



ModSim Computational Mathematics

Developing New Applications of Modelling and Simulation for Austrian Business and Research

A funding initiative in the framework of FIT-IT

Evaluation Manual for the Proposals of the third Call

May 2010

Version 1.1

ModSim is an initiative of the Federal Ministry of Transport, Innovation and Technology (bmvit) in cooperation with the Austrian Research Promotion Agency (FFG).

Imprint

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1 Overview

ModSim is a funding initiative of the bmvit. The initiative wants to bring existing potentials and capacities in the area of modelling and simulation to full use, in particular in the area of computational mathematics. In Austria, these topics are well established on the university level. Therefore ModSim aims at improving the organisational structures of existing institutions and co-operations, to make full use of the available expertise for generating a substantial impact on economic development. In the long run, this should lead to the development of new expertise in Austria. In particular the intelligent use of computational mathematics in the corporate environment is to be stimulated. This is done by funding suitable projects.

In this call for proposals, projects of the types 'Stimulation' and 'Cooperative RTD' can be submitted.

Stimulation projects aim to stimulate the high-level application of Computational Mathematics according to the aims of ModSim.

Projects of the type 'Cooperative RTD' are co-operative research and developing projects with structural development at the project partners. These projects lead up to a functional research-prototype (whereas product development cannot be funded).

The project proposals will be evaluated in several steps. This process is described in this document.

1.1.1 Goals of the third call of ModSim

- Intensify the challenging use of computational mathematics in the Austrian business and research
- Setup and development of structures for research und development with the purpose of long-term transfer of knowledge between science and economy in the area of Computational Mathematics

1.1.2 Schedule

Time	Action	Involved	
		group	
July 5 th 2010	Submission of proposals	FFG	
One week after submission: July 12 th	,	FFG	
3 weeks after submission: July 26 th		Experts	
4 weeks after submission: August 2 nd	l	FFG	
4 weeks after submission – 1 week before jury meeting: August 2nd – September 8 th	Jury members evaluate the proposals and fill in the evaluation forms.	,	
4 weeks after submission - 2 weeks before jury meeting: August 2 nd - September 1 st	If necessary: Each jury member may ask one question about each proposal. To ensure anonymity, the questions and the answers of the proposer are managed by the FFG. The answers are then sent to all jury members.	Jury members, FFG, proposer	
1 week before jury- meeting: September 8 th	Each jury member sends the filled evaluation form to the FFG	Jury members, FFG	
September 15 th and 16 th 2010	Meeting of the jury	Jury members, FFG, bmvit	

2 Evaluation Procedure

2.1 Committees

The following experts and bodies participate in the evaluation process:

2.1.1 FFG

The FFG conducts the overall programme-management of ModSim.

Concerning the evaluation process, the FFG checks the formal eligibility of the proposal and the financial soundness of the participating organisations.

2.1.2 International experts or experts within the FFG (additional)

If an international expert or an expert of the FFG is needed to cover the topic of the proposed activity, such an expert will take part in the evaluation process.

The experts write statements about the proposals (up to three proposals per expert) stating if the technical, scientific and/or organisational content (see "Evaluation criteria" in chapter 3) is state of the art. These experts may not act as jury members in the same call.

The international experts sign a confidentiality agreement before receiving the proposal¹.

2.1.3 Jury

The jury consists of 4-9 international experts² in the field of computational mathematics and/or in one of the application fields. In the

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¹ It is possible, to exclude representatives of companies from the evaluation if they are direct competitors of one of the project-partners.

ideal case each jury member has knowledge and experience in organisational affairs in the research area.

The targeted composition of the jury is:

- One third of experts from industry,
- One third of experts from academia
- and one third with a broad knowledge and experience in structural / organisational issues (e.g. Deans of Faculty, Heads of Research Centres).

The jury members are not the experts writing the proposal evaluation (see chapter 2.1.2).

2.2 Selection Process

The proposals submitted for funding are selected in a competitive way.

The evaluation process consists of two (up to three) steps:

- 1) Check of eligibility and financial soundness,
- 2) If needed: technical / scientific / structural aspects,
- 3) and finally by the jury.

