

ECRI 2007[★]

★ *european conference on research infrastructures*

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The EC-ESF Survey of RI

Neil Williams, ECRI 2007, Hamburg, 5 June 2007

***Aim:* To identify the current situation of major Research Infrastructures (RIs) in Europe and respective trends and developments**

March-April 06: Initial submission phase led by EC

May-December 06: Validation process by ESF

Validation of the entries received by EC

Nomination of missing major RIs

December 06-February 07: Finalization by EC

Getting responses from RIs nominated by ESF

Breaking down all RIs by categories

Extracting the first results from the database

DESCRIPTION

Sector, research domains, site type, instruments and services, age and upgrades...

OPERATION

International cooperation, potential cooperation, staff, internal and external users, access policy and procedures...

FINANCE

Investment and operational costs, sources of funds...

IMPACT

Scientific impact and relevance...

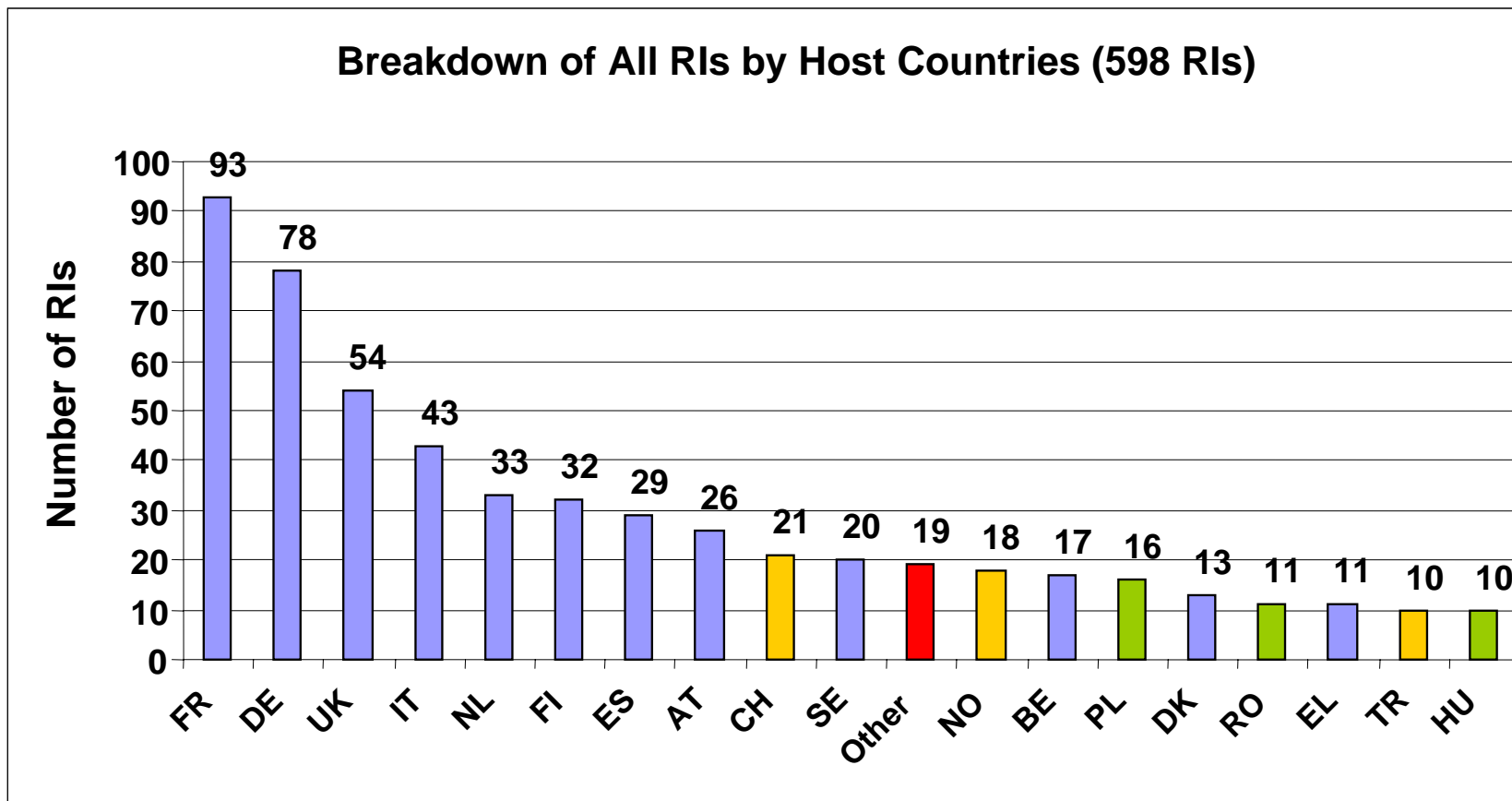
This analysis looks at the 783 replies received from Research Infrastructures related organisations and validated (598) by ESF and EC

It does NOT represent an assessment or analysis of the overall situation of RI in Europe!

The survey also has to be understood as a means to establish a first database of RIs that needs to be continuously updated in the future.

Complementary to ESFRI Roadmap(s)

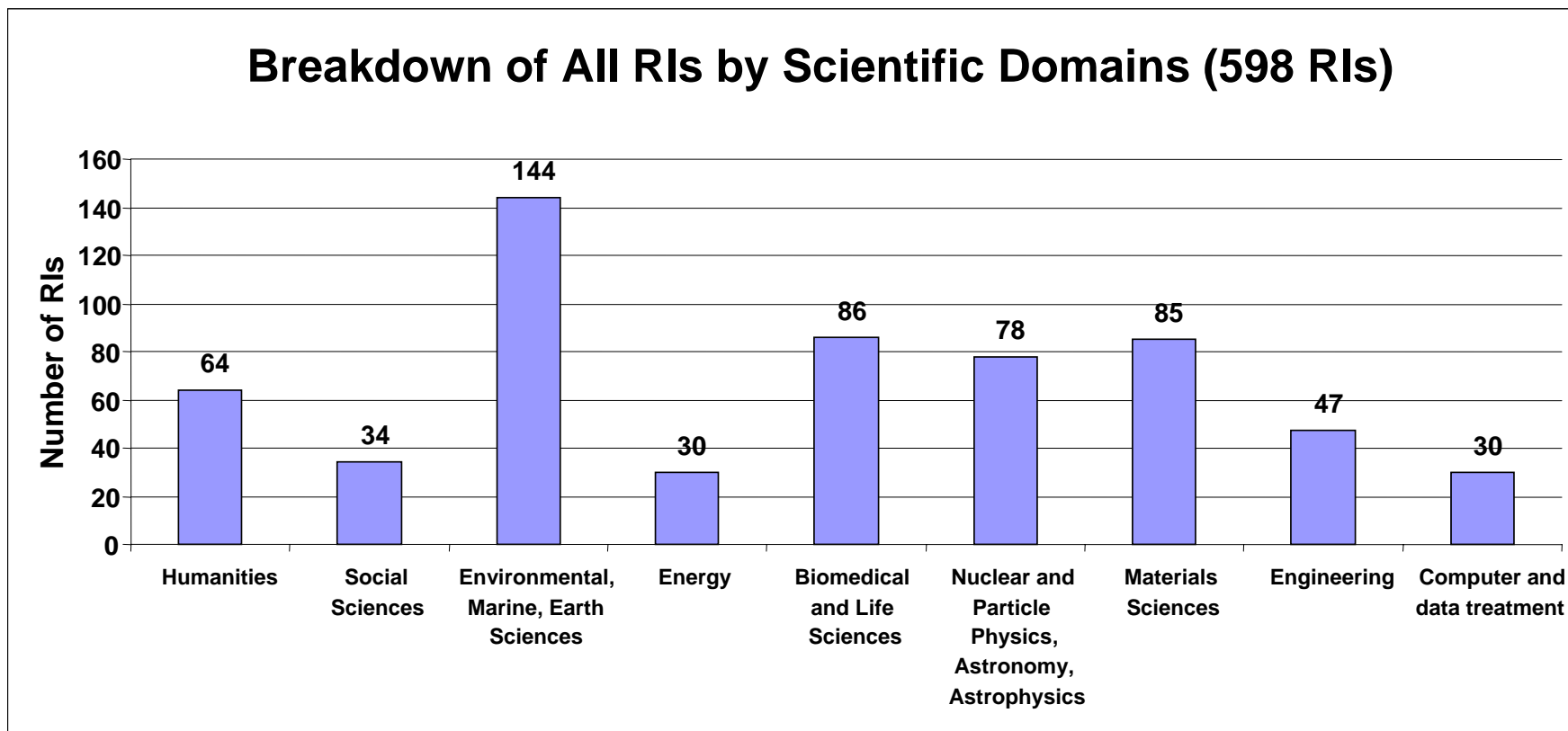
598 validated entries have been analyzed



