



OECD Global Science Forum

International workshop on
**“Effective Operation of
Competitive Funding Systems”**

Paris, 12 October 2016

Preliminary survey feedback





Questionnaire feedback (1)

National funding systems

- Generic information provided from 10 countries.
- Share of competitive funding and evolution:
 - Large heterogeneity (historical and cultural differences); from about 20 to 80+ %
 - No clear global trend for increase but shift towards competitive funding in central/eastern Europe in recent years
 - Possible trend towards more competitive funding for institutions



Questionnaire feedback (2)

Basic funding mechanisms information

- Information provided on 63 funding mechanisms from 17 countries. Some heterogeneity in the feedback details but globally very informative .
- Two general categories of mechanisms: project/PI-oriented (but some fund individual researchers) and research centres-oriented (but can also include funds for universities). Further analysis required to identify subcategories.
- Large diversity in grant sizes and in general programme total fund available but PI-type projects usually provide grants of about 2-500k€ and institutions-types are more in the range of 1-3M€+
- Success rate is heterogeneous:

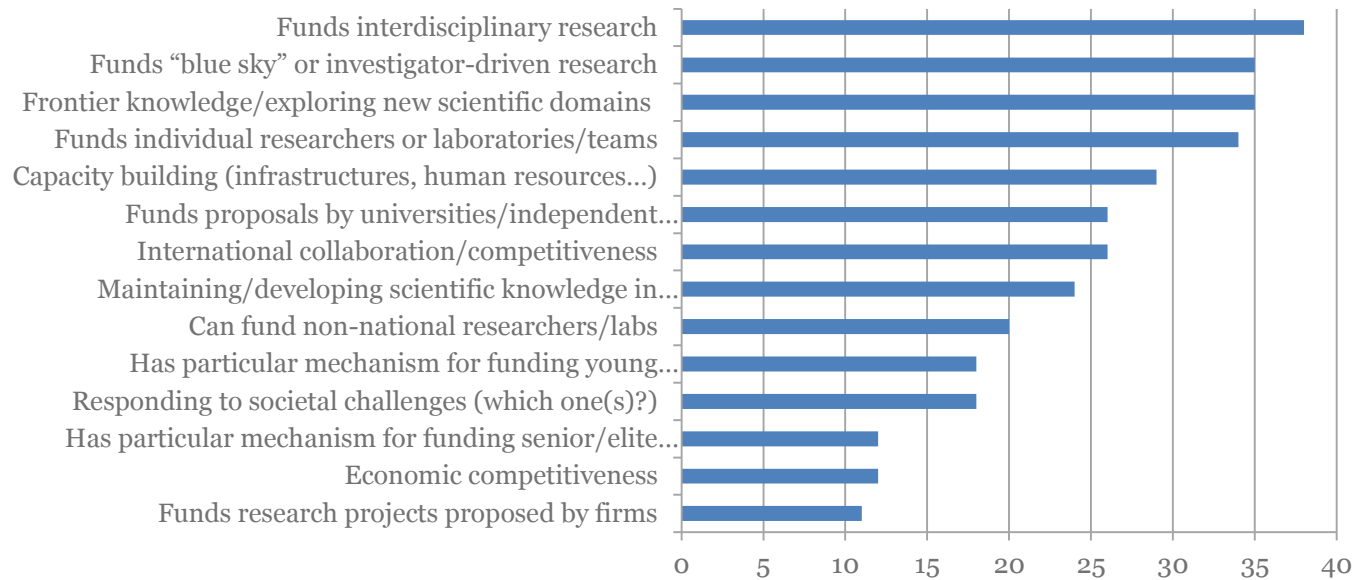
1-10%	10-20%	20-30%	30-40%	40-50%	50%-	100%
6	23	8	9	4	2	3

- No obvious link between size, number of applications and success rate, but two-stages screening increases final success rate
- Operation costs not always clearly defined nor use the same definition



Questionnaire feedback (3)

