Statistics for R&D&I policies
Challenges and cooperation

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Présentation

Le Centre national de la recherche scientifique est un organisme (Établissement public à caractère scientifique et technologique, placé sous l'Éducation nationale, de l'Enseignement supérieur et de la Recherche), l'organisme de recherche et de développement de l'éducation nationale.

Sa gouvernance est assurée par Alain Fuchs, président du CNRS, assisté de Marie-France Pérot à la science, Christophe Coudroy aux ressources propres, une implantation sur l'ensemble du territoire national, le CNRS exerce son influence dans les champs de la connaissance, en s'appuyant sur plus de 1 100 unités de recherche.

Avec plus de 32 000 personnes (dont 24 617 statutaires - 11 106 chercheurs, 10 496 ingénieurs, 2 415 techniciens et administratifs), un budget pour 2015 de 3,3 milliards d'euros dont 769 millions de ressources propres, une implantation sur l'ensemble du territoire national, le CNRS exerce son influence dans les champs de la connaissance, en s'appuyant sur plus de 1 100 unités de recherche.

Start / Research funding / Apply for grants / The Swedish system of research funding

The Swedish system of research funding

Sweden is among the nations worldwide that devote the most money on research relative to its population. Sweden's expenditures for R&D as a percentage of GDP.

The business sector accounts for around 70 percent and the higher education sector for 27 percent of this spending. Companies largely fund their own research and development, while the government and abroad fund some contributions.

Public sector research funding

The public sector finances R&D through grants paid directly to higher education institutions, or ICT and through ongoing and new research programs. R&D expenditures.

In 2015, the Member States of the European Union (EU) spent all together almost €300 billion on R&D, of which €199 billion was spent on private R&D (R&D). The R&D intensity, i.e. R&D expenditure as a percentage of GDP, stayed the same as in 2014. Ten years ago (2005), R&D intensity was 1.74%.

With respect to other major economies. R&D intensity in the EU was much lower than in the US.
Policy initiatives driven by evidence

Europe-2020 Headline Target
- 3% R&D

Scoreboards and publications
- European Innovation Scoreboard
- ERA Roadmap indicators
- Reports on...

But also breakdowns of headline indicators
- Sector, branch, gender, seniority, Regions, etc.

Aims: Understanding & comparing systems – benchmarking and progress
Strategic intent of statistics: Matching technical rigour to policy relevance

Data Providers (Statisticians)  Data Users (Policy Makers)

Need to improve dialogue


Getting appropriate Buy-in
Incentives to use evidence

Reliable Data  Improving “usability” of evidence  Effective Dissemination  Wide Access

EIS 2017
Proposed changes to Measurement Framework

• 4 major blocks of indicators
  1. Framework conditions
  2. Investments
  3. Innovation activities
  4. Innovation impacts

• Novelties:
  - "Innovation-friendly environment" (digital and entrepreneurship)
  - Focus on data relevance, quality and timeliness
  - Analyses of impact of differences (MS size, industry structure)
  - Number of indicators increased to at most 30
  - Big data for forward-looking section

• Planned release: June 2017, together with RIS
Production of official statistics

• R&D and Innovation statistics
  • Surveys (traditional) and some administrative data
  • International manuals: R&D (Frascati, OECD) and Innovation (Oslo, Eurostat & OECD)

• Following financial and economic crisis 2008-09
  • Need to extend usage of Administrative data
  • And explore Big Data and other sources

• Maintain Quality Criteria
  • Relevance, reliability/comparability, timeliness, burden on respondents and costs
Administrative versus survey data

Data from administrative sources
- E.g. when setting up national or EU funding programmes
  - Foresee reporting needs (administration)
  - Ensure comparability and reliability (statistics)
- Result: Cost-effective – less burden and lower cost

Data from business surveys (e.g. on innovation)
- Set priorities, support NSIs in data collection, quality, timeliness (other statistics are also important)
Council Conclusions of 29 May 2015 on ERA Roadmap

2015: **ERA roadmap** - core high level indicators for monitoring and performance

A limited set of high level indicators:

- **Politically relevant for measuring progress**
- **Should not require large amounts of additional interpretative material**
- **Output/outcome indicators preferred to input ones**
- **One high level indicator per priority in Roadmap**
- **Indicators also available for Associated Countries**
- **Avoid additional burden on national administrations, stakeholders and other relevant actors**
Conclusions

• Dialogue between policy makers, data providers, and data producers needed
  - Use readily available data, such as citations, patents if relevant
  - Use administrative data
  - Only use surveys where no other source is available

• Data collection and processing is costly - Support National Statistical Institutions (NSIs)
Thank you very much!

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