Small projects of the type "Stimulation" can be evaluated in a faster way by the bmvit and the FFG.

2.2.1 Eligibility and Formal Check

At first the FFG checks if the formal requirements are fulfilled. These eligibility requirements are published in the Application Manual ("Leitfaden"). The FFG checks for remediable and unrecoverable formal deficiencies . The FFG also checks internally the proposal's general eligibility for funding as well as its eligible costs.

² It is possible, to exclude representatives of companies from the evaluation if they are direct competitors of one of the project-partners.

Financial soundness

The FFG checks the financial soundness of the participating companies. This is important with a view to the expedient use of the provided funding. Enterprises in immediate danger of insolvency or already insolvent enterprises cannot be funded.

Only proposals which do not fail this first evaluation step will be evaluated further.

2.2.2 Technical / Scientific / Structural Evaluation (additional to the jury)

If necessary, the programme management asks international experts or experts within the FFG to write an evaluation about the proposal quality. This step takes place additionally to the evaluation by the jury-members if the subject of a certain proposal is out of the scope of the expertise of the jury-members. These reports assess the technical and/or scientific and/or structural quality of the topic described in the proposal and support the jury's recommendations.

These evaluations will be provided to the jury members at least one week before the jury meeting.

2.2.3 Jury Meeting

The jury consists of international experts. Within the framework conditions settled by the bmvit, the jury is free in its decisions and independent in drawing up its recommendation, including any obligation conditions on the proposers. The jury decides on the basis of the evaluation manual on hand, in which both evaluation process and selection criteria as well as assessment mode are laid down. The evaluation manual is authoritative and binding for all players.

The jury meeting takes place approximately two months after the submission deadline. During the jury, representatives from bmvit, FFG and the jury members participate.

During this meeting the jury members will attempt to agree on an overall recommendation for the proposal ("recommended for funded" or "rejected"). They will justify their recommendations with short statements suitable for feedback to the proposers and agree on an overall jury report signed by all present jury members.

Typically, each jury member will first be asked to give an overall "yes" or "no" or "to be discussed" for each of her/his proposal assigned. Proposals likely to pass will be discussed first, together with those which are likely not to pass. Difficult cases will be discussed at the end to have more time. If there is no consensus during the meeting, a majority vote will be taken. The evaluation summary report will set out the majority view of the experts. (It can also record dissenting views from any particular expert). The jury members may also make recommendations for some proposals considered worth to be funded.

The bmvit participates at the evaluation to overlook total impartiality of the process and can – on request – provide additional interpretation of the evaluation criteria. The FFG will act as a moderator and can comment on the overall coverage of the call, the relative contribution of each proposal to the focus of the call. FFG representatives contribute with information about the financial soundness of the proposal, in particular past experience with companies recorded in the FFG project database.

Independent observers may be invited by the bmvit to accompany the evaluation meeting to check if the rules and guidelines of the proposal evaluation are followed and to secure a fair and transparent selection process.

The result is a funding recommendation and a reject list to the bmvit, including any obligations and conditions.

2.3 Funding Decision

The Federal Ministry for Transport, Innovation and Technology (bmvit) decides about the funding of each project based on the jury recommendation. The FFG informs the proposers about this decision with a short statement about the proposal from the jury members .

The proposers inform the FFG if the funding offer and the obligations are acceptable. The proposer has no right for funding or assignment until the funding contract is signed.

Nondisclosure Agreement

The experts, the jury members and the FFG as funding organisation and programme management are bound to nondisclosure of all information about institutions and proposals. A publication of results of the projects can only take place in accordance with the recipient of the funding, unless the project is contracted on behalf of the bmvit.

In case of funding, the proposers agree to the publication

- of the abstract of the project (Part A, Point 1 of the application form),
- the publication of the participating partners and
- the publication of the total costs of the project and the amount of funding.

3 Evaluation Criteria

To assess the quality and the contribution of each proposal to the programme objectives, the following criteria are applied.