Goals of the funding programme

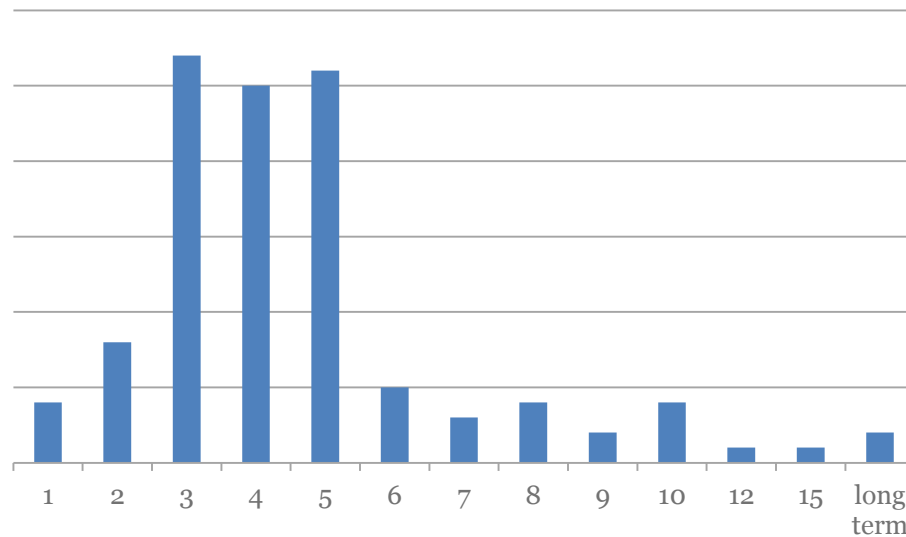




Questionnaire feedback (4)

Nature of the funding awarded

- Grant duration usually between 3-5 years



- Grant size varies a lot but PI-type projects usually provide grants of about 3-500k€ and institutions-types are more in the range of 1-3M€+
- Cofunding required for about half of the programmes, very heterogeneous requirements
- Various overheads policy



Questionnaire feedback (5)

RFP process (1)

RFP Process	
Proposal frequency	Calls for individual funding are typically made at least once a year, sometimes on a rolling basis. Calls for institutions are usually less frequent.
Time duration between publication of RFP and submission deadline	Extremely variable: 2-3 month on average, but can be as short as 15 days and up to 6-10 month. Duration tends to be longer for larger/institutional projects (but not systematic); some 2 steps mechanisms have a 3+3-4 month.
Review approaches	The majority of funding schemes have identical reviewing procedures for all applications. A number of schemes implement specific approaches for young PI/applicants. Specific/focused grants may be reviewed separately (similar for interdisciplinary schemes). For some schemes, different panels (either domain-specific or science- and impact-specific) may advise the decision panel.
Criteria for evaluation/ Weighting system	<p>There is a large diversity of criteria used, with some core ones:</p> <ul style="list-style-type: none">- scientific excellence/merit is always used (often based on international comparison); scientific novelty may also be considered/included- impact is often used but with different meaning: impact on the scientific field, socio-economic impact/technological impact, impact for the country (scientific or broader); Impact will usually have higher weight in more targeted funds- international dimension/excellence is relatively common- team (quality/track record) and management quality (feasibility) are not always a criteria (about 50%)- impact on human resources issues (training, new researchers, gender etc.) is not often used (maybe 30%) <p>Weighting system is used in a significant minority of schemes. When so, scientific excellence is usually top criteria, but there is a fairly heterogeneous range of policies.</p>



Questionnaire feedback (6)

RFP process (2)

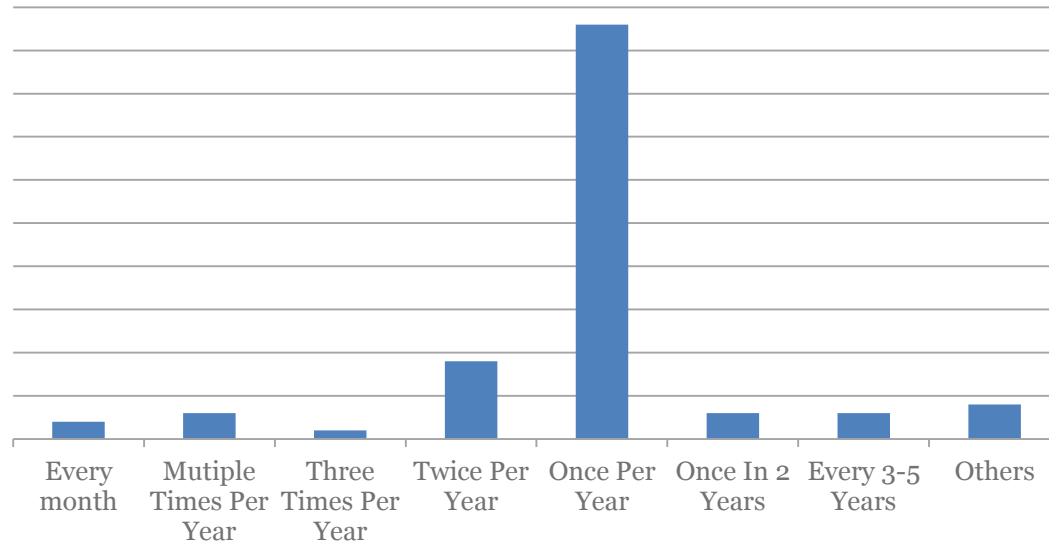
Conditions for international participation	<p>Usually, foreign nationals must carry out their research on the funder's country to be able to apply/benefit from funding. In most cases they must belong to a national institution.</p> <p>English is increasingly used to submit proposals in European countries.</p> <p>A small number of funds are closed to non-national.</p>
Innovative processes	<p>A number of schemes use two steps procedure, the first step to ensure scientific quality (increasingly using international input) and the second one being more related to the strategic objectives of the fund.</p>