Other: RI location in third countries like Chile, Antarctica, Lebanon, Georgia, Australia...or in several European countries like CERN in CH/FR

NB: Countries with less than 10 responding RIs are not represented

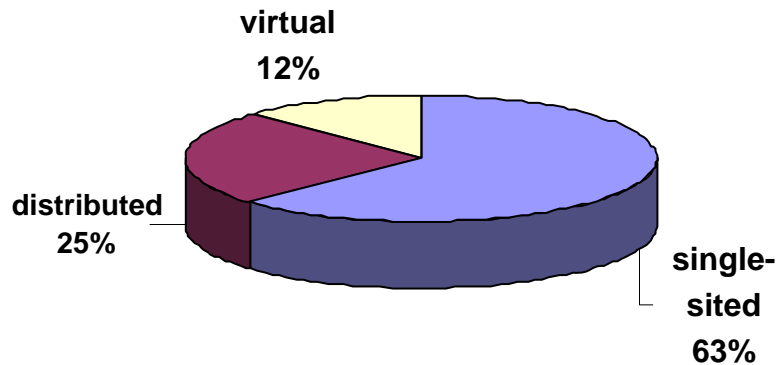
9 major domains of the 598 validated entries



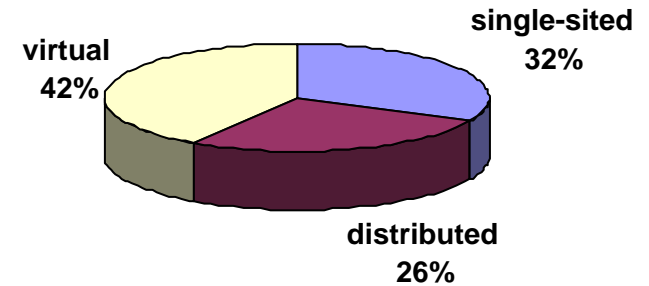
More than 25 500 permanent scientists
are working in such facilities ...

