

ESF Member Forum

Evaluation of Funding Schemes and Research Programmes Expectations, Practices and Experiences

Berlin, October 22nd to 23rd, 2007

Collecting and using project output data in the Austrian Science Fund (FWF)

Dr. Rudolf Novak
Head of Department for
Development & Strategy,
National Programmes



FWF Mission

The FWF is Austria's central body for the promotion of basic research.

We invest in new ideas that contribute to an advance in knowledge and thereby to further developments. We are equally committed to all branches of science and the humanities and are guided in our operations solely by the standards of the international scientific community.



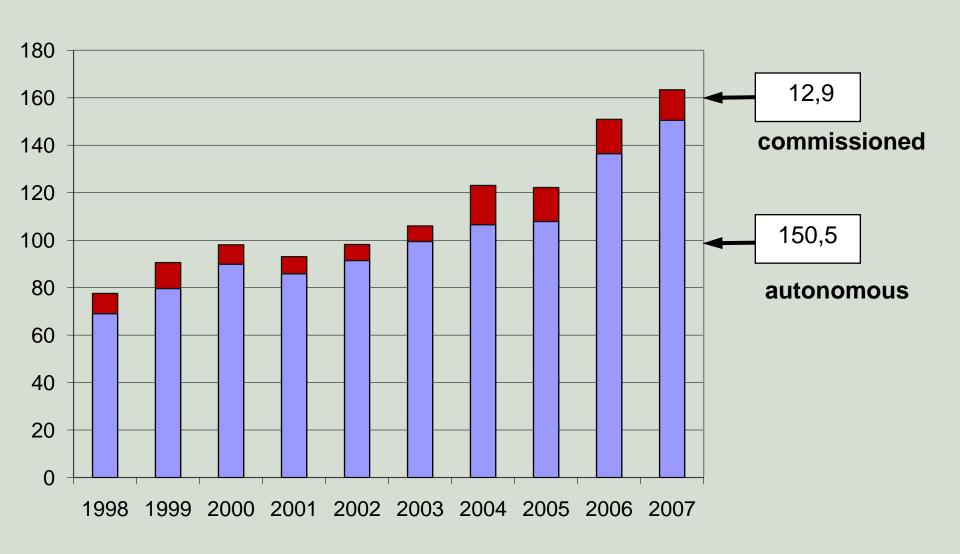
International Comparison (Differences from other Funding Organizations)

The FWF

- covers all fields of science and the humanities (unlike e.g. the British Research Councils)
- is focussed on basic science (unlike e.g. RCN)
- does not run research institutes (unlike e.g. NWO)
- does not act as a strategic advisory council for the government (unlike e.g. RCN)
- uses exclusively reviewers from abroad (virtually unique in international funding scene)
- has a single budget for all disciplines (virtually unique in international funding scene)



Sums granted 1998 – 2007 in Mio. € in 2007: 163,3 Mio. €





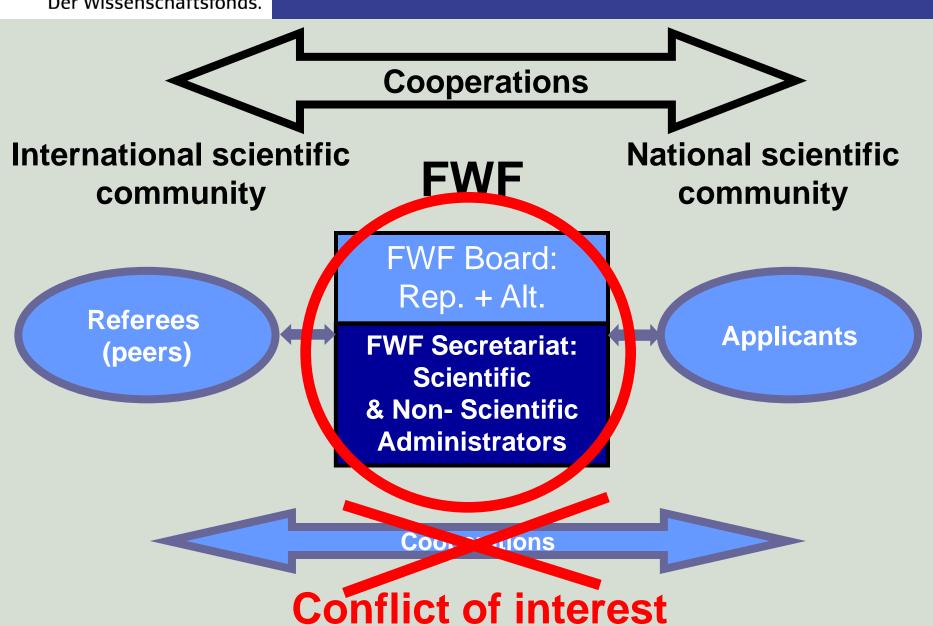
FWF- Portfolio

3 instruments:

