EUROPEAN SCIENCE FOUNDATION

Member Organisation Forum

ESF Survey Analysis Report on Peer Review Practices

European Science Foundation

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- Joint strategy development and strategic cooperation with regard to research issues of a European nature.
- Development of best practices and exchange of practices on science management, to benefit all European organisations and especially newly established research organisations.
- Harmonisation of coordination by MOs of national programmes and policies in a European context.

Acknowledgements

ESF is grateful to the Forum members and observers, in particular Thomas Zimmermann (SNF) and Christian Fischer (FWF), as well as for the special contribution of Katharina Fuchs-Bodde (ESF), Farzam Ranjbaran (ESF) and Cristina Marras (CNR/ESF) for preparing the Survey Report. The MO Forum has been chaired by Marc Heppener (ESF) and coordinated by Laura Marin (ESF).

Cover picture:

Appendix 2 to the European Peer Review Guide
March 2011

Contents

Executive Summary

The *ESF Survey Analysis Report on Peer Review* presents the findings of the *European Survey on Peer Review Practices*. It captures the systems and procedures utilised by European and international research funding agencies for evaluating research proposals. The report also serves as the empirical basis for the *European Peer Review Guide*, a collection of recommendations for good practice in peer review. Both the survey and the guide are part of a pan-European initiative instigated by the European Heads of Research Councils (EUROHORCs) and the European Science Foundation (ESF).

The main body of the survey consists of two parts:

- Part 1 is devoted to scanning the general policies, approaches and practices of peer review regardless of specific funding instruments or programmes.
- Part 2 aims at characterising peer review procedures for specific funding instruments. For the purpose of the survey and the peer review guide, nine main funding instruments and several variations of these are identified.

The results of the second part of the survey are reported for three selected instruments. These are:

A. *Individual Research Programmes*
B. *Career Development* programmes and
C. *International Collaborative Research Programmes*

The survey was launched online and was accessible for eight weeks in 2010. Thirty organisations from 23 European countries, one from the United States of America and several supranational European organisations participated in the survey. The majority, *i.e.*, 87% of the participating organisations, are research funding organisations, while 13% are research performing organisations. 80% of the organisations cover all main research fields with their funding schemes. Selected results of the survey are summarised in the following paragraphs.

Selected results

Research classification systems.
Of the responding organisations, 90% indicate using a multi-level research classification system for the handling of their proposals. The most commonly applied external model for research classification systems (*i.e.*, a model not developed internally by the respective funding organisation) is the international OECD/ Frascati Manual, used by 29% of the organisations.

Quality assurance practices.
Most organisations assure the quality of their review procedures with the help of an external committee (80%). A slight majority (60%) of the organisations evaluates the quality of all reviews delivered by their reviewers as standard practice.

Reviewer fatigue.
A decline in the reviewers' willingness to contribute to peer review exercises was detected by 73% of the participating organisations.

Incentives.
Of the participating organisations, 47% offer incentives to both remote and panel reviewers. 27% of the organisations offer incentives to panel reviewers only. Among the organisations offering incentives, 93% offer monetary rewards.

Right to reply.
The right to reply to the assessment of their proposals is given to the applicants by 47% of the organisations. 53% of the organisations generally do not allow any replies.

Eligibility criteria.
Completeness of the application is used by 92% of the organisations and is therefore the most frequently used eligibility criterion.

Remote *vs* panel review.
79% of the organisations include both remote and panel review in the peer review procedures for full proposals.

Reviewer selection.
Concerning remote reviewers, 27% of the organisations work exclusively with international reviewers. Concerning panel reviewers, fewer organisations (16%) work exclusively with international reviewers. However, 35% of the organisations do not include any international reviewers in their panels.

Conflict of interest.
The most frequently applied method to check for conflict of interest is to ask the reviewers themselves to check for any conflicts (88% of the organisations). A statement confirming that there are no conflicts of interest has to be signed by the reviewers in 65% of the organisations.

Disclosure of the reviewers' identity.
Remote reviewers' identities are only rarely disclosed to the applicants (4% of the organisations). However, panel reviewers' identities are disclosed to the applicants more frequently (31% of the organisations).

Introduction

This document presents the results of the *European Survey on Peer Review Practices*. It maps the current landscape of peer review procedures in research funding agencies in Europe and beyond. More specifically, it assesses how frequently certain systems or procedures for the evaluation of proposals for research projects are applied. It thus aims at identifying good practice models for peer review.

The *European Survey on Peer Review* is an outcome of a pan-European initiative* to approach and structure common quality criteria for the evaluation of research proposals. The initiative was launched by the European Heads of Research Councils (EUROHORCs) and the European Science Foundation (ESF). As part of the initiative, the two organisations mandated the *ESF Member Organisation Forum on Peer Review* – a platform with representatives from both organisations – to implement the survey. Most importantly, the Forum was also mandated to develop a *European Peer Review Guide*. The guide is for "European funding agencies, councils, private foundations and charities and is intended to increase the quality and effectiveness of grant peer review processes. It includes the mapping of peer review practices, highlighting exemplars and developing good or better practice guidelines and recommendations." Thus, the survey serves as an empirical basis to develop and substantiate the main recommendations for good practice in peer review given in the guide.

The *European Peer Review Guide* translates a large part of the survey results into good practice recommendations. The current survey report, however, contains significantly more detailed information on peer review practices than employed in the guide. This information can be utilised as necessary by interested organisations. The document is constructed as follows:

After providing an overview of the applied methodology in Chapter 1 and describing the targeted participating organisations in Chapter 2, the report mirrors the structure of the survey itself. That is, Chapter 3 illustrates the results of the survey devoted to a general description of peer review systems and its main components, such as the research classification systems, quality assurance practices, etc. Chapter 4 includes the results of the survey focusing on more detailed procedures specific to three selected funding instruments, namely, *Individual Research Programmes*, *Career Development* programmes and *International Collaborative Research Programmes*. These three instruments have been regarded as the most representative for the purposes of the study by the members of the ESF Member Organisation Forum on Peer Review. The results given in Chapter 4 elaborate on topics such as remote and panel review procedures, conflict of interest, etc. A complete set of the survey questions is found in Annex A, with Annex B providing a mapping of the Research Classification Systems compiled through the survey.

* EUROHORCs (European Heads of Research Councils) and ESF (European Science Foundation) *Vision on a Globally Competitive ERA and their Road Map for Actions.*

1. Methodology

The survey was launched online on 14 May 2010 and closed on 7 July 2010. The invitation to participate was sent to 101 organisations, mostly from Europe but also from Israel, North America, China, Japan and South Africa. Of the invited participants, 81 were ESF and/or EUROHORCs member organisations and were therefore informed of or involved in the design of the survey from 2009.

The instructions and the individualised link to the survey were sent by email to the heads of all invited organisations and additionally to the contact person in charge of the survey in the ESF/EUROHORCs member organisations.

The main body of the survey consisted of two parts:

- I. General policies of peer review (reported in Chapter 3)
- II. Characteristics of peer review procedures for specific funding instruments (reported in Chapter 4).

In order to keep a reasonable limit on the level of effort needed to complete the second part of the survey, and in consultation with the ESF Member Organisation Forum on Peer Review, the decision was made to limit the Part II response of each respondent to a maximum of three funding instruments.

Furthermore, in order to avoid uneven distribution of the number of responses over the three funding instruments, an introductory section of the survey was devoted to collecting information on the types of funding instrument offered by various organisations as well as the research fields covered by these instruments (see Annex A: Complete survey questionnaire). Based on the data gathered in the aforementioned introductory section, an algorithm incorporated in the online system was used to determine and suggest to the different respondents the three specific instruments and research fields to be described in Part II by their organisation. The main criteria in this automatic selection was to collect information about as many funding instruments as possible, but in the order of priority determined by a ranking of various funding instruments as recommended by the ESF Member Organisation Forum on Peer Review and outlined below:

1. Individual Research Programmes
2. Career Development
3. International Collaborative Research Programmes
4. National Collaborative Research Programmes
5. Centres of Excellence
6. Scientific Networks
7. Major Prize
8. Knowledge Transfer
9. Infrastructure Programmes
10. Scholarships
11. Other

The main purpose of this intervention was to ensure that the number of responses submitted for the main instruments on the list was as evenly distributed as possible. If an organisation indicated that it offered the first three instruments on the priority list, they were consequently asked to describe these instruments in Part II. If one, two or all three top instruments were not available in the organisation, other funding instruments on the list (according to the priority order) were selected for description in Part II, provided that these were indeed available in the responding organisation.

For the instruments selected/suggested according to the rule mentioned above, the organisations

were also asked to indicate which research fields these instruments covered and whether the peer review procedures varied substantially across the different research fields. If the latter was the case, the algorithm would assign a research field for which to describe the specific instrument in Part II of the survey, thus ensuring that the descriptions obtained were spread evenly across all research fields.

After this first section and determination of the funding instruments assigned to each respondent, the participating organisations could then proceed by downloading the writeable pdf files of all the necessary parts of the survey. Because of the rather long process of completing all the parts online, writable files were provided in order to facilitate offline preparation and information gathering with a final submission at the organisation level. From this point on, the data entered in the online survey could be saved and the survey interrupted and restarted at any time convenient to the respondents.

As mentioned above, the main body of the survey was composed of Part I: *General policies of peer review* and Part II: *Characteristics of peer review procedures for specific funding instruments*. While Part I was to be answered once by all participating organisations, Part II had to be answered three times, for the selected instruments. After finalising both sections, the respondents were invited to provide general feedback on the survey, and to submit the data.

In addition to the general analysis carried out at the ESF to illustrate the results and to draw the general conclusions reported in the *European Peer Review Guide*, the additional analyses provided by Thomas Zimmermann and Christian Fischer mentioned above mainly focused on the evaluative questions. In the absence of large data sets and enough variability in the data to apply standard significance tests, meaningful effects were estimated by taking into account mean score differences and standard deviations (analogous to Cohen's d measure[1]). These additional results by and large underpin and reinforce the recommendations given in the *European Peer Review Guide*. The complete set of tables resulting from this analysis is included in this report for completeness.

1. Cohen, J. (1988) Statistical Power Analysis for the Behavioral Sciences, 2nd Edition, Hillsdale: Lawrence Erlbaum Associates.
ISBN 978-0805802832

2.
Participating organisations

N.B.: Across the different Tables and Figures illustrating the results of the survey, the number of responding organisations might vary according to the questions. This results from the filters included in the survey and from the fact that some questions were mandatory while others were optional. The number of responding organisations for each question is indicated at the bottom of each table or figure.

2.1 Summary

Thirty organisations from 23 European countries, one from the United States of America and several supranational European organisations participated in the survey (Figure 2.1). The majority of the participating organisations were research funding organisations (87%; Table 2.1); and members of both ESF and EUROHORCs (60%; Table 2.2). All main research fields were covered by at least 80%

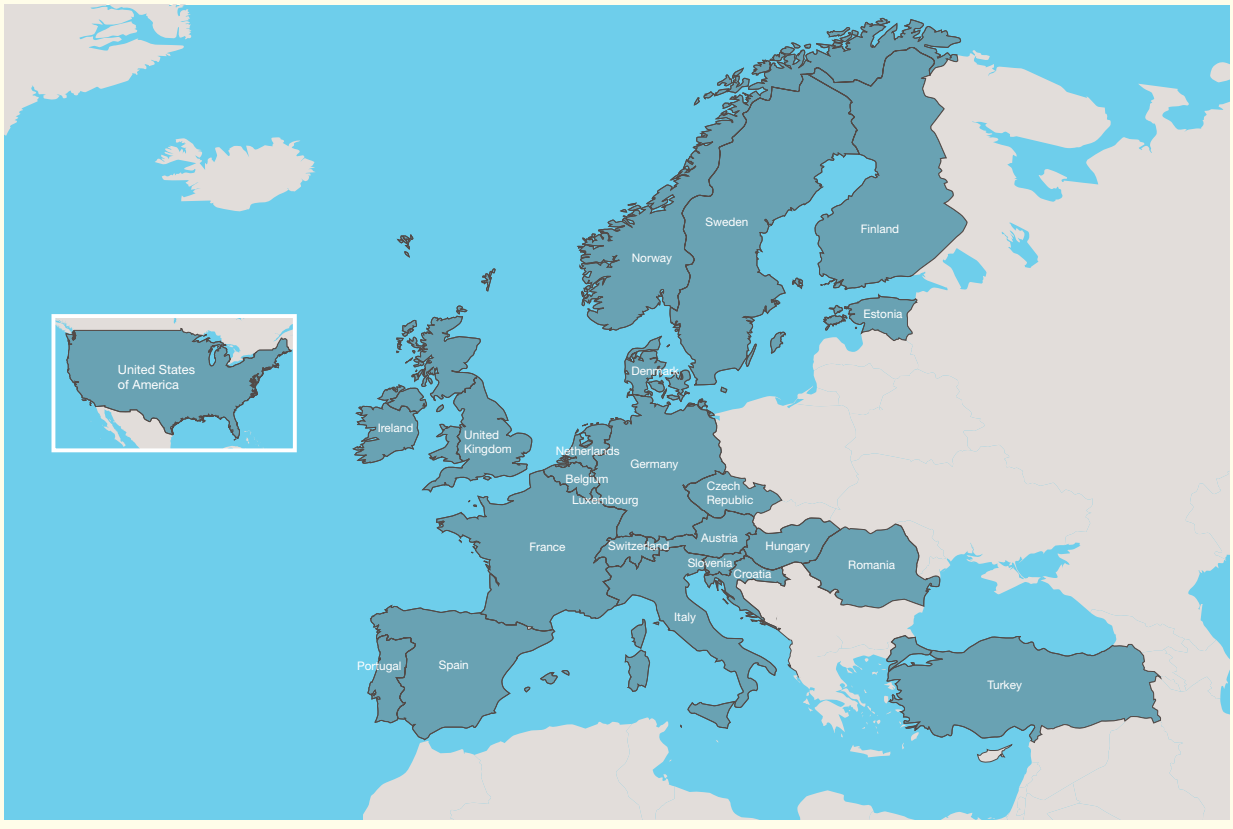

Figure 2.1.
Home countries of participating national organisations.

of the organisations (Figure 2.2). The two funding instruments mostly utilised by the majority of the organisations were *Individual Research Programmes* (90%) as well as *Career Development* programmes (87%; Figure 2.3). The majority of the organisations received up to 5,000 proposals per year (Figure 2.4). From all responding organisations, 36% reported an average success rate of 21-30% (number of proposals selected for funding versus number of proposals received Figure 2.5).

2.2 Detailed results – main organisational data

	Total in %
Research Funding Organisation (RFO)	86.7
Research Performing Organisation (RPO)	6.7
Academy which is RFO or RPO (Academy+)	6.7
Academy as learned society (Academy)	0.0

Table 2.1. Organisation Category

Base: All respondents (n=30); data in percent (single answers)

	Total in %
ESF membership only	16.7
ESF and EUROHORCs membership	60.0
EUROHORCs but not ESF members	3.3
European Agencies	10.0
European Charities	6.7
Non-European Agencies	3.3

Table 2.2. Membership Status

Base: All respondents (n=30); data in percent (single answers)

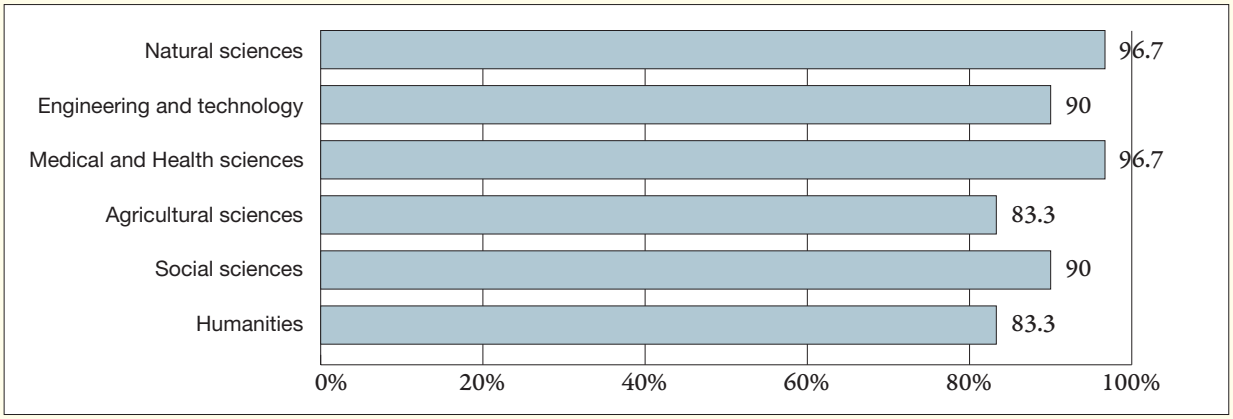

Figure 2.2. Question 1 – Which broad research fields are (partly) covered by your organisation?

Base: All respondents (n=30); data in percent (multiple answers)

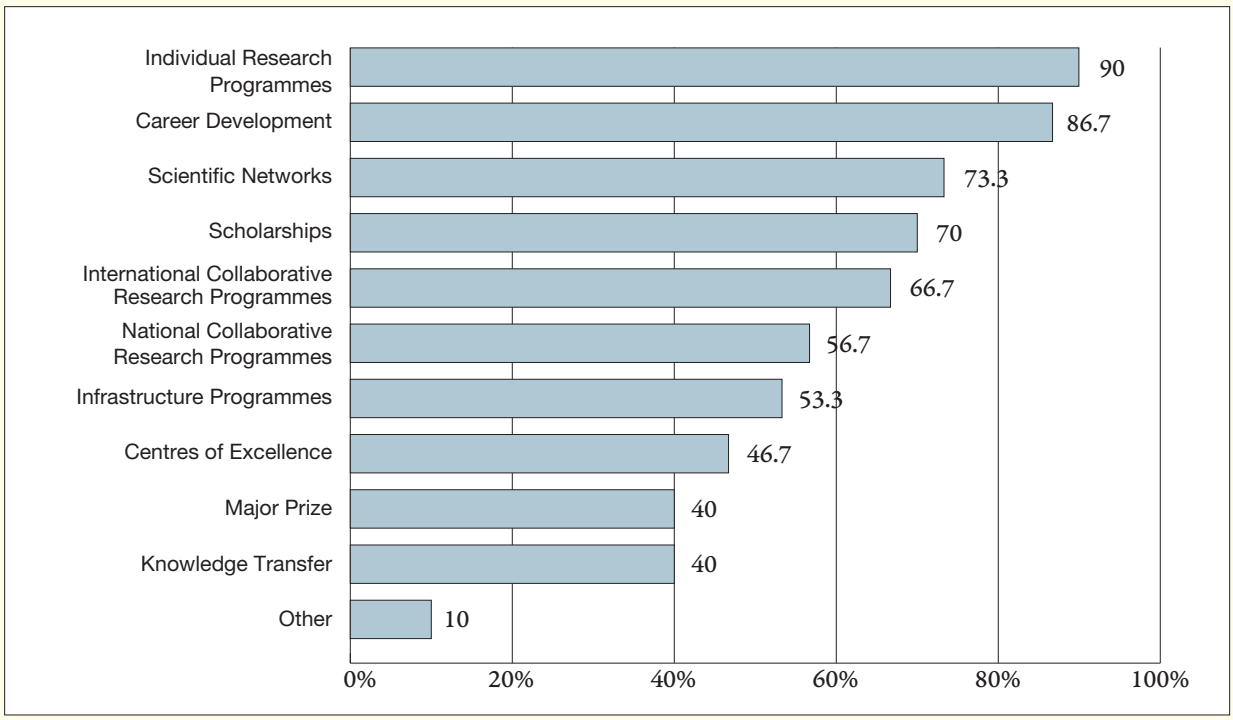

Figure 2.3. Question 2 – What types of funding instruments awarded through competitive merit based selection exist in your organisation?

Base: All respondents (n=30); data in percent (multiple answers)

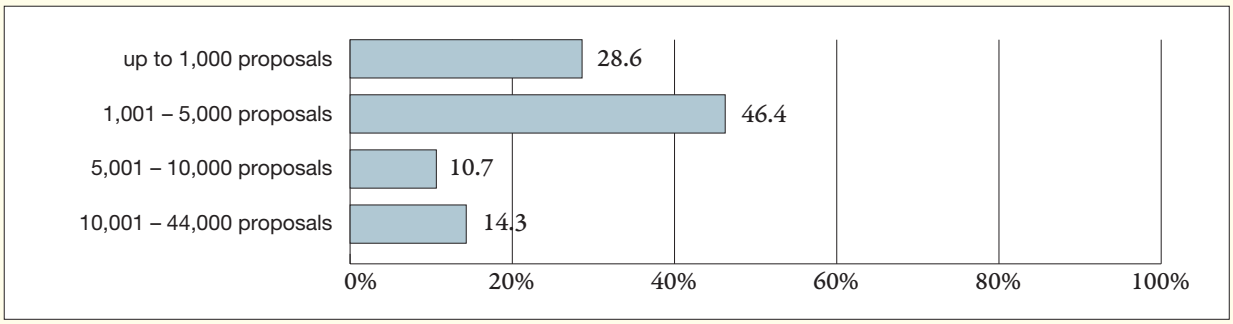

Figure 2.4. Question 9.2 – Number of proposals that your organisation receives per year on average for competitive merit based grants

Base: All respondents (n=28); data in percent (single answers)

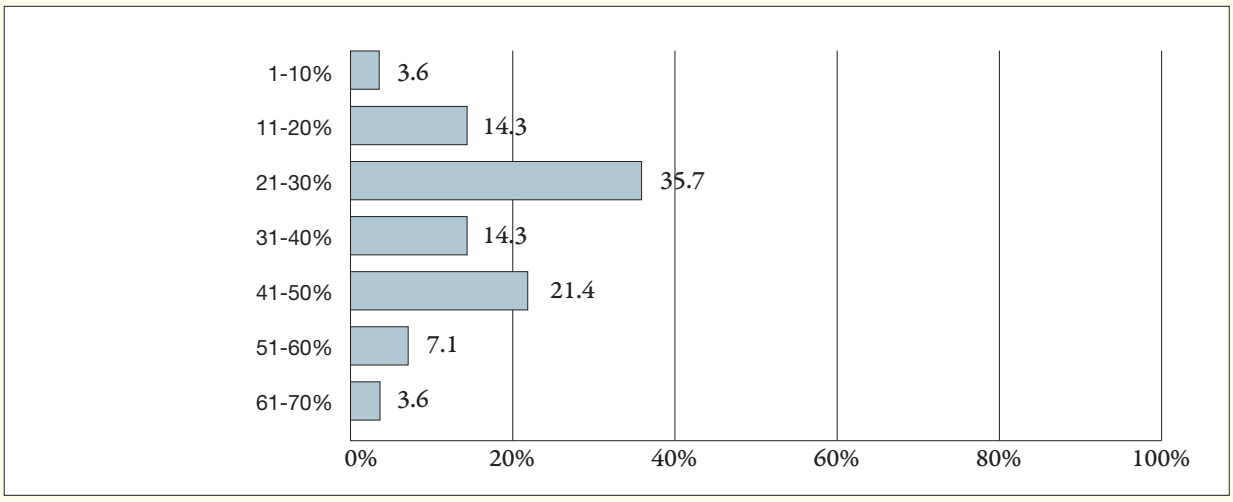

Figure 2.5. Questions 9.2 and 9.3 – Share of proposals selected for funding

Base: All respondents (n=28); data in percent (single answers)

3. Results – General description of peer review systems

N.B.: Across the different Tables and Figures illustrating the results of the survey, the number of responding organisations might vary according to the questions. This results from the filters included in the survey and from the fact that some questions were mandatory while others were optional. The number of responding organisations for each question is indicated at the bottom of each table or figure.

3.1 Research classification systems[2]

3.1.1 Summary

From the data collected, 90% of the responding organisations have indicated using a multi-level research classification system for the grouping of their proposals (Table 3.1). However, there is a strong tendency to rely on an internal source for the setting-up of the classification systems, such as the organisation's own staff (reported by 50%) or the organisation's scientific council (39%); Concerning external sources, 29% of the responding organisations rely on the international OECD/Frascati Manual[3] (Figure 3.1). As a result, the research classification systems used by the participating organisations are rather disparate. Only 18% of the organisations regularly update their classification systems (Table 3.2).

2. For some examples of research classification systems currently used by European funding and performing organisations as well as for some additional analysis of survey results, see Annex 2: *Research Classification System: a preliminary map of existing European approaches.*

3. The Frascati Manual is a document devoted to statistics on research and development. The Manual was prepared and published by the Organisation for Economic Co-operation and Development (OECD) in 1963. The manual is now in its 6th edition.

3.1.2 Detailed data

	Total in %
Yes, your organisation uses a one-level system	3.3
Yes, your organisation uses a multi-level system including fields, subfields, etc.	90.0
No, for the time being your organisation does not use any classification system	6.7

Table 3.1. Question 11 – Does your organisation use a research classification system for the grouping of your proposals?

Base: All respondents (n=30); data in percent (single answers)

	Total in %
Regularly, at pre-defined intervals	17.9
Occasionally, as the need arises	64.3
Other	17.9

Table 3.2. Question 15 – How often is your organisation's classification updated?

Base: Respondents that use a research classification system for the grouping of proposals (n=28); data in percent (single answers)

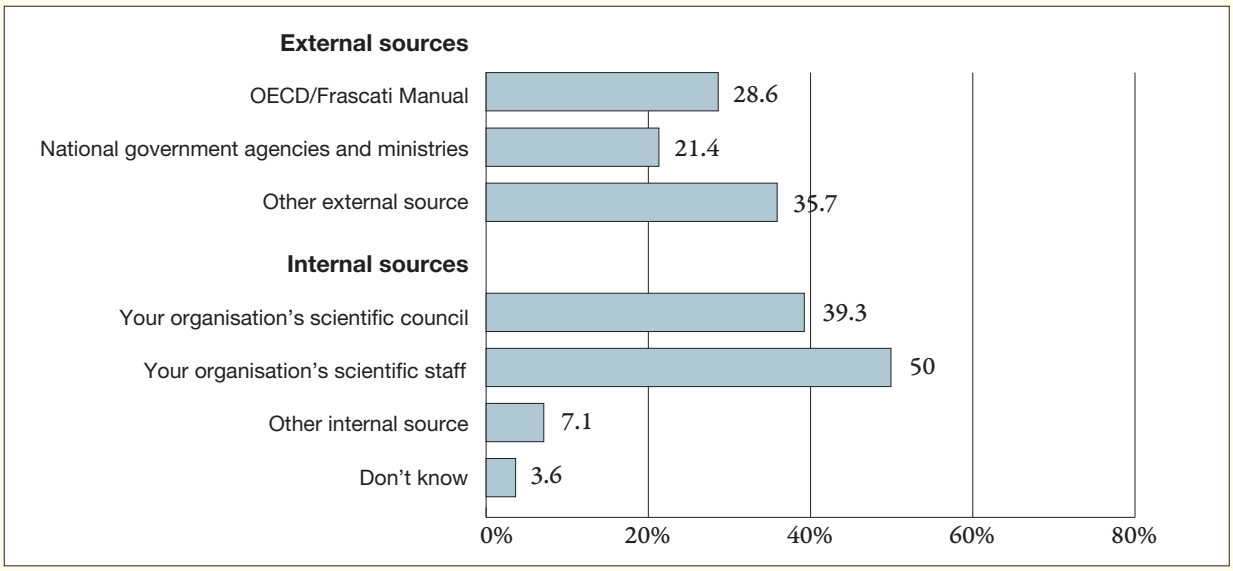

Figure 3.1. Question 12 – What is the source of this classification?

Base: Respondents that use a research classification system for the grouping of proposals (n=28); data in percent (multiple answers)

3.1.3 Evaluative questions on research classification systems: summary

Additional analysis conducted on the data points to rather clear-cut differences in how the research classifications used are evaluated by the organisations using them. Compared to the standard deviation the differences found are quite meaningful for this evaluative question. The OECD/Frascati system gets the best scores, followed by 'external others' like, for instance, the Thompson ISI classification system. In contrast, classifications from national governmental or internal sources are judged to be less effective (Table 3.3).

3.1.4 Detailed data

Research classification (Q12)	Effectiveness of research classification system (Q17)	sd	n
Internal	3.0	1.1	8
National government	3.8		4
External other	2.3		7
OECD/Frascati	1.7		8

1 = very high; 6 = very low

Table 3.3

3.2 Quality assurance practices

3.2.1 Summary

Concerning the structural means available for quality assurance within the participating organisations, a clear majority (80%) rely on either standing or *ad hoc* external committees. More than half of the organisations (53%) have a group of or single staff members in charge of quality assurance (Table 3.4). Concerning specific means, a slight majority (60%) of the organisations evaluate the quality of all reviews delivered by their reviewers as standard practice (Table 3.5). This evaluation is done using a variety of comparably frequent criteria (see Table 3.6 for these criteria). The results of these evaluations may lead to a number of actions, such as returning the review to the reviewer for completion (52%) or, in the worst case, a complete rejection of the review (56%; Table 3.7). 79% of the organisations have indicated that they are allowed to store data on the quality of the reviews received in their database according to their countries' legal systems (Table 3.8). 37% of the organisations link the information on the quality of the reviews to the personal entries of the reviewers (Table 3.9).

3.2.2 **Detailed data**

	Total	
	Absolute number	In %
External *ad hoc* committee	14	46.7
Group of staff members with explicit mandate	14	46.7
External standing committee	10	33.3
Committee composed of members of your organisation's governing bodies	8	26.7
Staff member with explicit mandate	2	6.7
A dedicated office with explicit mandate	2	6.7
Other	10	33.3
Not applicable	2	6.7

Table 3.4. Question 19 – What means does your organisation use for assuring the quality of its peer review system?

Base: All respondents (n=30); data in percent (multiple answers)

	Total in %
Yes, always as a standard practice	60.0
Yes, randomly as a standard practice	3.3
Yes, infrequently under specific circumstances	20.0
No	16.7

Table 3.5. Question 20 – Do your organisation's standard procedures call for evaluating the quality and usability of reviews delivered by your reviewers?

Base: All respondents (n=30); data in percent (single answers)

	Total	
	Absolute number	In %
Completeness: Did the assessment address all the main criteria?	25	100.0
Level of substantiation: Were the evaluation scores sufficiently substantiated with written arguments?	23	92.0
Appropriateness of the language used: Was the assessment free of disrespectful and offensive comments towards the proposers?	21	84.0
Comprehensibility of the comments provided: Was it possible to understand the comments?	20	80.0
Timeliness: Was the assessment sent in time?	20	80.0
Usefulness: Was the assessment fit for purpose?	18	72.0
Other	2	8.0

Table 3.6. Question 21 – What criteria does your organisation use for the evaluation of the quality and usability of reviews delivered by your reviewers?