3.1 Set of criteria

3.1.1 Quality of proposed activity

Technical and scientific quality

- Quality of the project target(s) and long-term development
- Awareness of the state of the art
- Content of the work plan

Scientific challenge and approach / Degree of innovation

- Degree of the technical and/or scientific challenge
- Degree of technical, scientific and organisational innovation
- Clarity, suitability and consistency in the implementation of the methodology

Project management and resources

- Clarity and suitability of the used tools
- Suitability and efficiency of the resources (personnel and other recourses)
- Solidity of the financing plans for the project costs beyond the public funding

3.1.2 Relevance of proposed activity to the ModSim-aims

Projects have to support both targets of ModSim (see Chapter 1.1.1).

- Degree of compatibility between the aims of the proposed project and the aims of ModSim
- Commitment and support from the institutions for the projectaims (esp. long term)
- Contribution to achieve critical mass in the topic area
- Additionality of the funding for the proposed project

3.1.3 Suitability of applicants / partners

Quality of the Partners

- Competence of the partners in the topic area of the proposal
- Contribution of scientific leaders of the organisations to the project

If applicable: Consortium and Cooperation

- Collaboration, especially complementarity and interdisciplinarity of the involved organisations
- Suitable involvement of the project partners
- Degree of cooperation within and outside the project, especially between companies and research institutions

3.1.4 Economic potential and exploitation

The quality of the implementation of the project results is evaluated:

- Possibilities of visibility and exploitation of results during the runtime of the project
- Knowledge and Identification of relevant target and interest groups
- Increase of visibility of the project-content and improvement of the competitiveness
- Potential for sustainable impact of the project after funding period
- Possibilities of continuation of the work towards the project aims after the end of the funding

3.2 Criteria weights

The importance of the criteria differs for different project types:³

Project type Evaluatio criterion		Stimulation	RTD in Cooperation	
	Technical and scientific quality	40	40	
	Scientific challenge and approach / Degree of innovation	40	30	
	Project management and resources	20	30	
Overall: Quality of proposed activity		100	100	
Relevance of proposed activity		100	100	
	Quality of Partners	50	30	
	Consortium and cooperation	50	70	
Overall: Suitability of applicants and partners		100	100	
Economic potential and exploitation		100	100	
Overall		400	400	

Each proposal can reach 400 points at the best (100 points for each main criterion).

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³ These weights are reflected in the marks in the evaluation sheets (see appendix)

3.3 Purpose of the evaluation criteria

The evaluation criteria provide a measure to argue to which extent the proposed activity supports the aims of the funding initiative. Different aspects of the proposal, like the partners themselves, their expertise, their targeted aim and their project management have to contribute to the aims of ModSim.

The evaluation criteria support the jury members in their recommendation for funding by the initiative ModSim.

4 Additional guidelines and instructions

4.1 Proposal Marking

The jury-process makes use of an online-tool provided by the FFG. Jury members will download and then upload the proposal and evaluation documents. The correspondence about the evaluation process with the FFG is done by e-mail.

The members of the jury will examine the proposals assigned to them individually, providing comments and marks in one evaluation sheet per proposal.

The members of the jury shall upload the filled evaluation forms electronically to the online-tool of the FFG at least one week before the jury meeting. Marks will be attributed according to the schemes set out in the evaluation form.

Each evaluation criterion will be marked by the experts on a scale:

0 not applicable (N.A.), K.O.

- -- poor
- fair
- + good
- ++ very good

K.O. the proposal completely fails to address the issue under examination. Note that this will typically fail the proposal as a whole.

