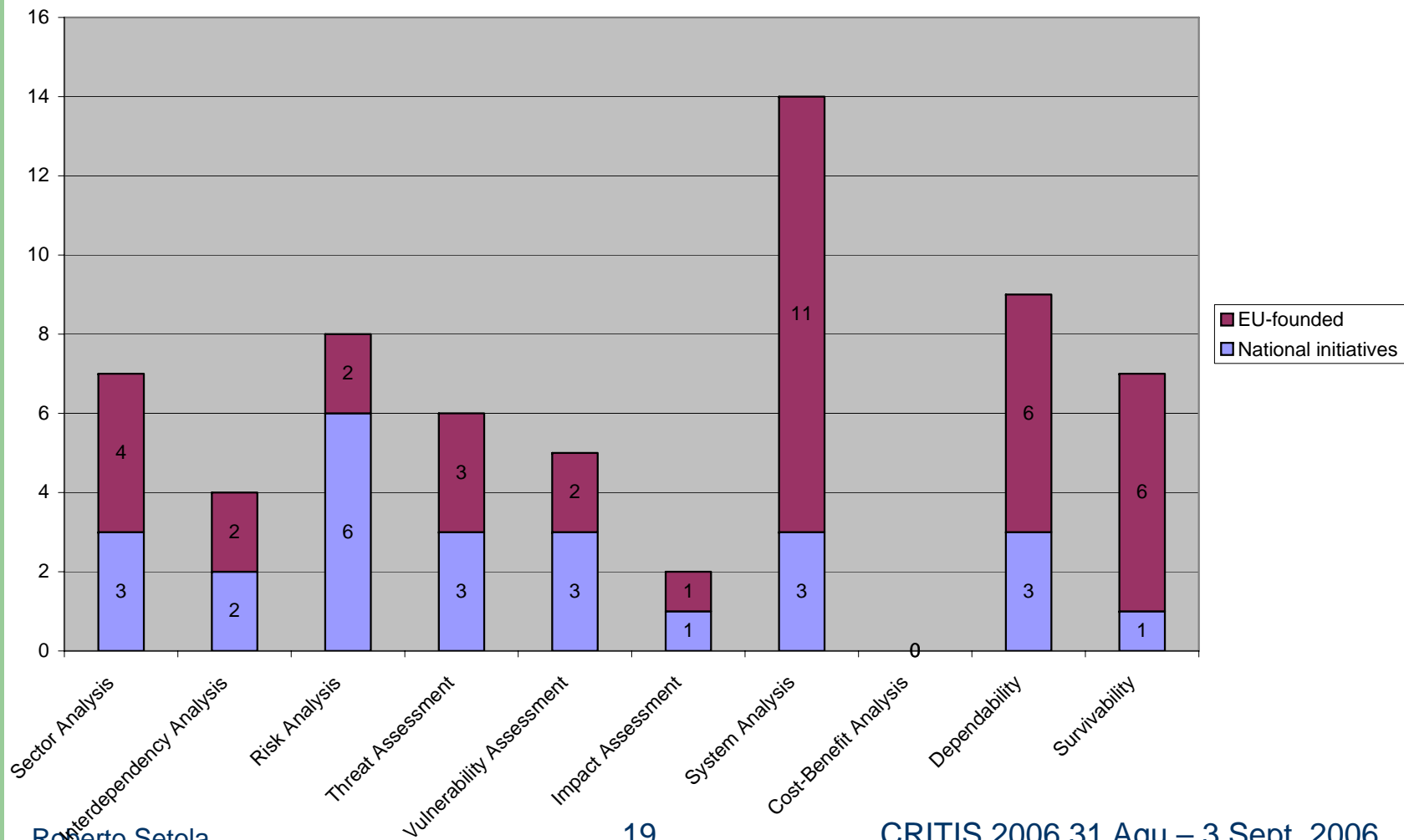
# EU co-funded topics



# R&D sectors's focus

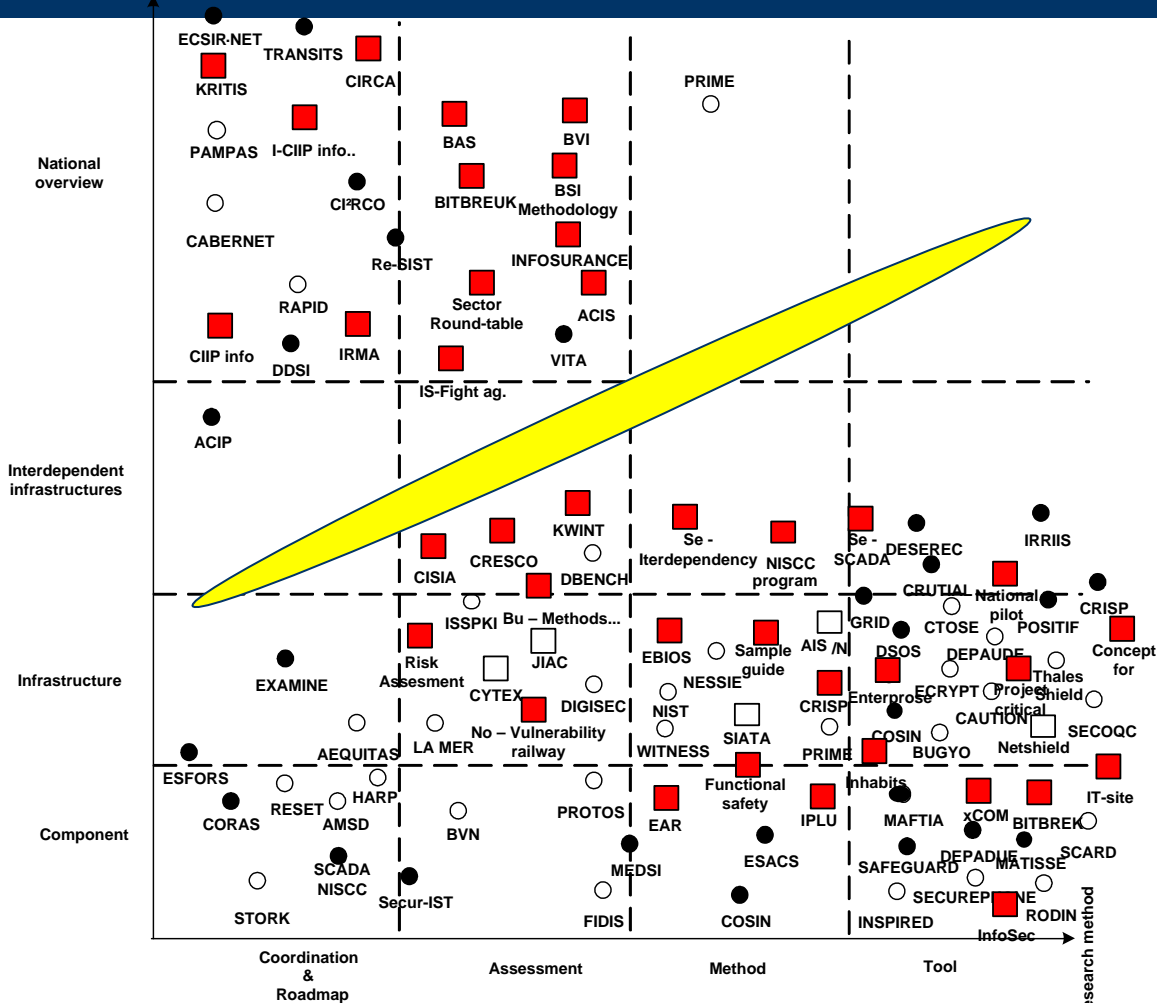


# Collocation in research cycle



# Classification of projects w.r.t hierarchy and instruments

Hierarchy level



# Conclusions (1)

- This analysis emphasizes that CIP/CIIP is still a very immature field of research.
- There is not yet a real community of researchers (even if there is an increasing large number of actors interested in)
- This is partially due to the absence of a clear policy about CIP/CIIP and a clear vision of what "concretely" are CIP and CIIP, which are their goals, constraints and boundaries

## Conclusion (2)

- The majority of Member State have neither a Strategic Plan on CIIP nor a Specific R&D Program.
- The majority of the R&D activities are funded under different labels, from IT security to Border Control. Moreover, there is a set of different Agencies promoting this kind of initiatives, often with very limited coordination.
- The majority of national initiatives are fragmented and of small economical dimension, with a short time span

## Conclusions (3)

- National initiatives are mainly focalised on the risk analysis framework. Inside these initiatives, an important role is played by government agencies
- EU co-funded projects, at least the one funded from the IST Programme, are more focused on technological issues with some participation from CI-stakeholders but with the absence of government entities.

## Conclusions (4)

- CI stakeholder involvement appears largely deficient.. They shown a vision strongly related to their own infrastructure and business framework, with a limited attention on border elements and trans-domain consequences.
- Some important CI stakeholders appear quite completely absent from the scenario (e.g. there are very few municipalities involved) and there is a very limited participation from infrastructure's controllers providers



## Conclusions (5)

With finite resources available to support CIIP R&D, setting a **CIIP ERA** (*CIIP - European Research Area*) would serve a unifying framework to ensure that R&D investments are coordinated and address the highest priorities, based on risk, to achieve mission and ensure continuity of the essential infrastructures at the level of Member State and EU.

**Thank you**

**For any questions, please  
forward to:**

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