Base: Respondents whose standard procedures call for evaluating the quality and usability of reviews (n=25); data in percent (multiple answers)

	Total	
	Absolute number	In %
Entire review may be discarded and not used	14	56.0
The review might be returned to the reviewer for completion or additional information	13	52.0
Reviewer may be tagged with qualifying information for future reference	10	40.0
Reviewer's comments may be modifiedbefore being used	8	32.0
Reviewer's scores may be modified before being used	2	8.0
Other	8	32.0
No concrete actions	1	4.0

Table 3.7. Question 22 – What concrete actions can result from the evaluation of a review's quality and usability by your organisation?

Base: Respondents whose standard procedures call for evaluating the quality and usability of reviews (n=25); data in percent (multiple answers)

	Total in %
Yes, without any legal constraints	0
Yes, with some related legal obligations concerning data protection	78.9
No	5.3
Don't know	15.8

Table 3.8. Question 30 – Does your country's legal system allow the accumulation and storage of data on the quality of the reviews you receive?

Base: Respondents that use a dedicated database in order to manage the data of their reviewers (n=19); data in percent (single answers)

	Total in %
Yes	36.8
No	47.4
Partially, please specify	15.8

Table 3.9. Question 31 – If your organisation evaluates the functional quality of the reviews you receive, do you link this information in your database to the personal entries of reviewers?

Base: Respondents that use a dedicated database in order to manage the data of their reviewers and whose standard procedures call (n=19); data in percent (single answers)

3.2.3 Evaluative questions on quality assurance: summary

Table 3.10 shows how the effectiveness of the quality assurance was judged lower for organisations that never or only randomly evaluate the quality of reviews. However, there is no substantial difference on whether the quality of reviews is always or infrequently assessed. Therefore, infrequent evaluations could provide a reasonable method to establish a quality assurance system with lower costs. This could be especially useful for smaller organisations that do not have a dedicated office for quality assurance.

Table 3.11 displays an overview of the different criteria for evaluating the quality of reviews and the respective scores on the effectiveness of the quality assurance system. The scores are always compared to the control group (organisations that do not use this criterion). From the collected data, there seem to be two criteria that stand out more in providing added value to quality assurance: these are checking for comprehensibility and for appropriateness of reviews (either scoring equally or more than one standard deviation higher than the control group).

Table 3.12 illustrates an overview of the different actions or consequences that could follow from the checking of the reviews and the respective scores on the effectiveness of the quality assurance system. The scores are always compared to the control group (organisations that do not use this criterion). There seems to be only one action, namely 'reviewer's comments modified' that has a moderate positive effect compared to the control group. No other actions affected the scores in a meaningful way.

3.2.4 Detailed data

Evaluating quality of reviews (Q20)	Effectiveness of quality assurance system (Q25)	sd	n
Always, as a standard procedure	2.2	1.2	18
Infrequently	2.7		6
None/randomly	4.0		6

1 = very high; 6 = very low

Table 3.10

Criteria for evaluating quality of reviews (Q21)*	Effectiveness of quality assurance system (Q25)	Difference	sd	d	n
Timeliness used	2.3				20
Timeliness not used	2.4	0.1	0.9	0.1	5
Comprehensibility used	2.2				20
Comprehensibility not used	3.0	0.9	0.9	0.9	5
Usefulness used	2.2				18
Usefulness not used	2.7	0.5	0.9	0.6	7
Appropriateness used	2.1				21
Appropriateness not used	3.3	1.1	0.9	1.2	4

1 = very high; 6 = very low

Table 3.11

Actions following quality evaluation of reviews (Q22)	Effectiveness of quality assurance system (Q25)	Difference	sd	d	n
Reviewer's comments modified	2.0				8
Reviewer's comments not modified	2.5	0.5	0.9	0.5	17
Reviewer's scoring modified	2.5				2
Reviewer's scoring not modified	2.3	-0.2	0.9	-0.2	23
Entire review may be discarded	2.4				14
Entire review may not be discarded	2.2	-0.2	0.9	-0.3	11
Return for completion	2.4				13
No return for completion	2.3	-0.1	0.9	-0.1	12
Reviewer tagged	2.8				10
Reviewer not tagged	2.0	-0.8	0.9	-0.9	15

1 = very high; 6 = very low

Table 3.12

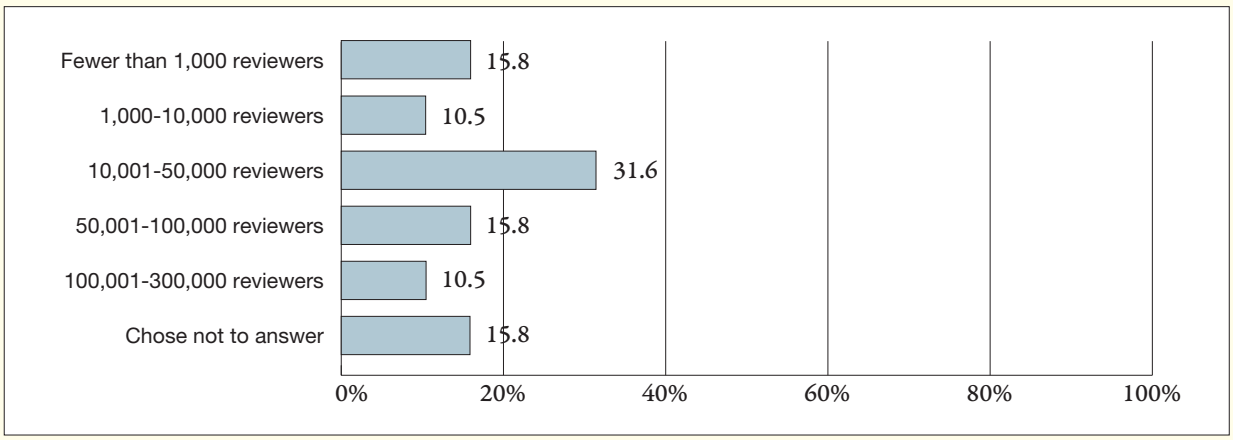

Figure 3.2. Question 29.1 – The database contains data on how many reviewers?

Base: Respondents that use a dedicated database in order to manage the data of their reviewers (n=19); data in percent (single answers)

3.3 Database

3.3.1 Summary

A majority of the organisations (63%) use a dedicated database in order to manage the data on their reviewers (Table 3.13). The organisations' databases vary considerably in size, from fewer than 1,000 reviewers to up to 300,000 reviewers (Figure 3.2). Concerning two main features of the databases used, *i.e.*, the numbers of international and female reviewers, the results show the following: 58% of the participating organisations indicate that more than half of reviewers in their database are international reviewers (Figure 3.3); accordingly, 47% of the organisations rate the effectiveness of their database in terms of internationality rather high with 1 or 2 on a six-point scale (1 = excellent; Figure 3.4). However, 53% of the participating organisations also indicate that only 25% or less of the entries in their database are female reviewers (Figure 3.5); accordingly, 35% of the organisations rate the effectiveness of their database in terms of gender distribution comparatively low with 3 or 4 on a six-point scale (Figure 3.6).

3.3.2 Detailed data

	Total in %
Yes	63.3
No	36.7

Table 3.13. Question 27 – Does your organisation use a dedicated database in order to manage the data (names, contact details, fields of expertise, etc.) of its reviewers?

Base: All respondents (n=30); data in percent (single answers)

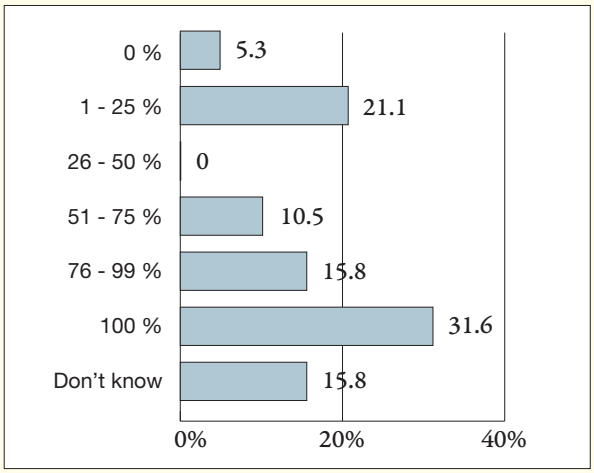

Figure 3.3. Question 29.2 – Please insert percentage of international reviewers in your database (for national organisations: reviewers working in organisations outside of your organisation's country)

Base: Respondents that use a dedicated database in order to manage the data of their reviewers (n=19); data in percent (single answers)

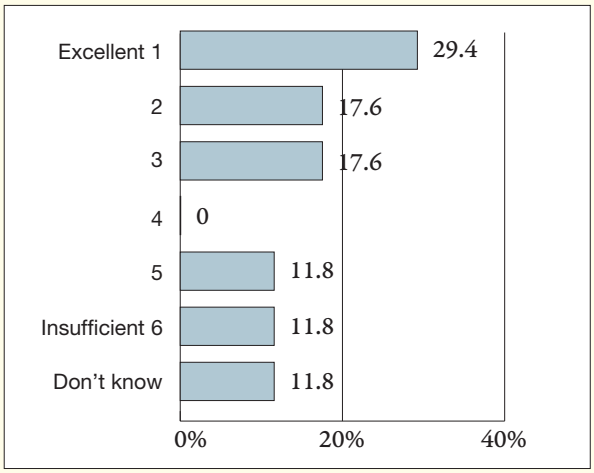

Figure 3.4. Question 32.3 – Please estimate the effectiveness of your organisation's reviewer database in terms of internationality

Base: Respondents that use a dedicated database in order to manage the data of their reviewers (n=17); data in percent (single answers)

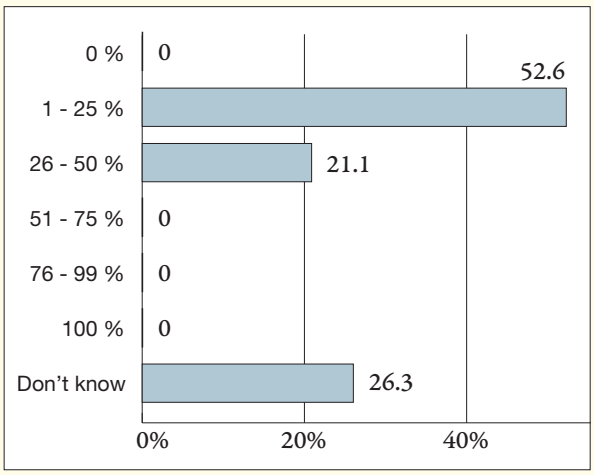

Figure 3.5. Question 29.3 – Please insert percentage of female reviewers in your database

Base: Respondents that use a dedicated database in order to manage the data of their reviewers (n=19); data in percent (single answers)

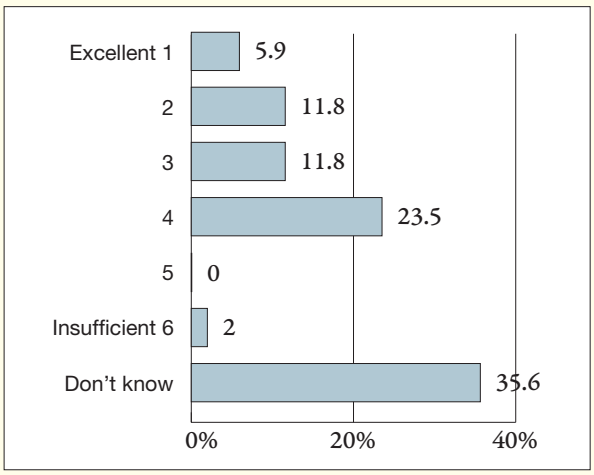

Figure 3.6. Question 32.3.4 – Please estimate the effectiveness of your organisation's reviewer database in terms of gender distribution

Base: Respondents that use a dedicated database in order to manage the data of their reviewers (n=17); data in percent (single answers)

3.4 Common European reviewer database

34.1 Summary

Of the organisations participating, 63% rate the need for a common European reviewer database as 1 or 2 on a six-point scale (1=European database is clearly needed; Figure 3.7). A large majority of the organisations (80%) would make use of the database frequently or occasionally (Table 3.14), 63% of the organisations would be ready to contribute to it, *i.e.*, by providing high-quality reviewers (Table 3.15).

3.4.2 Detailed data

	Total in %
Yes, frequently	46.7
Yes, occasionally	33.3
No	0.0
Other	6.7
Don't know	13.3

Table 3.14. Question 35 – Would your organisation make use of such a common European database?

Base: All respondents (n=30); data in percent (single answers)

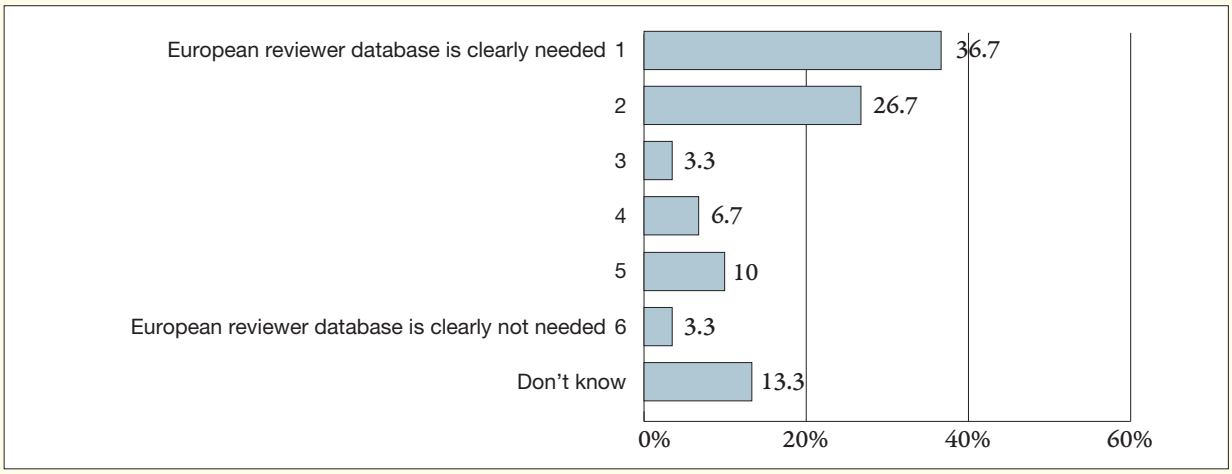

Figure 3.7. Question 34 – From your organisation's perspective, is there a need for a common European database?

Base: All respondents (n=30); data in percent (single answers)

	Total in %
Yes	63.3
No	0.0
Other	23.3
Don't know	13.3

Table 3.15. Question 36 – Would your organisation contribute to constituting such a common European database, *i.e.*, by providing high-quality reviewers?

Base: All respondents (n=30); data in percent (single answers)

3.4.3 Evaluative questions on a European database: summary

Table 3.16 provides the mean scores on the need for a European database grouped by the size of already existing dedicated databases. The differences are quite clear-cut and show that organisations with relatively small dedicated databases consider the need for a European database to be high. In contrast, five organisations with large dedicated databases (over 50,000 reviewers included) express substantially lower scores.

In Table 3.17 the potential usage of such a common database is compared for organisations grouped by size of their own currently existing database. In Table 3.18 seven organisations have more concerns/problems with providing reviewers for this database.

Table 3.19 shows the mean scores for the need for a European database grouped by how well all fields or disciplines are already covered by existing dedicated databases. Based on the score differences and the standard deviation one can observe a moderate to substantial difference between organisations with a low to very low coverage and organisations with middle to very high coverage. Clearly, the need for a European database is estimated to be stronger by organisations that have low to very low coverage.

3.4.4 Detailed data

n of reviewers in existing database (Q29)	Need for European database (Q34)	sd	n
< 1000	1.3	1.8	3
1000 - 50000	2.4		8
> 50000	4.5		5

1 = very high; 6 = very low

Table 3.16

n of reviewers in existing database (Q29)	Use of a European database				
	Don't know	Frequently	Occasionally	Other	n
< 1000	0	2	1	0	3
1000 - 50000	1	3	4	0	8
> 50000	2	0	1	2	5

Table 3.17

n of reviewers in existing database (Q29)	Use of a European database			
	Don't know	Other	Yes	n
< 1000	0	0	3	3
1000 - 50000	2	1	5	8
> 50000	1	4	0	5

Note: 'Other' means, for example, legal problems, providing of other experts than their own reviews, etc.

Table 3.18

Coverage of all fields in existing database (Q32)	Need for a European database (Q34)	sd	n
Very high to high (1-2)	2.2	1.4	8
Middle (3)	2.6		5
Low to very low (4-6)	1.3		5

1 = very high; 6 = very low

Table 3.19

3.5 College of reviewers

3.5.1 Summary

Of the organisations participating, 33% possess a *College of Reviewers*[5] (Table 3.20). In 80% of those organisations, the main task of the cohort's members is to peer review proposals (Table 3.21). In 60% of the organisations, up to 500 researchers are members of such a cohort (Table 3.22). The cohorts' members are most commonly appointed through suggestions of the organisations' scientific staff (Table 3.23). In 90% of the organisations the cohort members are replaced regularly (Table 3.24), mostly every three to four years (Table 3.25).

3.5.2 Detailed data

	Total in %
Yes	33.3
No	66.7

Table 3.20. Question 38 – Does your organisation have a large established cohort of scientists who contribute to the organisation's peer review procedure (*e.g.*, 'college of reviewers', 'pool of reviewers' or other)?

Base: All respondents (n=30); data in percent (single answers)

	Total	
	Absolute number	In %
Peer reviewing of proposals	8	80.0
Nominating or suggesting expert reviewers	5	50.0
Quality assurance of peer review procedures	4	40.0
Final funding decisions	3	30.0
Other	3	30.0

Table 3.21. Question 40 – What are the main tasks of this cohort within your organisation?

Base: Respondents that have a college or pool of reviewers (n=10); data in percent (multiple answers)

	Total in %
up to 100 researchers	30.0
101 - 500 researchers	30.0
501 - 1,000 researchers	10.0
1,001 - 5,000 researchers	20.0
9,000 researchers	10.0

Table 3.22. Question 41 – How many researchers are members of this cohort?

Base: Respondents that have a college or pool of reviewers (n=10); data in percent (single answers)

	Total	
	Absolute number	In %
Suggestions by scientific staff	5	50.0
Nationwide voting by peers	2	20.0
Selection among the past recipients of research funds	2	20.0
Suggestions made by researchers who have recently applied for funds to your organisation	1	10.0
Other	4	40.0

Table 3.23. Question 42 – How are its members appointed?

Base: Respondents that have a college or pool of reviewers (n=10); data in percent (multiple answers)

	Total in %
Regularly, at certain intervals	90
Irregularly, as the need arises	10
Other	0
Don't know	0

Table 3.24. Question 43 – According to the regular membership term, how frequently are the cohort members replaced?

Base: Respondents that have a college or pool of reviewers (n=10); data in percent (single answers)

	Total	
	Absolute number	In %
1 year	1	11.1
2 years	1	11.1
3 years	4	44.4
4 years	3	33.3

Table 3.25. Question 44 – According to the regular membership term, how frequently are the cohort members replaced? If regularly, at what interval? Every ... year(s)

Base: Respondents that replace their reviewer pool's cohort regularly (n=9); data in percent (multiple answers)

3.5.3 Evaluative questions on college/pool of reviewers: summary

Table 3.26 displays the effectiveness of different recruitment strategies for colleges/pools of reviewers. The extremely small number of cases does not permit a reliable statement. However, based on the mean scores, the standard deviation and the number of cases, it is quite safe to conclude that the responding organisations rated the effectiveness of suggestions by scientific staff to be higher than the other three recruitment procedures.

Table 3.27 displays the different tasks of the colleges/pools of reviewers and the respective effectiveness ratings. Obviously, no differences at all can be found. This may show that all four different tasks may represent reasonable tasks for a college/pool of reviewers.

3.5.4 Detailed data

How are members appointed (Q42)	Effectiveness of selection procedure (Q45)	sd	n
Nationwide voting by peers	2.5	0.7	2
Selection among the past recipients of research funds	3.0		2
Suggestions made by researchers	3.0		1
Suggestions by scientific staff	1.8		5

1 = very high; 6 = very low

Table 3.26

Main tasks of College/Pool (Q40)	Effectiveness of College/Pool (Q45)	sd	n
Peer reviewing of proposals	2.0	0.8	8
Quality assurance of peer review procedures	2.0	4	
Final funding decisions	2.0	3	
Nominating and suggesting expert reviewers	2.0	5	

1 = very high; 6 = very low

Table 3.27

5. Large established cohorts of scientists from all relevant fields of research who contribute to the organisations' peer review procedures and who are either nominated or voted by peers at certain intervals (*e.g.*, 'college of reviewers', 'pool of reviewers' or other).

3.6 Reviewer fatigue

3.6.1 Summary

Of the organisations participating, 73% have detected a moderate or minor decline in the reviewers' willingness to participate in peer review processes in the last years (Table 3.28).

3.6.2 Detailed data

	Total in %
Yes, we have noticed a sharp decline	0
Yes, we have noticed a moderate decline	40
Yes, we have noticed a minor decline	33.3
No, we have not noticed any decline	10
Don't know	16.7

Table 3.28. Question 47 – Has your organisation generally detected a decline in the reviewers' willingness to participate in peer review processes in the last years (reviewer fatigue)?

Base: All respondents (n=30); data in percent (single answers)

3.7 Incentives

3.7.1 Summary

47% of the organisations offer incentives to all reviewers, 27% offer incentives only to panel reviewers (Table 3.29). Of those organisations that offer incentives, 93% offer monetary incentives (Table 3.30). Remote reviewers are paid less frequently and smaller sums than panel reviewers (Table 3.31). Those organisations that do pay lump sums to their reviewers pay 51-400 Euro to their remote reviewers, 101-2000 Euro to their panel reviewers and 101-3000 Euro to their panel chairs (Table 3.31). Most if not all of the organisations offering monetary incentives do not provide incentives for their reviewers' institutes (Table 3.32). 56% of the organisations offering any kind of incentives report a significant or slight increase in the positive response rate of reviewers concerning requests for peer review as a result of the incentives (Table 3.33). Concerning an influence of incentives on the quality of reviews delivered by the reviewers, 33% organisations report a significant or slight improvement, while 48% of the organisations report no noticeable effects (Table 3.34).

3.7.2 Detailed data

	Total in %
Yes, to all the reviewers	46.7
Yes, to panel reviewers	26.7
Yes, to remote reviewers	0
No	10
Other	16.7

Table 3.29. Question 48 – Does your organisation offer any kind of incentives to the reviewers contributing to your review processes?

Base: All respondents (n=30); data in percent (single answers)

	Absolute number	%
Monetary	25	92,6
Other	5	18,5

Table 3.30. Questions 49 – What kind of incentives does your organisation offer?

Base: Respondents that offer any kind of incentives to reviewers (n=27); data in percent (multiple answers)

	Amount paid to reviewers					
	Remote Reviewers		Panel reviewers		Panel chairs	
	Absolute number	%	Absolute number	%	Absolute number	%
1-50						
51-100	3	12,5				
101-200	1	4,2	2	8,3	1	4,0
201-300	1	4,2	2	8,3	2	8,0
301-400	1	4,2	2	8,3		
401-500			2	8,3	2	8,0
501-1000			5	20,8	5	20,0
1001-1500			1	4,2	2	8,0
1501-2000			1	4,2		
2001-3000					2	8,0
Choose not to answer	2	8,3	3	12,5	3	12,0
Not applicable	16	66,7	6	25,0	8	32,0
	n=24		n=24		n=25	

Table 3.31. Questions 50.1.2- 50.1.4 – How much did your organisation pay your reviewers as a lump sum in 2009, in Euros?

Base: Respondents that offer monetary incentives to reviewers (single answer for each reviewer type)

	Amount paid to reviewers' institutes					
	Remote Reviewers		Panel reviewers		Panel chairs	
	Absolute number	%	Absolute number	%	Absolute number	%
Choose not to answer	2	8,7	2	8,3	2	8,3
Not applicable	21	91,3	22	91,7	22	91,7
	n=23		n=24		n=24	

Table 3.32. Questions 50.2.2- 50.2.4 – How much did your organisation pay your reviewers' institutes as a lump sum in 2009, in Euros?

Base: Respondents that offer monetary incentives to reviewers (single answer for each reviewers type)

	Total in %
Yes, the positive response rate is significantly increased	33.3
Yes, the positive response rate is slightly increased	22.2
No, noticeable effects	25.9
Don't know	18.5

Table 3.33. Question 51 – In general, does your organisation observe an influence on the positive response rate of the reviewers as a result of explicit incentives?

Base: Respondents that offer any kind of incentives to reviewers (n=27); data in percent (single answers)

	Total in %
Yes, the quality improves significantly	14.8
Yes, the quality improves slightly	18.5
No, no noticeable effects	48.1
Don't know	18.5

Table 3.34. Question 52 – In general, does your organisation observe an influence on the quality of reviews as a result of explicit incentives?

Base: Respondents that offer any kind of incentives to reviewers (n=27); data in percent (single answers)

3.7.3 Evaluative questions on incentives: summary

The cross correlation of Table 3.35 and Table 3.36 provides an overview of the number of cases for the different combination of questions 48, 51, and 52: the positive effects on the response rates (upper table) and quality (lower table) of reviews grouped by the recipients of the incentives. Interestingly, it appears that incentives have quite a stable effect on response rates, but not on the quality of reviews. Moreover, there seems to be no difference across different groups of the recipients of incentives.

3.7.4 Detailed data

	Recipients of incentives (Q48)				
Positive effect on response rates (Q51)	**All reviewers**	**Panel reviewers**	**Remote reviewers**	**Other**	**Total**
No effects	3	3	0	1	7
Slight increase	3	3	0	0	6
Significant increase	6	2	0	1	9
Don't know	2	0	0	3	5
Total	14	8	0	5	27

Table 3.35

	Recipients of incentives (Q48)				
Positive effect on quality of reviews (Q 52)	**All reviewers**	**Panel reviewers**	**Remote reviewers**	**Other**	**Total**
No effects	6	5	0	2	13
Slight increase	2	2	0	1	5
Significant increase	3	1	0	0	4
Don't know	3	0	0	2	5
Total	14	8	0	5	27

Data: Number of Cases

Table 3.36

3.8 Right to reply

3.8.1 Summary

Of the organisations participating, 47% allow applicants to reply to the assessment of their proposals in all or some instruments, while 53% generally do not allow any replies (Table 3.37). The reported main consequences resulting from the applicants' replies are consideration in the further review and selection process (64% of the organisations that allow a right to reply) or consideration in the funding decision (50% of the organisations that allow a right to reply) (Table 3.38).

3.8.2 Detailed data

	Total in %
Yes, in all instruments	13.3
Yes, in some instruments	33.3
No	53.3

Table 3.37. Question 55 – Does your organisation allow applicants to reply to the assessment of their proposals during the peer review process and before the final funding decision is made?

Base: All respondents (n=30); data in percent (single answers)

	Total	
	Absolute number	In %
Consideration in the further review and selection process	9	64.3
Consideration in the funding decision process	7	50
Modification of the reviewer's statements	4	28.6
Modification of the position on the rank-ordered list of competing proposals	3	21.4
Other	1	7.1

Table 3.38. Question 57 – Which consequences might the applicants' replies have?

Base: Respondents that allow applicants to the assessment of their proposals (n=14); data in percent (multiple answers)

3.8.3 Evaluative questions on right to reply: summary

In Table 3.39 the mean scores of the importance of the right to reply are provided, grouped by the different consequences that the applicant's replies may have. Based on the standard deviation and the number of cases, the differences can be interpreted as moderate effects, suggesting that all consequences except the modification of rank-ordered list of competing proposals are judged to be equally efficient. These three types of action can therefore represent a range of good procedures.

Table 3.40 confirms that most organisations do not include the right to reply.

3.8.4 Detailed data

Consequences of applicants' replies (Q57)	Effectiveness/ Importance of right to reply (Q58)	sd	n
Modifications of reviewer's statements	2.3	0.9	4
Modification of rank-ordered list of competing proposals	2.7		3
Consideration in the further review and selection process	2.1		9
Consideration in the funding decision process	2.1		7

1 = very high; 6 = very low

Table 3.39

Reasons for not having established the right to reply (Q56)	Number of Cases
Not yet considered	2
Too costly	1
Too time-consuming	8
Resubmissions are continuously allowed	6
Appeal possible	5
	22

Table 3.40

3.9 Interdisciplinary proposals – Review procedures in conventional instruments

3.9.1 Summary

80% of the organisations see interdisciplinary proposals within their conventional instruments all the time or regularly (Table 3.41). In order to identify these proposals, the organisations either ask the applicants themselves to flag them as interdisciplinary (57%) or they ask either their scientific staff (47%) or the reviewers involved (40%) to mark the proposals accordingly (Table 3.42). To support the evaluation of interdisciplinary proposals, most organisations make an effort to find interdisciplinary reviewers (70%; Figure 3.8).

For data on the effectiveness of the specific measures used to evaluate interdisciplinary proposals please turn to section 3.10.3.