N.A. the criterion does not apply in the specific context

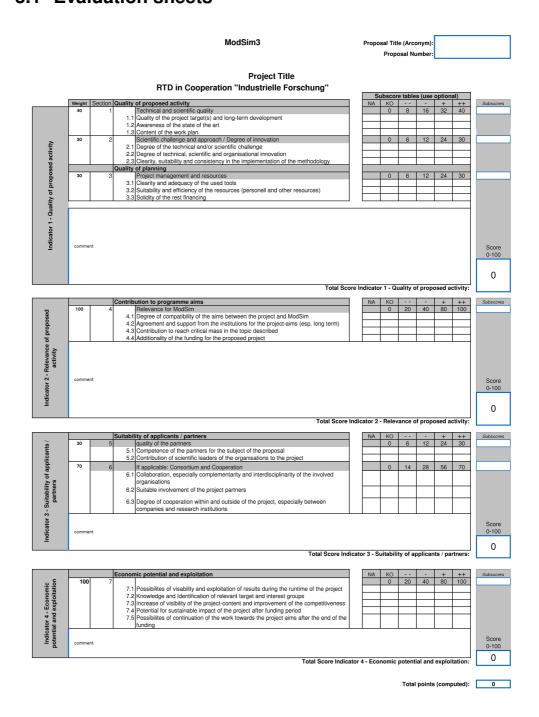
Based on the marks for each of the individual evaluation criteria, an overall number of points will be calculated for each module of the sets of criteria. Modules are marked with percentages of relevance for each block. There will be no aggregation of block marks into a single mark for each proposal.

Marks given by the jury members are not the basis of a purely algorithmic decision or ranking system. The marks will serve as the basis for a discussion and the jury members will be asked to give an overall decision in the beginning of the evaluation session. This first overall judgement will only consist in one of the following possibilities "recommend for funding", "to be discussed", "(to be) rejected".

The jury members are free to judge the proposals based on their personal experience and expertise. The jury members are not bound to their first decision if during the discussion they find reason to change their opinion about the relative merits of any given proposal.

5 Appendix

5.1 Evaluation sheets



			ModSim3	Proposal Title (Arconym): Proposal Number:	
			Project title Stimulation "offenes Projekt", "Forschungsteams"		
	Weight	Sections	Quality of proposed activity	Subscore tables (use optional) NA KO + ++	Subsci
	40	1	Technical and scientific quality	0 8 16 32 40	
			1.1 Quality of the project target(s) and long-term development 1.2 Awareness of the state of the art		
			1.3 Content of the work plan		
ivity	40	2	Scientific challenge and approach / Degree of innovation 2.1 Degree of the technical and/or scientific challenge	0 8 16 32 40	
act			2.2 Degree of technical, scientific and organisational innovation		
osec			2.3 Clearity, suitability and consistency in the implementation of the methodology Quality of planning		
ō	20	3	Project management and resources	0 4 8 16 20	
p p			Clearity and adequacy of the used tools Suitability and efficiency of the resources (personell and other resources)		
uality			3.3 Solidity of the rest financing		
6					
Indicator 1 - Quality of proposed activity	comme	nt			Sc
Ē					0-1
			Total Score	e Indicator 1 - Quality of proposed activity:	
			Contribution to programme aims	NA KO + ++	Subs
2	100	4	Relevance for ModSim	0 20 40 80 100	Gub
eso			Degree of compatibility of the aims between the project and ModSim Agreement and support from the institutions for the project-aims (esp. long term)		
or d			4.3 Contribution to reach critical mass in the topic described		
jo o			4.4 Additionality of the funding for the proposed project		
Indicator 2 - Relevance of proposed activity	comme	nt			Sc 0-
			Total Score In	dicator 2 - Relevance of proposed activity:	
· s	50	-	Suitability of applicants / partners quality of the partners	NA KO + ++ 0 10 20 40 50	Subs
indicator 3 - Suitability of applicants partners	~		5.1 Competence of the partners for the subject of the proposal	0 10 20 40 30	
pplic	50		5.2 IF applicable: Contribution of scientific leaders of the organisations to the project	0 10 00 10 50	
of of	50	6	If applicable: Consortium and Cooperation 6.1 Collaboration, especially complementarity and interdisciplinarity of the involved	0 10 20 40 50	
uitability partners			organisations		
itabi			Suitable involvement of the project partners Degree of cooperation within and outside of the project, especially between		
ως. T			companies and research institutions		
or 3					Sc
lical	comme	nt			0-
Ĕ					
			Total Score Indic	ator 3 - Suitability of applicants / partners:	
-	- 48-	-	Economic potential and exploitation	NA KO + ++	Subs
alio,	100	7	7.1 Possibilites of visability and exploitation of results during the runtime of the project	0 20 40 80 100	
ono			7.2 Knowledge and Identification of relevant target and interest groups 7.3 Increase of visibility of the project-content and improvement of the competitiveness		
- Ec			7.3 Increase of visibility of the project-content and improvement of the competitiveness 7.4 Potential for sustainable impact of the project after funding period		
Indicator 4 - Economic potential and exploitation			7.5 Possibilities of continuation of the work towards the project aims after the end of the		
icato			funding		
Indi	comme	nt			Sc 0-
2					
			Total Score Indicate	or 4 - Economic potential and exploitation:	
				Total points (computed):	

