



Applied and Engineering Sciences

'Connecting Innovators'

Perspectief

Public-private research programmes

Brochure II

Call 2016-2017

Notes on guidelines for full programme proposals

Deadline: May 18th, 2017, 14.00 CEST

The original Dutch text is the leading document

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Netherlands Organisation for Scientific Research

NWO domain Applied and Engineering Sciences

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Perspectief call 2016/2017

Public-private research programmes of the NWO domain Applied and Engineering sciences

Each year NWO domain Applied and Engineering Sciences (NWO domain TTW) makes a research budget available with which new, challenging research programmes within the technical and applied sciences can be developed and funded. In this Perspectief funding round a sum of about 16.5 million euros is available for programmes that fit within the Top Sectors.

Programme proposals may only be submitted by applicants invited to do so by the NWO domain TTW board.

NWO domain Applied and Engineering Sciences

NWO domain TTW's mission

NWO domain TTW connects people and resources to develop technology with economic value that contributes to the societal challenges. NWO domain TTW does so:

- by bringing scientific researchers and potential users together;
- by funding excellent research in the technical and applied sciences.

Utilisation

TTW-funded research generates valuable knowledge. In addition to excellent science, NWO domain TTW aims to promote the application of knowledge. The term used by NWO domain TTW to refer to the set of activities aimed at maximising the possibility of research results being applied by third parties is 'utilisation'. In order to promote utilisation in addition to scientific quality, NWO domain TTW sets up a user committee for every project.

NWO domain TTW expects applicants and users to actively collaborate towards promoting utilisation and towards NWO domain TTW's objective of transferring knowledge to users. Users, user committees and intellectual property play a crucial role in utilisation.

Users

Users of research are defined as natural persons or legal persons (at national or inter-national level) who are able to apply the results of the research.

A distinction is sometimes drawn between direct users, usually companies, and end users. In that case, it is not sufficient to designate end users only. It is NWO domain TTW's explicit intention that potential technology users and end users outside the immediate circle and outside the research field of the researchers submitting the proposal should be involved in the project from beginning to end. Users should be able to apply the knowledge generated by the research in the medium to long term. (Potential) users should be indicated in the utilisation section of the research proposal.

Perspectief programme

The NWO domain TTW funding instrument Perspectief is targeted at solving innovation bottlenecks by applying innovative knowledge and by doing this making a contribution to technological innovation that has a potential economic impact for the Netherlands. Perspectief programmes are characterised by the following attributes:

- the development of new technology via a multidisciplinary approach,
- collaboration with and co-financing by users,
- specific activities aimed at valorisation and entrepreneurship.

Procedure Perspectief call 2016/2017

The Perspectief procedure has three phases:

Phase 1	Programme initiative	Publication of the research topic on the NWO domain TTW website to promote openness and collaboration
Phase 2	Programme design	Description of objective(s), lines of research, type of projects, budget and users' contribution
Phase 3	Programme proposals	Elaboration of selected programme topics

Phases 1 and 2 are described in Dutch in the Perspectief Brochure of 1 October 2016 and are now closed. Brochure II (in Dutch) describes phase 3 and provides further instructions for the elaboration of programme designs into final proposals and for the remainder of the assessment and selection procedure. This English-language brochure is a condensed version of the Dutch brochures and briefly explains the conditions governing proposals submitted to NWO domain TTW for the funding of scientific research under the Perspectief Programme.

Assessment by referees

NWO domain TTW submits the Programme proposals to a number of national and international experts in the relevant specialist area (peer review). These referees are drawn from the scientific world, large research institutes, and industry. Referees remain anonymous. They assess the proposal on the basis of specific questions about scientific quality and utilisation (See appendix 6).

Evaluation committee

An evaluation committee consisting of 8 persons will assess the Programme proposals based on the proposal, review reports, rebuttal and interview on the two criteria

- Scientific quality
- Utilization

See appendix 5 for the questions that will be considered by the committee in evaluating the proposals.

Quality requirement

To be eligible for funding, the programme proposals should for the individual assessment criteria Scientific quality and Utilization score no higher than 4.0 (= very good to good). In addition, the sum of both scores should not exceed 7.0. See appendix 4 for the explanation of the scores.

Available budget

In this round the maximal available budget is M€ 16.5 A perspective program can only be granted if it meets the quality requirement.