3.9.2 Detailed data

	Total in %
All the time	23.3
Regularly	56.7
Rarely	16.7
Never	0.0
Don't know	3.3

Table 3.41. Question 62 – How often does your organisation see interdisciplinary proposals within your conventional instruments, *i.e.*, instruments not specially dedicated to interdisciplinary proposals? Please estimate

Base: All respondents (n=30); data in percent (single answers)

	Total	
	Absolute number	In %
… flagged by the applicants	17	56.7
… flagged by your scientific staff	14	46.7
… flagged by the remote or panel reviewers involved	12	40.0
Other	4	13.3
… not specifically identified	5	16.7

Table 3.42. Question 63 – How does your organisation identify interdisciplinary proposals within the conventional instruments? They are…

Base: All respondents (n=30); data in percent (multiple answers)

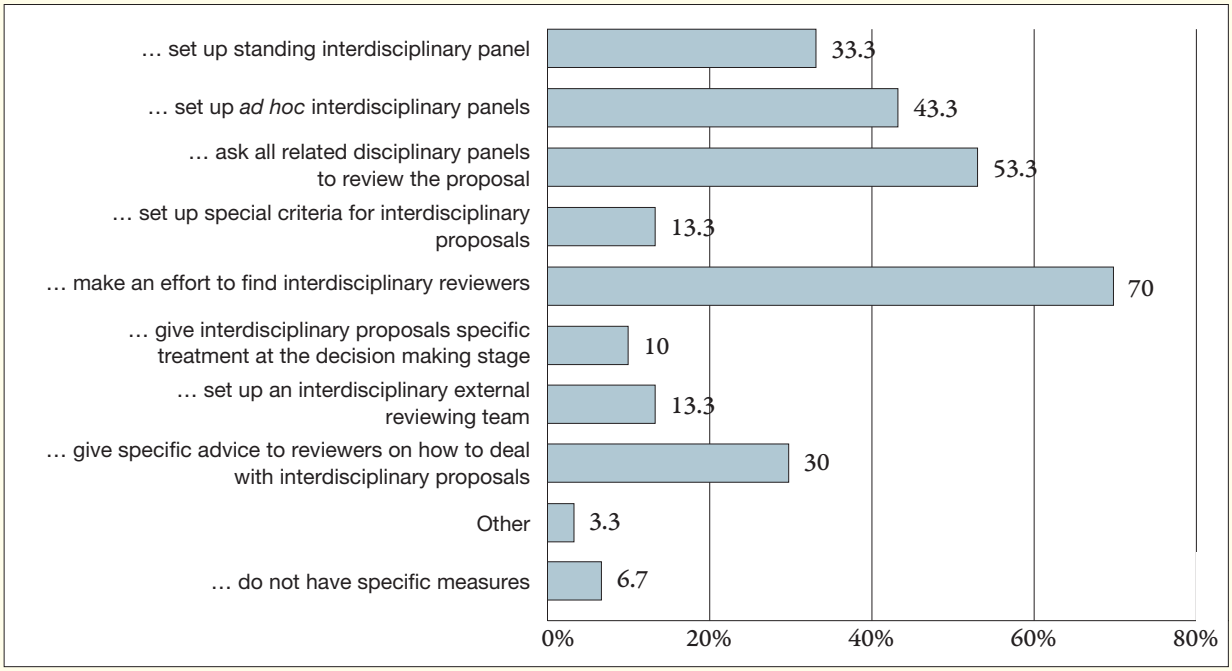

Figure 3.8. Question 64.1 – Which specific measures does your organisation use to support the evaluation process of interdisciplinary proposals for conventional instruments in your organisation?

Base: All respondents (n=30); data in percent (multiple answers)

3.10 Interdisciplinary proposals – Review procedures in dedicated instruments

3.10.1 Summary

The majority of the participating organisations (63%) do not have any instruments exclusively dedicated to interdisciplinary proposals. However, 20% of the organisations have one dedicated instrument (Table 3.43) and most receive 50-100 applications per year in their dedicated instrument(s) (55%; Table 3.44). In order to support the evaluation of interdisciplinary proposals, these organisations mainly rely on three specific measures: making an effort to find interdisciplinary reviewers (82%), setting up an interdisciplinary panel (82%) and/or setting up special criteria for interdisciplinary proposals (73%; Figure 3.9).

3.10.2 Detailed data

	Total in %
0 instrument	63.3
1 instrument	20.0
2 instruments	3.3
3 instruments	6.7
4 instruments	3.3
60 instruments	3.3

Table 3.43. Question 60 – How many funding instruments does your organisation have which are dedicated exclusively to interdisciplinary proposals?

Base: All respondents (n=30); data in percent (single answers)

	Total	
	Absolute number	In %
50 - 100 applications	6	54.5
101 - 500 applications	4	36.4
10,000 applications	1	9.1

Table 3.44. Question 61 – How many applications does your organisation get on average across these dedicated instruments? Please insert the annual average

Base: Respondents that have funding instruments exclusively dedicated to interdisciplinary proposals (n=11); data in percent (single answer)

3.10.3 Evaluative questions on interdisciplinary proposals: summary

Table 3.45 and Table 3.46 display the mean scores for the effectiveness of evaluating interdisciplinary proposals grouped by the specific measures.

Table 3.45 covers interdisciplinary proposals that are submitted in conventional instruments, Table 3.46 covers applications that are submitted for dedicated interdisciplinary instruments. The negative difference scores in Table 3.45 show that most of the specific measures to support the evaluation of interdisciplinary proposals seem to have a negative effect on the effectiveness of the evaluation procedure. In fact, only setting up an *ad hoc* interdisciplinary panel and making an effort to find interdisciplinary reviewers may be interpreted as having a moderate positive effect.

On the contrary, Table 3.46 displays only positive differences scores. Hence, most if not all specific

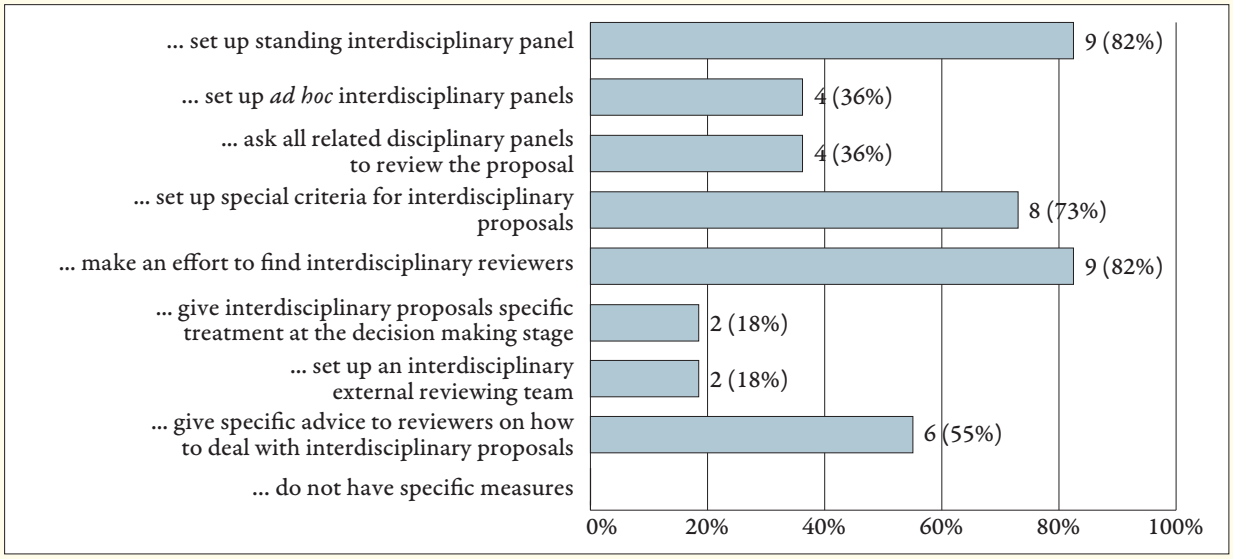

Figure 3.9. Question 64.2 – Which specific measures does your organisation use to support the evaluation process of interdisciplinary proposals in your organisation for dedicated instruments? You...

Base: Respondents that have funding instruments exclusively dedicated to interdisciplinary proposals (n=11); data in percent (multiple answers)

measures are judged to be appropriate measures to support the evaluation of interdisciplinary proposals in dedicated instruments.

Especially positive are setting up an *ad hoc* interdisciplinary panel, asking all related disciplinary panels to review the proposal, giving specific treatment at decision making stage, and setting up an interdisciplinary external reviewing team.

3.10.4 **Detailed data**

Specific measures to support the evaluation of MICT proposals in conventional instruments (Q64)	Effectiveness of evaluating MICT proposals in conventional instruments (Q65)	Control group	Difference	sd	d	n
Set up standing interdisciplinary panels	2.8	2.5	-0.3	1.0	-0.3	10
Set up ad hoc interdisciplinary panels	2.5	2.7	0.3		0.3	13
Ask all related disciplinary panels to review the proposal	2.6	2.7	0.1		0.1	16
Set up special criteria for interdisciplinary proposals	2.8	2.6	-0.2		-0.2	4
Make an effort to find interdisciplinary reviewers	2.5	2.9	0.3		0.3	21
Give specific treatment at decision making stage	3.3	2.5	-0.8		-0.8	3
Set up an interdisciplinary external reviewing team	2.5	2.6	0.1		0.1	4
Give specific advice to reviewers how to deal with interdisciplinary proposals	2.6	2.6	0.1		0.1	9

Table 3.45

Specific measures to support the evaluation of MICT proposals in dedicated instruments (Q64)	Effectiveness of evaluating MICT proposals in dedicated instruments (Q65)	Control group	Difference	sd	d	n
Set up standing interdisciplinary panels	1.8	2.0	0.2	0.6	0.4	9
Set up ad hoc interdisciplinary panels	1.5	2.0	0.5		0.9	4
Ask all related disciplinary panels to review the proposal	1.5	2.0	0.5		0.9	4
Set up special criteria for interdisciplinary proposals	1.8	2.0	0.3		0.4	8
Make an effort to find interdisciplinary reviewers	1.8	2.0	0.2		0.4	9
Give specific treatment at decision making stage	1.5	1.9	0.4		0.7	2
Set up an interdisciplinary external reviewing team	1.0	2.0	1.0		1.7	2
Give specific advice to reviewers how to deal with interdisciplinary proposals	1.7	2.0	0.3		0.6	6

1 = very high; 6 = very low

Table 3.46

3.11 Breakthrough proposals – Review procedures in conventional instruments

3.11.1 Summary

While 33% of the responding organisations see breakthrough proposals regularly in their conventional instruments, 50% of the organisations only rarely see this kind of proposal (Table 3.47). The most commonly used way to identify these proposals is to ask the reviewers involved to tag the proposals accordingly (47%; Table 3.48). In order to support the evaluation of breakthrough proposals in conventional instruments, the organisations ask the applicants to describe the potential risks and outcomes (30%), involve specific reviewers (20%) and/or give specific advice to reviewers on how to deal with breakthrough proposals (20%). 50% of the organisations, however, do not have any specific measures (Figure 3.10).

For data on the effectiveness of the specific measures used to evaluate breakthrough proposals please turn to section 3.12.3.

3.11.2 Detailed data

	Total in %
All the time	6.7
Regularly	33.3
Rarely	50.0
Never	0.0
Don't know	10.0

Table 3.47. Question 69 – How often does your organisation see breakthrough proposals within your conventional instruments, *i.e.*, instruments not specially dedicated to breakthrough proposals? Please estimate

Base: All respondents (n=30); data in percent (single answers)

	Total	
	Absolute number	In %
... flagged by the remote or panel reviewers involved	14	46.7
... flagged by your scientific staff	7	23.3
... flagged by the applicants	2	6.7
Other	3	10.0
... not specifically identified	11	36.7

Table 3.48. Question 70 – How does your organisation identify breakthrough proposals within the conventional instruments? They are...

Base: All respondents (n=30); data in percent (multiple answers)

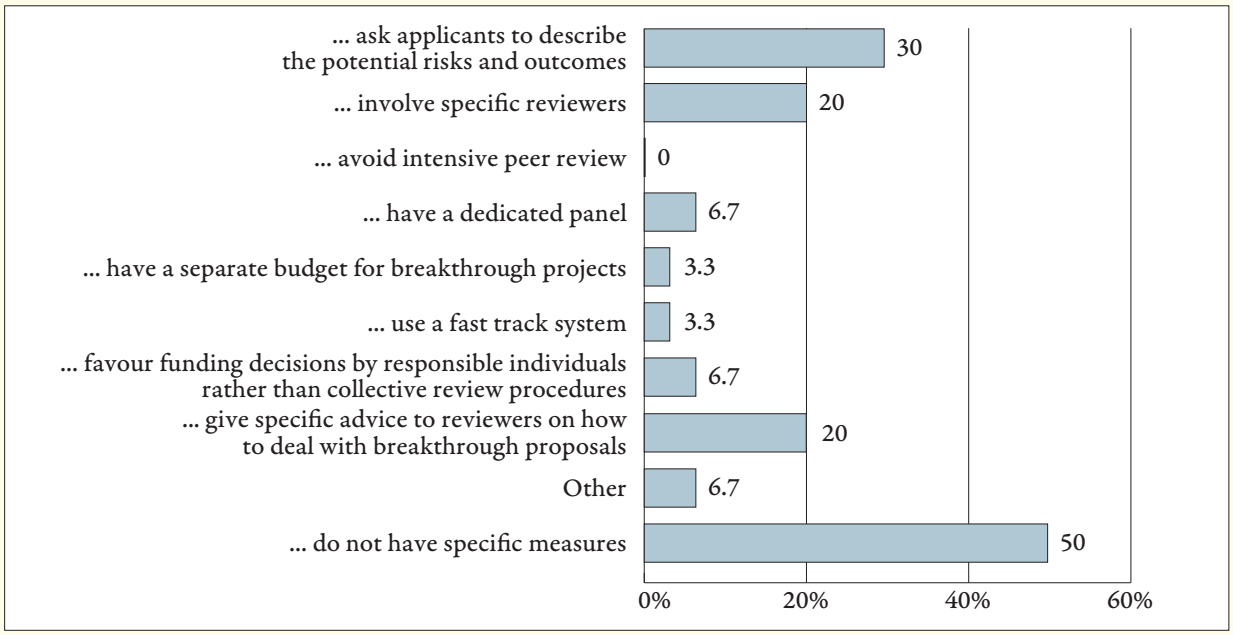

Figure 3.10. Question 71.1 – Which specific measures does your organisation use to support the evaluation process of breakthrough proposals for conventional instruments in your organisation?

Base: All respondents (n=30); data in percent (multiple answers)

3.12 Breakthrough proposals – Review procedures in dedicated instruments

3.12.1 Summary

The larger part of the participating organisations (70%) do not have any instruments exclusively dedicated to breakthrough proposals. 20% of the organisations have one dedicated instrument (Table 3.49). The number of applications received per year in the organisations' dedicated instrument(s) differs considerably and ranges from 25 to several thousand applications (Table 3.50). In order to support the evaluation of breakthrough proposals, these organisations mainly rely on two specific measures: asking applicants to describe the potential risks and outcomes (67%) and/or giving specific advice to reviewers on how to deal with breakthrough proposals (67%; Figure 3.11).

3.12.2 Detailed data

	Total	
	Absolute number	In %
0 instruments	21	70
1 instruments	6	20
2 instruments	1	3.3
8 instruments	1	3.3
30 instruments	1	3.3

Table 3.49. Question 67 – How many funding instruments does your organisation have which are dedicated exclusively to breakthrough proposals?

Base: All respondents (n=30); data in percent (multiple answers)

	Total	
	Absolute number	In %
25 - 100 applications	3	33.3
101 - 500 applications	4	44.4
3,000 - 6,000 applications	2	22.2

Table 3.50. Question 68 – How many applications does your organisation get on average across these dedicated instruments? Please insert the annual average:

Base: Respondents that have funding instruments exclusively dedicated to breakthrough proposals (n=9); data in percent (single answer)

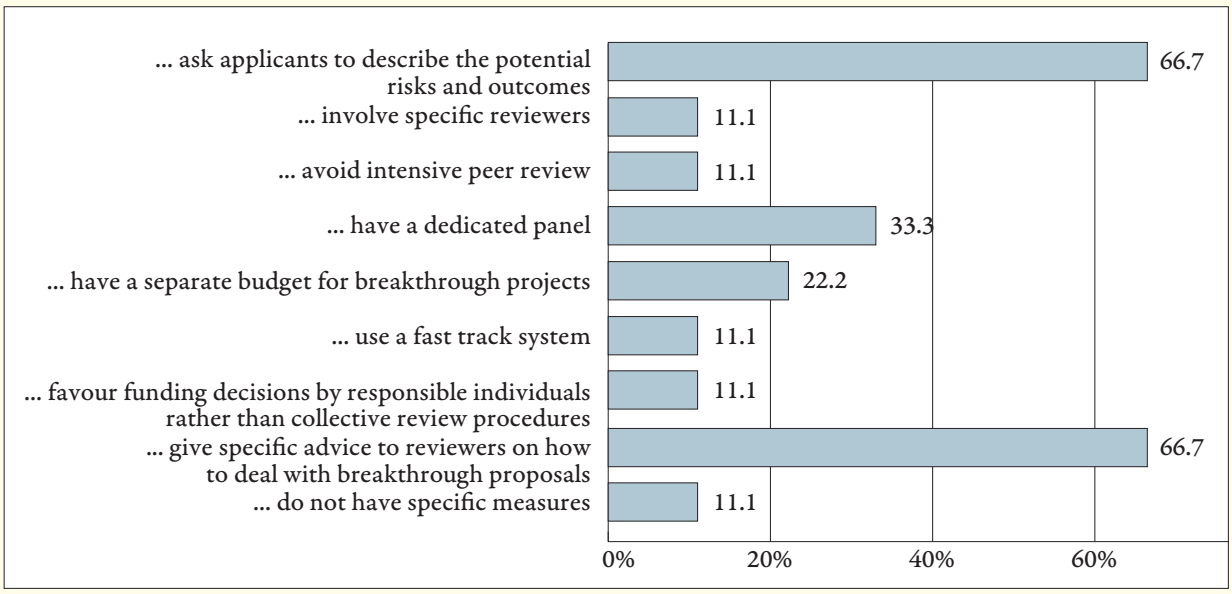

Figure 3.11. Question 71.2 – Which specific measures does your organisation use to support the evaluation process of breakthrough proposals in your organisation for dedicated instruments? You...

Base: Respondents that have funding instruments exclusively dedicated to breakthrough proposals (n=9); data in percent (multiple answers)

3.12.3 Evaluative questions on breakthrough proposals: summary

Table 3.51 and Table 3.52 display the mean scores for the effectiveness of evaluating breakthrough research proposals grouped by the specific measures.

Table 3.51 covers breakthrough proposals that are submitted in conventional instruments, Table 3.52 covers applications that are submitted for dedicated breakthrough research instruments. Based on the difference-scores it is easy to define the specific measures that help to support the evaluation of breakthrough research in conventional instruments. The most positive effect can be observed for the description of potential risks and outcomes by the applicants, followed by having a separate budget, and the involvement of specific reviewers. No other measures affected the effectiveness of evaluating breakthrough research proposals.

Accordingly, distinct measures that support the evaluation of breakthrough research can be identified also in dedicated instruments (Table 3.52). The most promising measures seem to be to ask applicants to describe potential risks and outcomes. All other differences rely on too few cases and can therefore not be properly interpreted.

3.12.4 Detailed data

Specific measures to support the evaluation of breakthrough proposals in conventional instruments (Q71)	Effectiveness of evaluating breakthrough proposals in conventional instruments (Q72)	Control group	Difference	sd	d	n
Ask applicants to describe potential risks and outcomes	2.2	3.7	1.4	1.2	1.2	9
Involve specific reviewers	2.5	3.0	0.5		0.4	6
Avoid intensive peer review	N/A	N/A	N/A		N/A	0
Have a dedicated panel	3.0	2.8	-0.2		-0.2	2
Have a separate budget	2.0	2.9	0.9		0.7	1
Use a fast track system	3.0	2.8	-0.2		-0.2	1
Favour funding decisions by responsible individuals rather than collective review procedures	3.0	2.8	-0.2		-0.2	2
Give specific advice to reviewers on how to deal with breakthrough proposals	2.8	2.8	-0.1		0.0	6

Table 3.51

Specific measures to support the evaluation of breakthrough proposals in dedicated instruments (Q71)	Effectiveness of evaluating breakthrough proposals in dedicated instruments (Q72)	Control group	Difference	sd	d	n
Ask applicants to describe potential risks and outcomes	1.5	2.0	0.5	0.5	1.0	6
Involve specific reviewers	1.0	1.6	0.6		1.2	1
Avoid intensive peer review	2.0	1.6	-0.4		-0.9	1
Have a dedicated panel	1.7	1.6	-0.1		-0.1	3
Have a separate budget	1.5	1.7	0.2		0.3	2
Use a fast track system	2.0	1.6	-0.4		-0.9	1
Favour funding decisions by responsible individuals rather than collective review procedures	2.0	1.6	-0.4		-0.9	1
Give specific advice to reviewers on how to deal with breakthrough proposals	1.7	1.5	-0.2		-0.3	6

1 = very high; 6 = very low

Table 3.52

4. Results – Peer review procedures for three selected instruments

N.B.: Across the different Tables and Figures illustrating the results of the survey, the number of responding organisations might vary according to the questions. This results from the filters included in the survey and from the fact that some questions were mandatory while others were optional. The number of responding organisations for each question is indicated at the bottom of each table or figure.

4.1 Selected instruments

- **Individual Research Programmes**
  Funding line dedicated to proposals submitted by a single investigator or a group of investigators in the same team. These proposals typically include only one set of self-contained research goals, work plan and budget

- **Career Development**
  Funding line dedicated to supporting career progression of researchers and scholars through awards, fellowships, appointments, professorships, Chairs, etc.

- **International Collaborative Research Programmes**
  Funding line dedicated to proposals comprising groups of applicants from more than one country enhancing international collaboration on specific research projects

4.1.1 Summary

As a result of the algorithm described in Chapter 1 on methodology, the following number of responding organisations described the main three funding instruments: 27 organisations described their *Individual Research Programmes*, 25 organisations described their *Career Development* programmes and 19 organisations described their *International Collaborative Research Programmes* (Table 4.1). The other instruments were described significantly less frequently. The results on these latter instruments will therefore not be reported here, but taken into account in Part II of the European Peer Review Guide.

Concerning possible differences in the peer review procedure for the three main instruments according to scientific disciplines, a large majority of the organisations stated that there were either no differences at all or not substantial differences between the disciplines (sum of these two options for the three instruments are: 93%, 89% and 85%, respectively; Table 4.2). This aspect will therefore not be further taken into account in the following analyses.

4.1.2 **Detailed data**

	Total	
	Absolute number	In %
Individual Research Programmes	27	90
Career Development	25	83.3
International Collaborative Research Programmes	19	63.3
Scientific Networks	6	20
Major Prize	2	6.7
National Collaborative Research Programmes	2	6.7
Centres of Excellence	2	6.7
Scholarships	1	3.3
Infrastructure Programmes	0	0
Knowledge Transfer	0	0
Other funding programmes	0	0

Table 4.1. Instruments selected for detailed description

Base: All respondents (n=30); data in absolute numbers and percent (multiple answers)

	Individual Research Programmes	**Career Development**	**International Collaborative Research Programmes**
No, the procedures are the same	63.0%	88.5%	70.0%
No, the procedures differ only slightly	29.6%	0%	15.0%
Yes, the procedures substantially differ	7.4%	11.5%	15.0%
	n = 27	n = 25	n = 19

Table 4.2. Question 6 – Do the peer review procedures for this instrument differ substantially between disciplines?

Base: All respondents; data in percent (single answers)

4.2 General features of a call

4.2.1 Summary

Most organisations include both remote and panel review in the peer review procedures for full proposals in the instruments (76-82%; Table 4.3). A right to reply is allowed for about a quarter of *Individual Research Programmes* (26%) and of *Career Development* programmes (28%), while only for 16% of *International Collaborative Research Programmes*. For all these three instruments presentations by the applicants and site visits are only rarely included (Table 4.4).

Likewise, the alternative peer review procedure called 'reader system' is only seldom applied (see Table 4.5).

The final funding decision is mostly made by either a standing committee composed of researchers (32-44%) or by the organisation's executive management (24-37%; Figure 4.1).

Most of the participating organisations provide detailed guidelines to the applicants for writing the proposals in all three instruments (74-85%; Table 4.6).

Concerning the usage of the internet to organise the peer review processes, for *Individual Research Programmes* and *Career Development* programmes it seems very common to do the submission of proposals online (82% and 80% respectively), as well as the submission of the remote reviewers' assessments (70% and 64% respectively); for *International Collaborative Research Programmes* this seems somewhat less likely (58% for applicants' online submission and 53% for remote reviewers' online submission) (Figure 4.2).

4.2.2 Detailed data

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
Remote and panel review	22	81.5	19	76	15	78.9
	n=27		n=25		n=19	

Table 4.3. Organisations that include both remote and panel review in the peer review procedures of an instrument

Base: All respondents; data in absolute numbers and in percent (multiple answers)

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
Remote review	25	92.6	22	88.0	17	89.5
Panel review	24	88.9	21	84.0	15	78.9
Right to reply ('Rebuttal')	7	25.9	7	28.0	3	15.8
Presentation by applicants	3	11.1	2	8.0	3	15.8
Site visit	1	3.7	1	4.0	2	10.5
Other	4	14.8	5	20.0	5	26.3
	n=27		n=25		n=19	

Table 4.4. Question 98 – Which of the following components are contained in the review procedure of full proposals?

Base: All respondents; data in absolute numbers and in percent (multiple answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
Yes	14.8%	12.0%	5.3%
No	85.2%	88.0%	94.7%
	n=27	n=25	n=19

Table 4.5. Question 102 – Do you proceed according to the 'reader system' when organising the review for this instrument?

Base: All respondents; data in percent (single answers)

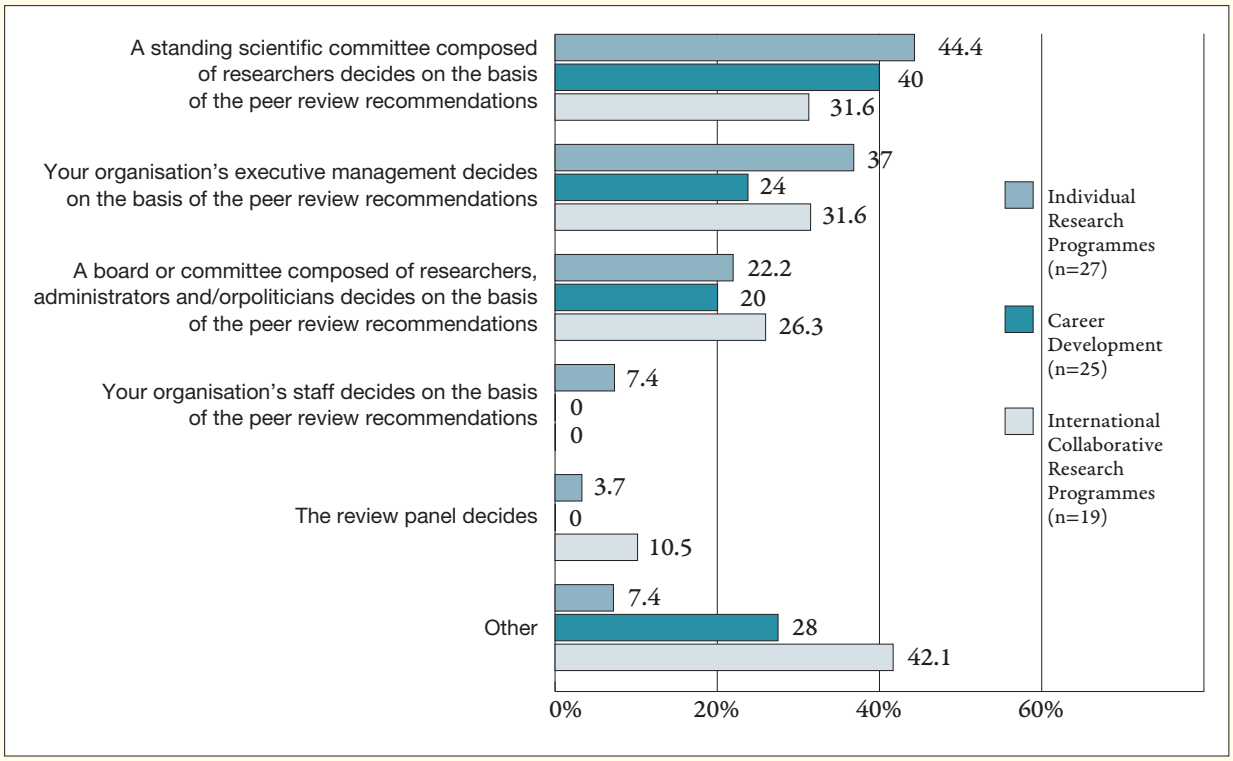

Figure 4.1. Question 91 – Who is in charge of the final funding decision for this instrument?

Base: All respondents; data in percent (multiple answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
Yes	85.2%	84.0%	73.7%
Partially	7.4%	8.0%	21.1%
No	7.4%	8.0%	5.3%
	n=27	n=25	n=19

Table 4.6. Question 84 – Does your organisation provide the applicants with detailed guidelines (*i.e.*, a dedicated document) for writing the proposals for this instrument?

Base: All respondents; data in percent (single answers)

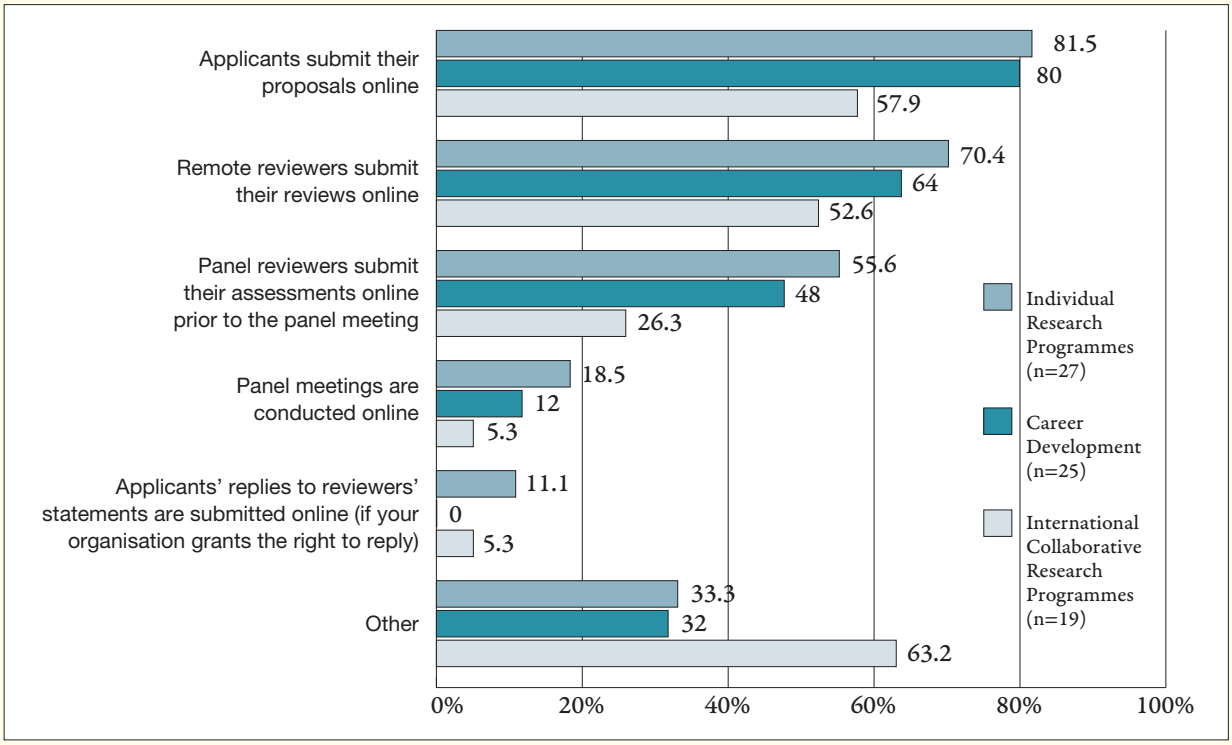

Figure 4.2. Question 88 – Are parts of the submission and review process done online in this instrument?

