A study about the business model of Research Infrastructures in France

#### Susana GOTA GOLDMANN

French Ministry of Higher Education and Research

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### Motivation for modernization

The national, European (ESFRI), even global landscape is changing

- Traditionally, RIs were devoted to Physics
- Presently new scientific sectors, like Biology and Medical Sciences, Environmental Sciences, etc. need big instruments, and a better coordination of national nodes (new pan-European distributed Ris) for going further

In the framework of the general revision of public policies, an audit took place concerning the management and governance of the Ris. The recommendations were the followings:

- Establish a centralized dynamic control at the ministerial level
- Enhance monitoring financial and programmatic
- Increase industrial competitiveness through a better use of RIs





## Consolidate a long term strategy

A roadmap to

- Stay among key leaders in Europe
- Provide world-class, top-quality research infrastructures to inspire researchers in every major discipline
- Address major societal objectives defined in the IRNS



- The implementation of a RIs Steering Committee and a high level Advisory Board
  - A multi-year budgetary programming to optimize resources allocation among RIs and scientific areas (operating costs, investments, depreciation, demobilization)
  - A methodology to evaluate full costs and to improve the use of RIs by academic and private users





# A study on full costs and the development of relationships with industry



Pre-requisites and objectives

The scientific excellence and the production of knowledge should remain the primary missions of the RIs

The researcher is a citizen and thus part of society: his competencies should impact the economy and society

### Main objectives

- Increase the competitiveness of European industry by promoting its use of research infrastructures
- Develop the self-generated funding part of the total budget of the research infrastructures
- Help academic users get an understanding of the costs of their experiments





Scope of the study: to structure the economic model of French Research Infrastructures

#### A two fold approach

Accurate vision of the full cost per direct activities



- Mapping of the uses / users
- Market and growth analysis



- Competitive positioning
- Potential for an increase in market share





Pricing policy based on full costs and market price







## Methodology and perimeter of the study

Phases	Objectives	Organizations involved and manpower
1 - development (Sept – Dec 2011)	<ul> <li>Define methodologies the full costs by activity</li> <li>Structure a guide to assist Ris with the implementation of the methodology (in French)</li> <li>Test the methodology in 4 RIs</li> </ul>	<ul> <li>French Ministry (6 FTE)</li> <li>CNRS, CEA, IFREMER, IPEV (0.5 FTE)</li> <li>4 RIs (Mouse Clinics, Oceanographic Fleet, ESRF, Euro-Argo)</li> </ul>
2 – deployment (Jan – June 2012)	Deploy the methodology in 16 other RIs	<ul> <li>French Ministry (6 FTE)</li> <li>CNRS, CEA, IFREMER, IPEV (0.5 FTE per organization)</li> <li>16 RIs</li> </ul>
3 – actualization (every year)	Analyze every year RIs full costs	Every RI (10 working days per year)





### The goals of the full cost study



A model tool (Excel file) based on the full cost by activity is available
 Adaptability and operational character of the methodology
 The evaluation of the full costs for 20 RIs was achieved
 Systematically the calculated full costs are different from prior estimates
 Introduce depreciation rules and overheads
 A consolidated vision for each domain





Contributions of the methodology to develop the resources from industrial users

Deliverables

The aims at developing industrial relationships

To improve the understanding of uses and users	A segmentation matrix of uses and users A framework to interview users
To analyze the positioning of the research infrastructure	<ul> <li>An online questionnaire about the uses with existing users</li> <li>An interview framework for international users</li> </ul>
To Identify and prioritize the levers of development of industrial relationships	An analysis methodology of current activities and innovative offers
To develop a sound pricing policy	A methodology designed to define a pricing policy consistent with the strategic objectives
To identify new ways to deal with industrial users	Identify key skills Suggest organizational changes





## Conclusions et perspectives

#### **Full costs analyses**

- A model tool (Excel file) based on the full cost by activity has been developed
- The adaptability and operational character of the methodology has been experienced among the 20 RIs during the first semester



## New ways to deal with industrial users and improve the understanding of uses <u>and users</u>

- A segmentation matrix of uses and users
- A framework to interview users
- A common process to develop new service offering to industrial users
- A national organization to improve industrial relationships is currently structured









#### **Mission Schedule**