Deadline submission of programme proposals: May 18th, 2017, 14:00.

Co-financing criteria

For each programme, at least **15% of the financial resources** required to conduct the research must be in the form of **cash** co-financing from the users. In addition, at least **30% of each programme's total cost** (required financial resources plus in-kind contributions) must also consist of **co-financing** from users (cash and/or in-kind contribution). See Annex 4 for a sample calculation.

The co-financing requirement applies to the **entire programme** and not at project level. This way, scientifically sound project initiatives that cannot meet the co-financing requirement are compensated by the other projects in the same programme that have a high user contribution. NWO domain TTW must nonetheless be the primary financier for all individual projects and at least 2/3 of the projects must themselves satisfy the co-financing requirement.

The minimum TTW contribution amounts to € 1.5 million; the maximum TTW contribution is € 4 million. The maximum TTW contribution is € 750,000 for each project.

Timeframe

PHASE 3: Programme proposals	
Activity	Date/ period
Develop programme designs into programme proposals	Beginning of February – mid of May 2017
Deadline for the submission of programme proposals	May18, 2017, 14.00
Assessment by (international) referees	Mid of May – early September 2017
Primary applicants' rebuttal	Early September – mid-September 2017
Interview rounds with applicants / prioritisation by the assessment committee	October 23 and 24, 2017
Board decision concerning 2017 programme topics	November 13, 2017
Announcement of the decision to the main applicants	November 16, 2017

Contact information

Should you have any questions concerning this Perspectief round, please contact the Perspectief coordinators.

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Appendix 1: Notes on Users, co-funding and letters of support

Users

Users of research are defined as natural or legal persons (at national or international level) who are able to apply the results of the research. A distinction is sometimes drawn between direct users of the knowledge generated, usually companies, and end users, who buy the products from those companies. Both have a role to play in the innovation chain and must be referred to in the utilisation plan. After the research proposal has been awarded, a minimum of four users should sit on the user committee and at least 50% of the users should be from industry. Research proposals from a medical faculty or university medical centre should have potential users, just like other proposals. At least one of the users should be a company. It is not sufficient in this case to state merely 'the patient' or 'a clinic'. The final composition of the user committee is subject to the same conditions as other NWO domain TTW projects.

Notes on Criteria relating to co-funding

- NWO domain TTW uses the financial co-funding to cover part of the project costs. After a project is approved, NWO domain TTW sends an invoice to users who have pledged a financial contribution. Once the funds have been received, they are allocated to the project. The cash contribution stated in the letter is exclusive of Dutch VAT and is paid to NWO domain TTW plus Dutch VAT (21%).
- NWO domain TTW accepts personnel input and material contributions as co-funding on the condition that these are capitalised and that they form an integral part of the project. This should be made clear in the description and planning/phasing of the research.
- NWO domain TTW is the main funder of the projects. Project applications where the co-funding from users exceeds the amount to be borne by NWO domain TTW will not be considered.
- NWO domain TTW assumes that providers of co-funding have an interest as users and therefore as applicers of the research results outside science. Co-funders always participate in the user committee.
- Government agencies can play various roles in TTW projects, namely: (1) as a research partner (without entitlement to TTW funding), (2) as a subcontractor of a specific assignment (at market rate) or (3) as a user. Government agencies may act as users under the same conditions as private users.
- The co-funding to be provided by users must be confirmed in a letter of support. These letters must explicitly state: 1) the importance of the research proposal for the organisation, 2) the importance of the utilisation plan for the organisation's operations, 3) the pledged financial and/or the specified capitalised material and/or personnel contribution(s), and 4) whether the user intends (i) to allow NWO domain TTW to take the lead in making IP arrangements in accordance with NWO domain TTW's current IP policy or (ii) to make its own arrangements with the knowledge institution(s) and user(s) concerned. See also the requirements under 'Letters of support' and the 'Notes on Intellectual Property & Publication arrangements' later in this brochure.

