

Elsevier Research Intelligence

# National Research Assessment Exercises: the Portuguese case study

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## Purposes of a research assessment exercise

### Advocate

- to demonstrate the benefits of supporting research, enhance understanding of research and its processes among policymakers and the public, and make the case for policy and practice change

### Show accountability

- to show that money and other resources have been used efficiently and effectively, and to hold researchers to account

### Analyse

- to understand how and why research is effective and how it can be better supported, feeding into research strategy and decision-making by providing a stronger evidence base

### Allocate

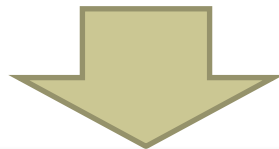
- to determine where best to allocate funds in the future, making the best use possible of a limited funding pot

See: Guthrie S., Wamae W., Diepeeven, S., Wooding S., Grant J., *Measuring Research. A guide to research evaluation frameworks and tools* – RAND Europe, July 2013.





# Design of the research assessment exercise

## Specific objectives





 **build research capacity**  
**internationalize research**   
 **increase quality**  
**promote economic impact** 



## Multidimensionality

 <b>production</b>	 <b>societal impact</b>
 <b>quality</b>	 <b>efficiency</b>

## Non functional requirements

-  **transparency**
-  **ease of use**
-  **sustainability**
-  **acceptance**

# Selection of the approach to evaluation

**Bibliometric analysis**



**Informed peer review**

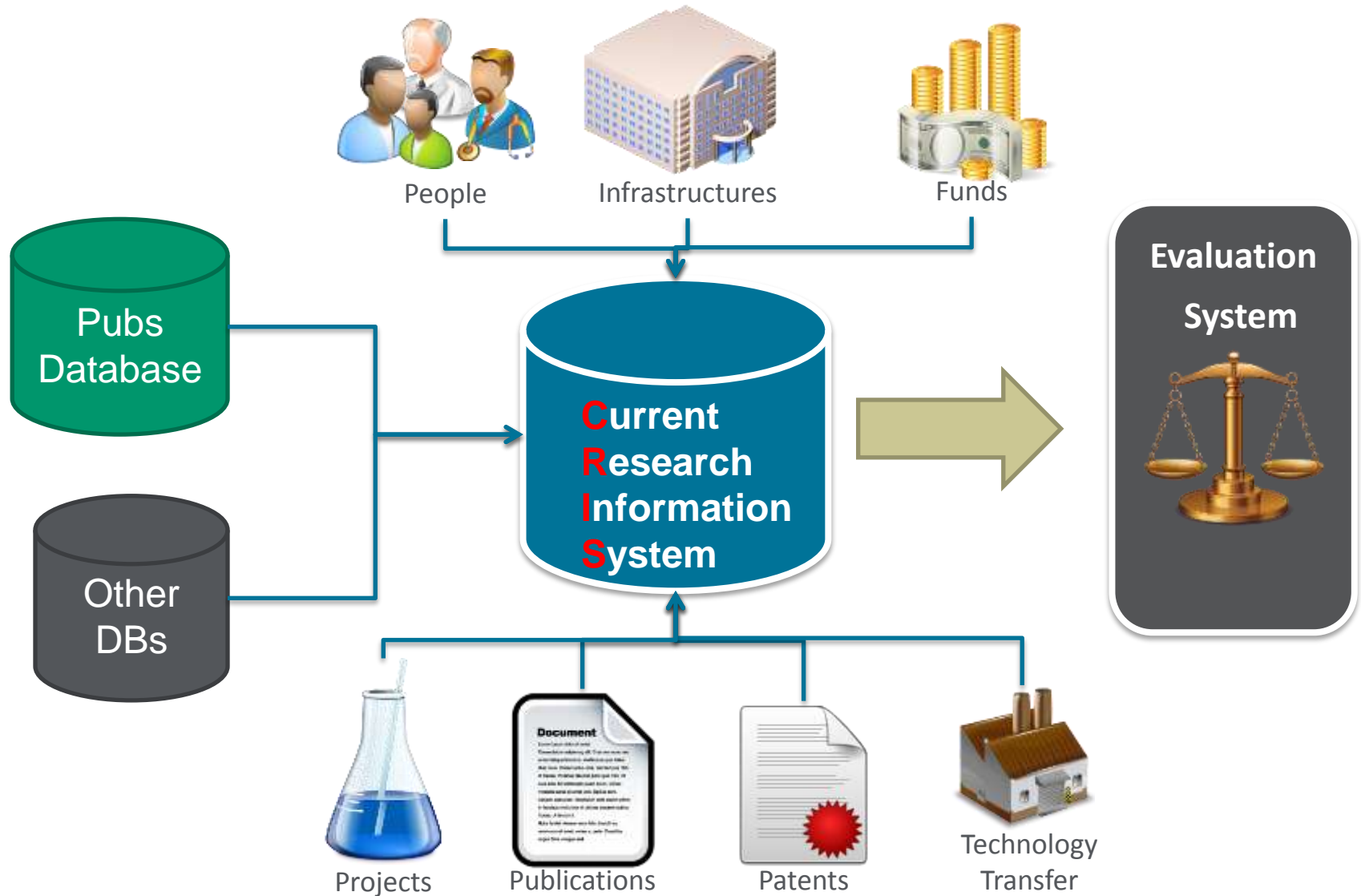
- Easy to use
- Cheap
- Timely
- Not equally applicable to all domains
- It might generate opportunistic behavior