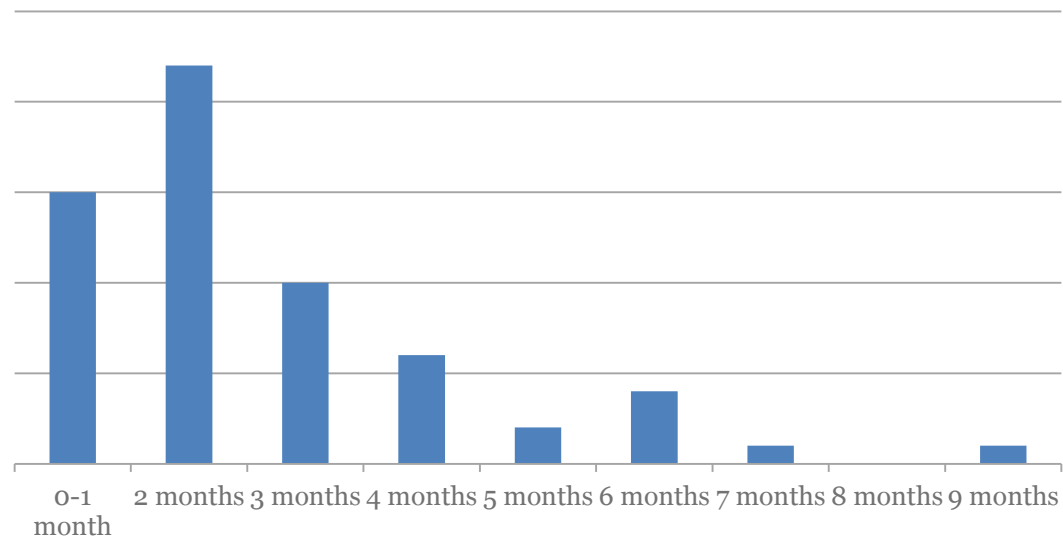
Questionnaire feedback (6)

RFP process (3)

Proposal frequency



Call time duration





Questionnaire feedback (7)

Evaluation process (1)

Evaluation Process

Initial screening

About half of the funding schemes have an initial screening step, but this can be based on very different approaches:

- Purely administrative eligibility criteria (1-10 % rejection)
- First step/outlines of the project may be screened internally by the funder (up to 75% rejection). However, this process is not always very transparent.

Individual reviewer choice and tasks

Reviewers may receive very different numbers of proposals to review (3 to 20+). Each proposal may also be reviewed by various numbers of reviewers (usually 2 to 5).

International reviewers are very often used in smaller countries.

Reviewers are recruited through various means: open call, lists, previous reviewers (sometimes with a minimum % of turnover), nomination by the panel chair.... There can be a mix of internal and external reviewers.

For external reviewers, there is a 25-45% acceptance rate TBC).

Proposers are rarely given the opportunity to respond to reviews.

Review panels/committees

The large majority of funding schemes have review panels/committees. They are usually advisory and not decision making (with exceptions).

They usually propose a ranking of the proposals, often with qualitative recommendations.

They often can make funding propositions.



Questionnaire feedback (8)

Evaluation process (2)

Evaluation Process

Appeal system

Only a minority of funding schemes have an appeal system. It is usually an administrative procedure, but a few schemes also have a mechanism that allow for a review of the substance of the proposal by either the same reviewing panel or by a different group.

Innovative processes

Very few.

Several existing mechanisms are undergoing major reform however.

A Danish funding scheme has experimented with a reduction of prescriptive elements in the calls and funding agreements to foster flexibility.

A Chinese initiative to foster very innovative proposals was carried out, with NSFC setting up pilot micro-grants within the funding scope of the GP mainly to support preliminary studies on new research ideas that have never been verified, and to explore emerging fields and interdisciplinary researches (those proposals often received low success rates in mainstream schemes). For normal funds, a proposal not retained by the majority of reviewers in the first instance may nevertheless be recommended based on strong novelty if at least 2 experts suggest it, and then it obtains a 2/3 majority in panel review vote.