Three types of Research Infrastructures

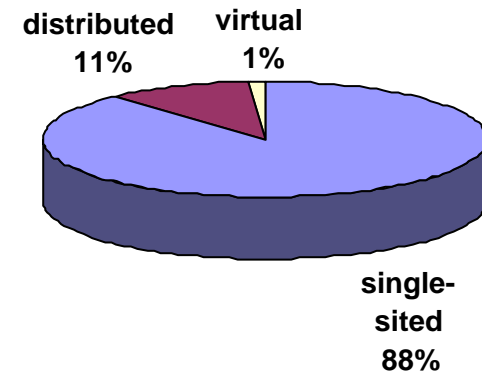
All RIs



Social Sciences RIs



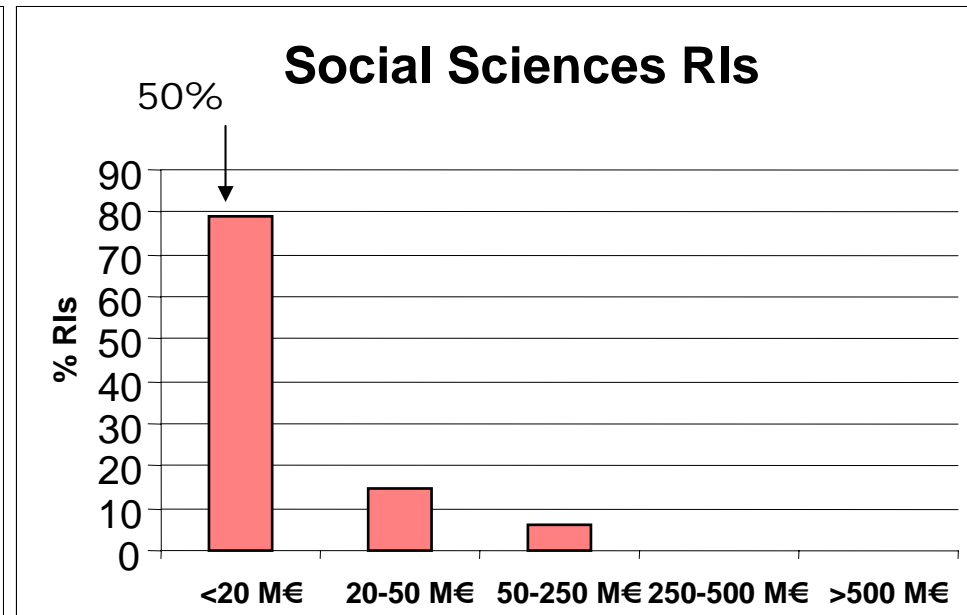
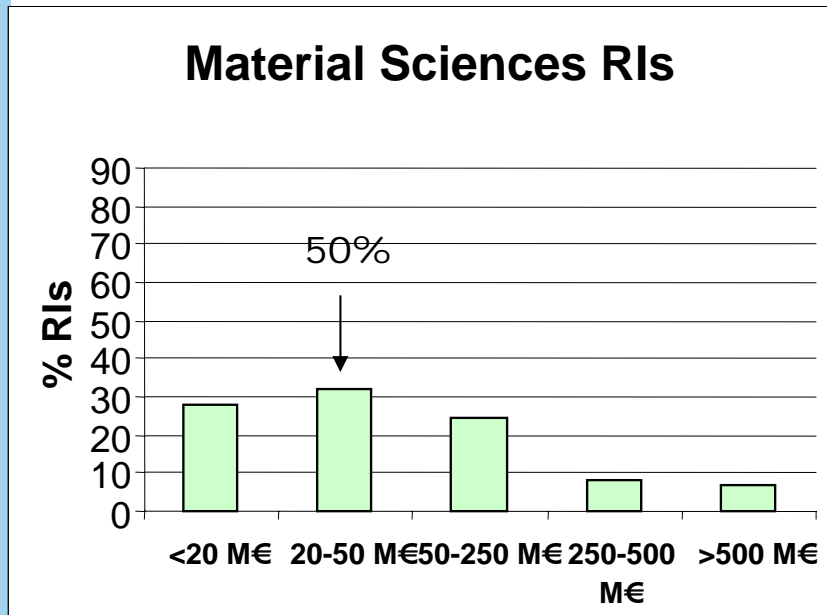
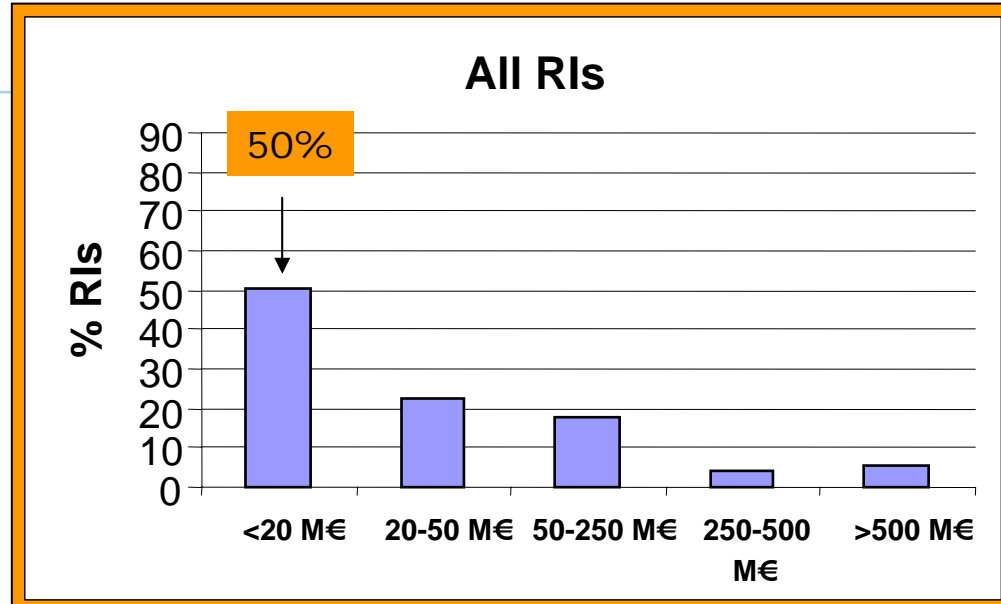
Material Sciences RIs



There is of course variation between the different domains: here are given the "min" and "max" share of single-sited RIs respectively for materials sciences and social sciences

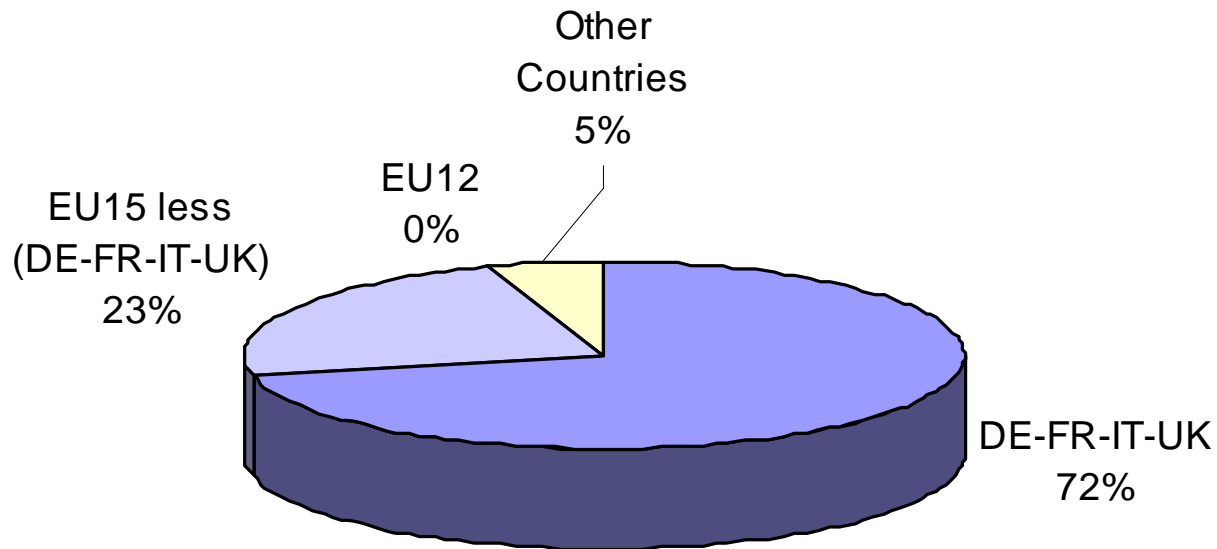
Construction Costs

The majority of European RIs are of small to medium size as to their construction costs...