Notes on Criteria relating to in-kind co-funding

- Part of the research may be conducted by third parties. A condition is that the expertise provided in the form of man-hours is not already available at the research institute(s) and is used specifically for the NWO domain TTW project. For personnel support by third parties, NWO domain TTW applies fixed rates in order to capitalise the number of man-hours used (up to 1400 direct hours/year/fte) for a senior or junior researcher. For the current rates, see appendix 7.
- For pledges of material resources, charge the cost price. Commercial rates are not accepted. For pledges of equipment, take previous depreciation and intensity of use into account.
- Pledges in the form of supplies of services are possible only if the service can be itemised as an identifiable new endeavour. The service should not already be available at the research institute(s) realising the research. Applicants may wish to claim services already supplied (such as a database, software or plant lines) as in-kind co-funding. Acceptance is not automatic in such cases. Contact NWO domain TTW about this. Further consultations will take place to decide whether a specific value can be determined for this supply of services.

NOT permissible as the co-funding

- NWO domain TTW guards against the improper mixing of funding sources: co-funding can never come from direct or indirect (NWO, KNAW) government funding. As a result, co-funding can also never come from the research institute of the (co-) applicant(s) or from institutes which are themselves eligible to apply to NWO domain TTW.
- Discounts on (commercial) rates for materials, equipment and/or services, for example.
- Costs relating to overheads, supervision, consultancy and/or participation in the user committee.
- Costs of services that are conditional. No conditions may be imposed on the provision of co-funding. Nor may the provision of co-funding be contingent upon reaching a certain stage in the research plan (e.g. go/no-go moment).
- Costs which are not paid by NWO domain TTW (e.g. clinical trials, costs relating to the exploitation of the research results, service costs equipment).
- Costs of equipment if one of the (main) aims of the research proposal is to improve this equipment or to create added value for it.

Letters of support

A letter of support is obligatory if co-funding is provided by the users. NWO domain TTW advises applicants to ensure that the users pay particular attention to endorsing the importance of the utilisation plan for their operations. The letter of support should satisfy the following requirements. These requirements can also be found on the form 'Requirements for TTW Letters of Support' (see www.ttw.nwo.nl).

A. General requirements

- Letters of support must be printed on the letter paper of the co-funder.
- Letters of support are addressed to the project leader.
- Letters of support must be written in English.
- The address on the letter is complete and correct.
- Letters of support must be signed by an authorised signatory.
- The cash contribution stated in the letter is **exclusive of Dutch VAT** and paid to NWO domain TTW plus Dutch VAT (21%).

B. Specific requirements

- Brief description of the company and the core business (type of company, size, which service, products).
- A statement that the company is interested in and will commit itself to the research.
- An explanation as to why the answering of the research question is important to the company. How does this solution fit in their strategy?
- A brief explanation as to why this particular research group and research proposal are receiving support.
- What the company will contribute in concrete terms (incl. capitalisation) and why this fits in the research proposal/planning.
- Further specification of the in-kind support, both hours (number and/or tariff applied) and materials (numbers; cost price; tariff; percentage that can be attributed to the project, etc.).
- The company provides the contribution described without additional conditions.

C. Declaration and signing by the User

The company states that it agrees to the General Conditions and signs for this. Optional: The company states, and signs accordingly, that - contrary to the provisions of Part 3 of the General Conditions - it will make its own IP arrangements with all users and knowledge institutions concerned.

Letters of support are unconditional and do not contain any opt-out clauses.

The amounts stated in the letters of support must correspond with the amounts stated in the budget presented. A copy or scan of the letter will suffice for the submission of a research proposal. NWO domain TTW will not approach persons or organisations who have signed letters of support to act as referees (code of conduct on conflicts of interest).

After the research proposal has been awarded funding NWO domain TTW will request a confirmation of the co-funding ("confirmation obligation third parties") and in relevant cases will record any further arrangements in an agreement.

Format support letter

Company
Logo
Address

Date [as recent as possible]

Dear [name (co)applicant/project leader],

Introduction: Brief description of the company and the core business (type of company, size, which service, products). An explanation as to why the theme and answering of the research question are important to the company. How does this solution fit in their strategy?

Description of support: A statement that the company is interested in and will commit itself to the research. What the company will contribute in concrete terms (cash and/or in kind, incl. capitalization) and why/how this fits in the research proposal/planning. The cash contribution stated in the letter is exclusive of Dutch VAT and paid to NWO-domain TTW plus Dutch VAT.

Further specification of the in-kind support, both hours (number and/or tariff applied) and materials (numbers; cost price; tariff; percentage that can be attributed to the project, etc.).

