



Applied and Engineering Sciences

Connecting Innovators

Call for proposals

Perspectief

**Enabling new technology in the top sectors
Call for public-private research programmes**

2018/2019

Deadlines for 2018/2019 Perspectief round

Phase 1: Programme initiative: register on website: Tuesday 6 November 2018, 14:00 CE(S)T
Phase 2: Programme design: submit design: Tuesday 6 December 2018, 14:00 CE(S)T
Phase 3: Programme proposal: submit detailed proposal: Tuesday 16 May 2019, 14:00 CE(S)T



Contents

1	Introduction	1
1.1	Public-private research programmes of NWO Domain AES	1
1.2	Mission-driven innovation	1
1.3	Mission of NWO Domain AES	2
1.4	Available budget	2
1.5	Validity of the call for proposals	2
2	Aim	3
3	Guidelines for applicants	4
3.1	Introduction and changes compared to previous Perspectief rounds	4
3.2	Specific provisions	4
3.3	Who can apply	9
3.4	Resubmission	10
3.5	What can be applied for	11
3.6	When can applications be submitted	16
3.7	Preparing an application	16
3.8	Registering and submitting an application	16
4	Procedure and assessment	17
4.1	Procedure	17
4.2	Criteria	22
4.3	After award	22
4.4	Monitoring, Open Access, datamanagement and Nagoya Protocol	23
5	Contact	25
6	Perspectief schedule	26
7	Annexes and relevant references	27

Note: In case of divergence between the language versions, the Dutch version shall prevail.

1 Introduction

1.1 Public-private research programmes of NWO Domain AES

The NWO Domain for the Applied and Engineering Sciences (NWO Domain AES) is looking for new research programmes in the context of Perspectief for the Top Sectors.

Perspectief was designed as an instrument for the innovation policy of the Dutch Ministry of Economic Affairs and Climate Policy. NWO Domain AES provides an annual research budget which is used to develop and fund challenging new research programmes in the applied and engineering sciences.

1.2 Mission-driven innovation

In a Letter to Parliament on “Mission-driven Innovation Policy with Impact”, dated 13 July 2018, the Minister for Economic Affairs and Climate Policy informed the House about the new approach to the top sector policy. The letter mentions four themes/societal challenges where support in the area of science, applied research and innovation is indispensable:

- i) energy transition and sustainability,
- ii) agriculture, water and food,
- iii) health and care,
- iv) security (including cyber, defence and water security).

The importance of Key Enabling Technologies (KETs) is also mentioned. The economic opportunities presented by societal challenges and the ambition to play a lead role in a number of KETs are therefore the central starting points in the new top sector approach.

Perspectief applications in 2018/2019 should either make a substantial contribution to the development of a KET¹ from one of the eight categories or contribute to one of the four themes/societal challenges via one or more KETs.

The AES funding instrument Perspectief focuses on achieving economic and social impact in thematic areas relevant to the Netherlands. This is done by applying innovative technological knowledge in consultation and cooperation with industry, social organisations, users and end users.

NWO Domain AES invites researchers and users to jointly submit new programmes within the framework of AES-Perspectief. This call for proposals contains guidelines for drawing up your programme initiative, programme design (max. 7 A4) and programme proposal (max. 37 A4).

NWO Domain AES is part of the Netherlands Organisation for Scientific Research (NWO; see also www.nwo.nl/en). As such, NWO Domain AES provides indirect government funding.

¹ From: “Quantitative Analysis of Dutch Research and Innovation in Key Technologies”, Elsevier Research Intelligence on behalf of the Ministry of Economic Affairs and Climate Policy, <https://www.government.nl/documents/reports/2018/06/01/quantitative-analysis-of-dutch-research-and-innovation-in-key-technologies>

1.3 Mission of NWO Domain AES

NWO Domain AES connects people and resources to develop cross-cutting scientific technology and engineering knowledge that help to create economic value and resolve societal issues.

NWO Domain AES does this by:

- bringing together scientific researchers and potential users and supervising projects to maximise opportunities for knowledge transfer, and
- funding excellent applied research in the engineering sciences.

AES research generates valuable knowledge. Besides promoting excellent science, NWO Domain AES aims to promote the application of knowledge. The term used by NWO Domain AES 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, a user committee is set up for every project.

NWO Domain AES expects applicants and users to collaborate actively in promoting utilisation and to work jointly towards the AES objective of transferring knowledge to users. Users, user committees and intellectual property play a crucial role in utilisation.

For specific provisions for user committees, the co-funding requirement and letters of support, see later in this call, the annexes and the "[Brochure Guidelines Users' Committee NWO Domain AES 2017](https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant)" (<https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant>).