Four Member States have mainly, up to now, invested in large RIs

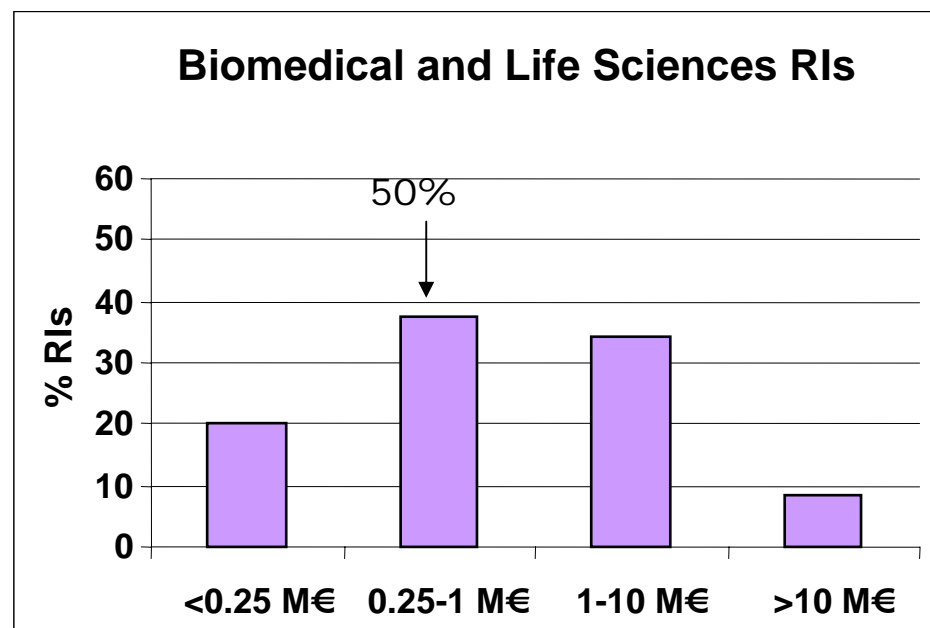
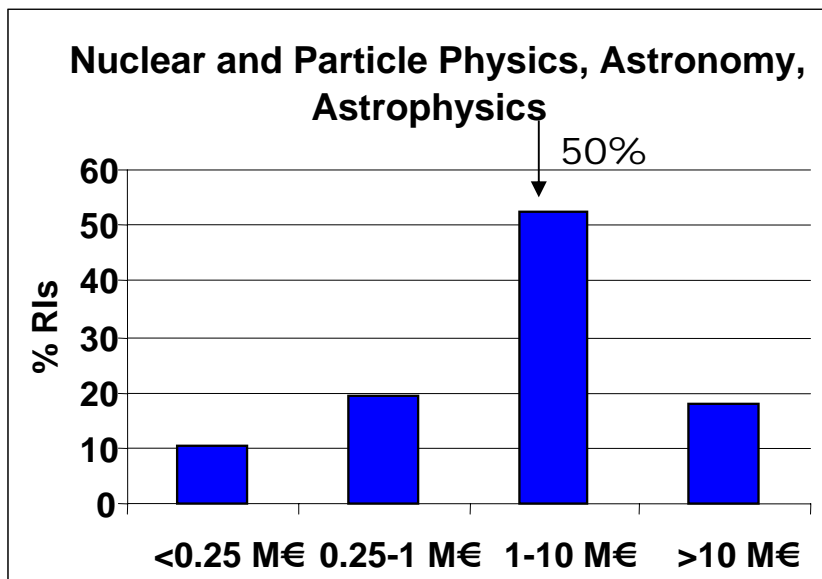
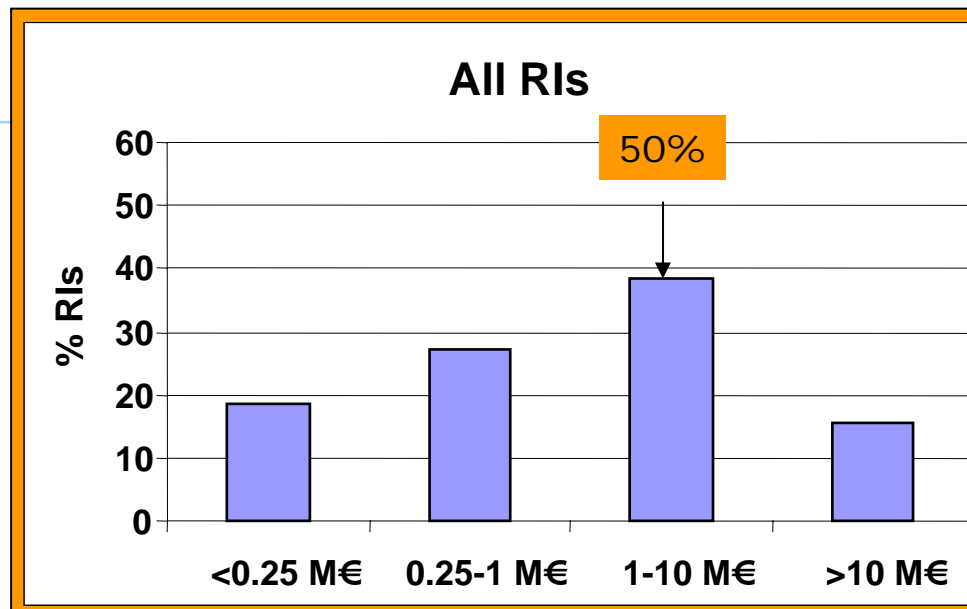
Breakdown of RIs with > 250 MEuros construction costs (56 RIs)



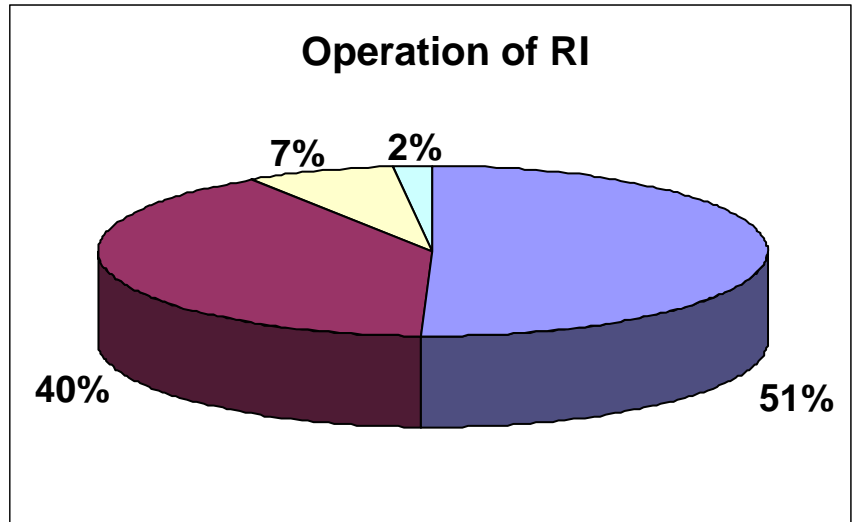
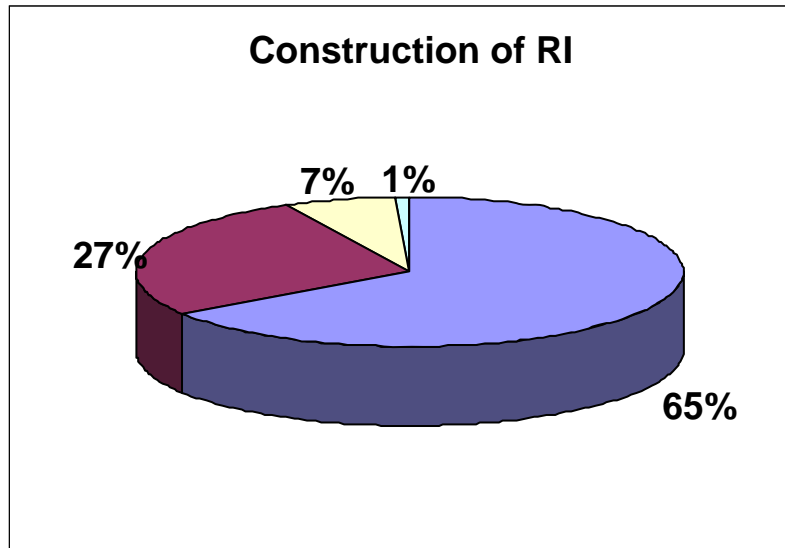
Operational costs

The most usual operational cost is 1-10 M€ a year in all domains

equivalent to a reasonable portion of the construction cost



Sources of Funding (All RIs) National vs International Funding



national only

international only

national and international

not specified (incl. private)

As expected, the survey shows that existing facilities have been supported mainly by national funding

