Mapping the funding portfolio of research funding agencies
A pilot study among 5 funding agencies

Frank Bingen
Outline

1. Participants of pilot mapping exercise
2. Schemes / instruments
3. Methodology
4. Questions asked
5. Conclusion
6. Some literature
Participants

1. Austria: FWF
2. Germany: DFG
3. Luxembourg: FNR
4. Turkey: TUBITAK
5. UK: BBSRC
1. Responsive mode (Projects and programmes)
2. Career development instruments
3. Centres of excellence
4. Thematic Programmes
5. Knowledge transfer / Cooperation with industry
6. Infrastructure
7. Others
Methodology

1. Overview of instruments via external information
2. Confirmation of information on instruments by organisation
3. Focus on 7 most important instruments
4. Written questions on evaluation practices
5. Preliminary conclusions (based on 5 organisations)
6. No interviews at this stage (to be done later)
   - Clarify objectives and intervention logic
   - Understand respective research environments
   - Understand organisational specificities and procedures
   - Reach common terminology
<table>
<thead>
<tr>
<th>Matrix: scheme / organisation</th>
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</thead>
<tbody>
<tr>
<td><strong>Responsive mode</strong></td>
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<tr>
<td><strong>AT - FWF</strong></td>
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<tr>
<td>Individual Projects</td>
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<td><strong>DE - DFG</strong></td>
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<td>Individual Grants</td>
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<td><strong>UK - BBSRC</strong></td>
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<td>Project Grants</td>
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<td><strong>TR - TUBITAK</strong></td>
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<td>Research Project</td>
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<td><strong>LUX - FNR</strong></td>
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<td>Short term project</td>
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| **Career Development**        |
| **Erwin-Schrödinger**         |
| Research Fellowship           |
| **Lise-Meitner**              |
| Temporary position for PI     |
| **Elisabeth-Richter Programme**|
| Emmy Noether                  |
| **Hertha-Fleming Programme**  |
| Heleneberg                   |
| **Doktorstipendie**           |
| NIH-DFG Research Career      |
| **German Research Council**   |
| Transition Awards Program     |
| **Scientific Networks**       |
| **Research Training Groups**  |

| **Centers of Excellence**     |
| Special Research Programmes   |
| National Research Networks    |
| **Collaborative Research**    |
| Centers                     |
| DFG Research Centers         |
| Humanities Research Centers  |
| **Networking**               |

| **Thematic Programmes**       |
| Priority Programmes           |
| Managed Mode                 |

| **Knowledge transfer; cooperation with industry; commercialisation of research results** |
| **Translational Research Programme**      |
| Trans-Regio                           |
| **LINK**                              |
| Industrial Partnership Awards         |
| **Follow on Fund**                    |
| **Technical Innovation**              |

| **Conferences/Congress/workshops** |
| Conference and lecture trips         |
| International Scientific events     |
| **Roundtable discussions and Colloquia**|

| **Infrastructures / Instruments** |
| Scientific Instrumentation and    |
| Information Technology             |
| **Central Research Facilities**    |
| **National Facilities**            |
| (as part of the European grant)    |

| **[major] Prize**                  |
| **Wilhelm-Prize**                  |
| **Start - Program**                |
| Gotthard Wilhelm Leibniz Programme |
| Hans Meer-Prize                    |
| Albert Maucher Prize               |
| Bernhard Riecke Prize              |
| Ursula M. Händel Animal Welfare   |
| Prize                              |
| **von Kaven Awards**               |
| Communicator Award                 |
| **Eugen und Else Selbatti Prize**  |
| Copernicus Award                   |
| **EURYI Award**                    |

| **Best scientific publication**    |

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**Fonds National de la Recherche Luxembourg**
Questions

1. Do you do evaluations of this specific type of instrument?
2. If NO, please write a short explanation on why your organization is not doing any evaluations.
3. What kind of evaluations do you do (ex-ante, mid-term evaluation, ex-post)?
4. How regularly do you do those evaluations?
5. What methodology do you use for evaluating the instrument?
Questions

6. Which is the objective for doing evaluations in your organization?

7. Which aspects are you mostly interested in the evaluations you do?

8. What kind of indicators are you collecting in these evaluations (e.g. quality and quantity indicators)?

9. Conclusion and suggested modifications compared to the actual practice for this specific instrument (right level of evaluation, too much, too little)

10. Please provide a short explanation for your choice.
Do you do evaluations of this specific type of instrument? What kind of evaluations do you do?