1.4 Available budget

The NWO funding budget available for this programme is M€ 18.7.

1.5 Validity of the call for proposals

This call for proposals for the 2018/2019 Perspectief round is valid from 4 October 2018.

2 Aim

The Perspectief instrument aims to strengthen the Dutch knowledge and innovation system by means of high-quality scientific and technological research; within its duration, the research should contribute to the economic opportunities presented by societal challenges and the further development of KETs (see the Overview of KETs at

<https://www.nwo.nl/en/research-and-results/programmes/perspectief/key+enabling+technologies>).

The **objectives** of Perspectief are:

- 1) To develop scientifically excellent knowledge and hence new technology relevant to industry and society, by taking a multidisciplinary approach that contributes to the economic opportunities presented by the four societal themes in the new top sector policy;
- 2) To build close and lasting alliances within consortia comprised of multiple knowledge institutions, companies and social organisations;
- 3) To create more focus and mass (coherence) in research on thematic areas and KETs relevant to the Netherlands; and
- 4) To promote valorisation of the resulting knowledge by civil society organisations, users and end users.

Ideally, the entire user chain should be involved, enabling the consortium to achieve social and economic impact. Such cooperation could be between academic institutions and companies (including SMEs), TO2 institutes, university medical centres, social parties (e.g. NGOs, charities), relevant ministries, national and regional government, universities of applied sciences and other bodies.

3 Guidelines for applicants

3.1 Introduction and changes compared to previous Perspectief rounds

There are **three phases** involved in submitting a Perspectief application. A Perspectief initiative (Phase 1) should be registered on the NWO website. The initiative phase aims to encourage consortium forming and to allow parties to explore the possibility of joining an initiative. The programme design (Phase 2) is drawn up by the consortium. If successful in the first assessment round, the consortium is then invited to prepare and submit a detailed Perspectief proposal (Phase 3).

Changes compared to previous Perspectief rounds:

- Perspectief applications in 2018/2019 should either make a substantial contribution to the development of a KET from one of the eight categories² or, by means of one or more KETs, contribute to one of the four themes/societal challenges: i) energy transition and sustainability, ii) agriculture, water and food, iii) health and care, and iv) security (including cyber, defence and water security).
- In line with the NWO strategy 2019–2022, *Connecting science and society*, it is possible to apply for Industrial and Societal Doctorates within the 2018/2019 Perspectief round.
- To promote the added value of the programme and the achievement of its objectives in the area of utilisation, a separate Governance project should be defined. The budget for the Governance project (including budgets for programme management, programme activities and development of the utilisation plan) is limited to 5% of the funding requested from NWO.
- Several changes have been made to the eligible costs ("What can be applied for"). In drawing up an application, the applicant makes use of "modules". These building blocks, from which an application can be constructed, have been standardised across NWO.
- NWO does not invoice VAT in the case of cash co-funding.

3.2 Specific provisions

3.2.1 Top sectors and new Top Sector Policy

Via the NWO proposition 2018/2019, NWO Domain AES has committed to contribute to the implementation of the **Top Sector Policy**. NWO Domain AES is opening up the 2018/2019 Perspectief round solely to topics that are mentioned in the Top Sector innovation contracts or are explicitly supportive of Top Sector roadmaps/innovation agendas. The Top Sectors are: High Tech Systems and Materials (HTSM), Chemistry, Water, Energy, Life Sciences & Health, Agri & Food, Horticulture & Propagation Materials, Logistics, Creative Industry and the cross-cutting theme ICT. An ex-ante assessment of suitability or "fit" with the current Top Sector roadmaps/innovation agendas is mandatory. NWO Domain AES will play a coordinating role in this and will bring the ex-ante assessment forms to the attention of those involved in the Top Sectors.

² From: "Quantitative Analysis of Dutch Research and Innovation in Key Technologies", Elsevier Research Intelligence on behalf of the Ministry of Economic Affairs and Climate Policy, <https://www.government.nl/documents/reports/2018/06/01/quantitative-analysis-of-dutch-research-and-innovation-in-key-technologies>

In addition, Perspectief applications in 2018/2019 should either contribute by means of one or more KETs to one of the four themes below or make a substantial contribution to the development of a particular KET. The eight KET categories are:

- Advanced Materials,
- Photonics and Light technologies,
- Quantum technologies,
- Digital technologies,
- Chemical technologies,
- Nanotechnologies,
- Life science technologies, and
- Engineering and Fabrication technologies.