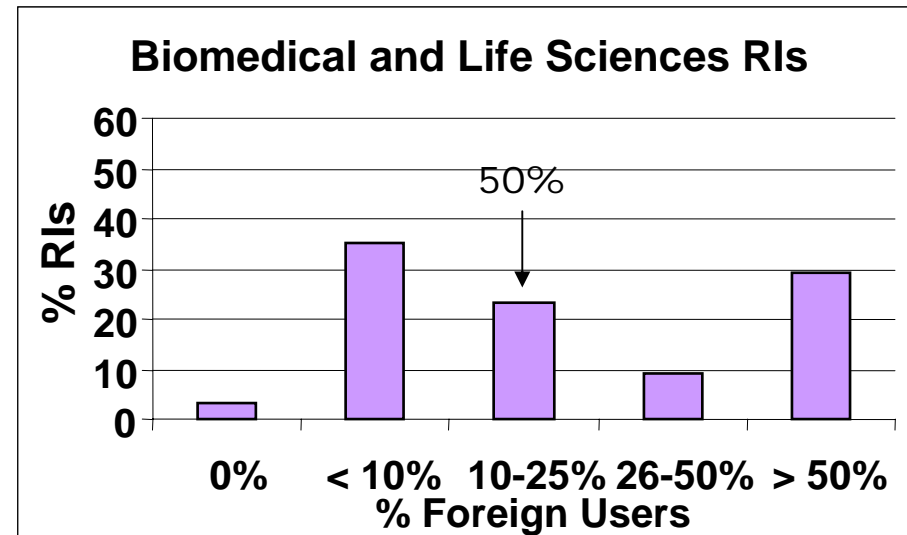
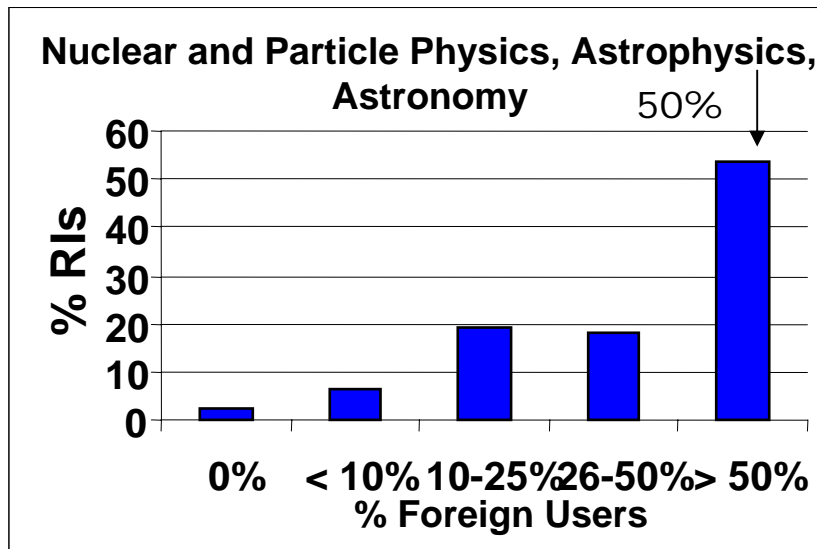
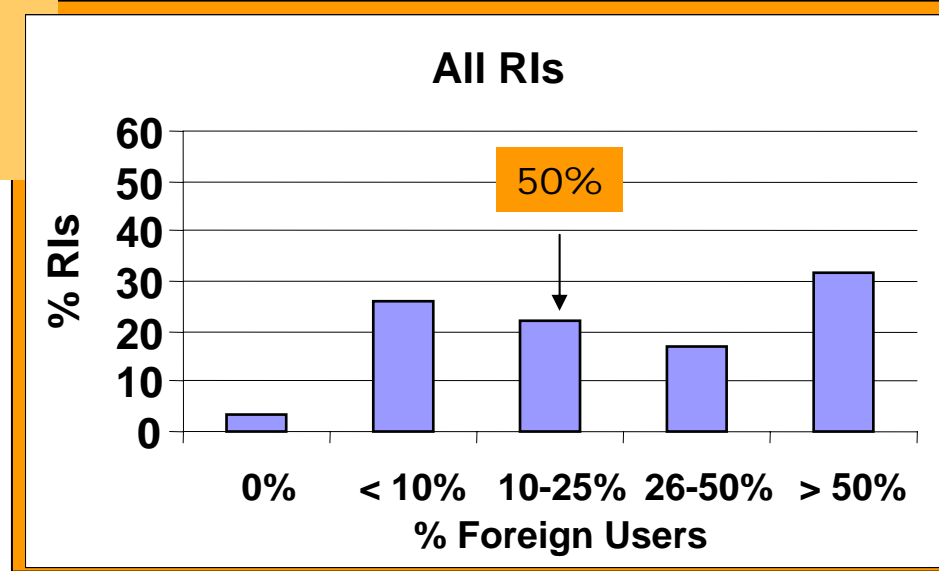
It also shows that their operation is more international than their construction...

*More than
 145.000
 external
 users per
 year*

Foreign Users

About 1/3 of all RIs have more than 50% foreign users among their external users ...