Base: All respondents; data in percent (multiple answers)

4.3 Timelines for peer review procedures

4.3.1 Summary

Concerning the frequency of the calls, there is a strong tendency for *Individual Research Programmes* and *Career Development* programmes to issue the calls regularly (78% and 84%; Table 4.7), most commonly once a year (81% and 67%; Table 4.8). For *International Collaborative Research Programmes*, the pattern is less clear. Of the responding organisations, 32% issue a continuous call for this instrument, while 37% issue the call regularly (Table 4.7). All organisations issuing this call regularly tend to publish it every year (57%) or every other year (43%; Table 4.8).

As to the duration of the peer review procedure, the period between launch of a call and the deadline for submission by the applicants is usually 1-5 months (77-82%; Table 4.9). The time between the submission of the proposal and the start of the funding takes 6-10 months in most organisations (60-68%; Table 4.10).

4.3.2 Detailed data

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
Continuous call	18.5%	4.0%	31.6%
Regularly, at certain intervals	77.8%	84.0%	36.8%
Non-recurring call	3.7%	4.0%	15.8%
Other	0.0%	8.0%	15.8%
	n=27	n=25	n=19

Table 4.7. Question 74 – How frequently is the call for this instrument issued?

Base: All respondents; data in percent (single answers)

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
6 months	4	19.0	5	23.8	–	–
12 months	17	81.0	14	66.7	4	57.1
24 months	–	–	2	9.5	3	42.9
	n=21		n=21		n=7	

Table 4.8. Question 75 – If the call for this instrument is issued regularly, at which interval? Every … month(s)

Base: Respondents whose call is regularly issued; data in absolute numbers and in percent (multiple answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
1 - 5 months	81.8%	79.2%	76.9%
6 - 10 months	13.6%	16.7%	–
Not applicable	4.5%	4.2%	23.1%
	n=22	n=24	n=13

Table 4.9. Question 86 – How long is the period between the launch of the call and the deadline for submission in this instrument?

Base: Respondents whose call is not a continuous call; data in percent (single answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
1 - 5 months	33.3%	32.0%	10.5%
6 - 10 months	66.7%	60.0%	68.4%
11 - 20 months	–	4.0%	–
Not applicable	–	4.0%	21.1%
	n=27	n=25	n=19

Table 4.10. Question 89.1 – How long is the average period between the submission of the proposal and the funding in this instrument?

Base: All respondents; data in percent (single answers)

4.4 Features of the written proposal

4.4.1 Summary

The language mostly used for all three instruments is English (63-79%; Table 4.11). The length of a final/full proposal varies considerably across the participating organisations, between approximately 5 and 25 pages for all three instruments (Table 4.12).

4.4.2 Detailed data

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
English	63.0%	68.0%	78.9%
Your organisation's official language(s)	22.2%	16.0%	15.8%
Other	14.8%	16.0%	5.3%
	n=27	n=25	n=19

Table 4.11. Question 78 – Which language is commonly used in the application and review process for this instrument?

Base: All respondents; data in percent (single answers)

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
up to 5 pages	3	14.3	1	5.9	2	16.7
6-10 pages	4	19	5	29.4	2	16.7
11-15 pages	4	19	3	17.6	2	16.7
16-20 pages	4	19	1	5.9	2	16.7
21-25 pages	4	19	4	23.5	1	8.3
26-30 pages	1	4.8	–	–	1	8.3
31-50 pages	1	4.8	1	5.9	1	8.3
51-60 pages	–		–		1	8.3
	n=21		n=17		n=12	

Table 4.12. Question 85.1 – Please indicate the page limit for a final/full proposal in this instrument.

Base: Respondents that indicate whether there is a page limit for a final/full proposal in this instrument; data in absolute numbers and in percent (multiple answers)

4.5 **Eligibility criteria**

4.5.1 **Summary**

Most organisations allow the applicants themselves to submit the proposal (68-76%; Table 4.13). About one-third of the organisations, however, do alternatively or additionally expect the applicants' host institutions to submit the proposal (26-32%).

The eligibility criteria as such can take various forms, completeness of the application being the most important factor (88-95%; Table 4.14).

4.5.2 **Detailed data**

	Individual Research Programmes		**Career Development**		**International Collaborative Research Programmes**	
	Absolute number	%	Absolute number	%	Absolute number	%
Applicants have to submit the proposal themselves	20	74.1	19	76.0	13	68.4
Proposals have to be submitted by the applicant's host institution	8	29.6	8	32.0	5	26.3
Candidates have to be nominated by a third party	0	0	0	0	0	0
Other	2	7.4	2	8.0	2	10.5
	n=27		n=25		n=19	

Table 4.13. Question 79 – Who is allowed to submit a proposal to this instrument?

Base: All respondents; data in absolute numbers and in percent (multiple answers)

	Individual Research Programmes		**Career Development**		**International Collaborative Research Programmes**	
	Absolute number	%	Absolute number	%	Absolute number	%
Completeness of the application	25	92.6	22	88.0	18	94.7
Timeliness of the submission	20	74.1	21	84.0	15	78.9
General fit of the proposal with the instrument's purpose	19	70.4	21	84.0	15	78.9
Institutional, regional, national affiliation of the applicant	18	66.7	14	56.0	14	73.7
Other	14	51.9	10	40.0	7	36.8
	n=27		n=25		n=19	

Table 4.14. Question 82 – Which other criteria are used to check eligibility for this instrument?

Base: All respondents; data in absolute numbers and in percent (multiple answers)

4.6 Conflict of interest

4.6.1 Summary

Concerning a check for conflict of interest on the side of the reviewer, for remote as well as for panel reviewers, the most common approach is to ask the reviewers themselves to check for any conflicts (82-92% for remote and 73-96% for panel reviewers). This procedure is closely followed by asking the organisation's scientific staff to check for a reviewer's potential conflicts of interest (64-82% for remote and 71-87% for panel reviewers). Many organisations also ask the reviewers to sign a statement confirming that there are no conflicts of interest if this is the case (59-60% for remote and 67-75% for panel reviewers; see Tables 4.15 and 4.16).

4.6.2 Detailed data

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
Members in your organisation's scientific staff check whether there are potential reasons for a conflict of interest on the side of the reviewers. If there are, the potential reviewer is excluded	16	64.0	17	77.3	14	82.4
The reviewers are asked to check for potential conflicts themselves and possibly withdraw from the assessment	23	92.0	20	90.9	14	82.4
The reviewers have to sign a statement confirming that there are no conflicts of interest	15	60.0	13	59.1	10	58.8
Other	1	4.0	–	–	2	11.8
There is no check for conflict of interest	1	4.0	1	4.5	0	0
	n=25		n=22		n=17	

Table 4.15. Question 110.1 – How is a possible bias/conflict of interest identified on the side of the remote reviewers in this instrument?

Base: Respondents whose review procedure contains remote review; data in absolute numbers and in percent (multiple answers)

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
Members in your organisation's scientific staff check whether there are potential reasons for a conflict of interest on the side of the reviewers. If there are, the potential reviewer is excluded	19	79.2	15	71.4	13	86.7
The reviewers are asked to check for potential conflicts themselves and possibly withdraw from the assessment	23	95.8	20	95.2	11	73.3
The reviewers have to sign a statement confirming that there are no conflicts of interest	18	75.0	15	71.5	10	66.7
Other	–	–	–	–	2	13.3
There is no check for conflict of interest	0	0	0	0	0	0
	n=26		n=21		n=15	

Table 4.16. Question 110.2 – How is a possible bias/conflict of interest identified on the side of the panel reviewers in this instrument?

Base: Respondents whose review procedure contains panel review; data in absolute numbers and in percent (multiple answers)

4.7 Preliminary selection

4.7.1 Summary

For *Individual Research Programmes* and *Career Development Programmes* the preliminary selection takes place mostly on the basis of the final/full proposal (64% and 73%). For *International Collaborative Programmes*, however, the preliminary selection is done most frequently on the basis of a preliminary or outline proposal (86%; Table 4.17). Over all three instruments, the page limit for a preliminary proposal ranges from 2-15 pages (Table 4.18).

Across all three instruments, the reviewers in charge of the preliminary selection are mostly international reviewers, *i.e.*, reviewers working outside the participating organisations' countries (50-60%; Table 4.19).

4.7.2 Detailed data

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
Letter of intent	1	7.1	1	9.1	1	14.3
Preliminary or outline proposal	6	42.9	5	45.5	6	85.7
Final/full proposal	9	64.3	8	72.7	3	42.9
Other	1	7.1	1	9.1	1	4.3
	n=14		n=11		n=7	

Table 4.17. Question 93 – On the basis of which kind of proposal does the preliminary selection for this instrument take place?

Base: Respondents whose peer review process contains preliminary selection; data in absolute numbers and in percent (multiple answers)

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
1	–	–	–	–	1	20
2-5	2	50	3	100	2	40
6-10	1	25	–	–	–	–
11-15	1	25	–	–	1	20
16-20	–	–	–	–	1	20
	n=4		n=3		n=5	

Table 4.18. Question 93.2 – Please indicate the page limit for the preliminary or outline proposal in this instrument

Base: Respondents whose peer review process contains preliminary selection (optional question); data in percent (single answers)

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
External reviewers working in an institution based outside your organisation's country	7	58.3	6	60.0	2	50.0
External reviewers working in an institution based in your organisation's country	4	33.3	2	20.0	1	25.0
Your organisation's scientific staff	3	25.0	3	30.0	2	50.0
Your organisation's standing committee	3	25.0	4	40.0	1	25.0
Other	2	16.7	2	20.0	3	75.0
	n=12		n=10		n=4	

Table 4.19. Question 94 – Who carries out the reviews at the preliminary selection stage for this instrument?

Base: Non-international respondents whose peer review process contains preliminary selection; data in absolute numbers and in percent (multiple answers)

4.8 Remote review – Reviewer selection

4.8.1 Summary

In order to select adequate remote reviewers, most participating organisations turn to their scientific staff (60-71%; Table 4.20).

The most common approaches to find and select remote reviewers are through A. internet search (64-77%), B. searching of literature databases (57-77%) and C. searching the organisation's database or pool of reviewers (59-71%; Figure 4.3).

Concerning the background of the selected remote reviewers, many organisations select 51-100% international reviewers, *i.e.*, reviewers working outside the organisation's country (48% for *Individual Research Programmes*, 46% for *Career Development* and 41% for *International Collaborative Research Programmes*; Figure 4.4). Only very few organisations select the remote reviewers from their organisation's standing committee (Figure 4.5).

Remote reviewers are most commonly replaced with every review conducted (72-82%; Table 4.21).

4.8.2 **Detailed data**

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
Specialised scientific staff members	15	60.0	15	68.2	12	70.6
Ad hoc scientific committee	4	16.0	5	22.7	2	11.8
Standing scientific committee	10	40.0	9	40.9	4	23.5
Not applicable, since all experts are members of our organisation's standing committee(s) and thereby mandated to do the review	0	0	1	4.5	0	0
Other	5	20.0	1	4.5	2	11.8
	n=25		n=22		n=17	

Table 4.20. Question 106.1 – Who is in charge of selecting remote reviewers for a specific proposal for this instrument?

Base: Respondents whose review procedure contains remote review; data in absolute numbers and in percent (multiple answers)

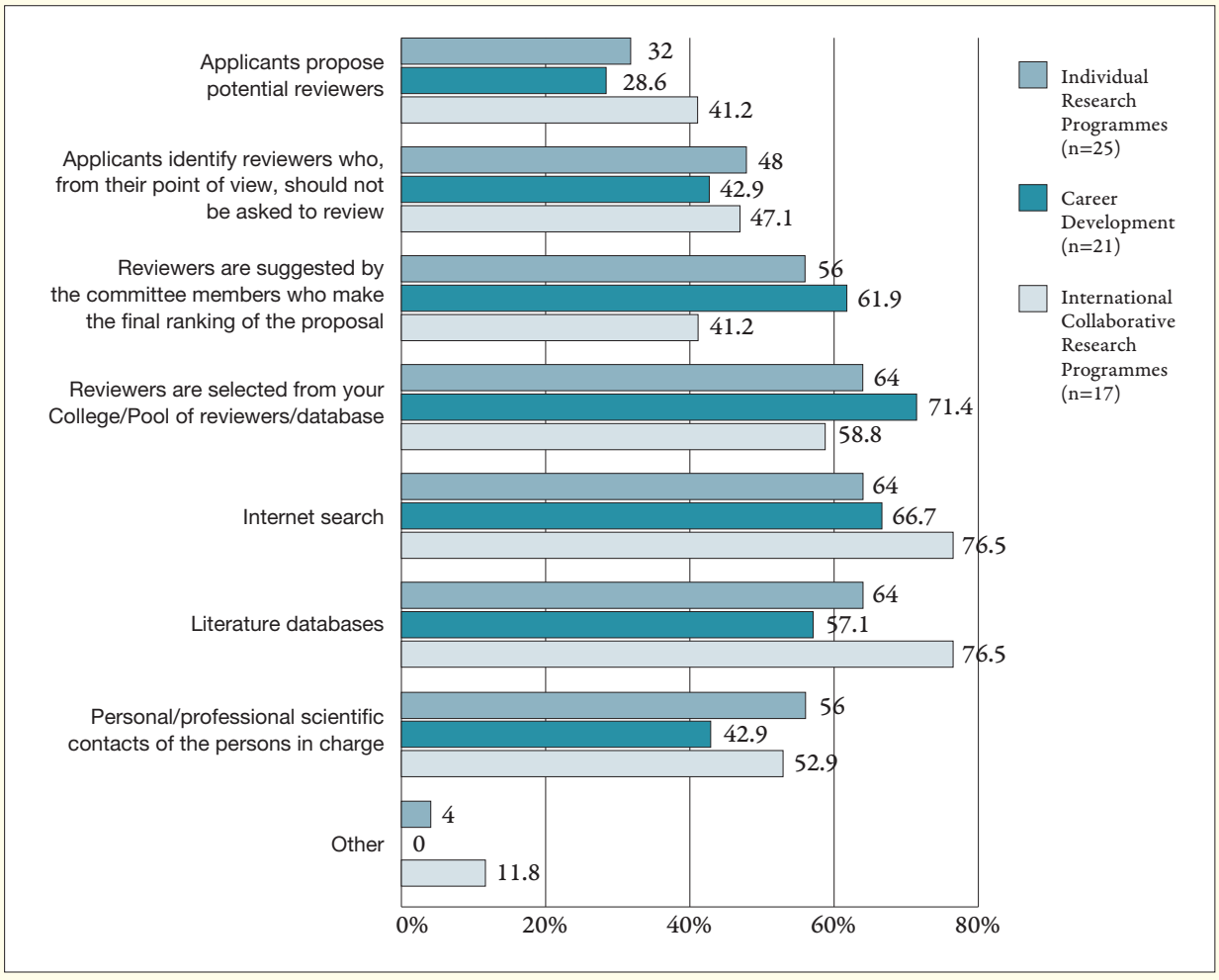

Figure 4.3. Question 107.1 – How are potential remote reviewers identified for this instrument?

Base: Respondents whose review procedure contains remote review (external experts); data in percent (multiple answers)

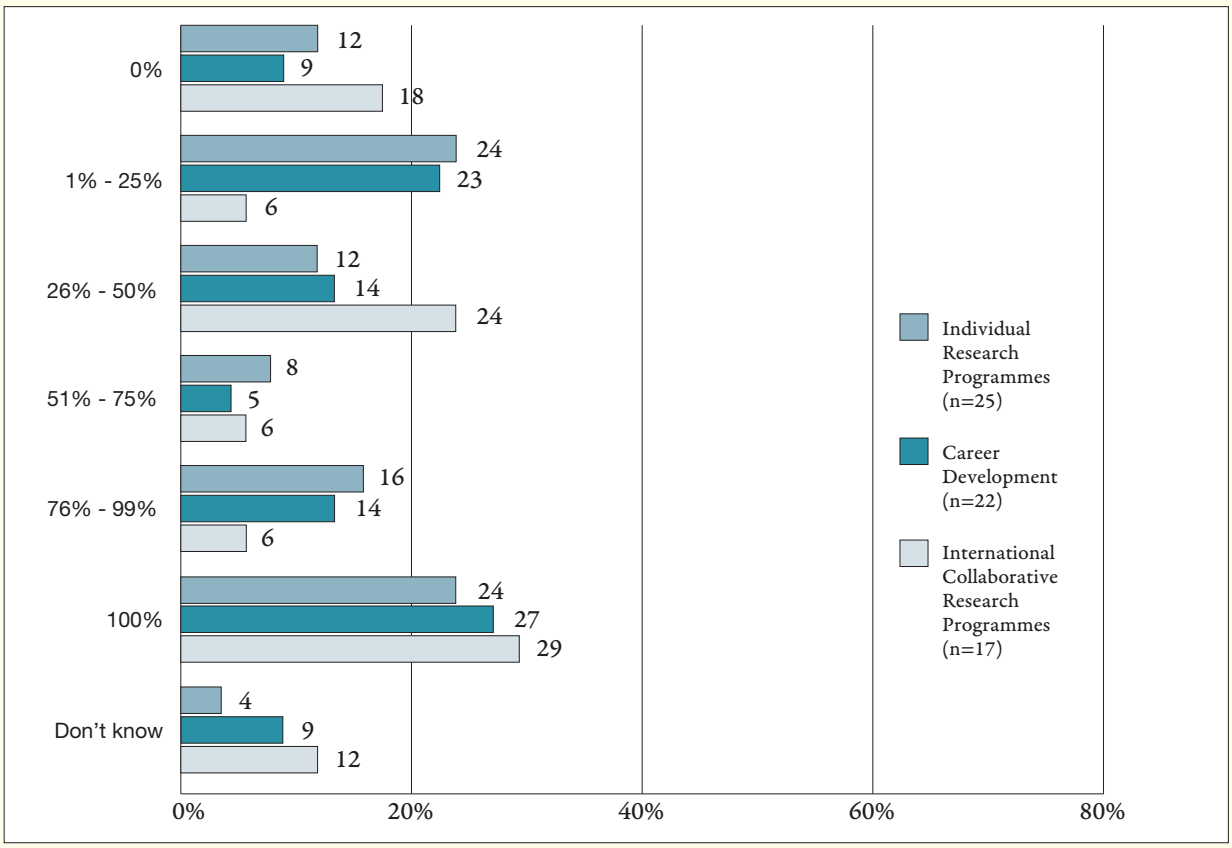

Figure 4.4. Question 105.1.2 – Reviewer selection: Share of remote reviewers selected from external international experts

Base: Respondents whose review procedure contains remote review; data in percent (single answers)

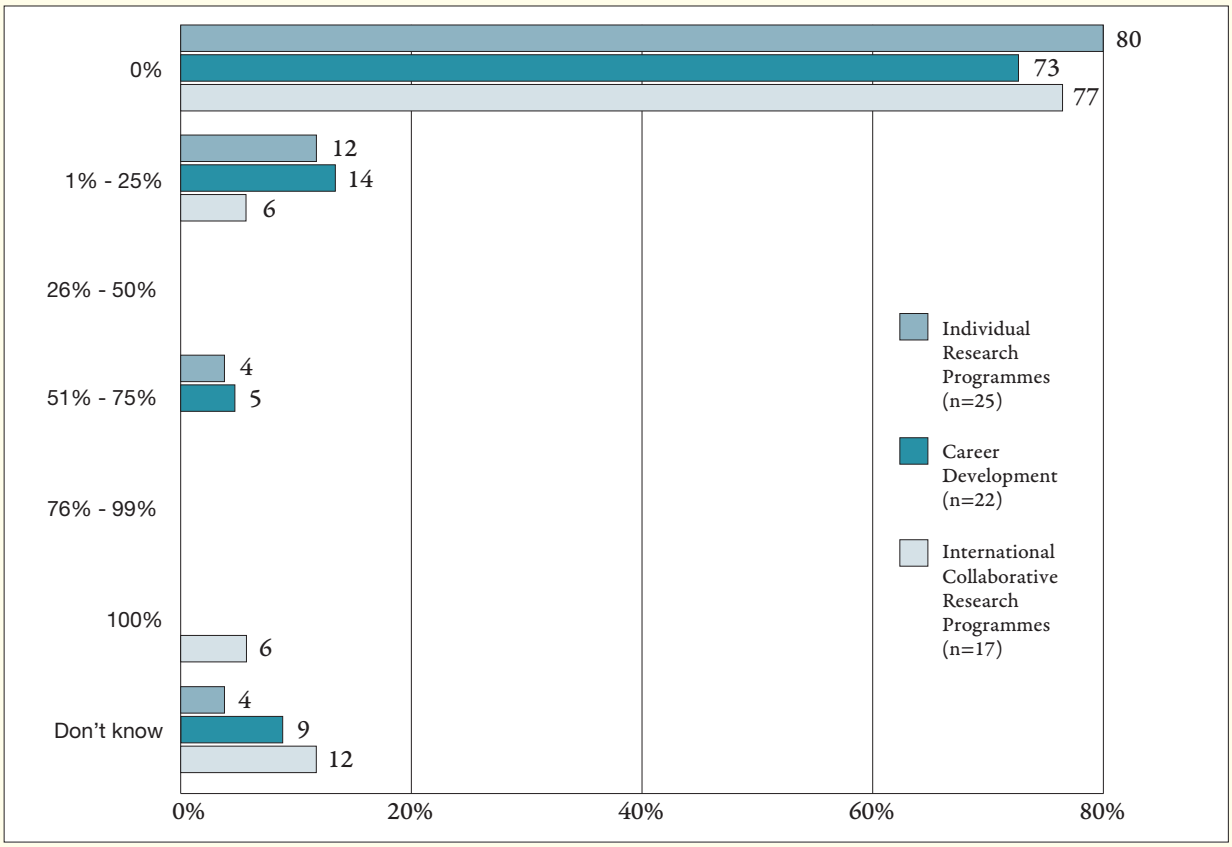

Figure 4.5. Question 105.1.3 – Reviewer selection: Share of remote reviewers selected from your organisation's standing committee(s) that are mandated to do the review.

Base: Respondents whose review procedure contains remote review; data in percent (single answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
With every review needed	72.0%	72.7%	82.4%
Regularly, at certain intervals	8.0%	9.1%	0
Irregularly, as the need arises	4.0%	9.1%	0
Other	12.0%	9.1%	11.8%
Don't know	4.0%	0	5.9%
	n=25	n=22	n=17

Table 4.21. Question 118 – How frequently are the remote reviewers involved replaced for this instrument?

Base: Respondents whose procedure includes remote review; data in percent (single answers)

4.9 Remote review – Reviewers' working prerequisites

4.9.1 Summary

Many responding organisations report that they do not have a fixed maximum limit on the number of proposals they allocate to each remote reviewer (29-46%). For those that have a fixed limit, each reviewer is responsible for 1-10 proposals (45-52%; Figure 4.6). The time granted to the remote reviewers to complete their assessments is most commonly 16-30 days (41-50%; Table 4.22). A standard assessment form for remote reviewers is provided by almost all organisations in an electronic version (88-92%; Table 4.23). The remote reviewers document their reviews of the proposals for all three instruments both by assigning scores and providing comments in almost all organisations (91-100%; Table 4.24).

4.9.2 Detailed data

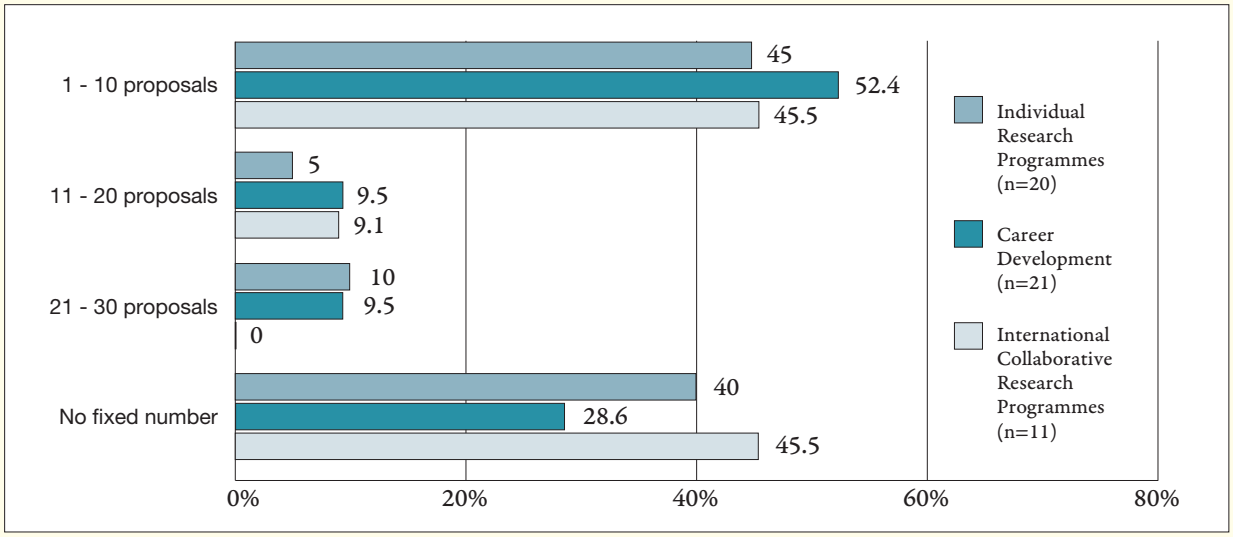

Figure 4.6. Question 112.2 – How many proposals is every remote reviewer responsible for on average per call in this instrument? Maximum:

Base: Respondents whose procedure includes remote review and whose call is not a continuous call; data in percent (single answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
1 – 15 days	24.0%	22.7%	17.6%
16 – 30 days	44.0%	50.0%	41.2%
31 – 60 days	8.0%	9.1%	5.9%
No fixed number	20.0%	13.6%	17.6%
Not applicable	4.0%	4.5%	17.6%
	n=25	n=22	n=17

Table 4.22. Question 117.1 – How much time is granted to the remote reviewers to complete their assessment on average for this instrument?

Base: Respondents whose procedure includes remote review; data in percent (single answers)

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
Yes, electronic	23	92.0	20	90.9	15	88.2
Yes, paper	3	12.0	2	9.1	4	23.5
No	1	4.0	2	9.1	0	0
	n=25		n=22		n=17	

Table 4.23. Question 115.1 – Is there a standard assessment form for the remote reviewers for this instrument?

Base: Respondents whose procedure includes remote review; data in absolute numbers and in percent (multiple answers)

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
By assigning scores	24	96.0	20	90.9	16	94.1
By providing comments	24	96.0	22	100.0	16	94.1
By ranking the proposals	2	8.0	0	0	1	5.9
	n=25		n=22		n=17	

Table 4.24. Question 116.1 – How do the remote reviewers document their reviews of the proposal for this instrument?

Base: Respondents whose procedure includes remote review; data in absolute numbers and in percent (multiple answers)

4.10 Panel review – Structure and size of the panel

4.10.1 Summary

A majority of the responding organisations favour a clear distinction between remote and panel reviewers for all three instruments (58-68%; Figure 4.7). In most organisations the average size for a panel is 1-10 members (42-60%), and less frequently 11-20 members (20-33%; Table 4.25). The chair of the panel is appointed by the organisations themselves in a majority of the cases (40-67%; Table 4.26). An independent observer can be present in the panels only for 20-25% of the organisations (Table 4.27).

4.10.2 Detailed data

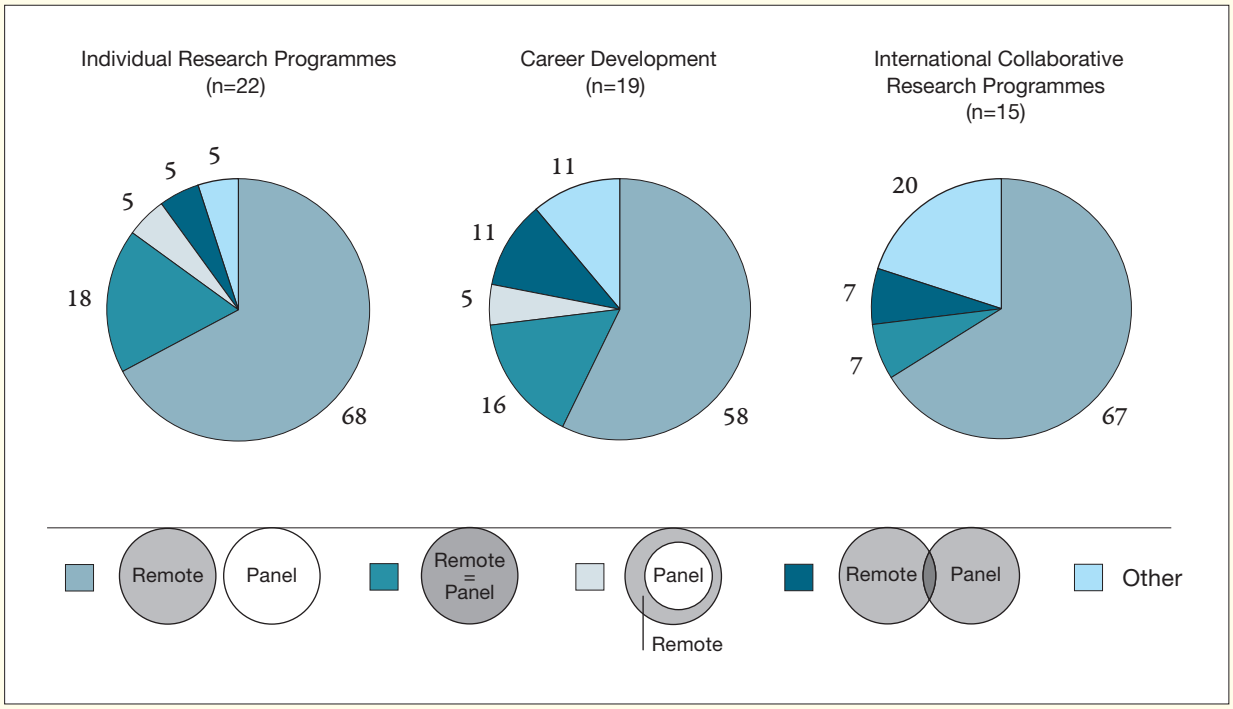

Figure 4.7. Question 99 – Please specify the composition of the review panel

Base: Respondents whose review procedure contains remote and panel review; data in percent (single answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
1 - 10 members	41.7%	60.0%	46.7%
11 - 20 members	33.3%	25.0%	20.0%
21 - 30 members	8.3%	5.0%	–
31 - 40 members	4.2%	–	–
Not applicable	12.5%	10.0%	33.3%
	n=24	n=20	n=15

Table 4.25. Question 122 – What is the average size of a panel for this instrument?