- funding of research projects, up to 3 years, one PI, volume 230k€/ project
- funding of research networks
- provision of fellowships for excellent investigators



Projects: quality assessment



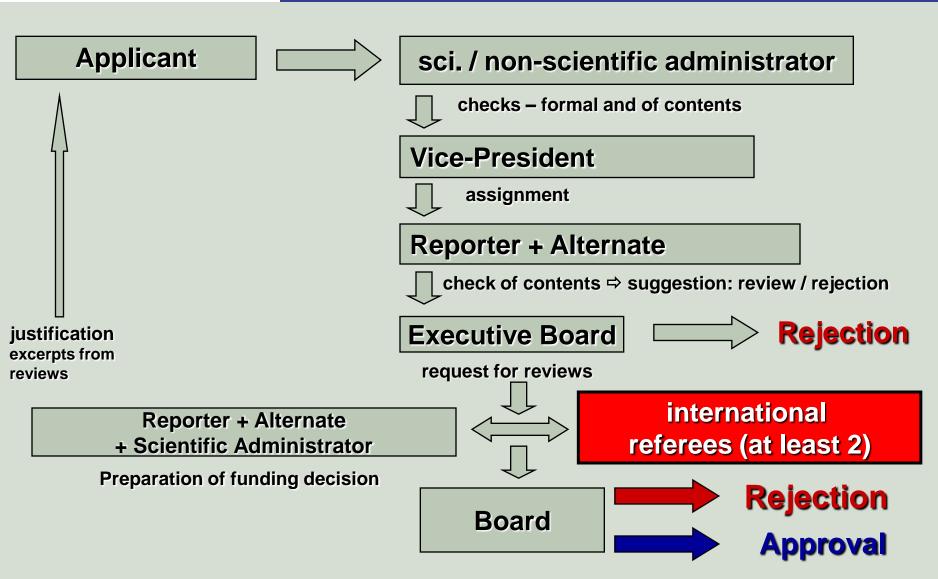


General principles for review and decisions

Quality standard	\Rightarrow	international scientific community
Peer review	\Rightarrow	exclusively outside Austria
FWF Reporters	\Rightarrow	nomination of referees
FWF Executive Board	\Rightarrow	request for reviews
Number of reviews	\Rightarrow	at least 2 (according to requested funding)
Funding Decisions	\Rightarrow	ca. every 2 months
Decisions	\Rightarrow	entire FWF Board based on the reviews
Justification	\Rightarrow	reviews made available to applicants
ex post evaluation	\Rightarrow	peer review of the final reports

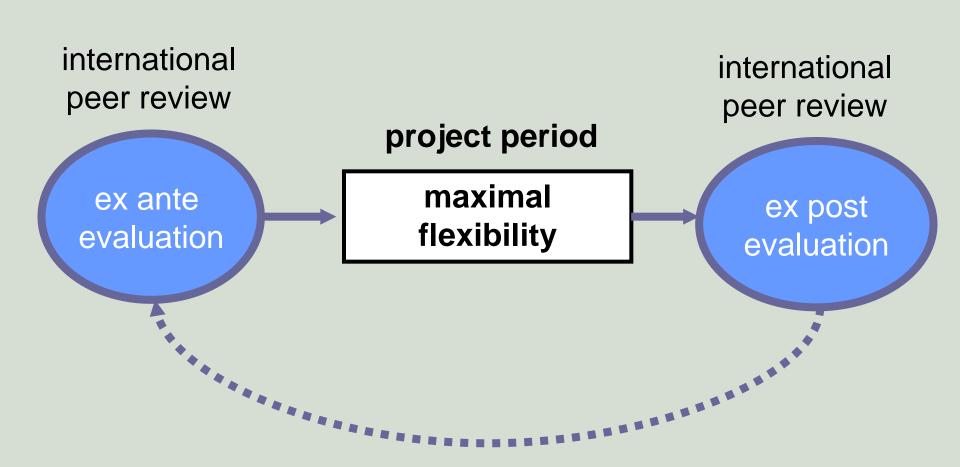


The FWF funding machine





FWF "philosophy" for quality assurance





Aspects of "flexibility"