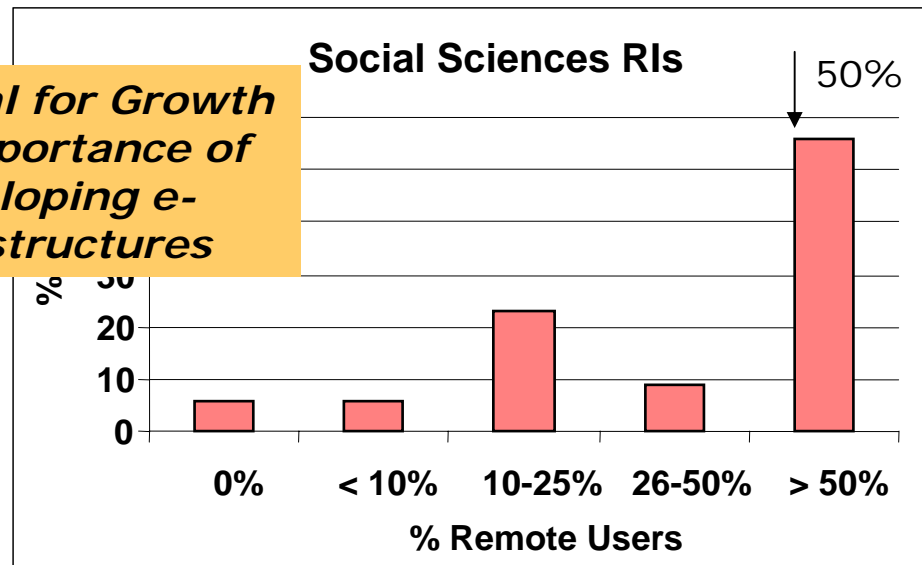
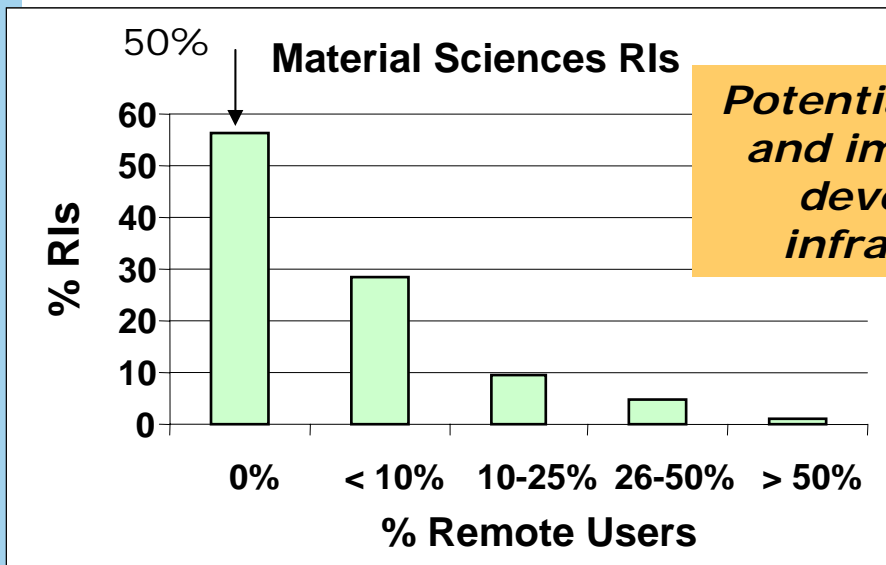
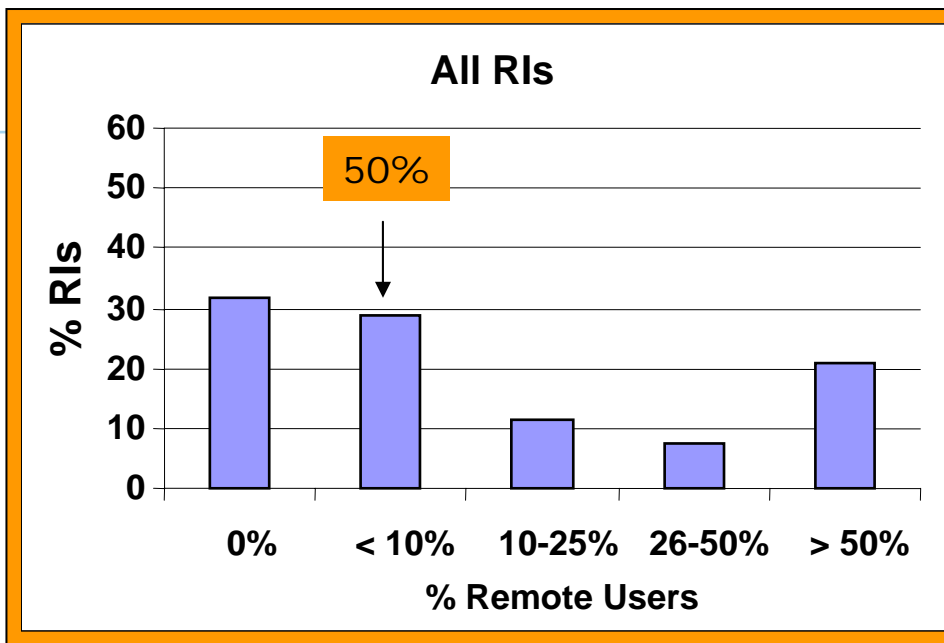
In physics, this share reaches 54% of RIs...



Remote users

For 60% of all RIs, 90% to 100% of the users are using the RIs on-site...

although, in the SS domain, internet is the preferred tool ...

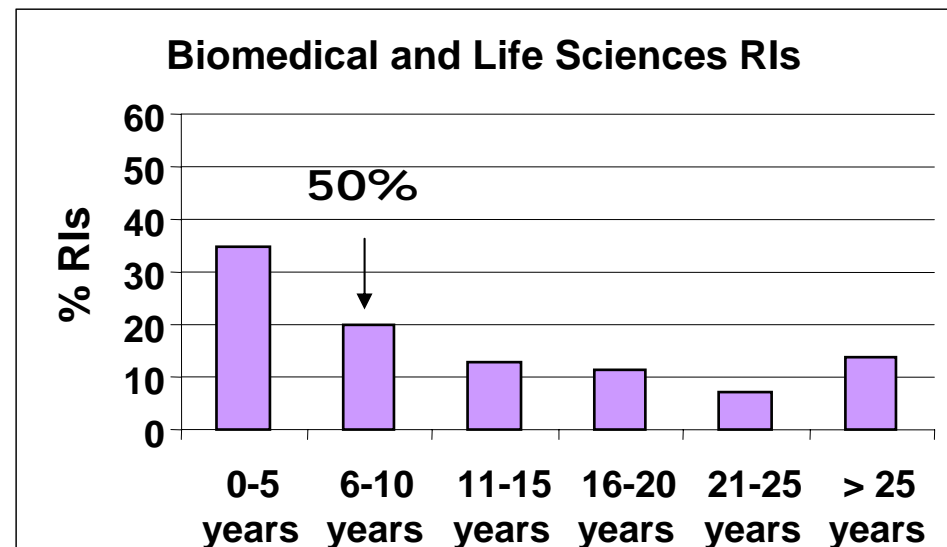
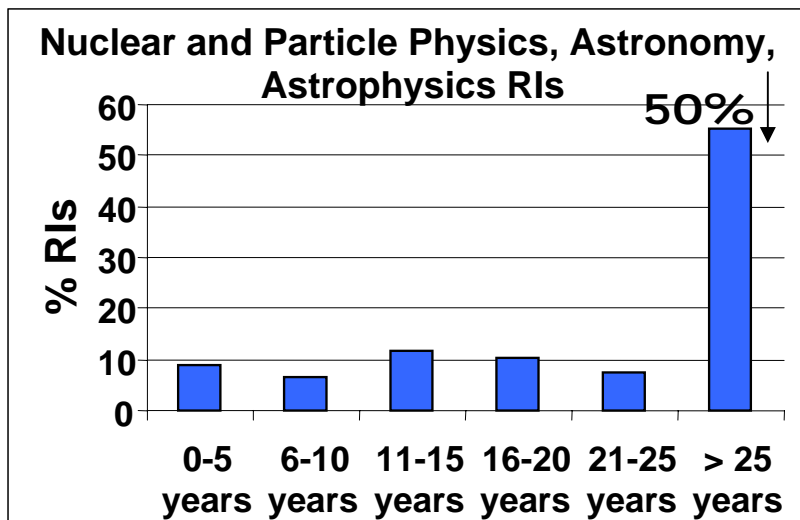
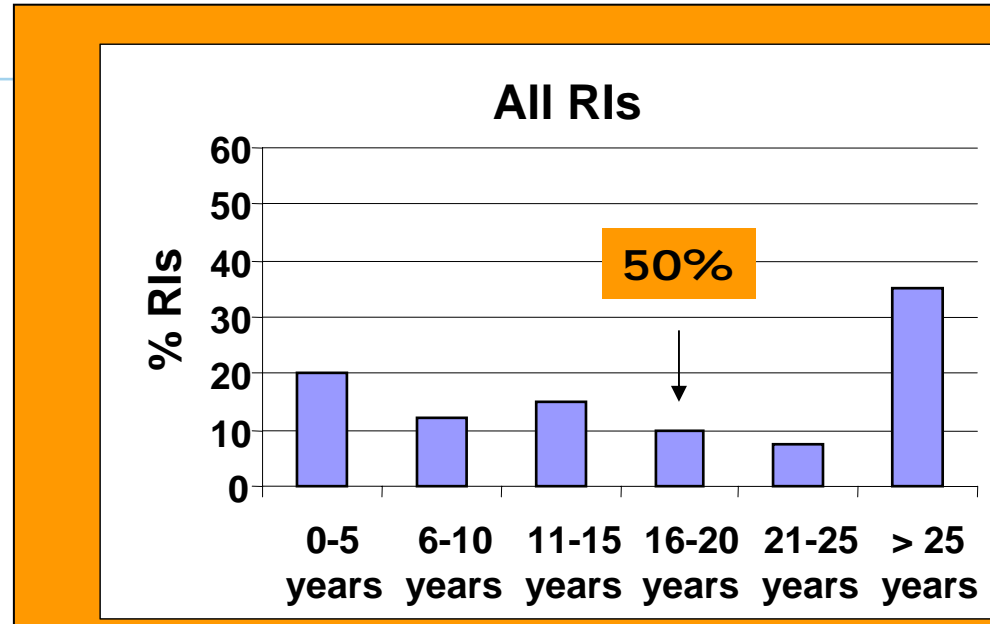