– All agencies evaluate all types of schemes or plan to do in the near future (even if some specific instruments are not evaluated)
– Ex-ante, mid-term, ex-post
– Differences among agencies on the use of evaluations
  • Different understanding of ex-ante evaluation (e.g. for project selection / foresight for programme definition) and mid-term evaluation (e.g. monitoring of project / mid-term evaluation of programme)
  • Differences depending on level of evaluation (financing within the schemes vs. the schemes themselves)
How regularly do you do those evaluations?

– Differences for financing within the schemes and the schemes themselves
  • Financing decisions are more regularly evaluated
  • Some schemes are not regularly / not at all evaluated

– Differences in the level of information provided (schemes vs. financing decisions within the schemes)

– Depending on the scheme (e.g. Responsive Mode vs. Thematic programmes)

→ Regularity depending on schemes and organisational structure of funding agencies (e.g. external vs. in-house)
What methodology do you use for evaluating the instrument?

- In-house data analysis
  - Data from monitoring/final reports
  - Questionnaires to beneficiaries / peer reviewers
  - Interviews with beneficiaries

- Scientometrics / bibliometrics

- Peer reviews

- Expert / peer panel

- External evaluations (by evaluation experts)
  - Often using a combination of the methodologies above
  - Including interviews with end-users / stakeholders

→ Methodologies do not depend so much on the scheme but on the organisation (e.g. external vs. in-house)
Which is the objective for doing evaluations in your organization?

- Accountability and transparency in the use of public money
- Identify outputs and achievements
- Legitimisation of the funded activities
- Improvement of the quality, the efficiency and effectiveness of activities
- Steering the scheme (mid-term evaluations)
- Decision to continue the scheme
- Organisational learning
- Forum for policy debates

→ Formative and summative purposes (Scriven 1967)
  - Formative: internal purpose: to improve
  - Summative: external audience: to justify
Which aspects are you mostly interested in the evaluations you do?

- Statistics on outputs
- Scientific performance
- Career development
- Efficiency and effectiveness of the scheme
- Relevance and sustainability
- Implication beyond the scheme (other branches of science)
- Economic and societal impact

→ Different focus of the agencies
→ Different objectives
  - Purely science focused >> societal impact
    → different intervention logic
    → different function of evaluation
What kind of indicators are you collecting in these evaluations (e.g. quality and quantity indicators)?

- Scientific and non-scientific publications
- Intellectual property
- Spin-Off companies
- Career development (Diploma, PhDs, Post-Docs, habilitations, etc.)
- Long list of indicators for career development
- Conference participations,
- Collaborations, networks, partnerships
- Effects of the project outside the scientific field
- Cooperation with agencies (FWF)
- Policy outcomes
- Follow on funding
- Contribution to public engagement

→ Qualitative & quantitative data
→ Not always thought beforehand what indicators would be needed
Conclusion and suggested modifications compared to the actual practice for this specific instrument

- Different conclusions by the agencies (depending on scheme)
- No one considered to have too much evaluation
- Improve the data collection of publications
- Implement programme evaluation in regular intervals (e.g. FWF: 5-10 years / FNR: continuous evaluation of thematic framework programme)
- Showing impact of scheme, necessary for policy debate
Conclusion (1)

- Funding schemes are comparable
  - Not all schemes present in all countries
  - Potential for jointly conducted / synchronised ex-post evaluations

- Evaluation is used in all the agencies
  - Differences in types of evaluation, regularity and objectives

- No one considered to have too much evaluation

- Different terminology among agencies
  - Pay attention when synchronizing ex-post evaluation

- Difference in size, age and structure of organisation has an impact on evaluation practices
  - In-house evaluation department vs. External experts
  - Developing research environment vs. Mature environment
Conclusion (2)

- Sometimes schemes have been developed, without thinking of how to measure success (indicators) → not thought on how ex-post evaluation will be done
- Different objectives (between schemes / agencies)
  - E.g. purely science focused > societal impact
- Different objectives → different intervention logic (maybe not always explicit) → different function of evaluation practices
- Showing impact is becoming more and more important
  - Use of external evaluation experts
  - In line with findings of academic research in this area
Research quality has become an increasingly sophisticated concept and research is no longer evaluated based on the sole criterion of its contribution to knowledge.

This implies that research evaluation has evolved from the traditional peer review system to a system involving growing numbers of criteria and accommodating social, environmental and economic considerations.

Some literature (1)

Some literature (2)

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