- Well accepted within the scientific community
- Applicable to all domains
- Lengthy
- Costly
- Subjective



# Tools and Data



# Scopus increasingly being used to support national research assessment exercises



# Case Study: The Portuguese National Research Assessment

# Fundação para a Ciência e a Tecnologia (FCT)

National funding agency for science, technology and innovation, under responsibility of the Ministry for Education and Science

FCT funds and evaluates key R&D units across Portugal, as well as project grants, research infrastructures and individual researchers.

In 2013 FCT invested 423.8M EUR in Research

Five-year reviews of R&D units performed since 1996. Last run: 2013 / 2014





# The research assessment exercise

## Aim of the exercise

- Allocate funding to R&D units based on both productivity and quality

Period under consideration: 2008 - 2012

## Methodology


- Informed peer-review. Units submit reports and activity plans. Bibliometric analyses used to support the evaluation process.

## 6 Panels including international reviewers

- Exact Sciences
- Engineering Sciences
- Health and Life Sciences
- Natural and Environmental Sciences
- Social Sciences
- Humanities

47 Scientific areas

## Bibliometric indicators

Indicator	Metrics	
Scholarly output	Number of outputs	
	Number of outputs per FTE	
	Number of outputs per subject area	
Citation count	Number of citations	
		
Outputs in Top Percentiles	Number of outputs	
	Top 1%	Percentage of total outputs
	Top 5%	Number of outputs per FTE
	Top 10%	
	Top 25%	
Collaboration	Number of outputs	
	National	Percentage of total outputs
	International	Number of outputs per FTE

# An innovative approach:

# ORCID

**Scopus ORCID**

1 | Select profiles   2 | Select profile name   3 | Review publications   4 | Review profile   5 | Send Author ID   6 | Send publications

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Please select all profiles that contain publications authored by you and click the next button to continue.

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All	Authors	Documents	Sorted area	Affiliation	City	Country		
1	<input type="checkbox"/>	<input type="checkbox"/>	Schaert, Marco	26	Mathematics, Engineering, Decision Sciences, Business, Management and Accounting, Computer Science, Biochemistry, Genetics and Molecular Biology	Università degli Studi di Roma La Sapienza	Roma	Italy

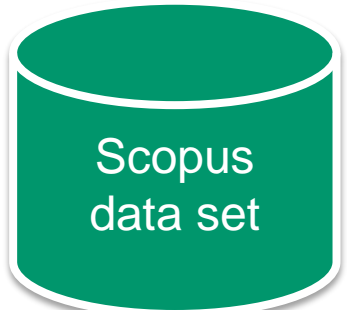
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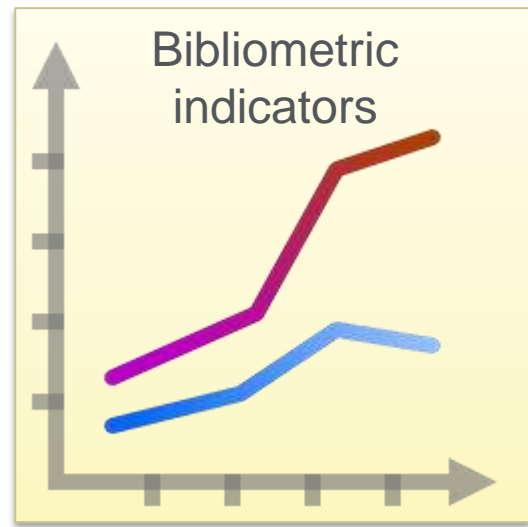
1



2



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## Figures & timeline

324 R&D Units

> 15,000 researchers

~ 70,000 publications

378 reports to be delivered

Start date: 15/11/2013

Final deadline: 17/02/2014



## Summary

National research assessment exercises are a powerful tool for analyzing the performance of a country's research system, advocate for more resources and allocate the existing ones properly

The design of the methodology and the choice of tools is critical for success

Bibliometrics can be a valuable approach to make such exercises transparent, affordable, repeatable

Scopus is considered by funding agencies and government bodies an authoritative data source to inform research strategies and evaluate outputs

A centralized research management system is a key infrastructure not only to support research assessment exercises, but as a strategic planning and monitoring tool

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**Thank you!**

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