Obligatory paragraph:

In case of Option 1 (see IPP arrangements on <http://www.stw.nl/en/applicant>): By signing this letter we confirm that we accept the general conditions of NWO-domain TTW. Furthermore we are aware that the above mentioned project is part of a TTW Perspectief programme.

OR

In case of Option 2 (see IPP arrangements on <http://www.stw.nl/en/applicant>): By signing this letter we confirm that we accept the general conditions of NWO-domain TTW except part 3 allowing us to make our own IP arrangements. Furthermore we are aware that the above mentioned project is part of a TTW Perspectief programme.

Signed by an authorized signatory

Name and function

Appendix 2: Calculation co-funding

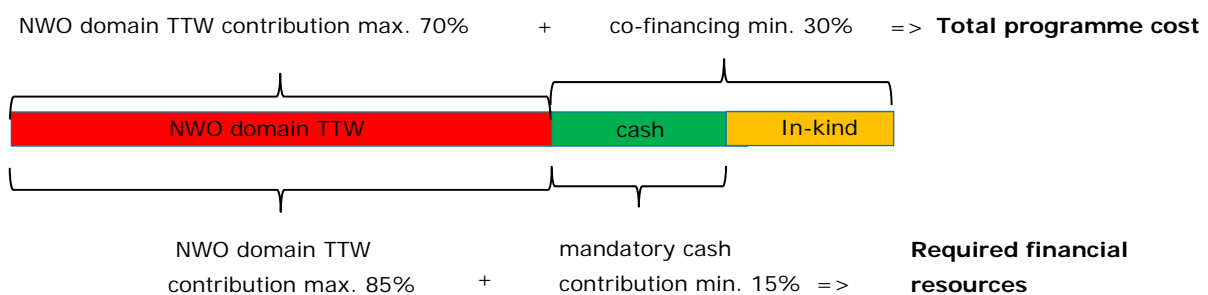
The minimum NWO domain TTW contribution amounts to € 1.5 million; the maximum NWO domain TTW contribution is € 4 million. The maximum NWO domain TTW contribution is € 750,000 (inclusive of Dutch VAT) for each project. In projects of an investment nature (> 250,000 euro in equipment), the maximum NWO domain TTW contribution is 1 million euro (inclusive of Dutch VAT). User co-financing is mandatory in addition to the NWO domain TTW contribution.

The co-financing requirement for the 2016/2017 Perspectief round applies to the **entire programme** and not at project level. NWO domain TTW must nonetheless be the primary financier for all individual projects and at least 2/3 of the projects must themselves satisfy the co-financing requirement.

The principle is that NWO domain TTW funds a maximum of 70% of the total programme cost and that co-financing amounts to at least 30% of the **total programme cost**. The co-financing has a mandatory in-cash portion of at least 15% of the **required financial resources**; the remaining portion may consist of in-kind co-financing (Figure 1).

The minimum required co-financing of 30% must be supplied by companies and institutions that cannot act as an applicant for NWO domain TTW projects.

Figure 1:



To keep the mandatory cash contribution from increasing indefinitely along with increasing in-kind contributions, the contributions are defined as follows:

- financial contributions will be used to cover a portion of the project costs and therefore constitute the necessary financial resources along with the NWO domain TTW contribution;
- in-kind contributions mean capitalised personnel and/or material contributions from users.

If anything is unclear, we recommend that you contact the coordinators Dr Anke Stekelenburg (+31 30 600 1314, a.stekelenburg@nwo.nl) or Dr Lise de Jonge (+31 30 600 1223, l.dejonge@nwo.nl).

Appendix 3: Notes on Intellectual Property (IP) policy

NWO domain TTW facilitates the transfer of knowledge between the technical sciences and users. In this process it is important that a responsible approach is taken with regard to research results in general, and patentable inventions and discoveries in particular. NWO domain TTW's aim is firstly to exploit and publish the results of research as widely as possible, whilst retaining the possibility to establish IP rights and to subsequently transfer these rights to user(s) or grant a licence to user(s) for these and, secondly, to stimulate collaboration between researchers and various external companies.