- One Overall budget + 5% "general project costs"
- no requirement for annual reports (only accounting)
- One comprehensive final report at the end of the project



Project documentation / final report (1)

- annual accounts and brief (one page) progress report
- comprehensive report at the conclusion of the project, consisting of 5 parts (a total of ca. 2,400 words or 4 pages):
- → subjected to peer review (1 ex-ante reviewer)
- 1. summary for PR work (German and English)
- brief project report
 - 2.1. report on the scientific work
 - 2.2. personnel development importance of the project for the scientific careers of those involved (including the project leader)
 - 2.3. effects of the project outside the scientific field
- 3. Information on project participants

http://www.fwf.ac.at/en/faq/einzelprojekte/evaluierung.html



Project documentation / final report (2)

3. Information on project participants

not funded by the FWF			funded by the FWF (project)				
co-workers	number	man months	co-workers	number	man months		
non-scientific co-workers			non-scientific co-workers				
diploma students			diploma students				
PhD students			PhD students				
post-doctoral co-workers			post-doctoral co-workers				
co-workers with "Habilitation" (professorial qualifications)			co-workers with "Habilitation" (professorial qualifications)				
professors			professors				



Project documentation / final report (3)

4. Attachments

for peer review and data collection

- **List 1.a. scientific publications**
- List 1.b. publications for the general public and other publications
- List 2 project-related participation in international scientific conferences
- List 3 Development of collaborations (national, European, international)
- List 4 "Habilitations" (professorial qualifications) / PhD theses / diploma theses
- List 5 Effects of the project outside the scientific field (where appropriate)
- List 6 Applications for follow-up projects

5. Feedback about Work with the FWF



Attachment, example: scientific publications

1.a scientific publications

with an indication of the status (published, in press, submitted, in preparation)

- Publications may only be listed if they relate directly to the project. Up to three of the
 most important publications should be indicated (e.g., printed in bold letters; for
 books, two originals should be supplied if the book has already been published,
 otherwise a brief description should be given together with the name of the
 publishing house).
- Please note that publication costs may be requested (under the original project number) for up to three years following completion of a project.
- A common format for citations should be followed.
- 1.a.1. Peer-reviewed publications (journals, contribution to anthologies, working papers, proceedings etc.).
- 1.a.2. Non peer-reviewed publications (journals, contribution to anthologies research reports, working papers, proceedings, etc.).
- 1.a.3. Stand-alone publications (monographies, anthologies).

The publication list must mention for each work: all authors; full title; series/journal title; year; volume; and page numbers.



Attachment, example: development of collaborations

Development of collaborations

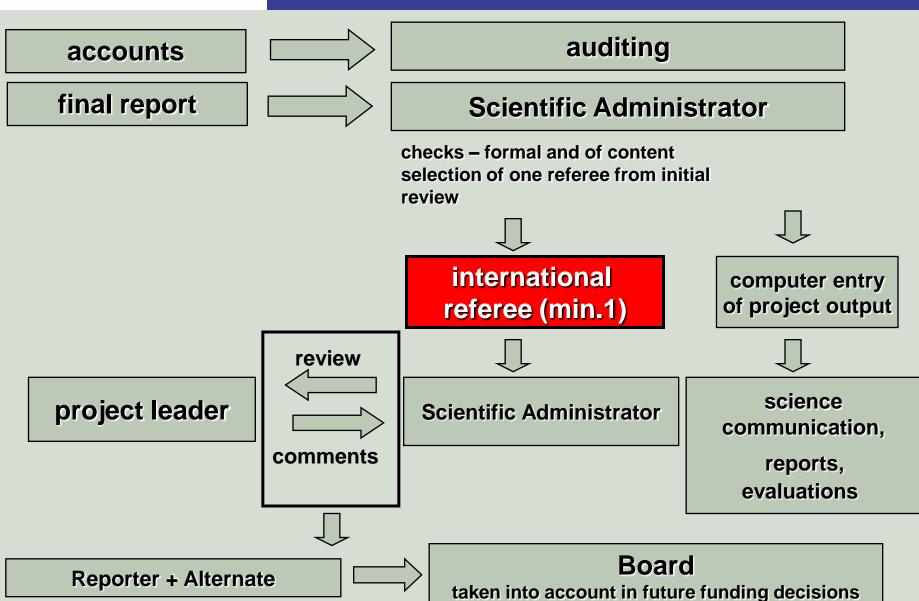
Indication of the most important collaborations (maximum 5), that took place (initiated or continued) in collaboration please give the name of the collaboration partner (name, title, institution) and a few words about the scientific content.