Potential for Growth and importance of developing e-infrastructures

Years in Operation

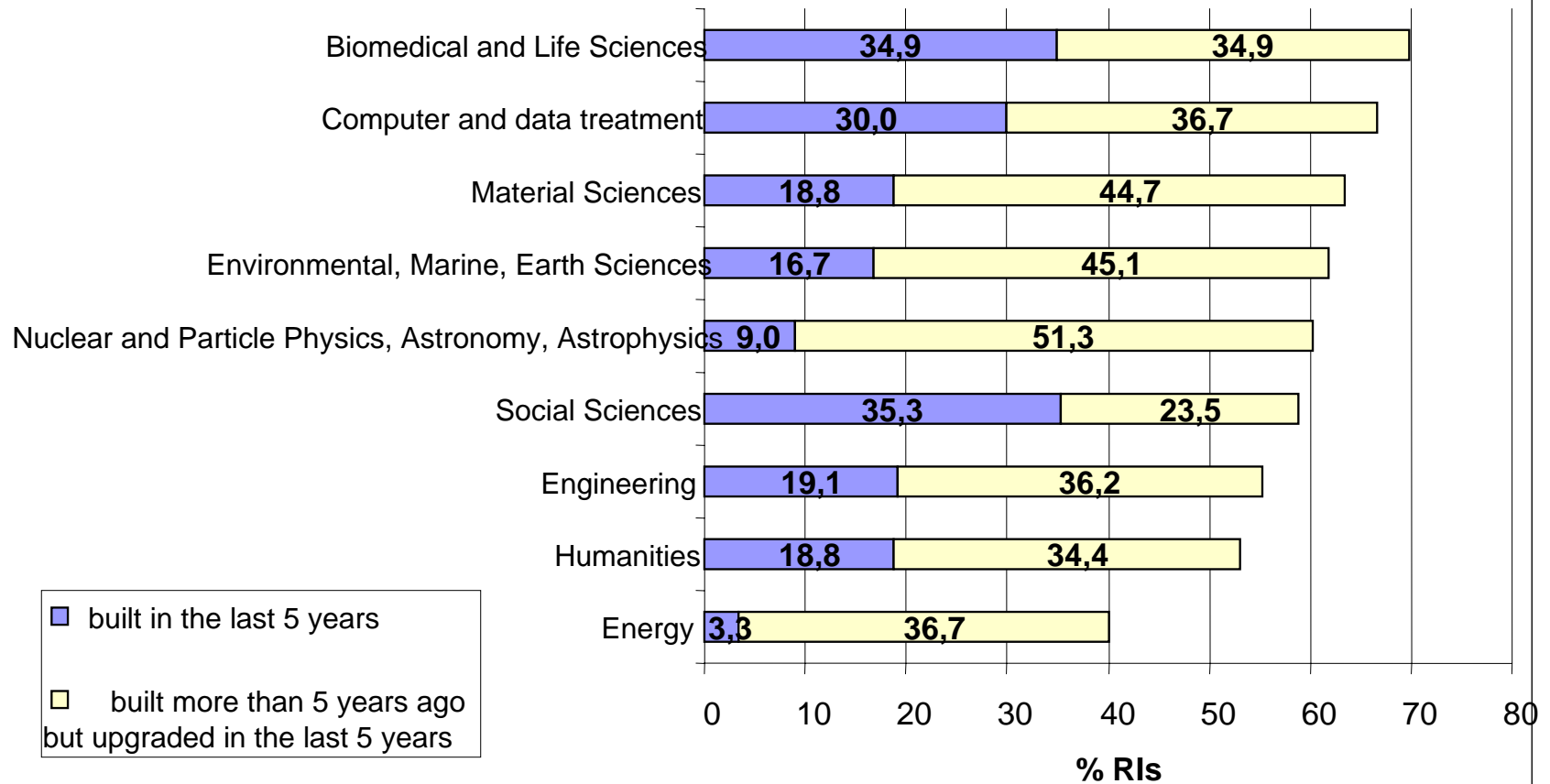
Quite mature facilities

The BMS domain is clearly the one which has developed most recently in Europe...