5.2 Nondisclosure agreement

DECLARATION OF CONFIDENTIALITY AND CONFIRMATION OF NON-EXISTENCE OF A CONFLICT OF INTEREST

- I, the undersigned, confirm that I have read and understood the terms for expert evaluations and reviewers.
- 1. The evaluator commits himself to strict confidentiality and impartiality concerning his tasks.
- 2. If an evaluator has a direct or indirect link with a proposal or a project, he must declare such facts to the FFG staff as soon as he becomes aware of this. An evaluator has a direct link with a proposal or a project if he or she:
 - is currently or has recently been employed by one of the
 - proposing or participating organisations; or
 - has been involved in the preparation of the proposal or the project; or
 - is related to an applicant or a member of the proposing or participating team; or
 - may be knowingly involved in the publication or exploitation of the results.

An evaluator has an indirect link with a proposal or a project if he or she:

- is employed by an organisation which has contractual links with one of the organisations in the field covered by the proposal or the project;
- or has any direct link with or works for an organisation submitting a competing proposal or project.
- 3. The evaluator should discuss proposals or projects only with the nominated evaluation team members.
- 4. The evaluators may not communicate with proposers.
- 5. The proposals should not be subject to amendments during the evaluation process.
- 6. The evaluators are not allowed to disclose the names of other experts, nor proposers, nor evaluation results.

5.3 Role of bmvit and FFG in the evaluation

- 1. FFG staff will organise a confidential, fair and equitable evaluation of each proposal according to the criteria described in the programme-specific evaluation annex and guide to proposers in full respect of the relevant procedures, rules and regulations set out for this task.
- 2. FFG staff will assign proposals to experts for evaluation. In doing so, they will take care to avoid assigning proposals (or competing proposals) to experts who might have a direct or indirect link with the proposal.
- 3. bmvit selects experts for the evaluation of proposals, assisted by FFG. bmvit will ensure: the appropriate range of competences required an appropriate balance between academic and industrial expertise and users a reasonable distribution of geographical origins of experts regular rotation of experts between evaluations.
- 4. FFG staff will, where needed, take action to ensure the correct implementation of the process. This includes briefing experts on the procedures to be followed, reminding experts of the rules and reporting any irregularities to the responsible bmvit official, who will exclude a person from the process if he/she deems them to be in breach of the contractual or confidentiality obligations.
- 5. When coordinating meetings of expert panels for establishing advice to the bmvit, FFG staff will act as moderators, seeking consensus between the external experts, without any prejudice for or against particular proposals or the organisations involved. FFG and bmvit staff present at the meetings of evaluation panels will provide any additional explanation or information needed to allow a proper evaluation of proposals.
- 6. bmvit staff are responsible for overseeing the performance of the work by experts. They must check that the above mentioned points are taken into account.
- 7. FFG staff will be responsible for maintaining an "audit trail" (i.e. a file on each proposal containing, for example, experts' marking sheets and comments). They will record the marks from the individual experts' marking sheets and identify any criteria on which discussion is needed to arrive at a consensus, according to the rules set out in this document.