Please also assign one of the following categories to each collaboration:

Nature	N E I	(national); (European); (other international cooperation)
Extent		 low (e.g. no joint publications but mention in acknowledgements or similar); medium (collaboration e.g. with occasional joint publications, exchange of materials or similar but no longer-term exchange of personnel); high (extensive collaboration with mutual hosting of group members for research stays, regular joint publications etc.)
Discipline	D T	within the discipline transdisciplinary



Closing of the project





Peer review of of project reports

Reviewers are asked to comment on:

- 1. the scientific success of the project;
- 2. the development of human resources in the course of the project;
- 3. effects beyond the scientific field (in the sense of applications in or impacts on social, cultural, ecological, medical, economic and/or
 - technological areas);
- 4. the running of the project with regard to use of available resources; and
- 5. the future perspectives of the research work.



Rating scale for ex-post evaluation

- 100 80: excellent, in the sense of exceptional results, excellent work, optimal development, exceptional use of available resources etc.;
- 80 60: very good, in the sense of very good results, very good work, very good development, very good use of available resources etc.;
- 60 –40: good, in the sense of acceptable, good results, good work, good development, appropriate use of available resources etc.;
- 40 and below: problematic, in the sense of unclear scientific results or results of marginal importance, work difficult to understand; no discernible development, problematic use of available resources etc.

Important: The complete review will be made available to the PI

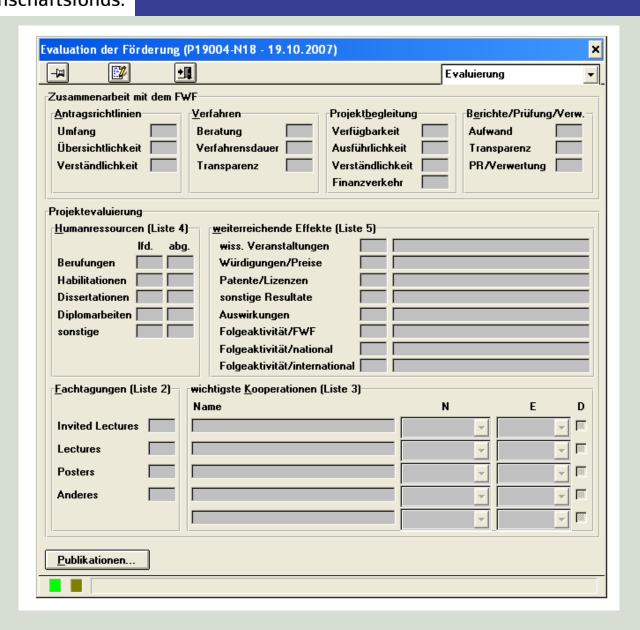


Track record available for board members

P xx xxA	Granted	Title						
Application: Rev.1: 80, Rev.2. 90, Rev.3: 90								
Ex-post Eval:	Ex-post Eval:							
Success: 80	Hum.Res.: 80	Effects: 80	Running 80	Future 80				
			of project:	perspectives				
P xx xxB	Granted	Title						
Application: Rev.1: 90, Rev.2: 90, Rev.3: 90, Rev.4: 90								
Ex-post Eval:								
Success: 75	Hum.Res.: 60	Effects: 80	Running 50	Future 75				
			of project:	perspectives				