For the KETs covered by these eight categories, see the [Overview of key enabling technologies](#) at www.nwo.nl/ket.

The four themes/societal challenges are:

- energy transition and sustainability,
- agriculture, water and food,
- health and care, and
- security (including cyber, defence and water security).

3.2.2 Programme

A Perspectief programme consists of a coherent set of individual projects all contributing to the achievement of the programme objective.

The programme proposal should focus on developing new technology and on the economic opportunities presented by societal challenges. Besides having a national economic impact, the Perspectief programme should ideally create industrial activity in the Netherlands. The programme proposal should demonstrate the substantial added value of the programme and be clearly distinctive compared with other initiatives and/or networks.

3.2.3 Consortium composition

Forming a strong consortium is important for a Perspectief programme. **At least three universities** should be represented in the consortium. Projects within the programme should be **distributed evenly** between the participating public research institutions. The programme should not be conducted mainly at a single knowledge institution. The actual or potential user target group of the programme should include at least five companies or other user organisations.

Besides universities, the consortium should also include representatives of the entire valorisation and innovation chain: i.e. the **users** (see Section 3.2.4). Actual or potential users from outside industry are permitted, but programmes should at least have **economic valorisation** as one of their objectives.

At least one industry representative should be prepared to act as the programme co-lead alongside the main applicant.

3.2.4 Users and user committee

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 their own role to play in the innovation chain and must be named in the utilisation plan.

It is the explicit intention that potential technology users and end users outside the immediate circle and outside the research field of the researchers submitting the application 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. Actual and potential users should be indicated in the utilisation section of the research application.

After the research application has been awarded funding, a user committee is set up for each project. A minimum of four users should sit on the user committee and at least two users should be from industry.

In some programmes, it makes sense to combine user committees or even to set up a single large committee. You can discuss this with the NWO programme officer once funding has been awarded. This should be taken into account when concluding the IP agreements, because these are generally concluded at project level.

3.2.5 Foreign companies

If strong players in a particular area are based outside the Netherlands, these foreign companies can be involved in the consortium. Foreign companies are subject to the same conditions as Dutch companies; including the requirement to sit on the user committee which meets at least once a year (travel and accommodation costs are at the company's expense and cannot be claimed). Foreign companies can provide co-funding under the same conditions as Dutch companies.

3.2.6 Universities of applied sciences and TO2 institutes

Universities of applied sciences and TO2 institutes can also form part of the consortium and are key partners in the knowledge chain leading to application. However, researchers with an appointment at a university of applied sciences or TO2 institute cannot be applicants or co-applicants. The Material module can be used to fund part of the research at a university of applied sciences or TO2 institute. In individual projects, up to 20% of the necessary financial resources can be used for research at a university of applied sciences or TO2 institute. For Perspectief, this 20% can be calculated not only by individual project but also over the total programme costs. However, a condition for this is that the amount to be entered per project for universities of applied sciences or TO2 institutes amounts to less than 50% of the financial resources required for the project concerned.

3.2.7 Separate Governance project

To promote the added value of the programme and the achievement of its objectives in the area of utilisation, a separate Governance project should be defined in addition to the content projects. This project includes aspects of your programme that transcend individual projects. The programme leader is the project leader for this project. The project leaders of the content projects and a user delegation constitute the user committee for this project. Because programmes in different scientific fields take many different forms and programmes may differ in structure, it is up to the applicant to specify the costs required.

The budget for the Governance project is limited to 5% of the funding requested from NWO for the entire programme. Examples of possible activities that can be funded within this project from the modules available (see Section 3.5) for project budget are:

- Appointment of a programme manager: this can be one of the applicants involved (for rates, see Module Personnel, module 1e), but it can also be someone from outside the university, e.g. one of the users, a consultancy firm or another organisation (for rates, see Module Project Management).

- Programme activities: examples include programme days, an annual symposium, workshops and/or a summer school for the appointed researchers, site visits, etc. (Module Material)
- Budget for further elaboration of user requirements, for example, and/or mapping what is required, besides research and innovation, in order to actually put innovations into practice. (Module Valorisation/Impact)
- Further development (during the programme) of the utilisation plan in order to achieve the programme objectives in the field of utilisation. Part of this might be a feasibility study into potential applications. (Module Valorisation/Impact)
- Budget for dissemination and implementation of the programme's results. (Module Valorisation/Impact)

3.2.8 Co-funding requirement

For each programme, at least **15% of the financial resources required** to carry out the research should consist of **cash** co-funding by the users. In addition, for each programme, at least **30% of the total programme costs** (required financial resources plus in-kind contributions) should consist of **co-funding** by users (cash and/or in-kind contributions). For assistance, see the example calculations in the document "Annexes Perspectief 2018/2019" and the Excel file "Financial Planning Perspectief programme" (mandatory in Phase 3) which are available on the Perspectief funding page (via <https://www.nwo.nl/en/research-and-results/programmes/perspectief>).