Base: Respondents whose procedure includes panel review; data in percent (single answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
The panel elects its own chair and the chair continues to be a full member of the panel (incl. voting right)	12.5%	9.5%	13.3%
The panel elects its own chair, who then is no longer a full member of the panel (*i.e.*, loses her/his voting right)	0	0	0
The chair of your organisation's standing committee mandated for this review chairs the meeting	16.7%	14.3%	0
The chair is appointed by your organisation	54.2%	66.7%	40.0%
A member of your organisation's management or scientific staff moderates the session (without influencing the scientific discussion and outcome)	4.2%	4.8%	13.3%
Other	12.5%	4.8%	33.3%
	n=24	n=21	n=15

Table 4.26. Question 123 – Who chairs the panel meetings for this instrument?

Base: Respondents whose procedure includes panel review; data in percent (single answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
Yes	25.0%	23.8%	20.0%
No	66.7%	66.7%	80.0%
Partially	8.3%	9.5%	0
	n=24	n=21	n=15

Table 4.27. Question 126 – Does your organisation have an independent observer present in the panel for this instrument?

Base: Respondents whose procedure includes remote review; data in percent (single answers)

4.11 Panel review – Reviewer selection

4.11.1 Summary

Adequate panel reviewers are selected by the scientific staff (52-58%) or by the standing scientific committees (33-43%; Table 4.28) in most responding organisations. Panel reviewers are most commonly selected through A. searching the organisation's database or pool of reviewers (47-70%), B. considering personal/professional scientific contacts of the persons in charge (33-57%) and C. internet search (43-47%; Figure 4.8). Concerning the background of the selected reviewers, approximately one-third of the organisations tend to select 76-100% of international reviewers, *i.e.*, reviewers working outside the organisation's country. However, another third of the organisations do not select any international experts for their panels (Figure 4.9). Only very few organisations select the panel reviewers from their organisation's standing committee (Figure 4.10). Panel reviewers are either replaced at certain intervals (20-46%) or with every call (29-47%; Table 4.29).

4.11.2 Detailed data

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
Specialised scientific staff members	14	58.3	11	52.4	8	53.3
Ad hoc scientific committee	3	12.5	2	9.5	0	0
Standing scientific committee	8	33.3	9	42.9	6	40.0
Not applicable, since all experts are members of your organisation's standing committee(s) and thereby mandated to do the review	3	12.5	1	4.8	0	0
Other	3	12.5	4	19.0	2	13.3
	n=24		n=21		n=15	

Table 4.28. Question 106.2 – Who is in charge of selecting panel reviewers for a specific proposal for this instrument?

Base: Respondents whose review procedure contains panel review; data in absolute numbers and in percent (multiple answers)

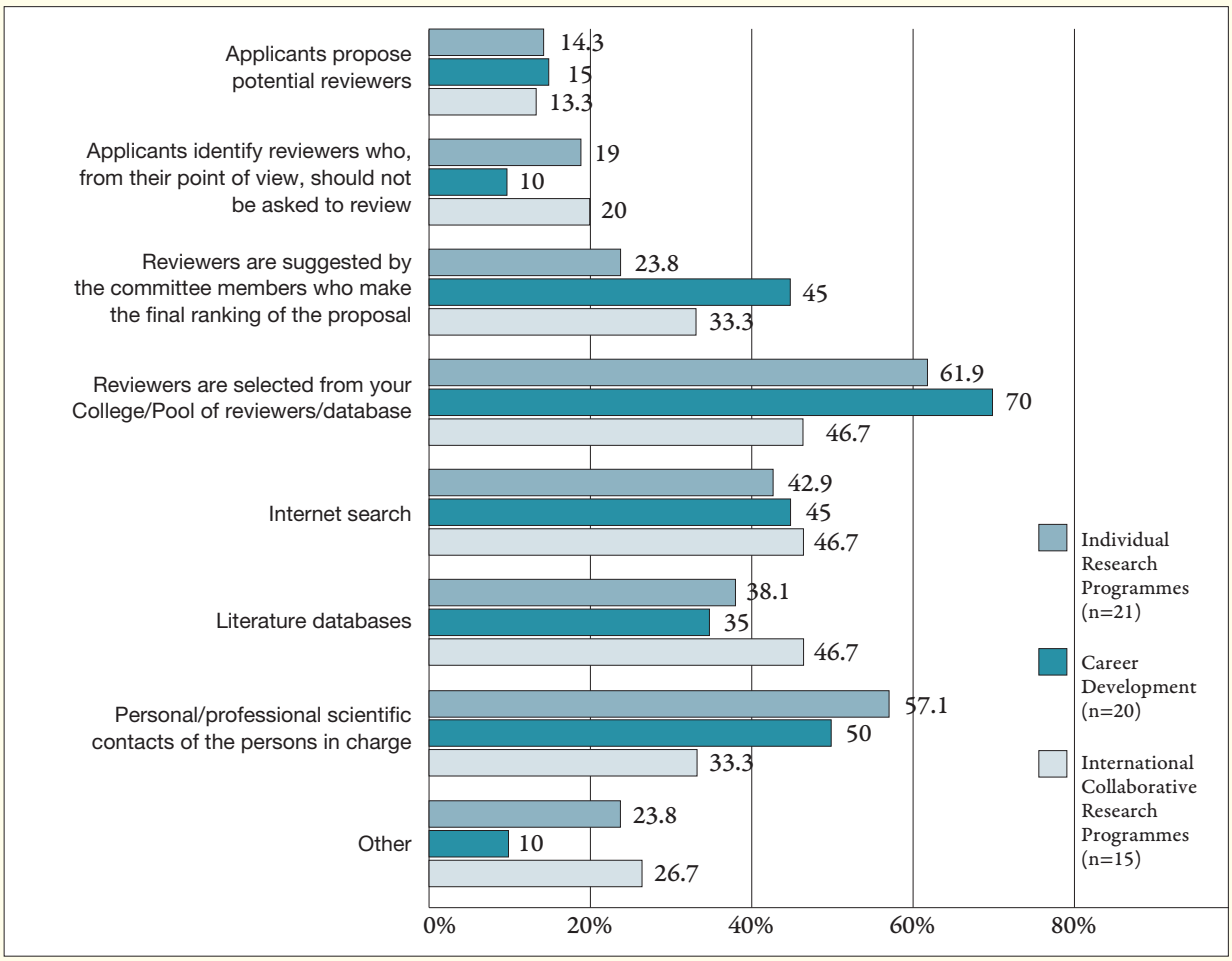

Figure 4.8. Question 107.2 – How are potential panel reviewers identified for this instrument?

Base: Respondents whose review procedure contains panel review (external experts); data in percent (multiple answers)

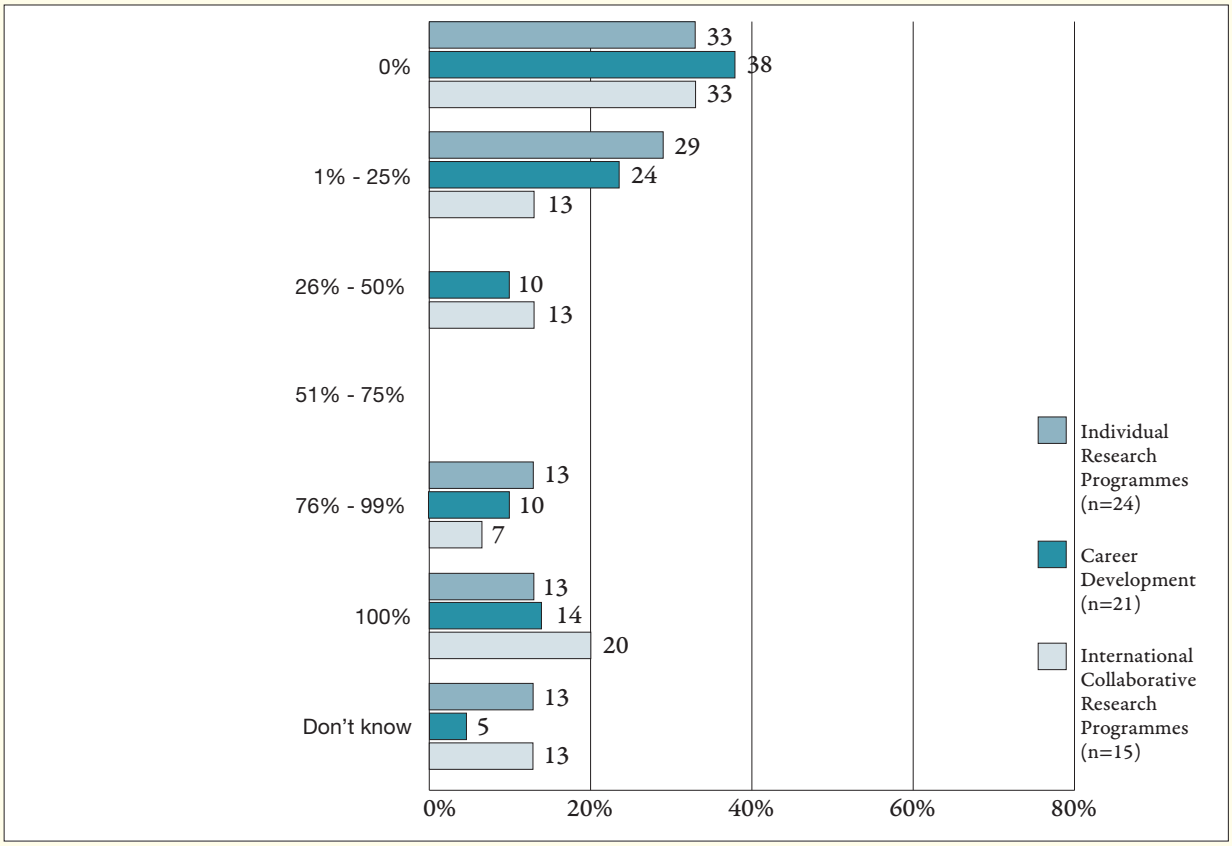

Figure 4.9. Question 105.2.2 – Reviewer selection: Share of panel reviewers selected from external international experts.

Base: Respondents whose review procedure contains panel review; data in percent (single answers)

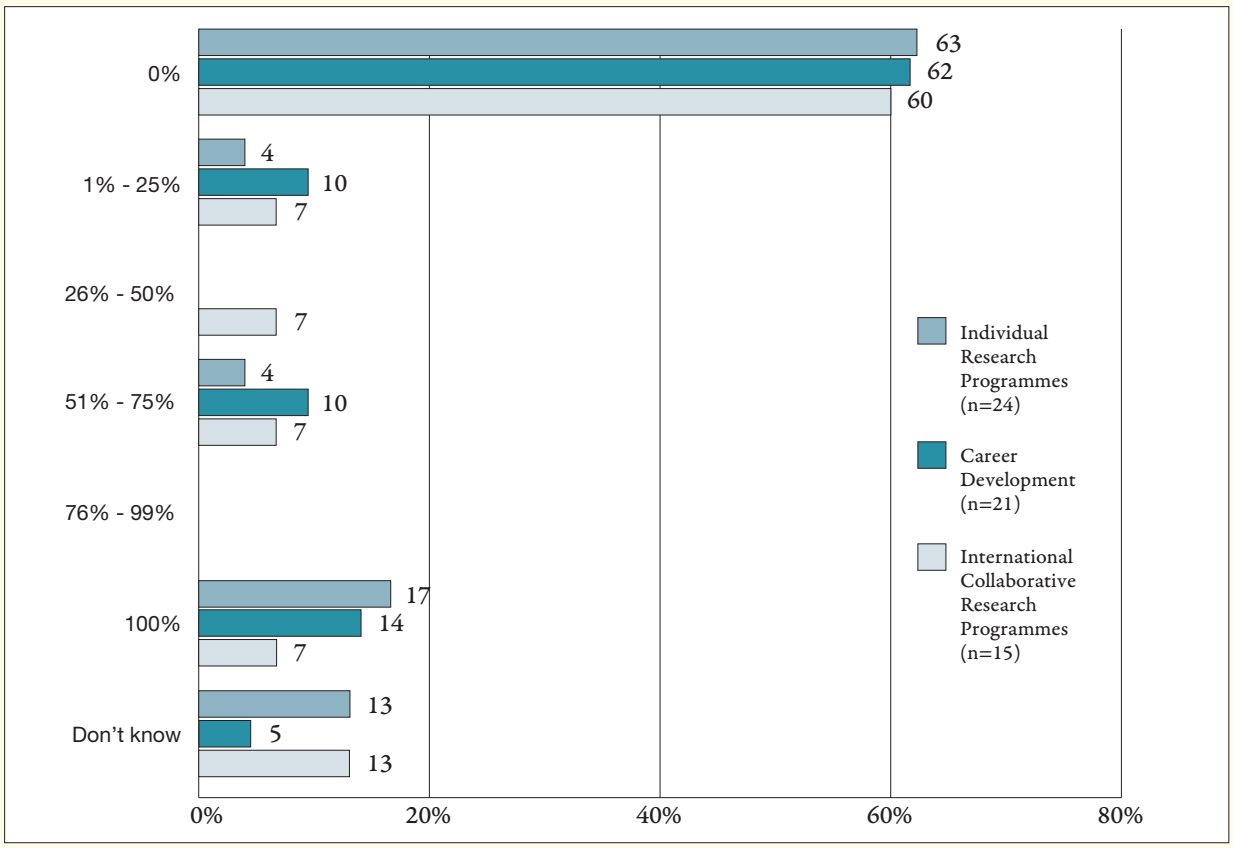

Figure 4.10. Question 105.2.3 – Reviewer selection: Share of panel reviewers selected from your organisation's standing committee(s) that are mandated to do the review.

Base: Respondents whose review procedure contains panel review; data in percent (single answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
Regularly, at certain intervals	45.8%	38.1%	20.0%
With every call	29.2%	28.6%	46.7%
With every panel meeting	8.3%	4.8%	6.7%
Irregularly, as the need arises	16.7%	23.8%	13.3%
Other	–	4.8%	13.3%
Don't know	0	0	0
	n=24	n=21	n=15

Table 4.29. Question 124 – According to the regular membership term, how frequently are the panel members replaced for this instrument?

Base: Respondents whose procedure includes panel review; data in percent (single answers)

4.12 Panel review – Reviewers' working prerequisites

4.12.1 Summary

Most responding organisations reported that they do not have a fixed maximum limit on the number of proposals they allocate to each panel reviewer (45-55%). Among those that have a fixed maximum number, each panel reviewer is most likely responsible for 1-10 proposals (20-46%; Figure 4.11).

The time granted to the panel reviewers to complete their assessments prior to the panel meeting is not fixed for more than one-third of the responding organisations. If a fixed number of days is set, it is mostly up to 30 days (52-54%; Table 4.30).

A standard assessment form for panel reviewers is provided by the majority of the organisations in an electronic version (57-67%; Table 4.31).

The panel reviewers document their reviews of the proposals for all three instruments both by assigning scores and providing comments in almost all responding organisations (80-100%; Table 4.32).

Concerning the funding awarded to the applicants, most organisations ask their panel members to comment on the amounts requested, especially whether the amounts should be lowered (62-80%; Table 4.33).

4.12.2 Detailed data

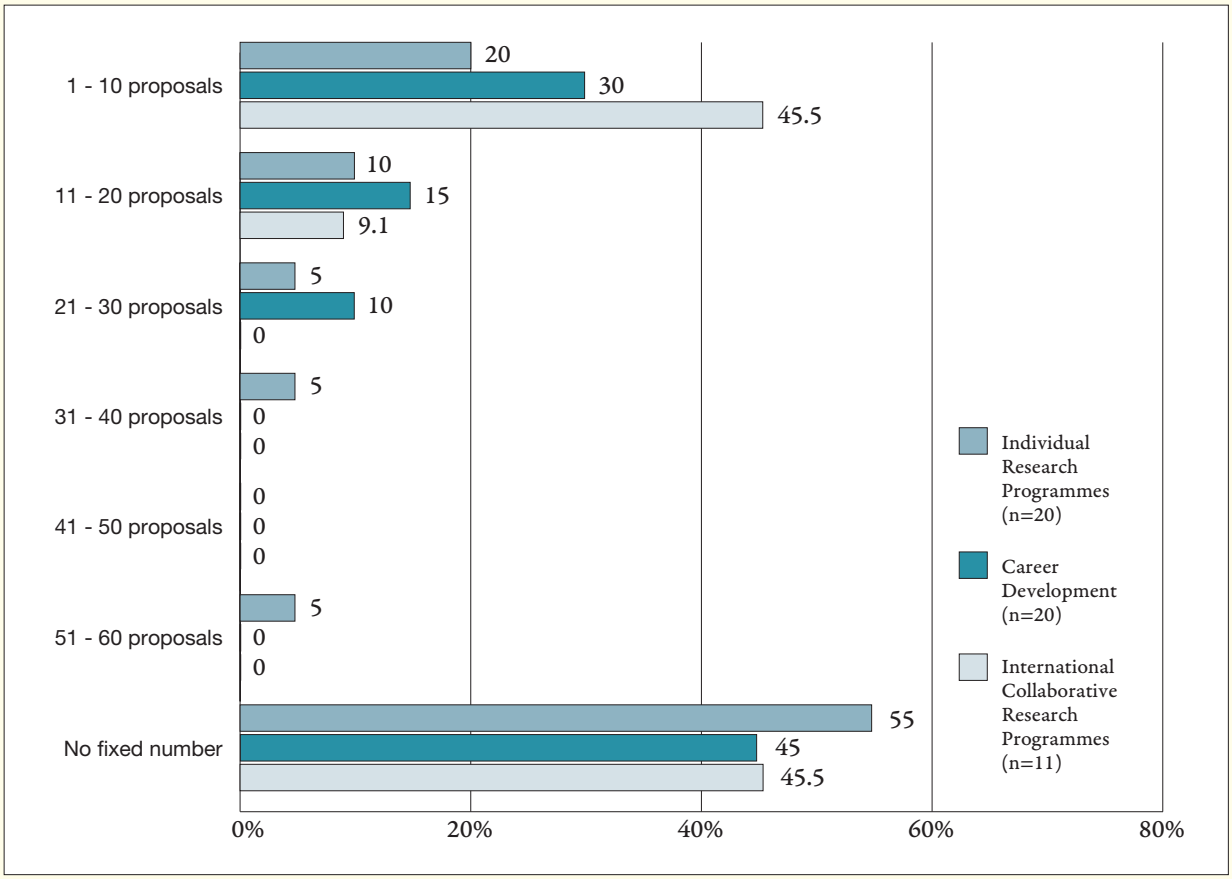

Figure 4.11. Question 112.4 – How many proposals is every reviewer responsible for on average per call in this instrument? Maximum:

Base: Respondents whose procedure includes panel review and whose call is not a continuous call; data in percent (single answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
1 - 15 days	25.0%	38.1%	26.7%
16 - 30 days	29.2%	14.3%	26.7%
31 - 60 days	4.2%	–	–
No fixed number	37.5%	38.1%	33.3%
Not applicable	4.2%	9.5%	13.3%
	n=24	n=21	n=15

Table 4.30. Question 117.2 – How much time is granted to the panel reviewers to complete their assessment prior to the panel meeting on average for this instrument?

Base: Respondents whose procedure includes panel review; data in percent (single answers)

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
Yes, electronic	16	66.7	12	57.1	11	73.3
Yes, paper	4	16.7	5	23.8	4	26.7
No	4	16.7	5	23.8	1	6.7
	n=24		n=21		n=7	

Table 4.31. Question 115.2 – Is there a standard assessment form for the panel reviewers for this instrument?

Base: Respondents whose procedure includes remote review; data in absolute numbers and in percent (multiple answers)

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
By assigning scores	21	87.5	19	90.5	12	80.0
By providing comments	24	100.0	20	95.2	13	86.7
By ranking the proposals	16	66.7	14	66.7	10	66.7
Other means	2	8.3	1	4.8	–	-
	n=24		n=21			n=15

Table 4.32. Question 116.2 – How do the panel reviewers document their reviews of the proposal for this instrument?

Base: Respondents whose procedure includes panel review; data in absolute numbers and in percent (multiple answers)

	Individual Research Programmes		Career Development		International Collaborative Research Programmes	
	Absolute number	%	Absolute number	%	Absolute number	%
Yes, they may recommend raising it	6	25.0	7	33.3	5	33.3
Yes, they may recommend lowering it	16	66.7	13	61.9	12	80.0
No, they may not influence it	6	25.0	5	23.8	2	13.3
Not applicable	2	8.3	3	14.3	1	6.7
	n=24		n=21		n=15	

Table 4.33. Question 135 – Are panel members asked to comment on the amount of funding awarded to the applicants for this instrument?
Base: Respondents whose procedure includes panel review; data in absolute numbers and in percent (multiple answers)

4.13 Disclosure of the applicants' and/or reviewers' identity

4.13.1 Summary

The identity of the applicants is most commonly disclosed to the remote as well as to the panel reviewers by 96-100% of the responding organisations (Table 4.34 and Table 4.35).

Usually, the identity of the remote reviewers is neither disclosed to the applicants (80-94%; Table 4.36) nor to the scientific community (76-82%; Table 4.38).

The identity of the panel reviewers tends not to be disclosed to the applicants by roughly two-thirds of the participating organisations (52-73%; Table 4.37). Approximately one-third of the organisations, however, do disclose the panel reviewer's identity either as standard practice or on demand (also Table 4.37). Concerning a disclosure of the panel reviewers' identity to the scientific community, about two-thirds of the organisations tend to publicise this information (53-67%; Table 4.39).

4.13.2 Detailed data – Disclosure of the applicants' identity

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
Yes, on demand	0	0	0
Yes, always	96.0%	95.5%	100.0%
No	4.0%	4.5%	0
Not applicable	0	0	0
	n=25	n=22	n=17

Table 4.34. Question 113.3 – Does your organisation disclose to the remote reviewers the identity of applicants for this instrument?
Base: Respondents whose procedure includes remote review; data in percent (single answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
Yes, on demand	0	0	0
Yes, always	95.8%	100.0%	100.0%
No	4.2%	0	0
Not applicable	0	0	0
	n=24	n=21	n=15

Table 4.35. Question 113.4 – Does your organisation disclose to the panel reviewers the identity of applicants for this instrument?

Base: Respondents whose procedure includes panel review; data in percent (single answers)

4.13.3 Detailed data – Disclosure of the reviewers' identity

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
Yes, on demand	8.0%	9.1%	0
Yes, always	8.0%	4.5%	0
No	80.0%	86.4%	94.1%
Not applicable	4.0%	0	5.9%
	n=25	n=22	n=17

Table 4.36. Question 113.1 – Does your organisation disclose to the applicants the identity of remote reviewers who reviewed their respective proposal for this instrument?

Base: Respondents whose procedure includes remote review; data in percent (single answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
Yes, on demand	8.3%	4.8%	0
Yes, always	29.2%	33.3%	26.7%
No	62.5%	52.4%	73.3%
Not applicable	0	9.5%	0
	n=24	n=21	n=15

Table 4.37. Question 113.2 – Does your organisation disclose to the applicants the identity of panel reviewers who reviewed their respective proposal for this instrument?

Base: Respondents whose procedure includes panel review; data in percent (single answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
Yes, on demand	4.0%	9.1%	5.9%
Yes, always	16.0%	4.5%	11.8%
No	76.0%	81.8%	82.4%
Not applicable	4.0%	4.5%	0
	n=25	n=22	n=17

Table 4.38. Question 114.1 – Does your organisation publicise to the scientific community the identity of remote reviewers (not linked to specific proposals) for this instrument?

Base: Respondents whose procedure includes remote review; data in percent (single answers)

	Individual Research Programmes	Career Development	International Collaborative Research Programmes
Yes, on demand	0	4.8%	0
Yes, always	66.7%	61.9%	53.3%
No	29.2%	28.6%	40.0%
Not applicable	4.2%	4.8%	6.7%
	n=24	n=21	n=15

Table 4.39. Question 114.2 – Does your organisation publicise to the scientific community the identity of panel reviewers (not linked to specific proposals) for this instrument?

Base: Respondents whose procedure includes panel review; data in percent (single answers)

Glossary

Ad hoc (scientific) committee
Committee set up for a limited duration (typically less than one or two years) and for a particular purpose.

Ad hoc interdisciplinary panel
Panel set up for a limited duration and for one particular purpose, having experts from differing broad disciplinary domains.

Administrative staff
Staff members who are mainly responsible for supporting the scientific staff and dealing with routine tasks.

Agricultural sciences
Agriculture, Forestry, Fisheries, Animal and Dairy science, Veterinary science, Agricultural biotechnology, Other agricultural sciences.

Annual average
Last three years' average.

Appeal
An application or petition to a higher authority to carry out a review of a decision taken by a lower one.

Breakthrough scientific scope
Calls open to proposals aimed at radically changing the understanding of an important existing scientific concept, or leading to the creation of a new paradigm or field of science. The level of risk associated with the success of these proposals is generally higher than mainstream research.

Breakthrough proposals
Proposals for *breakthrough research* projects (see below).

Breakthrough research
Research aimed at radically changing the understanding of an important existing scientific concept, or leading to the creation of a new paradigm or field of science. The level of risk associated with the success of these projects is generally higher than mainstream research.

Career Development
Funding line dedicated to supporting career progression of researchers and scholars through awards, fellowships, appointments, professorships, Chairs, etc.

Centres of excellence
Funding line dedicated to proposals submitted by a large group of researchers and targeting the establishment of an institutional or regional centre for given areas of research.

Competitive merit based grants
Funding awarded through *competitive merit based selection* (see below).

Competitive merit based selection
Competitive selection of proposals on the basis of the quality of the applicant(s)/nominee(s) and/or the quality of the proposed research activity and/or the quality of the research environment.

Conventional instrument
Common, customary instrument that is regularly used.

Effectiveness
Degree to which an approach produces the desired result.

Engineering and technology
Civil engineering, Electrical engineering, Electronic engineering, Information engineering, Mechanical engineering, Chemical engineering, Material engineering, Medical engineering, Environmental engineering, Environmental biotechnology, Industrial biotechnology, Nanotechnology, Other engineering and technologies.

Final/full proposal
Research proposal containing detailed description of the project, its scientific scope and impact, the plan for implementation, requested budget, existing and needed infrastructure, scientists involved, etc.

Full-time equivalent
Annual working hours as contracted divided by an organisation's standard annual hours for full-time positions, *e.g.*, 1.0 FTE equals one full-time employee, while 0.5 FTE equals a half-time employee.

Funding instrument
An activity with the aim of distributing funding based on explicit requirements. These requirements are typically related to scientific focus, eligibility, competitive selection, etc. A funding organisation will normally deploy a number of instruments to meet its needs.

Humanities
History and Archaeology, Languages and Literature, Philosophy, Ethics and Religion, Arts (arts, history of arts, performing arts, music), Other humanities.

Incentive
Distribution of monetary or other forms of rewards to motivate and encourage participation in peer review.

Independent observer
Member of the scientific community or administration who has no personal or professional interests in either the peer review procedure or the outcome of the review and can therefore observe the quality and fairness of the peer review procedure.

Individual Research Programmes
Funding line dedicated to proposals submitted by a single investigator or a group of investigators in the same team. These proposals typically include only one set of self-contained research goals, work plan and budget.

Infrastructure programmes
Funding line dedicated to financing development, enhancement, maintenance and/or operation of research infrastructures.

Interdisciplinary scientific scope
Calls open to proposals that clearly and genuinely require expertise from different broad disciplinary domains.

Interdisciplinary proposals
Proposals for *interdisciplinary research* projects (see below).

Interdisciplinary research
In this survey the term 'interdisciplinary' is used in its most general sense referring to all three categories of multi-, inter- and trans-disciplinary research. In this context it refers to research proposals that clearly and genuinely require expertise from different broad disciplinary domains.

International Collaborative Research Programmes
Funding line dedicated to proposals comprising groups of applicants from more than one country enhancing international collaboration on specific research projects.

Knowledge transfer
Funding line dedicated to projects supporting the transfer of results from science to industry or other private/public sectors.

Letter of intent
Short document containing a brief scientific summary and a list of participating scientists and/or institutions, stating the interest to apply for funding. This is the first step in expressing interest and is normally followed by a more detailed proposal.

Major prize
Funding dedicated to rewarding outstanding contributions of a single researcher and/or a group of researchers.

Medical and health sciences
Basic medicine, Clinical medicine, Health sciences, Medical biotechnology, Other medical sciences.

National Collaborative Research Programmes
Funding line dedicated to mid- to large-size proposals submitted by more than one research group and by researchers coming from your organisation's country. These proposals typically comprise more than one set of research goals, work plans and budgets integrated into a collaborative framework.

Natural sciences
Mathematics, Computer and information sciences, Physical sciences, Chemical sciences, Earth and related Environmental sciences, Biological sciences, Other natural sciences.

Open scientific scope
Calls open to proposals from all research fields.

Panel review
Assessment of a proposal during a meeting of scientific experts and possibly on the basis of a previous assessment by *remote reviewers* (see below).

Panel reviewer
Scientific expert selected for participation in a *panel review* (see above)

Preliminary or outline proposal
Research proposal containing an overview of the scientific scope of the project, the requested budget, project plan and the scientist(s) involved.

Preliminary selection
Pre-filtering mainly focused on scientific criteria.

Reader system
A small number of senior academics act as remote reviewers and evaluate a homogenous group of proposals in a selected sub-discipline (as opposed to the conventional system where a large number of remote reviewers evaluate only one or two proposals each).

Remote review
Assessment of a proposal on an written basis, reviewers do not meet or interact among themselves.

Remote reviewer
Scientific expert selected for participation in a *remote review* (see above).

Research classification system
Division of research fields into distinct classes or groups.

Right to reply ('Rebuttal')
Formal opportunity offered to the applicants of proposals under peer review to clarify factual errors or misunderstandings that they may detect in the reviewer assessments of their proposals. The final peer review decision (typically by a panel) is made based on both the reviewer assessments and the applicants' replies (this is sometimes called 'rebuttal').

Scholarship programmes
Funding line dedicated to the financing of educational and/or research opportunities.

