

## Financing Research Infrastructures in Europe: Fact, fiction, hype and hope

by

C. Fotakis\*  
IESL - FORTH  
Heraklion, Crete, Greece

\* Tel.: +30-2810-391316  
Fax: +30-2810-391318  
e-mail: fotakis@iesl.forth.gr

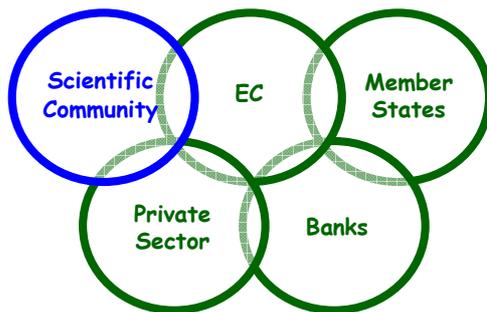
C. Fotakis, IESL - FORTH

## Research Infrastructures: An excellent benchmark for a truly European venture

- ❖ An interplay among scientific, political, cultural and financial aspects, which reflect the broader challenges towards European Integration
- ❖ In optimising the Financial Instruments for RIs, the above issues and the role of the Stakeholders involved should be considered

C. Fotakis, IESL - FORTH

## The players



C. Fotakis, IESL - FORTH

## The current landscape in financing RIs (I)

- ❖ The role of Member States is central in the development and financing of RIs
  - Priorities and criteria may differ significantly
  - ESFRI facilitates coherence in policies and decision making
  - Public investment may be combined with Structural Funds where applicable
- ❖ The role of the Private Sector is to date rather limited
  - Although the significance of RIs for economic growth is recognized, incentives are not truly satisfactory and recognizable

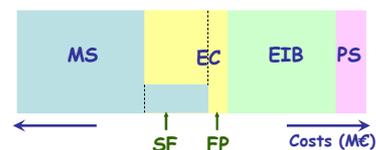
C. Fotakis, IESL - FORTH

## The current landscape in financing RIs (II)

- ❖ The role of Banks is crucial in complementing financing
  - EIB is willing to finance projects of European RIs leading to economic growth
- ❖ The role of EC is that of a "catalyst"
  - At a political level EC facilitates a coherent and effective approach in setting standards and priorities
  - It provides effective financial instruments through the Framework Programme, the Structural Funds and other initiatives (e.g. the Risk Sharing Facility)
  - In FP6 (2003-2006) an amount of 730 M€ was allocated to the support of RI initiatives

C. Fotakis, IESL - FORTH

## A possible financial synergy for a new RI in case that SF apply



Code

MS: Member States      SF: Structural Funds  
EC: European Commission      FP: Framework Programme  
EIB: European Investment Bank  
PS: Private Sector

C. Fotakis, IESL - FORTH

## Fact

### Research Infrastructures (RIs) have

- ❖ Impact on the scientific community and in society
  - support scientific excellence
  - promote European competitiveness and cohesion
  - reveal European social and cultural resources
  - improve human potential via specialized training opportunities
  - become poles of attraction of young talented scientists and prominent senior researchers
- ❖ European Added Value
  - synergies of pan-European interest
  - optimal use of European resources
- ❖ A key feature: "Uniqueness"



C. Fotakis, IESL - FORTH

## The issue of "uniqueness"

- ❖ State of the art infrastructures, combining specific issues of unique character (technical specs, magnitude, costs, location, degree of sophistication etc.) together with a high level of local expertise for providing a strong European added value.

One Key issue for success:

Emphasis on scientific excellence both in the RIs and the projects they serve!



C. Fotakis, IESL - FORTH

## Questions

- ❖ Is the goal of scientific excellence adequate for attracting major national, private and EC funding?
- ❖ What are the short and long term motives in financing RIs?



C. Fotakis, IESL - FORTH

An example:

RIs for Optical Technologies  
(e.g. Lasers, Synchrotrons, Free Electron Lasers (FEL))

a field of European excellence!

- Unique possibilities for ultra-fine analysis and understanding the structure and dynamics of matter
- There are excellent prospects in the fields of optics, photonics and related technologies
- There is a number of relevant European Companies playing a leading role worldwide
- Important social impact in preserving and promoting cultural heritage



C. Fotakis, IESL - FORTH

## Fiction

It is a fiction that,

- ❖ "national priorities always coincide with pan-European priorities"
  - There may be RIs which promote plans for national or regional development but they do not provide the best response to the challenges of the future at European level.
  - There may be existing RIs representing a major national investment made at some previous time and having an important socio-economic impact locally but their original scientific scope has passed



C. Fotakis, IESL - FORTH

## Cohesion and Structural Funds

- ❖ RIs may contribute to the regional development by improving the ability of the regions to compete
- ❖ To what extent should cohesion objectives be considered in supporting European RIs?
- ❖ How can Structural Funds be used more effectively towards this goal?

During 2000-2006 an amount of ~2.5 B€ was allocated through the structural funds to RIs of eligible regions



C. Fotakis, IESL - FORTH

## Hype

It is a hype that,

- ❖ "the size of a "mega-science" project is proportional to the scientific impact it may have"
  - The danger in the mentality of "records" (Promoting scientific excellence is a more intricate process)
  - Cost benefit analysis: scientific output over costs.
- ❖ "RIs impact on economic growth is always obvious"
  - There are RIs presenting immediate economic interest for private investors (industry) but also there are RIs with less obvious, long term economic impact



C. Fotakis, IESL - FORTH

## Questions

- ❖ How can industry and more generally the public sector be motivated to enhance their participation in financing public RIs of trans-European character?
  - There is need for a frame of non-bureaucratic rules and attractive measures
  - Short and long term investments may have different requirements
- ❖ What kind of measures would facilitate an enhancement of the role of banks and in particular of EIB?
  - The prospect for economic growth is the major consideration
  - The "risk" level in financing RIs projects could be high



C. Fotakis, IESL - FORTH

## Hope

European RIs have a major role towards a knowledge based economy

- ☛ Optimizing the Financial Instruments is crucial for their realization and success
- ☛ The effectiveness of the current financing schemes relies heavily on SYNERGIES among different Financial Instruments



C. Fotakis, IESL - FORTH

## Final Questions

- What combinations among the various Financial Instruments would lead to the optimal outcome?
- Should the "catalyst", i.e. the leverage provided by the EC be strengthened?
- Considering the current economic situation in Europe, is there need for any new additional measures?



C. Fotakis, IESL - FORTH