A Belgium funding scheme includes panel (expert jury not affiliated to region institutions) interviews of applicants, preceded by a 5 min pitch.

Some schemes have modified their older mechanisms to introduce a majority of external/international experts in their review process.



Questionnaire feedback (9)

Analysis of the evaluation process (1)

Feedback only available for 12 funding programmes

Criteria	Comments
Management: <ul style="list-style-type: none"> • organisation • workload • staff number • competencies • external contractor need/use • external intelligence (matching funding programmes to needs) • Administrative cost 	<p>Time allotted for proposal preparation may be important to receive high-quality proposals (time between call and review).</p> <p>Going below a threshold of admin support/cost affects efficiency; post award administration needs are often underestimated: need for clear attribution of tasks (reviewing proposal and project management tasks are different things).</p> <p>A clear overall strategy for a funding body help proposers to better anticipate and fine-tune proposals.</p> <p>Entire proposal-review and decision-making process need to be clearly articulated in an easily accessible manner.</p>
Reviewers: <ul style="list-style-type: none"> • Competency (vs project to be evaluated) • Workload/time allocated • Conflicts of interest (incl. international panels) • Usefulness of comments 	<p>Keeping a % of similar reviewers from one year to another help continuity/coherence, but should avoid long term service.</p> <p>Various panel practices (face to face, virtual, mail reviewing...).</p> <p>Two step panel practice (virtual then reduced face to face) can reduce cost while keeping quality.</p> <p>Difficulties in recruiting industrial panellists.</p> <p>Trend to increased workload on panellists that can threaten assessment quality.</p>
Reviewing criteria (vs objectives), rejection details	<p>Different practices; allowing some flexibility at late stage for final decision (not just panel ranking) may help adjust proposal to objectives but requires transparency.</p>



Questionnaire feedback (10)

Analysis of the evaluation process (2)

Criteria	Comments
Scoring system	Peer review may have differential predictive capabilities for new applications and renewal grants.
Success rate (vs strategic objectives)	Sort of general consensus that success rate below 20% is problematic (but may vary a lot according to strategic objectives)
Gender/minority	Data not often collected;
Funds <ul style="list-style-type: none">• Amount vs needs• Grant duration• Flexibility (capacity to reallocate funds to different objectives within a grant)• Grant extensions	Contrasting trends in grant amounts. Grant duration often about 3 years, but reviews suggest 4-5y might be better (but contrasting evidence, depend on the type of recipients/objective).



Questionnaire feedback (11)

Monitoring and evaluation of impact (1)

- At this stage, it is difficult to differentiate information from monitoring and from impact analysis
- Feedback is from 13 funding programmes

Criteria	Comments
Scientific excellence: <ul style="list-style-type: none">• Bibliographic analysis, citations/impact factor...• Prizes awardees (national, international)• Impact on top groups/involve top scientists• Support new/innovative/breakthrough research• Attract additional funding• Synergies/interdisciplinarity	<p>Possible correlation between relative grant size and output, but other conflicting evidence... so need further investigation.</p> <p>Large number of PI may decrease output efficiency/cost-effectiveness (TBC)</p> <p>Large/complex project scope may decrease output efficiency.</p> <p>Discipline specificities in bibliographic analyses.</p> <p>Innovative research often difficult to quantify (qualitative assessments)</p>
International competition: <ul style="list-style-type: none">• Gap with competitors• Attracting overseas talents• International collaborations	<p>Possible correlation between international collaboration and bibliometric impact (TBC)</p>



Questionnaire feedback (12)

Monitoring and evaluation of impact (2)

Criteria	Comments
Human resources: <ul style="list-style-type: none">• Age distribution of recipients• Proportion of postgrad/PhD students in funded projects• Outcomes of grantees (academic career...)• Mobility• Gender ratio• Training	<p>Trend for increased younger grantees.</p> <p>Outcomes of grantees not often tracked. Difficult to evaluate impact of specific funding system on overall careers.</p>
Policy priorities: <ul style="list-style-type: none">• Meeting strategic challenges• Balance between disciplines• Fostering interdisciplinarity• Regional balance• Structuring the national research landscape	<p>Usually qualitative evidences or poorly significant indicators (i.e. nb of grants in specific domain/related to specific challenge; nb of department/institutions involved).</p> <p>Regional balance data are more informative.</p> <p>Impact on research landscape usually restricted to funds directed to institutions.</p>
Innovation/technology transfer:	<p>Difficult to find direct impact indicators (usually look at economic impact at larger scale); many qualitative assessment (success stories, questionnaire survey etc.)</p>