Scientific council
Elected body of (mostly) scientists that advises and/or directs the organisation.

Scientific networks
Funding line dedicated to promoting networking of researchers in the form of meetings, conferences, workshops, exchange visits, etc.

Scientific staff
Staff members who are mainly responsible for tasks needing scientific experience, background or judgment, for example, on selection of reviewers, writing of review minutes, reports, analysis, etc.

Social sciences
Psychology, Economics and Business, Educational sciences, Sociology, Law, Political science, Social and economic geography, Media and communications, Other social sciences.

Standing (scientific) committee
Committee set up with a mandate for a longer duration (typically several years) and for one or multiple purposes.

Standing interdisciplinary panel
Panel set up with a mandate for a longer duration (typically several years), having experts from differing broad disciplinary domains.

Structural composition of a review panel
Constitution of a panel in terms of make-up, size, member selection, leadership, etc.

Thematic/topical scientific scope
Calls open to proposals on a given sub-discipline or combination of sub-disciplines that are connected through a central subject matter.

ESF Member Organisation Forum on Peer Review involved in the Survey development

List of Forum Members 2009-2010

Member Organisations

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Annex A:
Survey

EUROPEAN SCIENCE FOUNDATION
SETTING SCIENCE AGENDAS FOR EUROPE

ESF Survey on Peer Review Practices

Annex A

Complete set of the Questionnaire including Introductory Questions, Part I and Part II

EUROPEAN SCIENCE FOUNDATION
SETTING SCIENCE AGENDAS FOR EUROPE

ESF Survey on Peer Review Practices

Annex A

Introductory Questions

EUROPEAN SCIENCE FOUNDATION
SETTING SCIENCE AGENDAS FOR EUROPE

Survey on Peer Review Practices in European Research Funding Organisations

IN THIS OPENING SECTION OF THE QUESTIONNAIRE, KEY INFORMATION ABOUT THE RESPONDING ORGANISATION IS REQUESTED

01. [Mandatory question] Which broad research fields are (partly) covered by your organisation?

(Please choose one or more options)

a. ☐ Natural sciences

Mathematics, Computer and information sciences, Physical sciences, Chemical sciences, Earth and related Environmental sciences, Biological sciences, Other natural sciences

b. ☐ Engineering and technology

Civil engineering, Electrical engineering, Electronic engineering, Information engineering, Mechanical engineering, Chemical engineering, Material engineering, Medical engineering, Environmental engineering, Environmental biotechnology, Industrial biotechnology, Nano-technology, Other engineering and technologies

c. ☐ Medical and health sciences

Basic medicine, Clinical medicine, Health sciences, Medical biotechnology, Other medical sciences

d. ☐ Agricultural sciences

Agriculture, Forestry, Fisheries, Animal and Dairy science, Veterinary science, Agricultural biotechnology, Other agricultural sciences

e. ☐ Social sciences

Psychology, Economics and Business, Educational sciences, Sociology, Law, Political science, Social and economic geography, Media and communications, Other social sciences

f. ☐ Humanities

History and Archaeology, Languages and Literature, Philosophy, Ethics and Religion, Arts (arts, history of arts, performing arts, music), Other humanities

02. [Mandatory question] What types of *funding instrument** awarded through *competitive merit based selection** exist in your organisation?

(Please choose all applicable options and combinations)

Type of instrument	**Scientific scope** [Filter: if respective type of instrument was selected]
a. ☐ *Individual research programmes** [Rank: 1]	aa. ☐ *Open** ab. ☐ *Thematic/topical** ac. ☐ *Interdisciplinary** ad. ☐ *Breakthrough**
b. ☐ *National collaborative research programmes** [Rank: 2]	ba. ☐ *Open** bb. ☐ *Thematic/topical** bc. ☐ *Interdisciplinary** bd. ☐ *Breakthrough**
c. ☐ *Career development* * [Rank: 1]	ca. ☐ *Open** cb. ☐ *Thematic/topical** cc. ☐ *Interdisciplinary** cd. ☐ *Breakthrough**
d. ☐ *Centres of excellence* * [Rank: 3]	da. ☐ *Open** db. ☐ *Thematic/topical** dc. ☐ *Interdisciplinary** dd. ☐ *Breakthrough**
e. ☐ *International collaborative research programmes** [Rank: 1]	ea. ☐ *Open** eb. ☐ *Thematic/topical** ec. ☐ *Interdisciplinary** ed. ☐ *Breakthrough**
f. ☐ *Knowledge transfer* * [Rank: 6]	fa. ☐ *Open** fb. ☐ *Thematic/topical** fc. ☐ *Interdisciplinary** fd. ☐ *Breakthrough**
g. ☐ *Scientific networks* * [Rank: 4]	ga. ☐ *Open** gb. ☐ *Thematic/topical** gc. ☐ *Interdisciplinary** gd. ☐ *Breakthrough**

h. ☐ *Infrastructure programmes** [Rank: 7]	ha. ☐ *Open** hb. ☐ *Thematic/topical** hc. ☐ *Interdisciplinary** hd. ☐ *Breakthrough**
i. ☐ *Major prize** [Rank: 5]	ia. ☐ *Open** ib. ☐ *Thematic/topical** ic. ☐ *Interdisciplinary** id. ☐ *Breakthrough**
j. ☐ *Scholarships* * [Rank: 8]	ja. ☐ *Open** jb. ☐ *Thematic*/topical* jc. ☐ *Interdisciplinary** jd. ☐ *Breakthrough**
k. ☐ Other: [SHORT FREE TEXT] [Rank: 9]	ka. ☐ *Open** kb. ☐ *Thematic*/topical* kc. ☐ *Interdisciplinary** kd. ☐ *Breakthrough**

03. [Mandatory question] How many individual *funding instruments** does your organisation have in total?

Please choose number: [1-100]

04. [Mandatory question] Please select **one** specific '*Individual research programmes**' *[link to glossary] funding instrument*. Provide the name both in your national language and in English. You'll be asked to describe this instrument in more detail in Part II of the questionnaire. To keep in mind for this question:

- Name only **one** instrument
- Should your organisation have more than one instrument of the same type, please insert the **most representative**

a. [Filter, if Q02a OR other according to rank] 'Individual research programmes' funding instrument

Name in national language:_____

Name in English:_____

b. [Filter, if Q02b OR other according to rank] 'National collaborative research programmes' funding instrument

Name in national language:_____

Name in English:_____

c. [Filter, if Q02c OR other according to rank] 'Career development' funding instrument

Name in national language:_____

Name in English:_____

05. [Mandatory question] In which of your organisation's research fields is ***TITLE OF INSTRUMENT IN ENGLISH*** applied?

(Please choose one or more options)

a. [Filter, if Q01a] ☐ *Natural sciences**

b. [Filter, if Q01b] ☐ *Engineering and technology**

c. [Filter, if Q01c] ☐ *Medical and health sciences**

d. [Filter, if Q01d] ☐ *Agricultural sciences**

e. [Filter, if Q01e] ☐ *Social sciences**

f. [Filter, if Q01f] ☐ *Humanities **

06. [Mandatory question] Even within the same instrument, peer review procedures can vary substantially according to the scientific discipline. Is this the case regarding the peer review of the present instrument, i.e. ***TITLE OF INSTRUMENT IN ENGLISH***?

(Please choose one option)

a. ○ No, the procedures are the same for all scientific disciplines

b. ○ No, the procedures differ only slightly according to various scientific disciplines but are still mostly similar

c. ○ Yes, the procedures substantially differ according to various scientific disciplines

[Filter, if Q06a or Q06b: Proceed normally]

[Filter, if Q6c: Programming that makes sure that all scientific fields are covered by all organisations. TEXT: The following questions are all dealing with the peer review procedure for TITLE OF INSTRUMENT IN ENGLISH in the field of _____

ESF Survey on Peer Review Practices

Annex A

Part I Questions

Survey on Peer Review Practices in European Research Funding Organisations

PART I

General policies of peer review

THE FOLLOWING QUESTIONS ADDRESS GENERAL POLICIES AND PRACTICES ON PEER REVIEW IRRESPECTIVE OF SPECIFIC FUNDING INSTRUMENTS

……..

Organisational aspects

……..

07. [Mandatory question] Current size of the organisation (in number of *full-time equivalent** staff employed):

(Please choose one option)

a. ○ Fewer than 10 employees

b. ○ 11-50 employees

c. ○ 51-250 employees

d. ○ 251-1000 employees

e. ○ More than 1000 employees

08. [Mandatory question] Since when has your organisation distributed funds to research through *competitive merit based selection**?

Please insert year: _____

09. [Mandatory question] Please indicate the following numbers:

	Please insert your best estimate
a. [Optional question] Your organisation's annual budget dedicated to *competitive merit based grants** (Please insert the *annual average** amount in Euros)	
b. Number of proposals that your organisation receives per year on average for *competitive merit based grants* (Please insert the *annual average*).	
c. Number of proposals that are selected for funding by your organisation per year on average for *competitive merit based grants* (Please insert the *annual average*).	

10. [Mandatory question] What is the overall size of your staff responsible for the distribution of the *competitive merit based grants* (see question 09), i.e. for managing, coordinating and implementing your organisation's peer review processes?

	Please estimate number (*Full-time equivalent**)
a. *Scientific staff**	
b. *Administrative staff**	

.....

Research classification system

.....

THE NEXT QUESTIONS FOCUS ON THE RESEARCH CLASSIFICATION SYSTEM USED IN YOUR ORGANISATION

Research classification system: Division of research fields into distinct classes or groups

11. [Mandatory question] Does your organisation use a *research classification system* for the grouping of your proposals?

(Please choose one option)

a. ○ Yes, your organisation uses a one-level system

b. ○ Yes, your organisation uses a multi-level system including fields, subfields, etc.

c. ○ No, for the time being your organisation does not use any classification system

12. [Mandatory question] [Filter, if 11a or 11b] What is the source of this classification?

(Please choose one or more options)

External source:

a. ☐ OECD/Frascati Manual

b. ☐ National government agencies and ministries

c. ☐ Other: _____

Internal source; in-house classification set up by:

d. ☐ Your organisation's *scientific council**

e. ☐ Your organisation's *scientific staff**

f. ☐ Other:_____

g. ○ Don't know

13. [Optional question] [Filter, if 11a or 11b] Please provide a document containing the first-level classes of your classification system **in English**. Please click [here] to send it via email.

14. [Mandatory question] [Filter, if 11a or 11b] Please estimate how well your classification system matches...

a. ... other **European** classification systems (for instance of funding agencies in other countries)? Please estimate:	%	☐ Don't know
b. ... other **international** classification systems, for instance the OECD classification (Frascati Manual)? Please estimate:	%	☐ Don't know

15. [Mandatory question] [Filter, if 11a or 11b] How often is your organisation's classification updated?

(Please choose one option)

a. ○ Regularly at pre-defined intervals

b. ○ Occasionally as the need arises

c. ○ Other:

_____

16. [Mandatory question] [Filter, if 15a] If regularly: At what intervals is it updated?

Every _____ year(s)

EVALUATIVE QUESTIONS

17. [Mandatory question] [Filter, if 11a or 11b] Please estimate the overall *effectiveness** of your classification system in terms of precision of coverage (extent to which your classification system captures all relevant research fields)

(Please choose one option)

Very high	○	○	○	○	○	○	Very low
	1	2	3	4	5	6	

○ Not applicable, please explain:_____

18. [Optional question] [Filter, if 11a or 11b] Do you have any comments with regard to your organisation's classification system (e.g., advantages, disadvantages, problems, possibilities for improvement, etc.)?

.....

Quality assurance

.....

THE FOLLOWING QUESTIONS DEAL WITH THE MEANS OF ENSURING PEER REVIEW QUALITY IN YOUR ORGANISATION

19. [Mandatory question] What means does your organisation use for assuring the quality of its peer review system?

(Please choose one or more options)

a. ☐ Staff member with explicit mandate

b. ☐ Group of staff members with explicit mandate

c. ☐ A dedicated office with explicit mandate

d. ☐ Committee composed of members of your organisation's governing bodies

e. ☐ External *ad hoc committee**

f. ☐ External *standing committee**

g. ☐ Other: _____

h. ○ Not applicable

20. [Mandatory question] Do your organisation's standard procedures call for evaluating the quality and usability of reviews delivered by your reviewers?

(Please choose one option)

a. ○ Yes, always as a standard practice

b. ○ Yes, randomly as a standard practice

c. ○ Yes, infrequently under specific circumstances

d. ○ No

21. [Mandatory question] [Filter, if Q20a or Q20b or Q20c] What criteria does your organisation use for the evaluation of the quality and usability of reviews delivered by your reviewers?

(Please choose one or more options)

a. ☐ Completeness: did the assessment address all the main criteria?

b. ☐ Level of substantiation: were the evaluation scores sufficiently substantiated with written arguments?

c. ☐ Timeliness: was the assessment sent in time?

d. ☐ Comprehensibility of the comments provided: was it possible to understand the comments?

e. ☐ Usefulness: was the assessment fit for purpose?

f. ☐ Appropriateness of the language used: i.e., was the assessment free of disrespectful and offensive comments towards the proposers?

g. ☐ Other:

_____

_____

22. [Mandatory question] [Filter, if Q20a or Q20b or Q20c] What concrete actions can result from the evaluation of a review's quality and usability by your organisation?

(Please choose one or more options)

a. ☐ Reviewer's comments may be modified before being used

b. ☐ Reviewer's scores may be modified before being used

c. ☐ Entire review may be discarded and not used

d. ☐ The review might be returned to the reviewer for completion or additional information

e. ☐ Reviewer may be tagged with qualifying information for future reference

f. ☐ Other:

_____

g. ○ No concrete actions

23. [Mandatory question] Are your reviewers offered some kind of training on peer review?

(Please choose one option)

a. ○ Yes

b. ○ No

c. ○Partially, please specify: _____

24. [Mandatory question] [Filter: if 23a or 23c] Please describe the training:

EVALUATIVE QUESTIONS

25. [Mandatory question] Please estimate the overall *effectiveness** of your quality assurance system in relation to the procedures you described in the preceding questions.

(Please choose one option)

Very high	○	○	○	○	○	○	Very low
	1	2	3	4	5	6	

26. [Optional question] Do you have any comments with regard to your organisation's quality

assurance system (e.g., strengths, weaknesses, possibilities for improvement, etc.)?

.....

Managing data on reviewers

.....

THE NEXT QUESTIONS ADDRESS THE WAY YOUR ORGANISATION MAINTAINS AND MANAGES DATA ON REVIEWERS

27. [Mandatory question] Does your organisation use a dedicated database in order to manage the data (names, contact details, fields of expertise, etc.) of its reviewers?

(Please choose one option)

a. ○ Yes

b. ○ No

28. [Mandatory question] [Filter, if Q27a] Please name your software system:

_____

29. [Mandatory question] [Filter, if Q27a] Please estimate the relevant numbers requested below:

	Please make your best estimate	
a. The database contains data on how many reviewers?		○ Choose not to answer
b. Please insert **percentage** of international reviewers in your database (for national organisations: reviewers working in organisations outside of your organisation's country)		○ Don't know
c. Please insert **percentage** of female reviewers in your database		○ Don't know

30. [Mandatory question] [Filter, if Q27a] Does your country's legal system allow the accumulation and storage of data on the quality of the reviews you receive?

(Please choose one option)

a. ○ Yes, without any legal constraints

b. ○ Yes, with some related legal obligations concerning data protection

c. ○ No

d. ○ Don't know

31. [Mandatory question] [Filter, if Q27a AND if 20a, b or c] If your organisation evaluates the functional quality of the reviews you receive, do you link this information in your database to the personal entries of reviewers?

(Please choose one option)

a. ○ Yes

b. ○ No

c. ○Partially, please specify: _____

EVALUATIVE QUESTIONS

32. [Mandatory question] [Filter, if Q27a] Please estimate the *effectiveness** of your organisation's reviewer database in terms of:

	Excellent 1	2	3	4	5	Insufficient 6	Don't know
a. QUANTITY: Availability of sufficient number of reviewers	○	○	○	○	○	○	○
b. EXPERTISE: Availability of enough experts from all relevant fields	○	○	○	○	○	○	○
c. [Optional question] AGE DISTRIBUTION Even distribution of all relevant age groups	○	○	○	○	○	○	○
d. [Optional question] GENDER DISTRIBUTION: Share of female	○	○	○	○	○	○	○

reviewers corresponds to national and/or international share of female researchers in the respective science fields							
e. [Optional question] INTERNATIONALITY: Share of reviewers based outside your organisation's country	○	○	○	○	○	○	○
f. [Optional question] TECHNICAL EFFICIENCY: e.g., quality of the software used, easiness of data export/import, reliability, maintenance, speed, user-interfaces, reporting, etc.	○	○	○	○	○	○	○

33. [Optional question] [Filter, if Q27a] Do you have any comments with regard to your organisation's database (e.g., strengths, weaknesses, possibilities for improvement, etc.)?

34. [Mandatory question] From your organisation's perspective, is there a need for a common European reviewer database?

(Please choose one option)

European reviewer database is clearly needed	○	○	○	○	○	○	European reviewer database is clearly not needed
	1	2	3	4	5	6	

○ Don't know

35. [Mandatory question] Would your organisation make use of such a common European database?

a. ○ Yes, frequently

b. ○ Yes, occasionally

c. ○ No

d. ○ Other:_____

e. ○ Don't know

36. [Mandatory question] Would your organisation contribute to constituting such a common European database, i.e., by providing high-quality reviewers?

a. ○ Yes

b. ○ No

c. ○ Other:_____

d. ○ Don't know

37. [Optional question] Please elaborate on your organisation's views regarding the need for a common European reviewer database:

……..

College/Pool of Reviewers

……..

THE FOLLOWING QUESTIONS ARE DEDICATED TO THE COLLEGE/POOL OF REVIEWERS.

38. [Mandatory question] Some research funding organisations make use of a large established cohort of scientists from all relevant fields of research who contribute to the organisation's peer review procedures. These are either nominated or voted by peers at certain intervals (e.g., 'college of reviewers', 'pool of reviewers' or other). Does your organisation have such a cohort of scientists?

(Please choose one option)

a. ○ Yes

b. ○ No

39. [Mandatory question] [Filter, if Q38a] What is the name (in English) of the cohort in your organisation?

_____

_____

40. [Mandatory question] [Filter, if Q38a] What are the main tasks of this cohort within your organisation?

(Please choose one or more options)

a. ☐ Peer reviewing of proposals

b. ☐ Quality assurance of peer review procedures

c. ☐ Final funding decisions

d. ☐ Nominating or suggesting expert reviewers

e. ☐ Other:

_____

_____

41. [Mandatory question] [Filter, if Q38a] How many researchers are members of this cohort?

Please insert the number: _____

42. [Mandatory question] [Filter, if Q38a] How are its members appointed?

(Please choose one or more options)

a. ☐ Nationwide voting by peers

b. ☐ Selection among the past recipients of research funds

c. ☐ Suggestions made by researchers who have recently applied for funds to your organisation

d. ☐ Suggestions by *scientific staff**

e. ☐ Other: _____

43. [Mandatory question] [Filter, if Q38a] According to the regular membership term, how frequently are the cohort members replaced?

(Please choose one option)

a. ○ Regularly, at certain intervals

b. ○ Irregularly, as the need arises. Please specify: _____

c. ○ Other:_____

d. ○ Don't know

44. [Mandatory question] [Filter, if Q43a] If regularly, at which interval?

Every_____year(s)

EVALUATIVE QUESTIONS

45. [Mandatory question] [Filter, if Q38a] How does your organisation view...

	Very high 1	2	3	4	5	Very low 6
a. ... the **effectiveness* of the selection** of its college/pool of reviewers in relation to	○	○	○	○	○	○

the procedures you described in the preceding questions?						
b. ... the **effectiveness*** of its college/pool of reviewers in relation to the procedures you described in the preceding questions?	○	○	○	○	○	○

46. [Optional question] [Filter, if Q38a] Do you have any comments with regard to your organisation's college/pool (e.g., advantages, disadvantages, problems, possibilities for improvement, etc.)?

……

Incentives

……

THE NEXT QUESTIONS DEAL WITH THE ROLE OF INCENTIVES IN PEER REVIEW

Incentives: Distribution of monetary or other forms of rewards to motivate and encourage participation in peer review

47. [Mandatory question] Has your organisation generally detected a decline in the reviewers' willingness to participate in peer review processes in the last years (reviewer fatigue)?

(Please choose one option)

a. ○ Yes, we have noticed a sharp decline

b. ○ Yes, we have noticed a moderate decline

c. ○ Yes, we have noticed a minor decline

d. ○ No, we have not noticed any decline

e. ○ Don't know

48. [Mandatory question] Does your organisation offer any kind of *incentives** to the reviewers contributing to your review processes?

(Please choose one option)

a. ○ Yes, to all reviewers

b. ○ Yes, to *panel reviewers**

c. ○ Yes, to *remote reviewers**

d. ○ No

e. ○ Other:

_____

49. [Mandatory question] [Filter, if Q48a, Q48b, Q48c, Q48e] What kind of *incentives** does your organisation offer?

(Please choose one or more options)

a. ☐ Monetary

b. ☐ Other:

_____

50. [Mandatory question] [Filter, if Q49a] How much did your organisation pay your reviewers on average in 2009, in Euros? (Please do **not** include payments for travel expenses and /or accommodation)

	Monetary rewards directly to the reviewers	Monetary rewards to the reviewers' institutes
a. Per proposal, in Euros	_____ OR ○ Choose not to answer OR ○Not applicable	_____ OR ○ Choose not to answer OR ○ Not applicable
b. Remote reviewers receive a lump sum of Euros	_____ OR ○ Choose not to answer OR	_____ OR ○ Choose not to answer OR

	○ Not applicable	○ Not applicable
c. Panel members receive a lump sum of Euros	_____ OR ○ Choose not to answer OR ○ Not applicable	_____ OR ○ Choose not to answer OR ○ Not applicable
d. Panel chairs receive a lump sum of Euros	_____ OR ○ Choose not to answer OR ○ Not applicable	_____ OR ○ Choose not to answer OR ○ Not applicable
e. Other mode of payment:_____	_____ OR ○ Choose not to answer	_____ OR ○ Choose not to answer

50.1 [Mandatory question] [Filter, if Q49a] In your organisation, has there been a clearly noticeable increase in the amount of monetary *incentives** that have been paid to individual reviewers over the last 5 years?

(Please choose one option)

a. ○ Yes; please estimate percentage of increase: _____%

b. ○ No

c. ○ Don't know

51. [Mandatory question] [Filter, if Q48a, Q48b, Q48c, Q48e] In general, does your organisation observe an influence on the positive response rate of the reviewers as a result of explicit *incentives**?

(Please choose one option)

a. ○ Yes, the positive response rate is significantly increased

b. ○ Yes, the positive response rate is slightly increased

c. ○ No, no noticeable effects

d. ○ Don't know

52. [Mandatory question] [Filter, if Q48a, Q48b, Q48c, Q48e] In general, does your organisation observe an influence on the quality of reviews as a result of explicit *incentives**?

(Please choose one option)

a. ○ Yes, the quality improves significantly

b. ○ Yes, the quality improves slightly

c. ○ No, no noticeable effects

d. ○ Don't know

53. [Mandatory question] [Filter, if Q48d] What are the reasons that your organisation does not offer *incentives**?

(Please choose one or more options)

a. ☐ The effect is not expected to justify the cost

b. ☐ For concerns about potential adverse effects on the general practice of peer review

c. ☐ There is no need for incentives

d. ☐ This is viewed as contrary to the spirit and culture of scientific research

e. ☐ Other:_____

54. [Optional question] Do you have any comments with regard to reviewers' current availability, your organisation's incentive system or in general on the role of incentives (e.g., advantages, disadvantages, problems, possibilities for improvement, etc.)?

…….

Right to reply

……

THE FOLLOWING QUESTIONS DEAL WITH THE RIGHT TO REPLY BY THE APPLICANTS AS AN INTEGRATED PART OF THE PEER REVIEW PROCESS

Right to reply (sometimes called 'rebuttal'): Formal opportunity offered to the applicants of proposals under peer review to clarify factual errors or misunderstandings that they may detect in the reviewer assessments of their proposals. The final peer review decision (typically by a panel) is made based on both the reviewer assessments and the applicants' replies

55. [Mandatory question] Does your organisation allow applicants to reply to the assessment of their proposals during the peer review process and before the final funding decision is made?

(Please choose one option)

a. ○ Yes, in all instruments

b. ○ Yes, in some instruments

c. ○ No

56. [Mandatory question] [Filter, if Q55c] Please explain why your organisation does not allow a reply.

(Please choose one or more options)

a. ☐ Your organisation has not yet considered its usage

b. ☐ The procedure is too costly

c. ☐ The procedure is too time-consuming

d. ☐ The procedure will not serve a purpose as your organisation allows resubmission of proposals continuously

e. ☐ Your organisation allows *appeal**

f. ☐ Other: _____

g. ○ Don't know

57. [Mandatory question] [Filter, if Q55a, Q55b] Which consequences might the applicants' replies have?

(Please choose one or more options)

a. ☐ Modification of the reviewer's statements

b. ☐ Modification of the position on the rank-ordered list of competing proposals

c. ☐ Consideration in the further review and selection process

d. ☐ Consideration in the funding decision process

e. ☐ Other: _____

58. [Mandatory question] [Filter, if Q55a, Q55b] Please estimate the importance of the *right to reply** as a component of the review process

(Please choose one option)

Very high	○	○	○	○	○	○	Very low
	1	2	3	4	5	6	

59. [Optional question] Do you have any comments with regard to the *right to reply** (e.g., advantages and disadvantages)?

……..

Interdisciplinary Research Proposals

……..

THE FOLLOWING QUESTIONS ADDRESS MULTI-, INTER- AND TRANS-DISCIPLINARY PROPOSALS

Interdisciplinary research: In this survey the term 'interdisciplinary' is used in its most general sense referring to all three categories of multi-, inter- and trans-disciplinary research. In this context it refers to research proposals that clearly and genuinely require expertise from different broad disciplinary domains

60. [Mandatory question] How many funding instruments does your organisation have which are dedicated exclusively to *interdisciplinary proposals**? _____

61. [Mandatory question] [Filter, if Q60 ≥1] How many applications does your organisation get on average across these dedicated instruments? Please insert the *annual average**: _____

62. [Mandatory question] How often does your organisation see interdisciplinary proposals within your *conventional instruments**, i.e., instruments not specially dedicated to interdisciplinary proposals? Please estimate:

(Please choose one option)

a. ○ All the time

b. ○ Regularly

c. ○ Rarely

d. ○ Never

e. ○ Don't know

63. [Mandatory question] How does your organisation identify interdisciplinary proposals within the *conventional instruments*? They are...

(Please choose one or more options)

a. ☐ … flagged by the applicants

b. ☐ … flagged by your *scientific staff**

c. ☐ … flagged by the *remote** or *panel reviewers** involved

d. ☐ Other:

_____

e. ○ … not specifically identified

64. [Mandatory question] Which specific measures does your organisation use to support the evaluation process of interdisciplinary proposals in your organisation? You...

	Conventional instruments	[Filter, if Q60 ≥1] Dedicated interdisciplinary instruments
a. ... set up *standing interdisciplinary panels**	☐	☐
b. … set up *ad hoc interdisciplinary panels**	☐	☐

c. ... ask all related disciplinary panels to review the proposal	☐	☐
d. ... set up special criteria for interdisciplinary proposals	☐	☐
e. ... make an effort to find interdisciplinary reviewers	☐	☐
f. ... give interdisciplinary proposals specific treatment at the decision making stage	☐	☐
g. ... set up an interdisciplinary external reviewing team	☐	☐
h. ... give specific advice to reviewers on how to deal with interdisciplinary proposals	☐	☐
i. Other _____	☐	☐
j. ... do not have specific measures	○	○

65. [Mandatory question] How does your organisation view...

	Excellent 1	2	3	4	5	Insufficient 6
[Filter, NOT if Q63e] a. ... the way interdisciplinary proposals are identified in conventional instruments?	○	○	○	○	○	○
[Filter, NOT if Q64j]b. .... the way interdisciplinary proposals are evaluated in conventional instruments?	○	○	○	○	○	○
[Filter, if Q60 ≥1] [Filter, NOT if Q64j] c. ... the way interdisciplinary proposals are evaluated in dedicated	○	○	○	○	○	○

instruments?						

66. [Optional question] Do you have any other comments and/or suggestions with regard to the identification and peer review of interdisciplinary proposals?

.....

Breakthrough Research Proposals

.....

THE QUESTIONS BELOW FOCUS ON BREAKTHROUGH RESEARCH PROPOSALS

Breakthrough research: Research aimed at radically changing the understanding of an important existing scientific concept, or leading to the creation of a new paradigm or field of science. The level of risk associated with the success of these projects is generally higher than mainstream research.

67. [Mandatory question] How many instruments dedicated exclusively to *breakthrough proposals** does your organisation have? _____

68. [Mandatory question] [Filter, if Q67 ≥1] How many applications does your organisation get on average across these dedicated instruments? Please insert the *annual average**: _____

69. [Mandatory question] How often do you see breakthrough proposals within your *conventional instruments**, i.e., instruments not specially dedicated to breakthrough proposals? Please estimate:

(Please choose one option)

a. ○ All the time

b. ○ Regularly

c. ○ Rarely

d. ○ Never

e. ○ Don't know

70. [Mandatory question] How does your organisation identify breakthrough proposals in your conventional instruments?

(Please choose one or more options)

They are...

a. ☐ Flagged by the applicants

b. ☐ Flagged by your *scientific staff**

c. ☐ Flagged by the *remote** or *panel reviewers** involved

d. ☐ Other: _____

e. ○ Not specifically identified

71. [Mandatory question] Which measures does your organisation use to support the evaluation of breakthrough proposals in your instruments?

You...

	Conventional instruments	[Filter, if Q67 ≥1] Dedicated breakthrough instruments
a. ... ask applicants to describe the potential risks and outcomes	☐	☐
b. ... involve specific reviewers	☐	☐
c. ... avoid intensive peer review	☐	☐
d. ... have a dedicated panel	☐	☐
e. ... have a separate budget for breakthrough projects	☐	☐
f. ... use a fast track system	☐	☐
g. ... favour funding decisions by responsible individuals rather than collective review procedures	☐	☐
h. ... give specific advice to reviewers on how to deal with breakthrough proposals	☐	☐
i. Other _____	☐	☐
j. ... do not have specific measures	○	○

72. [Mandatory question] How does your organisation view...