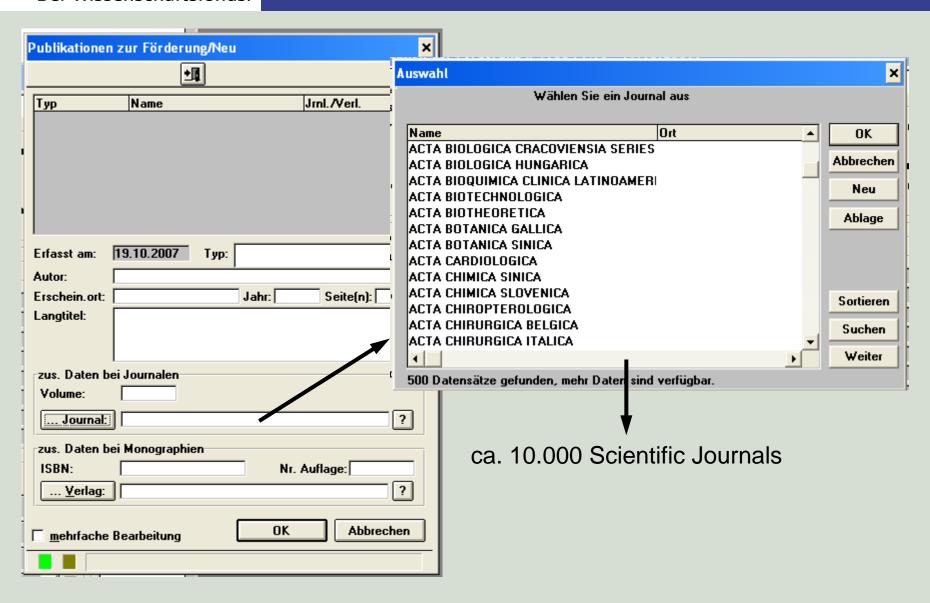
Collection of project output data





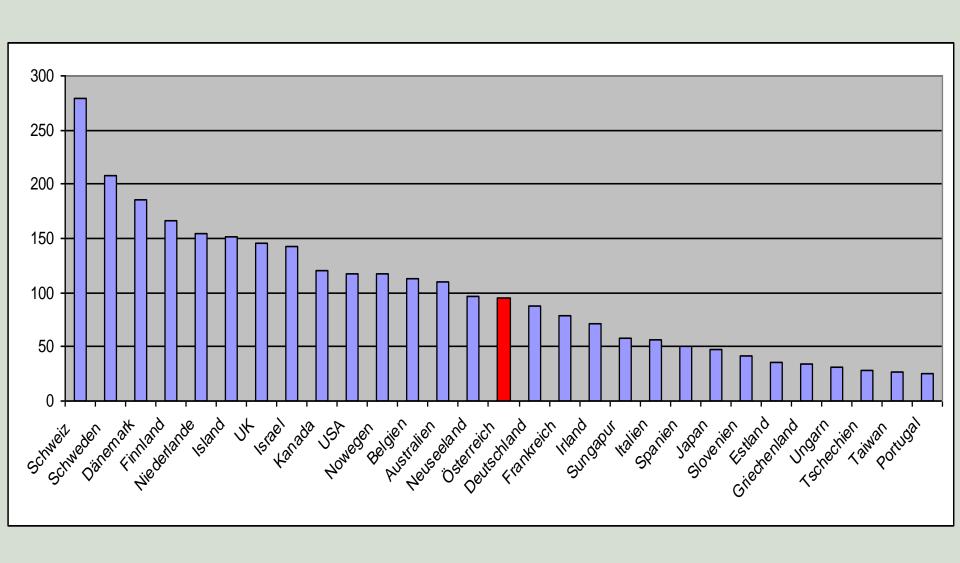
Publications

Der Wissenschaftsfonds.