NWO domain TTW adheres to a set of rules concerning Intellectual Property (IP) that support NWO domain TTW's mission. NWO domain TTW's policy is in line with the IP policy adopted by the Netherlands Organisation for Scientific Research [Nederlandse Organisatie voor Wetenschappelijk Onderzoek, NWO] and with the 'Rules of Play for public-private collaboration' as presented to the Lower House of the Dutch Parliament on 25 June 2013.

NWO domain TTW offers knowledge institutions the opportunity to make their own IP and Publication (IP&P) arrangements with the parties with which they cooperate. In this way, NWO domain TTW hopes to respond better to the wishes of the researchers and co-funders who are involved in NWO domain TTW projects. It will continue to be possible to opt for the approach whereby NWO domain TTW takes the lead in making arrangements for IP and similar matters; in such cases, NWO domain TTW's Intellectual Property policy will be followed.

If knowledge institutions prefer to make their own arrangements, they must make this known - with the approval of the companies concerned - at the time the application is submitted, and have concluded the arrangements within three (3) months of receiving NWO domain TTW's approval for the project. The knowledge institution has the lead in these circumstances. The arrangements will subsequently be reviewed by NWO domain TTW to ensure they are compatible with four criteria that reflect the task and mission of NWO domain TTW..

Make choice known on submission

NWO domain TTW asks the party submitting the research proposal to indicate per project, in advance, which option has been chosen with regard to IP&P arrangements for the results of the research. The two options and the attendant implementing conditions are described in the table below.

Option 1

NWO domain TTW takes the lead in making Intellectual Property and Publication* arrangements (TTW IP&P arrangements')

- Part 3 of the 'General Conditions' on 'Intellectual Property & Publication' is applicable.

Access to foreground IP rights for private party or parties / consortium:

- 0-10% private contribution private party or parties: private party/parties have no automatic right
- 11-30% private contribution private party or parties: private party, parties or consortia have right of option
- 31-50% private contribution private party or parties: non-exclusive non-transferable commercial licence + right of option to exclusive right. Contribution towards patent costs can be required
- Private parties can combine their contributions so as to achieve a more favourable ranking
- Confidential information remains confidential
- Results can always be published but publication may be suspended for a maximum of 9 months in connection with the protection (patent) of the results
- Agreements must be confirmed in writing within six months of the project being awarded

Further information on Options 1 and 2 can be found in NWO domain TTW's 'General Conditions' and in the relevant/underlying 'Guidelines for financing applications'

Option 2

Knowledge institution takes the lead in making Intellectual Property and Publication* arrangements ('Own IP&P arrangements')

- 'Own IP&P arrangements' fulfil the following criteria:
 - i All necessary foreground information (IP ensuing from the TTW project) and - insofar as legally possible - background information (already existing IP from company and/or knowledge institution) is available for the execution of the project
 - ii The agreement is aimed at the application or allocation of the results by way of publication
 - iii Publication of scientific knowledge from the project will not be obstructed by users, but the beneficiary and users may determine the publication schedule
 - iv Any results generated from the project by the beneficiary remain available for the beneficiary for educational and research purposes
- On submission: The knowledge institution(s) and all users agree that the provisions under 'Own IP&P arrangements' will apply to the TTW project and declare that they do or will satisfy the criteria from i to iv above
After award: The knowledge institution(s) and all users approve the agreement in writing
- NWO domain TTW will receive, no later than three (3) months after awarding the project:
 - i. The signed agreement in which IP&P arrangements are made with the user(s)
 - ii. A signed IP&P statement in which the knowledge institution declares that the agreement relating to the IP&P arrangements with the user(s) satisfies all the pre-determined criteria. The knowledge institution hereby refers to the relevant provisions in the agreement
- NWO domain TTW reviews the agreement against the pre-determined criteria; if NWO domain TTW approves the agreement, NWO domain TTW informs the project leader - in accordance with Article 2 (4) of the 'General Conditions' - that the project can be started

***NB:** All scientific publications resulting from research that is funded by grants derived from this Call for proposals are to be immediately (at the time of publication) freely accessible worldwide (Open Access). There are several ways for researchers to publish Open Access. A detailed explanation regarding Open Access can be found on www.nwo.nl/openscience-en

Notes on Option 1: when NWO domain TTW makes Intellectual Property & Publication arrangements

NWO domain TTW takes the lead in the negotiations on the subject of IP&P arrangements. Once a project has been approved, all users that contribute to the project receive a letter from NWO domain TTW informing them that the project has been awarded to the knowledge institution. In addition, NWO domain TTW asks the user to sign the letter to (re)confirm its participation in and contribution to the project. The user can also indicate a desire to enter into a more comprehensive agreement, setting out the reciprocal rights and obligations involved in the cooperation. That is possible. Further details of NWO domain TTW's IP policy can be found below.