	Excellent 1	2	3	4	5	Insufficient 6
[Filter, NOT if Q70e] a. ... the way breakthrough proposals are identified in conventional instruments?	○	○	○	○	○	○
[Filter, NOT if Q71j] b. ... the way breakthrough proposals are evaluated in your conventional instruments?	○	○	○	○	○	○
[Filter, if Q67 ≥1] [Filter, NOT if Q71j] c. ... the way breakthrough proposals are evaluated in your dedicated instruments?	○	○	○	○	○	○

73. [Optional question] Do you have any other comments and/or suggestions with regard to *breakthrough proposals**?

YOU HAVE COMPLETED PART 1 OF THE SURVEY. THANK YOU VERY MUCH FOR TAKING THE TIME TO FINISH IT!

ESF Survey on Peer Review Practices

Annex A

Part II Questions

Survey on Peer Review Practices in European Research Funding Organisations

PART II

Characteristics of peer review procedures for a specific funding instrument

Funding instrument: An activity with the aim of distributing funding based on explicit requirements. These requirements are typically related to scientific focus, eligibility, competitive selection etc. A funding organisation will normally deploy a number of instruments to meet its needs

General description of the peer review procedure for _____
(please insert the name of the selected instrument in English)

for the research field(s) of:
_____ (please insert selected research fields)

Please note that all questions concern only the decision on initial funding (and not the decision on a possible extension of funding).

74. [Mandatory question] How frequently is the call for this instrument issued?

(Please choose one option)

a. ○ Continuous call

b. ○ Regularly, at certain intervals

c. ○ Non-recurring call

d. ○ Other: _____

75. [Mandatory question] [Filter, if Q74b] If regularly, at which interval?

Every _____month(s)

76. [Mandatory question] What is the total annual budget for this instrument? Please insert the *annual average* budget in Euros:_____

77. [Mandatory question]

	Initial funding in Euros	Total funding in Euros (initial funding + possible additions)	Not applicable (please explain)
a. **What is the average value of a single proposal awarded within this instrument?**			_____ _____
	Initial duration in months	Total duration in months (initial duration + possible extensions)	
b. **What is the average duration of a single proposal awarded within this instrument?**			_____ _____

78. [Mandatory question] Which language is commonly used in the application and review process for this instrument?

(Please choose one option)

a. ○English

b. ○ Your organisation's national official language(s)

c. ○ Other: _____

…….

Eligibility

…….

79. [Mandatory question] Who is allowed to submit a proposal to this instrument?

(Please choose one or more options)

a. ☐ Applicants have to submit the proposal themselves

b. ☐ Proposals have to be submitted by the applicant's host institution

c. ☐ Candidates have to be nominated by a third party

d. ☐ Other: _____

80. [Mandatory question] Eligibility of applicants in terms of affiliation to institutions and regions inside your organisation's country for this instrument. Eligible applicants are:

(Please choose one option)

a. ○ Researchers affiliated to any research institution or region in your organisation's country

b. ○ Only researchers affiliated to certain research institutions or regions within your organisation's country

c. ○ Other: _____

d. ○ You are an international organisation, this question is therefore not applicable.

81. [Mandatory question] Applications for this instrument are allowed from the following countries

(Please choose one or more options)

a. ☐ Your organisation's country

Additionally:

b. ☐ EU-27 (all countries)

c. ☐ EU-27 (selection of countries)

- ☐ Austria
- ☐ Belgium
- ☐ Bulgaria
- ☐ Cyprus
- ☐ Czech Republic
- ☐ Denmark
- ☐ Estonia

- ☐ Finland
- ☐ France
- ☐ Germany
- ☐ Greece
- ☐ Hungary
- ☐ Ireland
- ☐ Italy
- ☐ Latvia
- ☐ Lithuania
- ☐ Luxembourg
- ☐ Malta
- ☐ Netherlands
- ☐ Poland
- ☐ Portugal
- ☐ Romania
- ☐ Slovakia
- ☐ Slovenia
- ☐ Spain
- ☐ Sweden
- ☐ United Kingdom

d. ☐ Geographical Europe (all countries)

e. ☐ Geographical Europe (selection of countries)

- ☐ Albania
- ☐ Andorra
- ☐ Armenia
- ☐ Austria
- ☐ Azerbaijan
- ☐ Belarus
- ☐ Belgium
- ☐ Bosnia and Herzegovina
- ☐ Bulgaria
- ☐ Croatia
- ☐ Cyprus
- ☐ Czech Republic

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- ☐ Denmark
- ☐ Estonia
- ☐ Finland
- ☐ France
- ☐ Georgia
- ☐ Germany
- ☐ Greece
- ☐ Hungary
- ☐ Iceland
- ☐ Ireland
- ☐ Italy
- ☐Kazakhstan
- ☐ Latvia
- ☐ Liechtenstein
- ☐ Lithuania
- ☐ Luxembourg
- ☐ Macedonia
- ☐ Malta
- ☐ Moldova
- ☐ Monaco
- ☐ Montenegro
- ☐ Netherlands
- ☐ Norway
- ☐ Poland
- ☐ Portugal
- ☐ Romania
- ☐ Russia
- ☐ San Marino
- ☐ Serbia
- ☐ Slovakia
- ☐ Slovenia
- ☐ Spain
- ☐ Sweden
- ☐ Switzerland

☐ Turkey

☐ Ukraine

☐ United Kingdom

☐ Vatican City

☐ Other: _____

f. ☐ Asia (all countries)

g. ☐ Asia (selection of countries)

h. ☐ Africa (all countries)

i. ☐ Africa (selection of countries)

j. ☐ North America (all countries)

k. ☐ North America (selection of countries)

l. ☐ South America (all countries)

m. ☐ South America (selection of countries)

n. ☐ Oceania (all countries)

o. ☐ Oceania (selection of countries)

82. [Mandatory question] Which other criteria are used to check eligibility for this instrument?

(Please choose one or more options)

a. ☐ Completeness of the application

b. ☐ General fit of the proposal with the instrument's purpose

c. ☐ Timeliness of the submission

d. ☐ Institutional, regional, national affiliation of the applicant

e. ☐ Other:_____

f. ○ Not applicable, please explain:_____

……..

Handling of proposals

……..

83. [Mandatory question] Please indicate the *annual average** number of proposals that...

	*Annual average**
a. ... are submitted to your organisation in this instrument	_____ ○ not applicable, please explain:
b. ... are recommended for funding at the end of the peer review process, but before the final funding decision for this instrument	_____ ○ not applicable
c. ... are actually funded with this instrument	_____ ○ not applicable, please explain:

84. [Mandatory question] Does your organisation provide the applicants with detailed guidelines (i.e., a dedicated document) for writing the proposals for this instrument?

(Please choose one option)

a. ○ Yes

b. ○ No

c. ○Partially, please specify: _____

85. [Mandatory question] Please indicate whether there is a page limit for a *final/full proposal** in this instrument.

a. ○ Yes, please specify number of pages:_____

b. ○ No

c. ○ Don't know

d. ☐Optional comments: _____

86. [Mandatory question] [Filter, NOT if 74a] How long is the period between the launch of the call and the deadline for submission in this instrument?

Please insert number of months here: _____

○ Not applicable, please explain: _____

……..

Office organisation

……..

THE NEXT QUESTIONS FOCUS ON THE OFFICE ORGANISATION CONCERNING THE PEER REVIEW PROCESS FOR THE SELECTED INSTRUMENT

87. [Mandatory question] How much staff effort (dedicated *full-time equivalent**) is involved in organising the review process for this instrument? Please indicate number of...

	Insert number, *full-time equivalent**
a. ... *scientific staff**	
b. ... *administrative staff**	

88. [Mandatory question] Are parts of the submission and review process done online in this instrument?

(Please choose one or more options)

a. ☐ Applicants submit their proposals online

b. ☐ Remote reviewers submit their reviews online

c. ☐Panel reviewers submit their assessments online prior to the panel meeting

d. ☐Applicants' replies to reviewers' statements are submitted online

(if your organisation grants the *right to reply**)

e. ☐ Panel meetings are conducted online

f. ☐ Other

_____

_____

89. [Mandatory question] How long is the average period between the submission of the proposal and the funding decision in this instrument?

Please insert the number of months here: _____

○ Not applicable, please explain: _____

90. [Mandatory question] Which distinctly different stages does the peer review for this instrument contain?

(Please choose one or more options)

a. ☐ *Preliminary selection**

b. ☐ Selection

c. ☐ Funding decision

d. ☐ Other, please specify:_____

91. [Mandatory question] Who is in charge of the final funding decision for this instrument?

(Please choose one or more options)

a. ☐ The review panel decides

b. ☐ A *standing scientific committee** composed of researchers decides on the basis of the peer review recommendations

c. ☐ A board or committee composed of researchers, administrators and/or politicians decides on the basis of the peer review recommendations

d. ☐ Your organisation's executive management decides on the basis of the peer review recommendations

e. ☐ Your organisation's staff decides on the basis of the peer review recommendations

f. ☐ Other:

_____

92. [Optional question] Do you have any comments with regard to your office organisation for this instrument (e.g., advantages, disadvantages, possibilities for improvement)?

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Preliminary selection

…….

THE FOLLOWING QUESTIONS ARE ABOUT THE PRELIMINARY SELECTION PROCESS APPLICABLE IN THE SELECTED INSTRUMENT

Preliminary selection: Pre-filtering mainly focused on scientific criteria

93. [Mandatory question] [Filter, if Q90a] On the basis of which kind of proposal does the *preliminary selection** for this instrument take place?

(Please choose one or more options)

a. ☐ *Letter of intent** [if applicable, please indicate the page limit in number of pages] _____

b. ☐ *Preliminary or outline proposal** [if applicable, please indicate the page limit in number of pages] _____

c. ☐ *Final/full proposal**

d. ☐ Other [if applicable, please indicate the page limit in number of pages] _____

94. [Mandatory question] [Filter, if Q90a AND if NOT 80d] Who carries out the reviews at the *preliminary selection** stage for this instrument?

(Please choose one or more options)

a. ☐ External reviewers working in an institution based in your organisation's country.

b. ☐ External reviewers working in an institution based outside your organisation's country.

c. ☐ Your organisation's *standing committee**

d. ☐ Your organisation's *scientific staff**

e. ☐ Other: _____

95. [Mandatory question] [Filter, if Q90a AND if 80d] Who carries out the reviews at the *preliminary selection** stage for this instrument?

(Please choose one or more options)

a. ☐ International external reviewers

b. ☐ Your organisation's *standing committee**

c. ☐ Your organisation's *scientific staff**

d. ☐ Other: _____

96. [Mandatory question] [Filter, if Q90a] How does your organisation view the *effectiveness** of the preliminary selection for this instrument?

(Please choose one option)

Very high	○	○	○	○	○	○	Very low
	1	2	3	4	5	6	

97. [Optional question] [Filter, if Q90a] Do you have any comments or/and suggestions with regard to your pre-selection system for this instrument?

……

Specification of review procedure for full proposals

…….

WITH THE FOLLOWING QUESTIONS FURTHER DETAILS ON THE REVIEW PROCEDURES ADOPTED FOR THE SELECTED INSTRUMENT ARE REQUESTED

98. [Mandatory question] Which of the following components are contained in the review procedure of full proposals under_____ (please insert name of instrument in English)?

(Please choose every option that applies to your process; combinations are possible. For example, if the procedure consists of panel review with previous remote review by the panel members, please choose a. and b.)

a. ☐ *Remote review**

b. ☐ *Panel review**

c. ☐ Presentation by applicants

d. ☐ Site visit

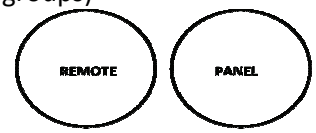
e. ☐ *Right to reply**

f. ☐ Other:_____

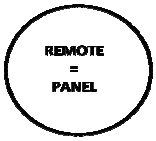
99. [Mandatory question] [Filter, if Q98a AND Q98b] Please specify the composition of the review panel for this instrument.

(Please choose one option)

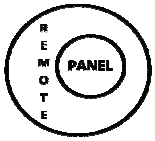
a. ○ The panel members are completely different persons than the remote reviewers (no overlap exists between the two groups)



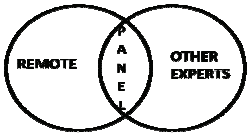
b. ○ The panel members are identical to the remote reviewers (exactly the same group of people, no more and no less)



c. ○ The panel consists of some of the remote reviewers



d. ○ The panel consists of some of the remote reviewers as well as additional members



('other experts' in the figure refers to qualified members of the scientific community who may serve as panel reviewers on a regular or ad hoc basis)

e. ○ Other:_____

100. [Mandatory question] [Filter, if Q99c, Q99d] What is the average share of panel members who have previously also served as remote reviewers for the same group of proposals for this instrument? Please estimate the average:

_____%

☐ Different each time

○ Don't know

101. [Optional question] [Filter, if Q98a AND Q98b] Why have you chosen this solution for the composition of the panel for this instrument?

……

Reader system

……

Reader system: A small number of senior academics act as *remote reviewers** and evaluate a homogenous group of proposals in a selected sub discipline (as opposed to the conventional system where a large number of remote reviewers evaluate only one or two proposals each)

102. [Mandatory question] Do you proceed according to the *reader system** when organising the review for this instrument?

(Please choose one option)

a. ○ Yes

b. ○No

103. [Mandatory question] [Filter, if Q 102a] Why has your organisation chosen to proceed according to the *reader system** for this instrument?

104. [Optional question] [Filter, if Q102a] If possible, please provide the key summary points of your experience with the reader system.

……

Selection of reviewers

……

WITH THE FOLLOWING QUESTIONS MORE DETAIL ON THE WAY REVIEWERS ARE SELECTED WILL BE SOUGHT FOR THE SELECTED INSTRUMENT

105. [Mandatory question] From what population are the potential reviewers selected for this instrument? Please estimate the share of the group of reviewers.

	[Filter, if Q98a] *Remote reviewers** are selected from…	[Filter, if Q98b] *Panel reviewers** are selected from...
a. … external experts working in an institution based in your organisation's country, %	_____	_____
b. … external experts working in an institution based outside your organisation's country, %	_____	_____
c. … members of your organisation's *standing committee*(s)* that are mandated to do the review, %	_____	_____
d. … other, please specify: _____	_____	_____
e. Don't know	○	○

106. [Mandatory question] Who is in charge of selecting external experts for a specific proposal for this instrument?

(Please choose one or more options)

	[Filter, if Q98a] Remote reviewers are selected by	[Filter, if Q98b] Panel reviewers are selected by
a. Specialised *scientific staff** members	☐	☐
b. *Ad hoc scientific committee**	☐	☐
c. Standing scientific committee*	☐	☐
d. Not applicable, since all experts are members of your organisation's *standing committee(s)** and thereby mandated to do the review	☐	☐
e. Other _____ _____	☐	☐

107. [Mandatory question] How are potential reviewers identified for this instrument?

(Please choose one or more options)

	[Filter, if Q98a] [Filter, NOT if Q106d] Remote reviewers are identified by	[Filter, if Q98b] [Filter, NOT if Q106d] Panel reviewers are identified by
a. Applicants propose potential reviewers	☐	☐
b. Applicants identify reviewers who, from their point of view, should not be asked to review	☐	☐
c. Reviewers are suggested by the committee members who make the final ranking of the proposal	☐	☐
d. Reviewers are selected from your College/Pool of reviewers/database	☐	☐
e. Internet search	☐	☐
f. Literature databases	☐	☐

g. Personal/professional scientific contacts of the persons in charge	☐	☐
h. Other _____ _____	☐	☐

108. [Mandatory question] What is the average success rate when contacting researchers with the request to review, i.e., which percentage of the contacted researchers accepts to review for this instrument?

	Please insert share of researchers agreeing, %	
a. [Filter, if Q98a] [Filter, NOT if Q106d] For *remote reviewers**	○ Don't know	○ Not applicable, please explain: _____
b. [Filter, if Q98b] [Filter, NOT if Q106d] For *panel reviewers**	○ Don't know	○ Not applicable, please explain: _____

109. [Mandatory question] How does your organisation view the quality of …

	Very high 1	2	3	4	5	Very low 6	Not applicable, please explain:
a. [Filter, if Q98a] [Filter, NOT if Q106d] ... the selection process for remote reviewers in this instrument?	○	○	○	○	○	○	_____ _____
b. [Filter, if Q98b] [Filter, NOT if Q106d] ... the selection process for panel reviewers in this instrument?	○	○	○	○	○	○	_____ _____

……

Handling of conflict of interest

……

110. [Mandatory question] How is a possible bias/conflict of interest identified on the side of the reviewers in this instrument?

(Please choose one or more options)

	[Filter, if Q98a] Remote reviewers	[Filter, if Q98b] Panel reviewers
a. Members in your organisation's *scientific staff** check whether there are potential reasons for a conflict of interest on the side of the reviewers. If there are, the potential reviewer is excluded	☐	☐
b. The reviewers are asked to check for potential conflicts themselves and possibly withdraw from the assessment	☐	☐
c. The reviewers have to sign a statement confirming that there are no conflicts of interest	☐	☐
d. Other _____ _____	☐	☐
e. There is no check for conflict of interest	○	○

111. [Mandatory question] [Filter, if 110a or 110b or 110c or 110d] How does your organisation view the way...

	Excellent 1	2	3	4	5	Insufficient 6
a. ... conflicts of interest are identified in this instrument?	○	○	○	○	○	○
b. ... conflicts of interest are dealt with or resolved in this instrument?	○	○	○	○	○	○

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Organisation of the review

……

THE FOLLOWING PART OF THE SURVEY IS DEDICATED TO THE ORGANISATION OF THE REVIEW

112. [Mandatory question] [Filter, NOT if 74a] How many proposals is every reviewer responsible for on average per call in this instrument?

	Please insert average number of proposals	
	Minimum	Maximum
a. [Filter, if Q98a] Every remote reviewer is responsible for…	_____ ○ No fixed number	_____ ○ No fixed number
b. [Filter, if Q98b] Every panel reviewer is responsible for …	_____ ○ No fixed number	_____ ○ No fixed number

113. [Mandatory question] Does your organisation disclose...

	Yes, on demand	Yes, always	No	Not applicable (please explain)
a. [Filter, if Q98a] ... to the applicants the identity of remote reviewers who reviewed their respective proposal for this instrument?	○	○	○	_____ _____
b. [Filter, if Q98b] ... to the applicants the identity of panel reviewers who reviewed their respective proposal for this instrument?	○	○	○	_____ _____
c. [Filter, if Q98a] ... to the remote reviewers the identity of applicants for this instrument?	○	○	○	_____ _____
d. [Filter, if Q98b] ... to the panel reviewers the identity of applicants for this instrument?	○	○	○	_____ _____

114. [Mandatory question] Does your organisation publicise...

	Yes, on demand	Yes, always	No	Not applicable (please explain)
a. [Filter, if Q98a] ... to the scientific community the identity of remote reviewers (not linked to specific proposals) for this instrument?	○	○	○	_____ _____
b. [Filter, if Q98b] ... to the scientific community the identity of panel reviewers (not linked to specific proposals) for this instrument?	○	○	○	_____ _____

115. [Mandatory question] Is there a standard assessment form for the reviews for this instrument?

	Yes, electronic	Yes, paper	No
a. [Filter, if Q98a] For remote reviewers	☐	☐	○
b. [Filter, if Q98b] For panel reviewers	☐	☐	○

116. [Mandatory question] How do the reviewers document their reviews of the proposals for this instrument?

	[Filter, if Q98a] Remote reviewers	[Filter, if Q98b] Panel reviewers
a. By assigning scores	☐	☐
b. By providing comments	☐	☐
c. By ranking the proposals	☐	☐
d. Other means:_____	☐	☐

117. [Mandatory question] How much time is granted to the reviewers to complete their assessment on average for this instrument?

	Please insert average number of working days	Not applicable (please explain)
a. [Filter, if Q98a] Remote reviewers are granted...	_____ ○ No fixed number	_____ _____
b. [Filter, if Q98b] Panel reviewers are granted (prior to the panel meeting)...	_____ ○ No fixed number	_____ _____

118. [Mandatory question] [Filter, if Q98a] How frequently are the remote reviewers involved replaced for this instrument?

(Please choose one option)

a. ○ With every review needed

b. ○ Regularly, at certain intervals

c. ○ Irregularly, as the need arises. Please specify: _____

d. ○ Don't know

e. ○ Other:_____

119. [Mandatory question] [Filter, if Q118b] If regularly, at which interval?

Every_____(months)

120. [Mandatory question] [Filter, if Q98a] Please estimate the added value of remote review as a component of the review process for this instrument

(Please choose one option)

Very important	○	○	○	○	○	○	Irrelevant
	1	2	3	4	5	6	

121. [Mandatory question] How does your organisation view the described...

	Excellent 1	2	3	4	5	Insufficient 6

a. [Filter, if Q98a] ... remote review procedures in the instrument?	○	○	○	○	○	○
b. [Filter, if Q98b] ... panel review procedures in the instrument?	○	○	○	○	○	○

……

Panel Review I

……

IN THE FOLLOWING QUESTIONS INFORMATION ABOUT PANEL REVIEW IS REQUESTED FOR THE SELECTED INSTRUMENT

Panel review: Assessment of a proposal during a meeting of scientific experts and possibly on the basis of a previous assessment by remote reviewers

122. [Mandatory question] [Filter, if Q98b] What is the average size of a panel for this instrument? Please insert the average number of members: _____

○ Not applicable, please explain: _____

122.1 [Mandatory question] [Filter, if Q98b] How many proposals is one panel in charge of? Please insert the average number of proposals: _____

○ Not applicable, please explain: _____

123. [Mandatory question] [Filter, if Q98b] Who chairs the panel meetings for this instrument?

(Please choose one option)

a. ○ The panel elects its own chair and the chair continues to be a full member of the panel (incl. voting right)

b. ○ The panel elects its own chair, who then is no longer a full member of the panel (i.e., loses her/his voting right)

c. ○ The chair of your organisation's *standing committee** mandated for this review chairs the meeting

d. ○ The chair is appointed by your organisation

e. ○ A member of your organisation's management or *scientific staff** moderates the session (without influencing the scientific discussion and outcome)

f. ○
Other:_____

124. [Mandatory question] [Filter, if Q98b] According to the regular membership term, how frequently are the panel members replaced for this instrument?

(Please choose one option)

a. ○ Regularly, at certain intervals

b. ○ With every call

c. ○ With every panel meeting

d. ○ Irregularly, as the need arises. Please specify: _____

e. ○ Don't know

f. ○ Other:_____

125. [Mandatory question] [Filter, if Q124a] If regularly, at which interval?

Every_____(months)

126. [Mandatory question] [Filter, if Q98b] Does your organisation have an *independent observer** present in the panel for this instrument?

Independent observer: Member of the scientific community or administration who has no personal or professional interests in either the peer review procedure or the outcome of the review and can therefore observe the quality and fairness of the peer review procedure

(Please choose one option)

a. ○ Yes

b. ○ No

c. ○Partially, please specify: _____

127. [Mandatory question] [Filter, if Q126a or 126c] Who may serve as an independent observer for this instrument?

(Please choose one option)

a. ☐ Member of the national or international scientific community

b. ☐
Other:_____

128. [Mandatory question] [Filter, if Q98b] How does your organisation view the *structural composition** of your review panels for this instrument along the criteria addressed in the previous questions?

Structural composition of a review panel: Constitution of a panel in terms of make-up, size, member selection, leadership, etc.

(Please choose one option)

Excellent	○	○	○	○	○	○	Insufficient
	1	2	3	4	5	6	

129. [Optional question] [Filter, if Q98b] Do you have any comments and/or suggestions with regard to review panels for this instrument?

……..

Presentations to the panel

……..

YOU HAVE INDICATED ABOVE THAT PRESENTATIONS OF THE APPLICANTS TO THE REVIEWERS ARE A COMPONENT OF THE REVIEW PROCESS FOR THIS INSTRUMENT. YOU ARE NOW ASKED TO EVALUATE THIS COMPONENT

130. [Mandatory question] [Filter, if Q98c] Please estimate the importance of applicants' presentations to the panels as a component of the review process for this instrument:

(Please choose one option)

Very high	O	O	O	O	O	O	Very low
	1	2	3	4	5	6	

131. [Optional question] [Filter, if Q98c] Do you have any comments or/and suggestions with regard to presentation to the panel for this instrument?

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Site visit

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YOU HAVE INDICATED ABOVE THAT SITE VISITS OF THE REVIEWERS ARE A COMPONENT OF THE REVIEW PROCESS FOR THIS INSTRUMENT. YOU ARE NOW ASKED TO SPECIFY AND EVALUATE THIS COMPONENT

132. [Mandatory question] [Filter, if Q98d] What elements does the site visit for this instrument contain?

(Please choose one or more options)

a. ☐ Presentation by the applicant(s)

b. ☐ Interview of the applicants

c. ☐ Visit of the applicants' working places/laboratories

d. ☐ Visit of general facilities of the applicants' institution

e. ☐ Interview of the applicants' institution's management (presidents, rectors, deans, etc.)

f. ☐ Other: _____

_____

133. [Mandatory question] [Filter, if Q98d] Please estimate the importance of site visits as a component of the review process for this instrument.

(Please choose one option)

Very high	○	○	○	○	○	○	Very low
	1	2	3	4	5	6	

134. [Optional question] [Filter, if Q98d] Do you have any comments or/and suggestions with

regard to site visits in this instrument?

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……..

Panel Review II

……..

IN THE FOLLOWING QUESTIONS ADDITIONAL INFORMATION ABOUT PANEL REVIEW IS REQUESTED FOR THE SELECTED INSTRUMENT

135. [Mandatory question] [Filter, if Q98b] Are panel members asked to comment on the amount of funding awarded to the applicants for this instrument?

a. ☐ Yes, they may recommend raising it

b. ☐ Yes, they may recommend lowering it

c. ○ No, they may not influence it

○ Not applicable, please explain: _____

136. [Mandatory question] [Filter, if Q98b] Please estimate the added value of panel review as a component of the review process for this instrument

(Please choose one option)

Very high	○	○	○	○	○	○	Very low
	1	2	3	4	5	6	

137. [Optional question] [Filter, if Q98b] Do you have any comments or/and suggestions with regard to review panels for this instrument?

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……..

Final questions regarding the instrument

……..

THE FOLLOWING QUESTIONS WILL CAPTURE THE FINAL KEY ASPECTS OF THE SELECTED INSTRUMENT

138. [Mandatory question] How does your organisation estimate the overall *effectiveness** of the review process for this instrument taking into account all procedures described above?

(Please choose one option)

Very high	O	O	O	O	O	O	Very low
	1	2	3	4	5	6	

139. [Mandatory question] Please estimate the percentage of the time spent on the following parts of the review process for this instrument:

a. (Re-) Classifying proposals according to your *research classification system** % O Not applicable

b. Selecting and recruiting reviewers _____% O Not applicable

c. Processing the reviews provided by the reviewers ____ % O Not applicable

d. Management of panel meetings _____% O Not applicable

e. Organising the applicant's presentations to the reviewers __ % O Not applicable

f. Organising the site visits __ % O Not applicable

g. Managing the *Right to reply** __ % O Not applicable

h. Administration of incentives _____ % O Not applicable

i. Updating of/managing the database _____% O Not applicable

j. Management and quality assurance of the review process___ % O Not applicable

k. Other, please specify:_____ _____%

l. Other, please specify:_____ _____%

m. Other, please specify:_____ _____%

140. [Optional question] Do you have any comments or/and suggestions with regard to the review process for this instrument?

.....

Final comments regarding the survey

……

141. [Optional question] Should you have any final comments, remarks and/or suggestions concerning the survey, kindly enter them here.

YOU HAVE NOW COMPLETED THE DESCRIPTION OF THIS INSTRUMENT. SINCERE THANKS FOR YOUR COMMITMENT AND VERY VALUABLE CONTRIBUTION!

Annex B:
Research Classification System: a preliminary map of existing European approaches

EUROPEAN SCIENCE FOUNDATION
SETTING SCIENCE AGENDAS FOR EUROPE

ESF Survey on Peer Review Practices

Annex B

Research Classification Systems: *an overview of the existing European approaches*

Table of Contents

1. Introduction

The development of the European Research Area (ERA) has clearly contributed to the growing need for and attention to the institutional diversity of the research classification systems used in Europe. On the one hand, there is the natural tendency for preserving the existing national research organization systems and on the other hand, there is the necessity for harmonising or making compatible different systems in place. The latter being one of the main tools for the internationalization of research and for the mobility of the researchers. To this end, either the use of a common classification system (e.g., the OECD/Frascati classification[1]) should be promoted, or at least efforts should be made in making the existing different systems as compatible as possible, therefore allowing for translations or interpretations of the research profiles from one system to another without ambiguity. This will contribute to improving efficiency and coherence of extramural collaborations needing peer review and evaluation activities.

In mapping the landscape of peer review procedure in Europe the *ESF Survey on Peer Review Practices* included some questions related to the Research Classification System used by the responding organisations and some evaluative questions concerning advantages and disadvantages related to the use of these national systems. The results are interesting: 90% of the organisations participating in the Survey use a multi-level research classification system. In terms of the source of the system, the tendencies are: through the organisation's staff (50%); and by the organisation's scientific council (39.3%). Only 28.6% of the respondents rely, among others, on the international OECD/Frascati Manual. Additionally, only 17.9% of the organisations regularly update their systems. This leads to a clear divergence of the classification systems in place and this could potentially hinder easy exchange of communication and possible exchange of reviewers.

Most of the participants in the Survey on Peer Review Practices have provided their Research Classification Systems. This annex is meant to provide some examples of the current classification systems used in Europe by research funding and research performing organizations.

In Chapter 2 the data gathered is organised as follows: Section 2 includes one-level and multi-level research classification systems gathered through the survey. In Section 3 the OECD/Frascati Manual is described and in Section 4 other examples that have been identified as available online are provided.

[1] See *infra* chapter 3

2. Examples of National Research Classification Systems

Some examples of the research classifications systems currently being used in Europe and gathered through the survey on peer review practices are provided in the following sections. Section 1.1 includes four examples of one-level classifications systems. In Section 1.2, three examples of two-level systems are provided each with different number of main disciplines at the root. Section 1.3 contains two examples of three-level classification systems with different number of main disciplines at the root.