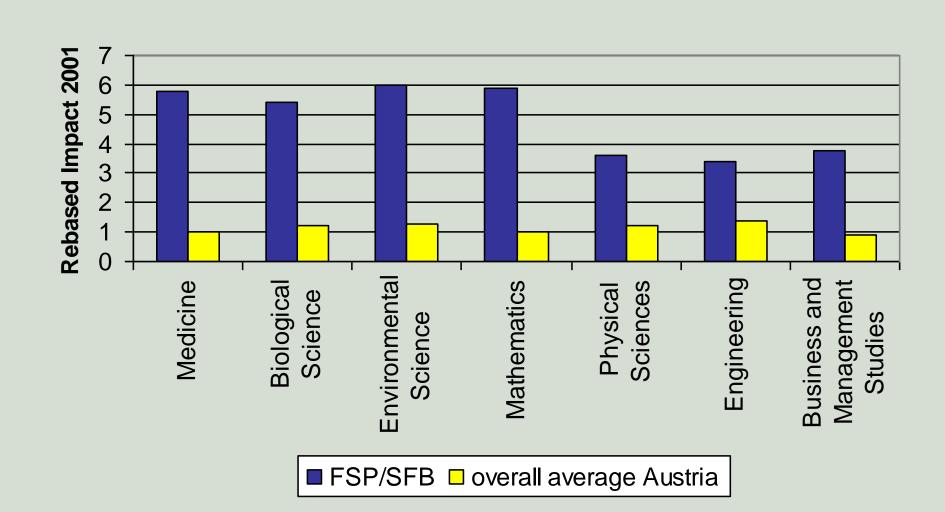
Citations per 1000 inhabitants





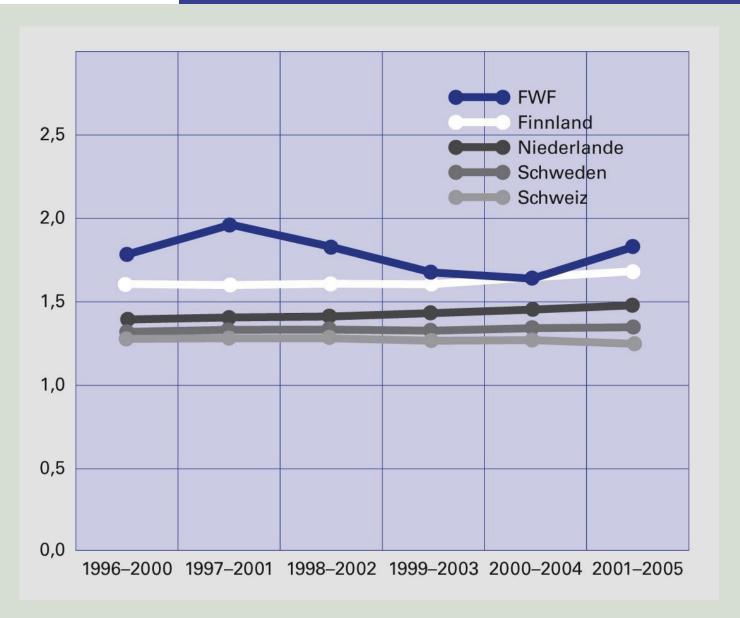
Evaluation of FWF-Priority Research Projects (Research Networks)

Publications Austria and FWF-Priority Research Projects





Bibliometrics of Stand Alone Projects





Performance Analysis

THE AUSTRIAN SCIENCE FUND: EX POST EVALUATION AND PERFORMANCE OF FWF FUNDED RESEARCH PROJECTS

FINAL VERSION 15-07-2005 STUDY COMMISSIONED BY THE AUSTRIAN SCIENCE FUND RTW.2004.AF-020-01

by

M.Dinges (Joanneum Research)

http://www.fwf.ac.at/de/downloads/pdf/InTeReg%20RR%20Nr%2042.pdf



Average Ratings of ex-ante evaluations

	N	ASSES- MENTS (MEAN)	MEAN	MEDIAN	VAR.	STD. DE.
NATURAL SCIENCES	252	2.92	88.06	88.33	19.08	4.37
ENGINEERING SCIENCES	23	2.82	87.10	86.67	13.01	3.61
Human Medicine	95	2.89	86.48	86.67	26.43	5.14
AGRIC. Sc.& VET. MED	7	3.14	89.10	89.33	14.29	3.78
SOCIAL SCIENCES	19	2.58	90.61	90.00	15.71	3.96
Humanities	78	2.59	91.69	92.50	31.07	5.57