- 8. FFG will not discuss aspects of the evaluation or selection process with proposers or any persons not involved directly in the process unless this has been explicitly authorised (on a case-by-case basis) by bmvit, as appropriate. This will only be done in exceptional cases, taking full account of the need to maintain the confidentiality of the process.
- 9. bmvit and FFG staff will treat in the strictest confidence the assignment of experts to proposals. The list of all experts who have taken part in evaluations can be made public at regular intervals without indicating their specific assignments to individual proposals or to calls.
- 10. bmvit and FFG staff will take all the necessary measures to ensure appropriate confidential treatment of proposals and any other documents related to the evaluation. In particular:

Proposals and related documents will not be shown to any persons other than those representatives of FFG and bmvit who need it for the proper performance of their work, and to the experts and proposers themselves, unless the proposers have explicitly agreed otherwise. Evaluation reports and advice to bmvit from experts will be restricted to persons who need it for the proper performance of their work.

11. bmvit and FFG staff will restrict the copying of proposals and evaluation documents to a minimum and ensure that copies and any documents/notes used during the evaluation are destroyed when they are no longer needed.

5.4 Terms of Reference and Code of Conduct for Expert Evaluators

Note: The term "expert" is used for the external experts and also for the members of the jury.

- 1. The task of the expert is to participate in a confidential, fair and equitable evaluation of each proposal according to the procedures described in this manual document. He/she will use his/her best endeavours to achieve this, follow any instructions given by bmvit or FFG staff (in this order with bmvit having highest priority) to this end and deliver a constant and high quality of work.
- 2. The expert works as an independent person under contract to FFG or bmvit. He/she is deemed to work in a personal capacity and, in performing the work, does not represent any organisation, even if the contract for remuneration is concluded with the organisation employing the expert.
- 3. The expert will sign a declaration of confidentiality before starting the work. In doing so the expert commits him/herself to strict confidentiality and impartiality concerning his/her tasks. Invited experts who do not sign the declaration will not be allowed to work as an evaluator. If an expert has a direct or indirect link with a proposal, or any other vested interest, is in some way connected with a proposal, or has any other allegiance which impairs or threatens to impair his/ her impartiality with respect to a proposal, he/she must declare such facts to the responsible staff as soon as he/she becomes aware of this. The evaluation staff will ensure that, where the strength of the link is such that it could threaten the impartiality of the expert, the expert will not participate in the evaluation of that proposal, and, if necessary, competing proposals. An expert is deemed to have a direct link with a proposal if
 - he/she is currently or has recently been employed by one of the proposing organisations;
 - he/she has been involved in the preparation of the proposal;
 - he/she is related to an applicant or a member of the proposing team;
 - he/she may be knowingly involved in the publication or exploitation of the results.

- An expert is deemed to have an indirect link with a proposal if he/ she is employed by an organisation which has contractual links with one of the proposing organisations in the field covered by the proposal or if he/she has any direct link with or works for an organisation submitting a competing proposal.
- 4. Experts should not discuss any proposal with others, including other experts or bmvit/FFG staff not directly involved in the evaluation of the proposal, except during the formal discussion at the meetings moderated by or with the knowledge and agreement of the responsible evaluation staff.
- 5. Experts may not communicate with proposers, nor should any proposal be amended during the evaluation session. Experts' advice to bmvit on any proposal may not be communicated by them to the proposers or to any other person.
- 6. Experts are not allowed to disclose the names of other experts participating in the evaluation. bmvit may make public lists of names of experts at regular intervals without indicating which proposals they have evaluated or in which particular call evaluation they participated.
- 7. Where it has been decided that proposals are to be posted or sent electronically to experts, who then work from their own or other suitable premises, the expert will be held responsible for maintaining the confidentiality of any documents or electronic files sent and erasing or destroying all confidential documents or files upon completing the evaluation. In such instances, experts may seek further advice or information in order to allow them to complete their examination of the proposals, provided that any discussions or contacts with others respect the overall rules for confidentiality and impartiality.
- 8. Experts are required at all times to comply strictly with any rules defined by bmvit and the FFG for ensuring the confidentiality of the evaluation process (for instance, regarding communication with persons outside the evaluation sessions). Failure to comply with these rules may result in exclusion from the immediate and future evaluation processes.