2.1. One-level Research Classification System

Organization 1	Technical Sciences
	Physical Sciences
	Medical and Biological Sciences
	Social Sciences and Humanities
	Agricultural and Biological/environmental Sciences

Organization 2	Exact Sciences
	Natural Sciences
	Engineering and Technology
	Medical and Health Sciences
	Agricultural Sciences
	Social Sciences
	Humanities

Organization 3	Humanities and social sciences
	Biology and biomedicine
	Natural resources
	Agricultural sciences
	Physical science and technology
	Materials science and technology
	Food science and technology
	Chemical science and technology

Organization 4		
Earth Sciences	Area of Educational Sciences	Public health
Physics and Space Sciences	Social Sciences	Clinical medicine
Mathematics	Law	Physical education
Chemistry	Economics	Science of nutrition
Fundamental and Systems Biology	Philology and Philosophy	Environmental health
Biomedicine	History and Art	Neurosciences
Clinical Medicine and Epidemiology	Psychology	Social and economic geography
Plant and Animal Biology and Ecology	Knowledge Transfer	Economics
Agricultural	Bioinformatics	Educational sciences
Food Science and Technology	Environmental sciences	Development research

Organization 4		
Stock-rearing and Fisheries	Food technology	Business and management
Materials Technology	Agronomy	Women's and gender studies
Technology and Computer Science	Forestry	Law
Civil Engineering and Architecture	Biomedical sciences	Psychology
Electrical Electronics and Automatic Control Engineering	Veterinary science	
Chemical Technology	Pharmacology	
Communications and Electronic Technology	Dentistry	
	Nursing science	

2.2. Two-Level Research Classification Systems

In this section, three examples of two-level classification systems with different number of root disciplines are provided. Section 2.2.1 describes a two-level system with three main disciplines at the top level while the examples given in Section 2.2.2 and 2.2.3 contain respectively four and six main disciplines at their highest levels.

2.2.1. Two-levels with three main areas

1. HUMANITIES AND SOCIAL SCIENCES	2. MATHEMATICS, NATURAL- AND ENGINEERING SCIENCES	3. BIOLOGY AND MEDICINE
Philosophy, Psychology, Educational science and Religious sciences	Mathematics	Basic Biological Research
Legal and Social sciences, Economics	Astronomy, Astrophysics and Spatial Sciences	General Biology
History	Chemistry	Basic Medical Sciences
Archaeology, Ethnology and Visual arts	Physics	Experimental Medicine
Linguistics and Literature	Engineering Sciences	Clinical Medicine
Fields for UAS (Universities of Applied Sciences)	Environmental Sciences	Preventive Medicine (Epidemiology/Early Diagnosis/Prevention)
	Earth Sciences	Social Medicine

2.2.2. Two-levels with four main areas

1. BIOSCIENCES AND ENVIRONMENT	2. CULTURE AND SOCIETY	3. HEALTH	4. NATURAL SCIENCES AND ENGINEERING
Biochemistry	Philosophy	Biomedicine	Architecture and Industrial Design
Microbiology	Theology	Medicine	Geosciences
Genetics	History and Archaeology	Pharmacy	Space Research and Astronomy
Ecology, Biosystematics and -physiology	Cultures Research	Dental Science	Mathematics
Sciences	Aesthetics and Arts Research	Nursing Science	Statistics

1. BIOSCIENCES AND ENVIRONMENT	2. CULTURE AND SOCIETY	3. HEALTH	4. NATURAL SCIENCES AND ENGINEERING
Agricultural Sciences	Philology and Linguistics	Public Health Science	Information Processing Sciences
Food Sciences	Law	Clinical Medicine	Telecommunications
Research relating to the State of the Environment and to Environmental Protection	Psychology	Sport Sciences	Electrical Engineering and Electronics
Research into Substances Hazardous to the Environment	Logopedics	Nutrition	Medical Engineering
Geography and Regional Studies	Education	Occupational and Environmental	Physics and Technical Physics
Research relating to Environmental Policy, Environmental Economy and Environmental Law	Social Sciences	Medicine	Chemistry and Chemical Technology
Biotechnology, Molecular Biology, Cell Biology, Biophysics and Economic and Technological	Economics	Biochemistry, Genetics, Microbiology, Biotechnology, Molecular Biology, Cell Biology, Biophysics and Bioinformatics relating to the above fields.	Process Technology and Materials Science
	Political Science and Administration		Mechanical Engineering, Automation Technology and Manufacturing Technology
	Communication and Information Sciences		Industrial Engineering and Management
			Construction and Municipal Engineering
			Biotechnology relating to the above fields
			Energetic

2.2.3. Two-levels with six main areas

1. NATURAL SCIENCES AND MATHEMATICS	2. ENGINEERING SCIENCES AND TECHNOLOGIES	3. MEDICAL SCIENCES	4. BIOTECHNICAL SCIENCES	5. SOCIAL SCIENCES	6. HUMANITIES
Mathematics	Civil engineering	Microbiology and immunology	Forestry, wood and paper technology	Educational studies	Historiography
Physics	Chemical engineering	Stomatology	Animal production	Economics	Archaeology
Biology	Energy engineering	Neurobiology	Plant production	Sociology	Anthropology
Chemistry	Materials science and technology	Oncology	Veterinarian medicine	Administrative and organisational sciences	Ethnology
Biochemistry and molecular biology	Mechanics	Human reproduction	Landscape design	Law	Linguistics
Geology	Systems and cybernetics	Cardiovascular system	Biotechnology	Political science	Culturology
Computer intensive methods and applications	Computer science and informatics	Metabolic and hormonal disorders		Criminology and social work	Literary sciences

1. NATURAL SCIENCES AND MATHEMATICS	2. ENGINEERING SCIENCES AND TECHNOLOGIES	3. MEDICAL SCIENCES	4. BIOTECHNICAL SCIENCES	5. SOCIAL SCIENCES	6. HUMANITIES
Control and care of the environment	Telecommunications	Public health (occupational safety)		Urbanism	Musicology
Pharmacy	Electronic components and technologies	Psychiatry		Psychology	Art history
	Manufacturing technologies and systems			Sport	Philosophy
	Mechanical design			Ethnic studies	Theology
	Electric devices			Architecture and Design	Geography
	Process engineering			Information science and librarianship	
	Textile and leather				
	Metrology				
	Mining and geotechnology				
	Geodesy				
	Architecture and design				
	Traffic systems				
	Hydrology				
	Technology driven physics				
	Communications technology				

2.3. Three-Level Research Classification systems

In the following sections two examples of three-level classification systems are provided one with six main disciplines and the other with seven.

2.3.1. Three-levels with six main disciplines

Level 1	Level 2	Level 3
1. HUMANITIES	**Linguistics**	General linguistics and phonetics; Applied linguistics; Sign language; Nordic language; Norse philology; English language; German language; Dutch language; Other Germanic languages; French language; Italian language; Spanish language; Other Roman languages; Russian language; Other Slavic languages; Finno-Ugric languages; Sami language; Classical philology; Indo European languages; East Asian languages; Semitic languages; African languages; Pacific languages; Other linguistic disciplines
	Linguistic disciplines	General literary science; Nordic literature; English literature; German literature; Other Germanic literature; French literature; Italian literature; Spanish literature; Other Romance literature; Russian literature; Other Slavic literature; Finnish literature; Sami literature; Classical literature; Indo-European literature; East Asian literature; Semitic literature; African literature; Other linguistic disciplines
	Cultural science	Nordic cultural science; Germanic cultural science; Roman cultural science; Slavic cultural science; Classical cultural science; Indo-European cultural science; East Asian cultural science; Anglo American cultural science; Other cultural sciences
	History	Political history; Social history; Women's history; Economic history; Cultural history; Ancient history; History of the Middle Ages; Recent history (before 1800); Modern history (after 1800); Contemporary history (after 1945); Non-European/Non-Western history; Other history
	Archaeology	Nordic archaeology; Classical archaeology;Other archaeology
	The study of folklore, Ethnology	The study of folklore; Ethnology
	Musicology	Music history; Music theory; Music therapy; Music pedagogics; Alternative musicology
	History of art	Sculpture; Painting, drawing, graphics; Arts and crafts, handicraft; Conservation and restoration; History of the arts in the antiquity; History of the arts in the Middle Ages; From the Renaissance through the Baroque; History of the arts in recent times; Modern history of the arts; Non-European history of the arts; Other history of the arts
	Architecture and design	History of architecture and design; Theory of architecture and design; Methodology of project and industrial design; Landscape architecture
	Theology and religious science	Theology; Christianity studies; Religious science, religious history
	Philosophical disciplines	Philosophy; History of ideas; Logic; Ethics; Other philosophical disciplines
	Movie and drama	Movie science; Theatre studies

2. SOCIAL SCIENCE	**Economics**	Economics; Business; Econometrics
	Sociology	
	Urbanism and physical planning	Planning history, planning theory and planning methodology; Building and regulation planning; Landscape planning; Urbanism; Spatial, territorial planning
	Political science and organizational theory	Comparative politics; Public and private administration; International politics
	Social anthropology	
	Psychology	Biological psychology; Clinical psychology; Social and occupational psychology; Personality psychology; Developmental psychology; Cognitive psychology; Organizational psychology; Other psychology disciplines
	Education	General education; Special education; Subject didactics; Other disciplines within education
	Human geography	
	Demography	Media science and journalism
	Library and information science	Information and communication systems; Information politics; Knowledge retrieval and organization; Bibliometrics; Documentation science; Records management
	Social science in sports	Integration disciplines; Activation instruction; Physical education and sport psychology; Other subjects within physical education
	Law	General law; Private law; Public law; Int. law; Computers and law; Environmental law; Fishery law; Other subjects within law
	Criminology	
	Social work	
	Women's and gender studies	

3. MATHEMATICS AND NATURAL SCIENCE	**Mathematics**	Analysis; Statistics; Applied mathematics; Algebra/algebraic analysis; Topology/geometry; Logic; Insurance mathematics and risk analysis
	Information and communication science	Theoretical computer science, programming languages and programming; Algorithms and computability theory; Communication and distributed systems; Security and vulnerability; Knowledge based systems; System development and system design; Mathematical modeling and numerical methods; Databases and multimedia systems; Simulation, visualization, signal processing, image processing
	Physics	Nuclear and elementary particle physics ; Atomic physics, molecular physics; Electromagnetism, acoustics, optics; Electronics; Physics of condensed matter; Space and plasma physics; Astrophysics, astronomy
	Chemistry	Organic chemistry; inorganic chemistry; Physical chemistry; Theoretical chemistry, quantum chemistry; Analytical chemistry; Environmental chemistry, natural environmental chemistry; Nuclear chemistry Pharmaceutical chemistry
	Geosciences	Solid earth physics; Oceanography; Meteorology; Hydrology; Sedimentology; Stratigraphy and paleontology; Mineralogy, petrology, geochemistry; Tectonics; Petroleum geology and petroleum geophysics; Quaternary geology, glaciology; Marine geology; Hydrogeology; Geometrics; Other geosciences
	Basic biosciences	Cell biology; General microbiology; Molecular biology; Genetics and genomics; Bioinformatics; Biochemistry; Biophysics; General immunology
	Zoology and botany	Zoological anatomy; Embryology; Zoophysiology and comparative physiology; Parasitology; Ethology; Zoogeography; Systematic zoology; Ecology Ecotoxicology; Plant anatomy; Plant physiology; Systematic botany; Vegetation history; Plant geography; Marine biology; Limnology

4. TECHNOLOGY	**Rock and petroleum disciplines**	Mineral resources engineering; Petroleum engineering; Geological engineering; Other rock and petroleum disciplines
	Materials science and engineering	Metallurgy; Functional materials Polymer and plastics; Building materials; Other material science
	Building technology	Architecture and building technology; Building, construction and transport technology; Construction technology; Mapping and measuring; Physical planning; Geological engineering Hydrotechnology
	Electrotechnical disciplines	Electronics; Electrical power engineering; Other electrotechnical disciplines
	Information and communication technology	Computer technology; Telecommunication; Technical cybernetics; Geographical information systems; Other information technology
	Chemical engineering	Electrochemistry; Chemical process engineering;; Chemical engineering unit operations; Pharmaceutical formulation and technology; Other chemical technology
	Mechanical engineering	Machine construction and engineering technology; Production and maintenance engineering; Machinery energy and environmental technology; Mechanical and flow technical subjects; Other machinery disciplines
	Marine technology	Offshore technology Ship technology; Other marine technology
	Biotechnology	
	Food science and technology	
	Environmental engineering	
	Medical technology	
	Nanotechnology	
	Industrial and product design	
	Biotechnology	
	Food science and technology	
	Environmental engineering	
	Medical technology	
	Nanotechnology	
	Industrial and product design	

5. MEDICAL DISCIPLINES	**Basic medical, dental and veterinary science disciplines**	Medical molecular biology; Medical genetics; Medical microbiology; Medical immunology; Anatomy, physical anthropology; Human and veterinary science physiology; General pathology, anatomical pathology; Forensic medicine, forensic dentistry; Physiopathology; Clinical chemistry; Medical biochemistry; Pharmacology; Toxicology; Biopharmacy; Pharmacognosy; Clinical pharmacology
	Clinical medical disciplines	Family practice; Neurology; Dermatology and venereology; Ophthalmology; Gynecology and obstetrics; Psychiatry, child psychiatry; Forensic psychiatry; Rheumatology; Pediatrics; Tropical medicine; Oncology; Radiology and diagnostic imaging; Physical medicine and rehabilitation; Anesthesiology General internal medicine; Cardiology; Endocrinology; Nephrology, urology Hematology; Communicable diseases; Lung diseases; Geriatrics; General surgery; Gastroscopic surgery; Vascular and thoracic surgery; Traumatology; Orthopedic surgery; Plastic surgery; Neurosurgery; Oral surgery; Endocrine surgery; Other clinical medical disciplines
	Health sciences	Community medicine, Community dentistry; Social medicine statistics; Preventive medicine; Medical/dental ethics, behavioural sciences, history; Health service and health administration research; Physiotherapy; Nursing science; Occupational health; Company health service; Nutrition Community pharmacy; Food hygiene; Other health science disciplines

	Clinical dentistry disciplines	Preservative dental care; Prothetics and dental occlusion function; Orthodontics; Pediatric dentistry and dental caries prophylaxis Oral medicine; Oral radiology; Periodontics; Other clinical dentistry disciplines
	Sports medicine	Exercice techniques; Mouvement instruction; Doping in sports

6. AGRICULTURE AND FISHERY DISCIPLINES	**Agriculture disciplines**	Plant breeding, horticulture, plant protection, plant pathology; Livestock breeding, rearing, reproduction; Soil sciences; Management of natural resources; Forestry; Agricultural technology; Animal feeding; Other agricultural disciplines
	Fisheries science	Resource biology; Aquaculture; Fish health; Fisheries technology; Catch; Other fisheries disciplines
	Clinical veterinary science disciplines	Reproduction Obstetrics ; Surgery; Internal medicine

2.3.1. Three-levels with seven main areas

1. NATURAL SCIENCES	**Biology**	Biochemistry and molecular biology; botany; ecology; genetics; microbiology; biology general; zoology.
	Physics	Astrophysics and astronomy; atomic and molecular physics; biophysics and biomedicine; particle physics; condensed matter; geophysics and meteorology; nuclear physics.
	Earth Sciences	Physical geography; geophysics; geology; mineralogy; oceanography.
	Chemistry	Analytical chemistry; inorganic chemistry; physical chemistry; medical chemistry; organic chemistry; theoretical chemistry
	Mathematics	Algebra; number theory; geometry and topology; applied mathematics and modelling; combinatories and discrete mathematics; probability theory and statistics; mathematical analysis; other mathematical sciences; mathematical logic and computer science

2. TECHNOLOGICAL SCIENCES	**Architecture and Urban Environment**	Architectural design; urban and regional planning; architectural constructions, building physics, materials and building technology; history and theory of architecture, conservation of building heritage; landscape planning.
	Naval architecture	Ship construction; marine hydromechanics; ship design; ship building technology and maintenance
	Electrical engineering	Electric power engineering; electric machines; electronics; ICT (information and communications technologies); radiocommunications.
	Geodesy	Cartography; photogrammetry and remote sensing maritime, satellite and remote geodesy; applied geodesy; geomatics
	Civil engineering	Geotechnical engineering; construction engineering; water engineering; road transport engineering.
	Graphics technology	Graphics reproduction processes.
	Chemical engineering	Chemical reaction engineering; mechanical, heat and separation processes; process analysis and synthesis

	Metallurgy	Process metallurgy; mechanical metallurgy; physical metallurgy.
	Computer sciences	Computer architecture; information systems; data analysis; artificial intelligence; computer aided processes
	Mining, petroleum and geological engineering	Mining; petroleum engineering; geology.
	Mechanical engineering	Mechanical engineering (constructions); process thermal energy engineering; manufacturing engineering; marine engineering
	Transport technology	Road and railway transport technology; water transport technology; telecommunications engineering; space technology; intelligent transport technology and logistics.
	Textile technology	Textile-mechanical engineering; textile chemistry; clothing technology; textile and clothing design.
	Aerospace, missile and space engineering	Aircraft construction and development; aerospace technologies and maintenance; aircraft management and pilotage
	Other basic engineering sciences	Control engineering; energetic; materials; fluid mechanics; production process management; engineering mechanics; (solids mechanics); thermodynamics; environmental sciences.

3. BIOMEDICINE AND HEALTH SCIENCES	**Basic Medical Sciences**	Cytology, histology, embryology; dermatology; epidemiology; pharmaceutical sciences; pharmacology and toxicology; physical medicine and rehabilitation physiology; genetics; gynaecology, obstetrics and reproduction; hygiene immunology and immunohematology; infectology; internal medicine ; public health; surgery; clinical pharmacology with toxicology; clinical chemistry and laboratory; medicine; occupational medicine; medical biochemistry; medical microbiology; molecular medicine; neurology; neuroscience; nuclear medicine; ophthalmology; oncology; general medicine; orthopaedics; otorhinolaryngology; pathology; paediatrics; psychiatry; radiology; nursing; social medicine.
	Clinical sciences	Forensic medicine; urology; veterinary medicine; health ecology.
	Public health and health services	
	Veterinary medicine	
	Dentistry	Dentistry and oral dentistry.
	Pharmaceutical sciences	

4. BIOTECHNICAL SCIENCES	**Agriculture**	Agrochemnistry; plant nutrition; ecology and environmental science; agricultural economics; phytomedicine; plant, animals and microorganisms genetics and improvement; animal nutrition; landscape architecture; hunting; dairy; agriculture technique and technology; vegetable growing; animal production and processing; fisheries science; seed production; cattle breeding; grassland; decoration plants; viticulture and enology; fruit-growing.
	Forestry	Horticulture; forest resources management; urban forestry and entries protection; forest management and protection; forest growing; hunting.
	Wood technology	Wood materials; wood technology processes; wood manufacture design; production organisation.
	Biotechnology	Bioinformatics; biology; engineering; molecular biotechnology; waste material.
	Food technology	Engineering; food chemistry; food microbiology; nutrition; quality assurance.

5. SOCIAL SCIENCES	**Economy**	Entrepreneurial economics; finances and fiscal politics; quantitive economy; management; international economy; general economy
	Law	Financial law; civil law and civil process law; criminal law and criminal process law; international law; international private law; family law; maritime and transport law; history of law and state; labour and social law; Roman law; theory of Law and State; commercial and corporations law; administrative law and administration; constitutional law; European public law; European private law.
	Political Science	Political theory/ history of political ideas; external and internal politics; comparative politics; international relations and national safety.
	Information sciences	Archival studies and Records management studies; information systems and informatology; bibliography; communicology; lexicography and encyclopedistics; museology; journalism; public media.
	Sociology	Special sociologies; sociology of knowledge; social system and theory rural, urban and regional sociology/studies
	Psychology	Biological and physiological psychology; clinical psychology; special psychologies; developmental psychology ; social psychologies ; continuous psychology.
	Educational Sciences	Andragogy; defectologia; didactics; kinesiology; logopaedics; general pedagogy; continuous pedagogy.
	Social geography and demography	Demogeography; demography; economic geography; social geography.
	Social work	Social policy; social planning; social work theory; special fields of social work; social gerontology
	Security and defence sciences	

6. HUMANITIES	**Philosophy**	Logic; ontology; cognitive theory; aesthetics; ethics; history of philosophy.
	Theology	Dogmatic; moral science; pastoral theology; exegesis; church history.
	Philology	Classical philology; Croatian language and literature; Slavic languages and literatures; Romance languages and literatures ; German language and literature; English language and literature; Indology; Turkology; Finno-Ugric languages and literatures; eastern and other philology; phonetics; linguistics general; comparative linguistics; literary theory and history ; comparative literature
	History	Historical studies – general, xxxx history; historical ancillary studies.
	Art history	History and theory of art, architecture, urban planning and visual communications; heritage protection
	Arts	Musicology and ethnomusicology; theory of fine arts; theatrology; film.
	Archaeology	Prehistoric archaeology; classical archaeology; medieval archaeology.
	Ethnology and anthropology	Anthropology; ethnology; folklore.

7. ARTS	**Dramatic arts**	Dramaturgy; acting; directing.
	Film and electronic arts	Animation; montage; directing; scenario; photography.
	Music studies	Musical composition; music reproduction (conducting, singing, playing).
	Fine arts	Architecture and design; graphic arts studies; sculpture; restauration; painting.

3. Frascati Manual

In June 1963, the experts from the Organisation for Economic Co-operation and Development (OECD) met with the National Experts on Science and Technology Indicators (NESTI group) in Frascati, Italy. The result of their join work was the first version of what is now known as *Frascati Manual*. This manual is now on its 6th edition and is entitled *The Measurement of Scientific and Technological Activities, Frascati Manual 2002. Proposed Standard Practiced for Surveys on Research and Experimental Development*[2].

The manual sets forth the fundamental definitions of research (from personnel to research classification) in order to provide an internationally accepted vocabulary, a common language for discussion; and intended to pave the way for further developments such as shared indicators, balance of payments etc. The current version of the manual includes guidelines, data analysis, and measurement of service-sector, R&D Science and Technology Indicators among others.

An important part of the Manual is the table identifying the main institutional sectors in science and technology fields based on the UNESCO's "Recommendation Concerning the International Standardisation of Statistics on Science and Technology" (1978). For each field some examples of sub fields are provided. These major fields are:

1) Natural sciences
2) Engineering and technology
3) Medical sciences
4) Agricultural sciences
5) Social sciences
6) Humanities.

Frascati Manual: Fields of science and technology[3]

1. NATURAL SCIENCES
1.1. Mathematics and computer sciences [mathematics and other allied fields: computer sciences and other allied subjects
(software development only; hardware development should be classified in the engineering fields)]
1.2. Physical sciences (astronomy and space sciences, physics, other allied subjects)
1.3. Chemical sciences (chemistry, other allied subjects)
1.4. Earth and related environmental sciences (geology, geophysics, mineralogy, physical geography and other
geosciences, meteorology and other atmospheric sciences including climatic research, oceanography, vulcanology,

[2] The Frascati Manual is available online at: (http://www.oecdbookshop.org/oecd/display.asp?lang=EN&sf1=identifiers&st1=922002081p1)

[3] (cfr. Frascati Manual 2002, pag. 67, Table 3.2. Fields of science and technology, available at: http://browse.oecdbookshop.org/oecd/pdfs/browseit/9202081E.PDF

palaeoecology, other allied sciences)
1.5. Biological sciences (biology, botany, bacteriology, microbiology, zoology, entomology, genetics, biochemistry,
biophysics, other allied sciences, excluding clinical and veterinary sciences)
2. ENGINEERING AND TECHNOLOGY
2.1. Civil engineering (architecture engineering, building science and engineering, construction engineering, municipal and
structural engineering and other allied subjects)
2.1. Electrical engineering, electronics [electrical engineering, electronics, communication engineering and systems,
computer engineering (hardware only) and other allied subjects]
2.3. Other engineering sciences (such as chemical, aeronautical and space, mechanical, metallurgical and materials
engineering, and their specialised subdivisions; forest products; applied sciences such as geodesy, industrial
chemistry, etc.; the science and technology of food production; specialised technologies of interdisciplinary fields,
e.g. systems analysis, metallurgy, mining, textile technology and other allied subjects)
3. MEDICAL SCIENCES
3.1. Basic medicine (anatomy, cytology, physiology, genetics, pharmacy, pharmacology, toxicology, immunology and
immunohaematology, clinical chemistry, clinical microbiology, pathology)
3.2. Clinical medicine (anaesthesiology, paediatrics, obstetrics and gynaecology, internal medicine, surgery, dentistry,
neurology, psychiatry, radiology, therapeutics, otorhinolaryngology, ophthalmology)
3.3. Health sciences (public health services, social medicine, hygiene, nursing, epidemiology)
4. AGRICULTURAL SCIENCES
4.1. Agriculture, forestry, fisheries and allied sciences (agronomy, animal husbandry, fisheries, forestry, horticulture, other
allied subjects)
4.2. Veterinary medicine
5. SOCIAL SCIENCES
5.1. Psychology
5.2. Economics
5.3. Educational sciences (education and training and other allied subjects)
5.4. Other social sciences [anthropology (social and cultural) and ethnology, demography, geography (human, economic
and social), town and country planning, management, law, linguistics, political sciences, sociology, organisation and
methods, miscellaneous social sciences and interdisciplinary, methodological and historical S&T activities relating to
subjects in this group. Physical anthropology, physical geography and psychophysiology should normally be classified
with the natural sciences]
6. HUMANITIES
6.1. History (history, prehistory and history, together with auxiliary historical disciplines such as archaeology, numismatics,

palaeography, genealogy, etc.)
6.2. Languages and literature (ancient and modem)
6.3. Other humanities [philosophy (including the history of science and technology), arts, history of art, art criticism,
painting, sculpture, musicology, dramatic art excluding artistic “research” of any kind, religion, theology, other fields
and subjects pertaining to the humanities, methodological, historical and other S&T activities relating to the subjects
in this group]

4. Other Examples

Many research performing and research funding organisations have published their research classification system online. In some cases these are provided in the national language of the institution. In some cases a translation into English is also available.

Austria

Österreichischen Systematik der Wissenschaftszweige
http://www.statistik.at/kdb/downloads/pdf/OEFOS2002_EN_CAL_20070226_000000.pdf

Belgium

Research Foundation Flanders: *FWO- Expert Panels.*
http://www.fwo.be/FwoDownloadsEn/Infobrochure-ENG%2014%20september.pdf

Italy

Il sistema di classificazione delle competenze disciplinari del CNR. Maggio 2007
http://www.cnr.it/documenti/DocumentiProgrammatici/SistemaClassificazioneCNR.pdf

Norway

http://no.wikipedia.org/wiki/Norsk_inndeling_av_vitenskapsdisipliner

Slovenian Research Agency

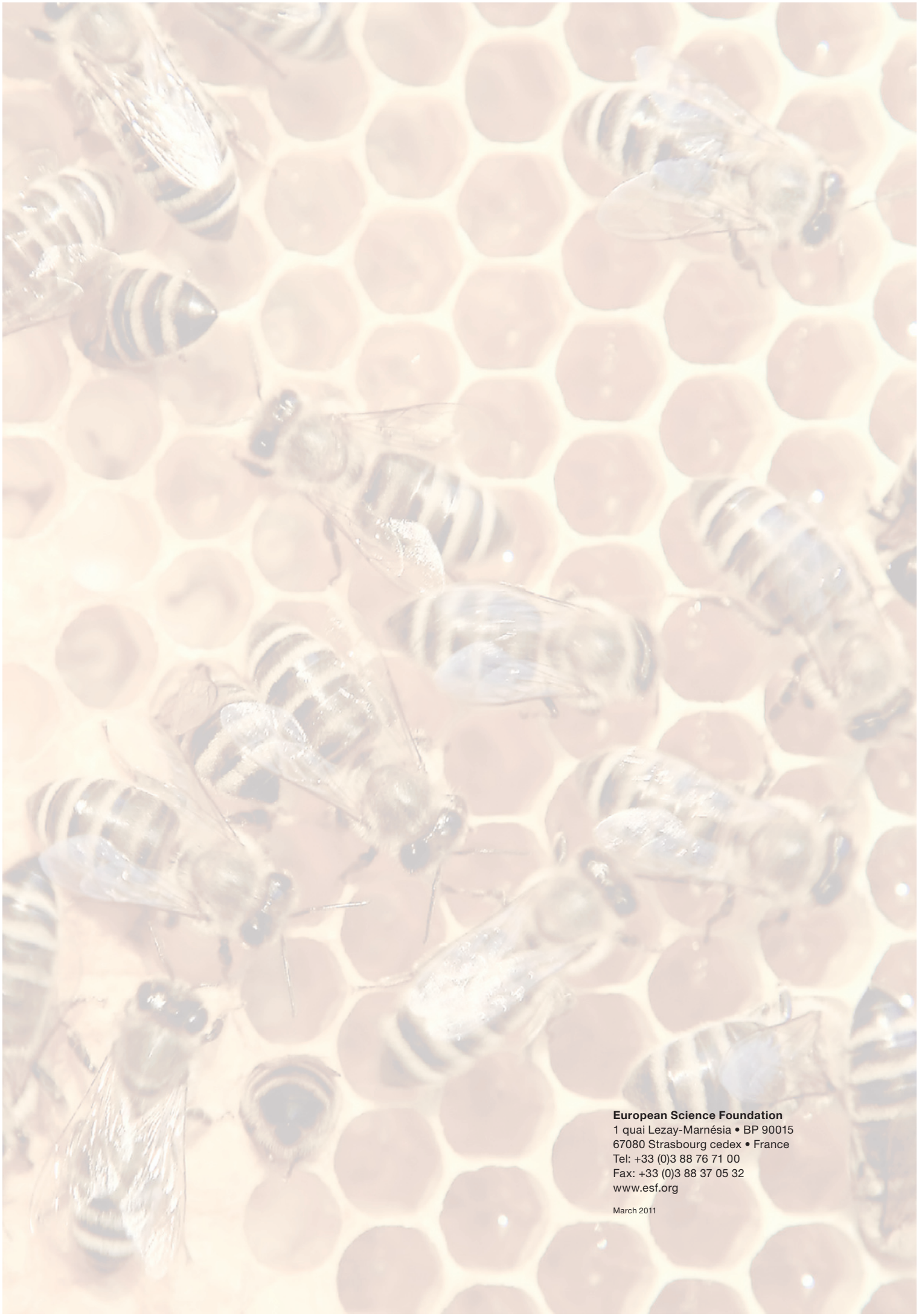
Several examples of other systems are provided on the webpage below including the scheme provided in 1991 for the “Common European Research Information Format (CERIF)”.
http://www.arrs.gov.si/en/gradivo/sifranti/inc/CERIF.pdf

European Research Council

ERC Panel Structure and Descriptors (updated version 24/07/2008)
http://erc.europa.eu/pdf/ERC_Panel_Structure_Descriptors_29_02_2008.pdf

Welcome Trust

http://www.wellcome.ac.uk/Funding/Biomedical-science/Application-information/WTD004158.htm



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