The main principles of NWO domain TTW's IP policy are as follows:

- **Ownership of the results of research**

The results of research carried out by the research institute(s) in the context of an NWO domain TTW project are owned jointly by the participating institute(s) and by NWO.

 - Ownership of the results of research that are generated exclusively by user(s) in the context of an NWO domain TTW project is vested in the user(s) in question. The user(s) will allow NWO domain TTW and the research institute 'freedom to operate'.
 - The results of research that are generated jointly by the research institute(s) and the user(s) in the context of a TTW project are owned jointly by the participating institute(s) and by NWO domain TTW. If the co-inventing user has itself provided more than 10% of the project funding in the form of personnel, that user will be granted a non-exclusive, royalty-free and non-transferable licence for the use of the invention, patent or patent application.
 - Existing IP rights continue to be vested in the holder(s) of such right who contribute these rights to the project. Insofar as it is possible under the law, and insofar as it is not detrimental to the reasonable commercial interests of the right holder, this/these right holder(s) will facilitate, at their own discretion and in all reasonableness, a freedom to operate.
 - 'Freedom to operate' means that the holder of the intellectual property right grants licences to others within the project:
 - insofar as legally possible;
 - insofar as necessary for the project (without charge);
 - insofar as necessary for the exploitation of the results of the research and possible concomitant results (at a fair market price);
 - insofar as such freedom to operate is not detrimental to the reasonable commercial interests of the right holder.
- **Protection of research results, confidentiality and publications**

NWO domain TTW attaches considerable importance to the protection of knowledge in the process of knowledge transfer. Users admitted to the user committee, undertake to maintain confidentiality with regard to the research results. However, parties can agree - either prior to or during the lifecycle of the project - that protection of the knowledge generated by the project can be suspended if that would be beneficial to the commercial exploitation of the expertise and intellectual property generated by the project.

Research results that are not susceptible to IP protection, and not subject to a written know-how licence, can be used freely by all parties. The researcher is obliged to report any invention to NWO domain TTW immediately. Draft publications are submitted to the user committee by NWO domain TTW; the committee is asked whether, in their opinion, the publication contains a patentable invention and/or whether there are utilisation opportunities. If knowledge protection measures need to be taken, such as the submission of a patent application, NWO domain TTW may decide to suspend the publication for up to 9 months.