Scientific Success of the projects

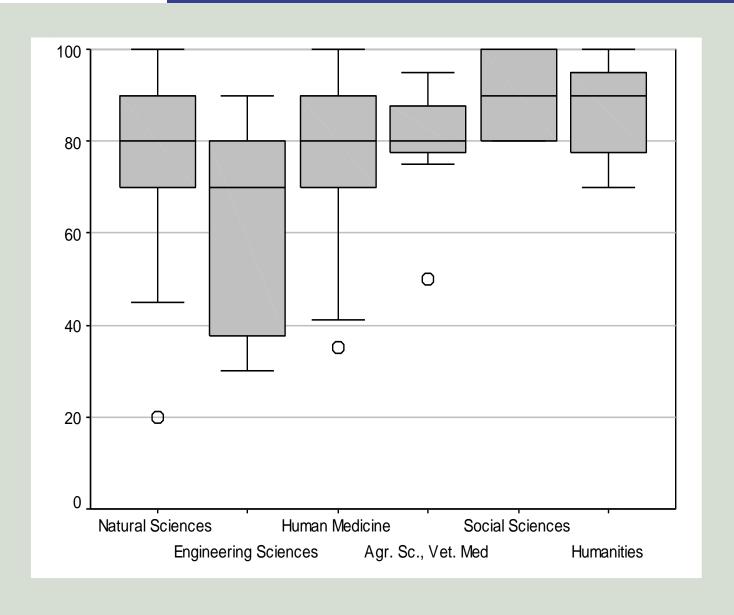




Table 6: Average rating of the ex post evaluation criteria

	N	MEAN	MEDIA N	Var.	STD. DE.
SCIENTIFIC SUCCESS	190	79.48	80.00	250.93	15.84
EFFECTS ON HUMAN RESOURCES	187	80.62	80.00	196.26	14.01
EFFECTS THAT REACH BEYOND THE SCIENTIFIC FIELD	165	73.20	77.50	422.22	20.55
PROJECT PERFORMANCE (FINANCIAL ASPECTS)	164	79.22	80.00	280.86	16.76
FUTURE PERSPECTIVES OF RESEARCH WORK	158	80.40	85.00	296.90	17.23

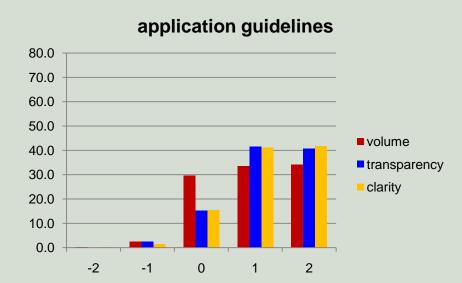


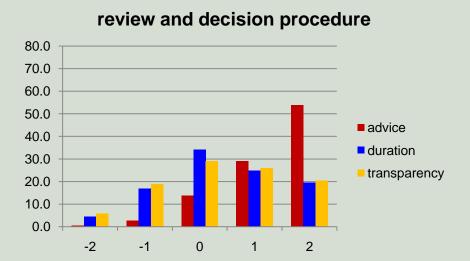
Scientific Output of FWF-funded project, mean values (ca. 500 projects)

	NAT. Sc. N~263	ENG. Sci N~26	Hum. MED. N~100	AGR.Sci N~8	Soc.Sci N~22	HUMAN- ITIES N~84	Total N~503
JOURNAL ARTICLES (PEER REVIEWED	6.80	1.81	6.36	4.25	1.77	1.17	5.25
JOURNAL ARTICLES (NON REVIEWED)	0.21	0.19	0.15	0.00	0.36	0.08	0.18
COMMUNICATIONS	0.21	0.00	0.00	0.00	0.09	0.01	0.11
Monographs	0.18	0.15	0.04	0.00	0.41	0.37	0.19
PUBL. IN ANTHOLOGIES	0.55	0.35	0.29	0.50	1.45	2.75	0.89
Pub. IN Mass Media	0.33	0.04	0.19	0.63	0.36	0.13	0.26
PhD-Theses	0.85	0.54	0.77	0.25	0.64	0.18	0.69
MA-THESES	1.03	0.38	0.37	0.38	0.73	0.05	0.68
Tenure (Habilitation)	0.27	0.08	0.27	0.25	0.09	0.06	0.22

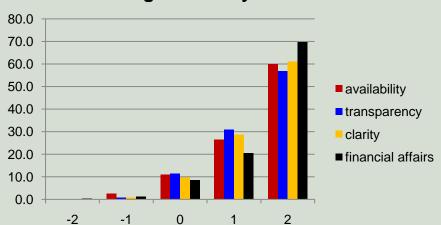


Feedback on the work of FWF





guidance by FWF



about 1.400 reports evaluated