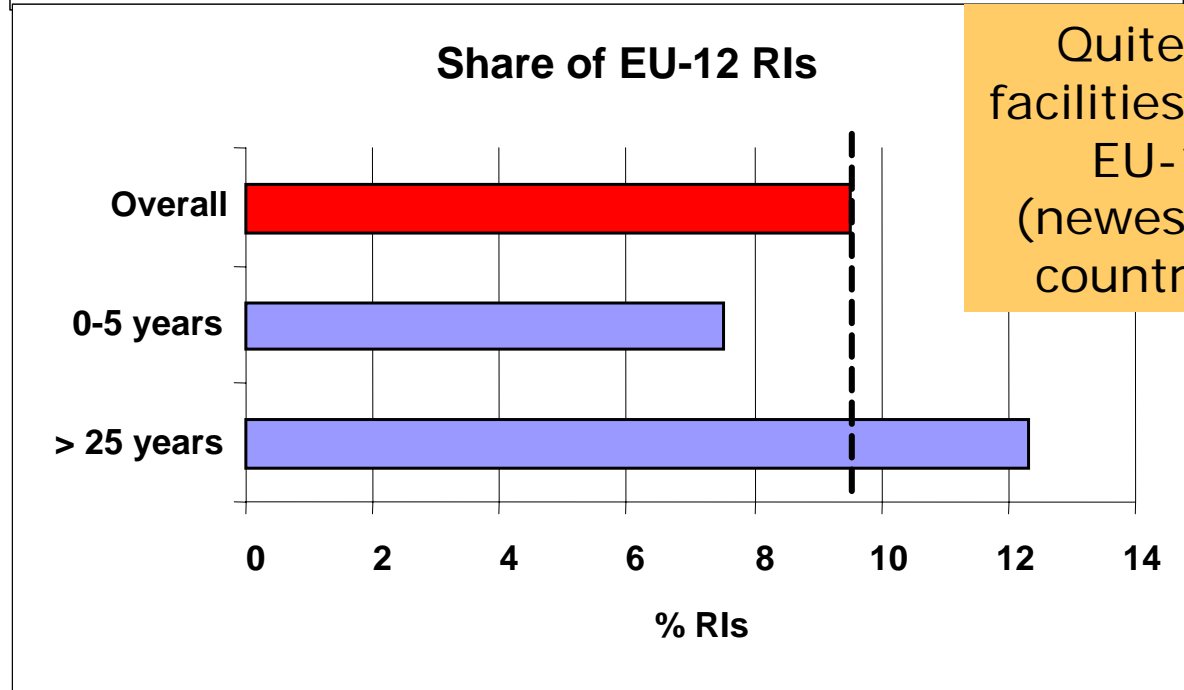
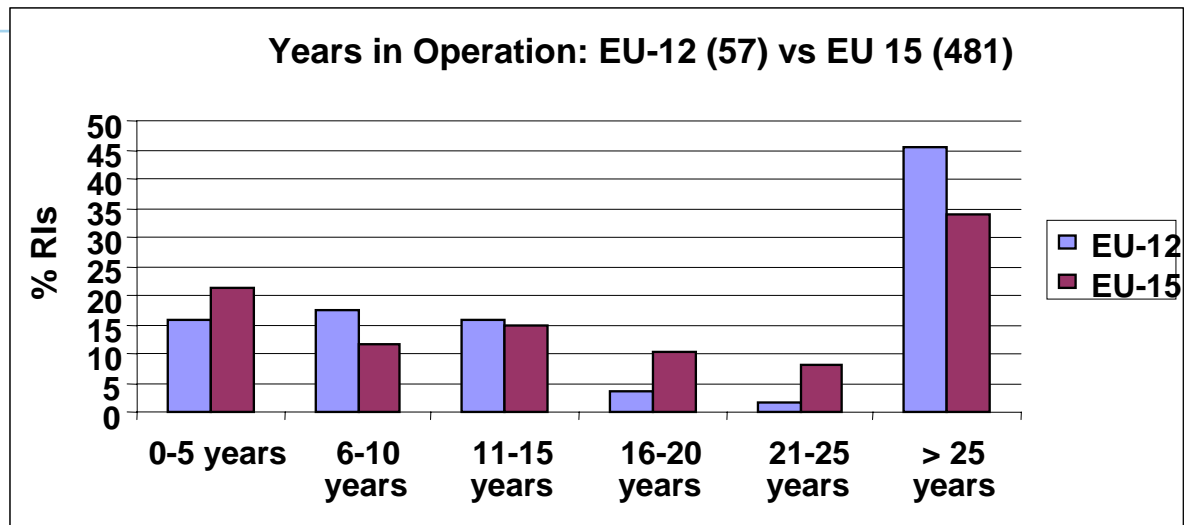


New & recently upgraded RIs..

Share of RIs Built or Upgraded in the Last 5 Years

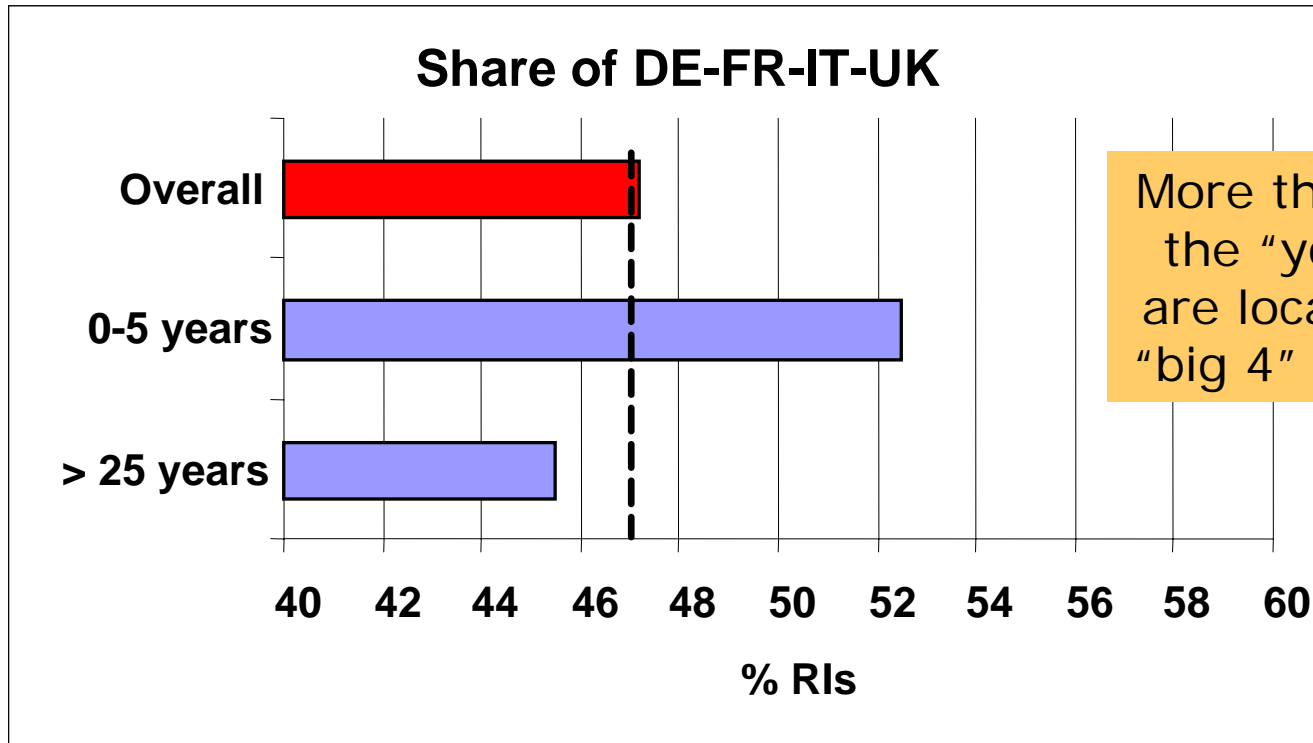


Quite a lot of renewal overall.



Quite old facilities in the EU-12 (newest MS) countries...

... the (DE-FR-IT-UK) Research Infrastructures are much younger...



More than 50% of the "young RIs" are located in the "big 4" countries...

What next ?

- **The survey should become basis for a more continuous monitoring of evolution of RI**
- **publication of the database as an online portal**
 - **online procedure of RI submission / validation / addition / update**
 - **access to the database for scientists & policy makers**
- **Database as a foundation for joint RI strategy & policy discussions for EC, ESF & EuroHORCs**

Some Anecdotes

- **“Call that a Survey?”**
- **“Call that an RI?”**
- **“I have a different definition of RI”**
- **“My survey has a different result to yours”**
- **“What about this or that RI YOU have missed?”**
- **“My country/organisation/discipline is not properly represented!”**
- **“These validators are not qualified to ...”**
- **“I’m worried somebody may use this information!”**