- **Commercial usage rights to results that accrue in part or in whole to NWO domain TTW and the research institute(s)**
 - Contribution 0-10%
A user who contributes less than 10 percent to the costs of the research project by way of in-kind or in-cash resources will be the first party to receive information about the results of the research. Companies are at liberty to use the results generated by the research for internal, non-commercial purposes.
 - Contribution between 10% and 30%: Right of option
A user who contributes more than 10 percent to the costs of the research project by way of in-kind or in-cash resources is also entitled to a right of option on a licence to, or the transfer of the results of the research when full or joint rights are held by NWO domain TTW and the research institute(s). If a user exercises this option, the transfer of an exclusive or non-exclusive licence will be effected against payment of a fair market price (see below). If multiple users are eligible for an option, an agreement will be made as to the scope of their usage. If this is not possible, the contributing users will be granted a joint option on a semi-exclusive licence.
 - Contribution between 30% and 50%: Right of option on a commercial NERF right
A user who contributes more than 30 percent to the costs of the research project by way of in-kind or in-cash resources will also have the same rights as a user who contributes more than 10 percent. If the user exercises his right of option, that user is entitled to a non-exclusive, royalty-free (NERF) and non-transferable commercial right of use.
If required, NWO domain TTW or the research institute(s) will oversee the administration of the patent application process for the first 30 months following the patent application. Before the end of that period, NWO domain TTW, the research institute and the user in question will make arrangements about the further handling of the patent application.
If one or more users within the project are eligible for an option, an agreement will be made as to the scope of the option on an exclusive licence. If this is not possible, the contributing users will be granted a joint option on a semi-exclusive licence.
The total value of co-funding of any NWO domain TTW project may not exceed 50 percent.
 - The percentage is calculated by comparing the entire contribution made by the private party (in-kind plus in-cash) against the contribution from NWO domain TTW plus all other in-kind and in-cash contributions.
- **Combining contributions from companies**
Companies have the opportunity to combine their contributions within a single NWO domain TTW project so as to achieve a more favourable cumulative percentage. The companies are then, as a group, eligible for the abovementioned rights (right of option and/or non-exclusive commercial right of use). To be eligible for such aggregation, it is a condition that the companies in question notify NWO domain TTW of this in writing. This letter must also appoint an official secretary/a representative who will be responsible for negotiating with NWO domain TTW on behalf of the parties concerned as to how the option will be exercised. The letter must be signed by all companies involved. It should, preferably, be submitted to NWO domain TTW together with the project proposal or, if not, within six (6) months of the approval of the project.
- **Patent costs**
The following provisions apply if the user deems it desirable that a patent application be submitted:
 - The patent application is submitted in the name of NWO domain TTW and the research institute(s) where the invention or discovery takes place.
 - The user bears the costs of the patent. The patent costs are not offset in the calculation of a fair market price.
 - If there are multiple licensees, the patent costs will be shared among them.
- **Licensing**
The right to use or apply research results is acquired through a licence, transfer agreement or know how agreement.
In all cases, a licence agreement or transfer agreement will contain provisions concerning:
 - exclusivity or non-exclusivity;
 - royalty-free research and education licence for NWO domain TTW and the research institute(s) concerned;

- determination of a fair market price (with the exception of a NERF licence when contributions exceed 30%);
- anti-freezer clause or best endeavours obligation concerning application or commercialisation
- reporting obligations;
- indemnification against liability on the part of NWO domain TTW and the knowledge institute(s);
- market price + discount arrangements.

The market price will be determined by negotiation between the parties; a record will be kept of these negotiations. In determining the fee to be paid, use can be made of the 'market-based approach' (i.e. market comparison), the 'income-based approach' (i.e. what income is expected), and the 'cost-based approach' (i.e. what has it cost to achieve the research results). The services of an impartial expert can also be called upon, or a combination of the above methods can be chosen. The user will be entitled to a discount on the fair market price fee which is related to the level of the contribution provided towards the costs of the research project.

- Income received from transfer or licensing will be disbursed to the research institutes for further research.

NWO domain TTW should receive prior warning about any obstacles to the free use or exploitation of results. Should any obstacles to the implementation of NWO domain TTW's IP policy emerge, NWO domain TTW will impose additional conditions. If it emerges during the course of the project that the project leader has failed to notify NWO domain TTW about such relevant information, NWO domain TTW may suspend the project until the obstacles concerned have been removed. NWO domain TTW may request access to contracts and/or patents in this respect. Contracts must not be in conflict with NWO domain TTW's IP policy. If it emerges that NWO domain TTW cannot have free access to the results of the NWO domain TTW research, NWO domain TTW may decide not to award or to discontinue the project.

Notes on Option 2: when own Intellectual Property & Publication arrangements are made

If the knowledge institution elects to make its own arrangements with the user for Intellectual Property rights and Publication, those arrangements must be set out in writing. They must also satisfy the following conditions:

- i. All necessary foreground information (IP ensuing from the NWO domain TTW project) and - insofar as legally possible - background information (already existing IP from company and/or knowledge institution) is available for the execution of the project;
- ii. The agreement is aimed at the application or sharing of the results by way of publication;
- iii. Publication of scientific knowledge from the project will not be obstructed by users, but beneficiaries and users may determine the publication schedule;
- iv. Any results generated from the project by the beneficiary remain available for the beneficiary for educational and research purposes.

Furthermore, the following conditions apply on submission or on award of a project:

- On submission: the knowledge institution(s) and all users agree that the provisions under 'Own IP&P arrangements' will apply to the NWO domain TTW project and declare that they do or will satisfy the criteria from i to iv above.
- After award: The knowledge institution(s) and all users approve the agreement in writing.

Within three (3) months of the award of the project, the applicant knowledge institution will submit a copy of the agreement to NWO domain TTW, indicating where arrangements for each of the specified conditions can be found.

Within three (3) months of the award of the project, all knowledge institutions and users concerned will also declare that all the conditions have been satisfied; this will be done by signing and returning the contract.

If, on review, it transpires that the arrangements made do not satisfy the conditions set out above, NWO domain TTW can extend the original three (3) month period after award by a further period of up to two

(2) months, to enable the user(s) and the knowledge institutions to modify the arrangements so that they do satisfy the pre-determined conditions.

If at the end of this period the conditions have not been satisfied, this means that the conditions attached to the award have not been fulfilled and there can be no allocation of funding.

Appendix 4: Evaluation scales

1. Excellent
2. Excellent to very good
3. Very good
4. Very good to good
5. Good
6. Good to moderate
7. Moderate
8. Moderate to poor
9. Poor

Appendix 5: Criteria

Questions that are considered by the committee in the evaluation of the proposals

Scientific quality

- Are the technical-scientific objectives of the programme clear?
- Is the proposed research both technically and scientifically challenging?
- Are the described technical-scientific challenges innovative?
- Is the programme distinctive and has it a clear added value compared to existing research initiatives?
- Is the scientific community of sufficient quality and is the composition suitable to achieve the programme goals?
- To what extent do the projects form one coherent program? Is the interdependence between the projects and the synergy clear?
- Do all the projects contribute to the programme objectives?
- Do the organization and governance of the programme make it possible to achieve the scientific objectives?
- Do you consider the programme leader capable of realising the cross-scientific project objectives?

Utilisation

- Does the research theme has sufficient economic and social relevance and impact?
- Is the proposed research demand-driven?
- Is it necessary to start this programme now?
- Is the utilization plan clear?
- Will the proposed steps in the utilization plan actually lead to application by users?
- Is there enough convincing interest shown by the user group?
- Are all facets of possible application of results covered with relevant users?
- Is there a clear interaction and collaboration between researchers and private and public partners within the consortium?
- Can the programme really create an impact, both nationally and internationally, with the requested budget and with the formed consortium?
- Do the organization and governance of the programme make it possible to execute the utilization plan?
- Do you consider the programme leader capable of realising the utilization objectives of the programme?

Appendix 6: Questions for reviewers

1. What is your opinion concerning the novelty and innovative nature of the proposed research? Does the proposed research have an added value compared to other possible international initiatives?
2. What is your opinion concerning the programme's scientific and technical objectives?
3. What is your opinion concerning the programme's level of ambition?
4. What is your opinion concerning the necessity and urgency of tackling this subject now in the form of a programme?
5. Does the programme have sufficient focus and mass to achieve a visible and distinct profile at an international level?
6. What is your opinion concerning the structure and coherency of the programme? What is your assessment of the coherency between the different lines of research (if present) and the various projects within these?
7. Do all of the different projects make a sufficient contribution to the scientific, technical and/or economic objectives of the programme? Do you have suggestions for improvements? Clearly state for which project(s) you propose improvements.
8. What is your assessment of the quality of the researchers involved from an international perspective? Do those submitting the proposal belong to the internationally leading research groups? Do you miss prominent Dutch researchers or research groups who could make a positive contribution to the coherency, objectives, or quality of the programme?
9. What is your opinion concerning the economic and social relevance and impact of the research theme?
10. What is your opinion concerning the involvement and commitment of potential users (third parties) and how knowledge dissemination is planned to take place? What is your assessment of the balance between the users' contribution to the programme and their (commercial) interest in the programme's success?
11. Has sufficient thought been put into how the results (of each project) can be utilised? What do you consider the feasibility and timing of the implementation of the results?
12. Is the budget requested (personnel and resources) in line with the objective(s) of the programme described?

Appendix 7: Personnel support by third parties

Part of the research may be conducted by third parties. A condition is that the expertise provided in the form of man- hours is not already available at the research institute(s) and is used specifically for the NWO domain TTW project. For personnel support by third parties, NWO domain TTW applies fixed rates in order to capitalise the number of man-hours used (up to 1400 direct hours/year/fte) for a senior or junior researcher.

The current rates are

- Senior researcher; € 111 / hour, academic education
- Junior researcher; € 78 / hour