The co-funding requirement applies to the **whole programme**, with the exception of the Governance project; it does not apply at project level. This ensures that scientifically merited project initiatives that do not meet the co-funding requirement can be compensated by other projects in the same programme with a high user contribution. However, NWO Domain AES should be the main funder for each individual project and at least two-thirds of the projects individually should meet the co-funding requirement. No co-funding is required for the separate Governance project and the latter is not included in the calculation for the minimum mandatory co-funding.

Co-funding **is pledged** and provided **on a per-project basis**. Co-funding can consist of financial and/or in-kind contributions.

Financial contributions are used to cover part of the project costs. Cash co-funding is set off against NWO Domain AES funding and the contributions are provided to the research group together with the AES contribution. The AES contribution and the financial contributions by users together constitute the financial resources required to carry out the project.

In-kind contributions refer to capitalised personnel and/or material contributions (as permitted in Modules 1 and 2) from users who are an integral part of the project. These are subject to the conditions in the document "[Hourly rates for contributions in kind by third parties in the form of man-hours](https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant)" available (in Dutch) at <https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant>.

In-kind contributions are accepted only on condition that the share contributed by the user is an integral part of the work plan and can be monitored as an identifiable effort. Supervision, consultancy and/or participation in the user committee (hours, travel expenses) are expressly **excluded**.

Capitalised in-kind contributions entered in the budget must agree with a letter of support confirming the pledge of co-funding and the amount of the user's contribution.

Specific conditions regarding the co-funding requirement can be found in the document "Annexes Perspectief 2018/2019", section on "Notes on criteria relating to co-funding",

available on the Perspectief funding page (via <https://www.nwo.nl/en/research-and-results/programmes/perspectief>).

3.2.9 Letters of support

NWO Domain AES asks that any form of support, especially co-funding, is confirmed by means of a letter of support. If co-funding is provided by users, a letter of support is mandatory. These letters are part of the application and are submitted for assessment to committee members (Phases 2 and 3) and international referees (Phase 3).

NWO Domain AES advises applicants to ensure that users especially endorse the importance of the utilisation plan to their operations. The letter of support should meet the below requirements. See also the "Annexes Perspectief 2018/2019" section on "Requirements relating to letters of support" (via <https://www.nwo.nl/en/research-and-results/programmes/perspectief>).

A Perspectief programme is subject to strict **co-funding requirements and criteria** (see under the specific provisions, Section 3.2.8 "Co-funding requirements", the document "Annexes Perspectief 2018/2019" via <https://www.nwo.nl/en/research-and-results/programmes/perspectief>).

Letters of support, Phase 2

To enable the assessment committee to reach a considered opinion on the programme **design** in **Phase 2** concerning commitment to and support for the project or programme, we ask that certain matters be described in a letter of support:

- the interest of the public/private partner in the theme, programme or project described.
- the role of this public/private partner in the project or programme.
- what their contribution to the described theme consists of or **might** consist of (cash and/or in-kind).

Uncertainty about users' actual or potential contributions and/or about the ability to meet the co-funding requirement in further development **is taken into account** in the assessment in Phase 2 (selection of programme designs for further development).

Letters of support, Phase 3

In a Perspectief **proposal** (Phase 3), users should clearly indicate the following via letters of support:

- Why the research theme and utilisation objectives are important to their company or organisation;
- What their contribution to the described theme consists of (cash and/or in-kind); in this phase, the commitment should be unconditional.
- That the user accepts the conditions governing participation in AES projects (see "[Brochure Guidelines Users' Committee NWO Domain AES 2017](https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant)" at <https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant>).

Non-binding letters of support are undesirable and letters of support containing resolute conditions will not be accepted in Phase 3.

Specific requirements relating to letters of support can be found in the document "Annexes Perspectief 2018/2019" (via <https://www.nwo.nl/en/research-and-results/programmes/perspectief>).

3.2.10 Intellectual Property & publication agreements

In knowledge transfer between research and users within NWO programmes and projects, it is important that research results are handled responsibly with a view to contributing to science and the application of knowledge. NWO aims to exploit and publish research results as widely as possible and also aims to encourage cooperation between researchers and various organisations.

The rules on this are laid down in the "Intellectual Property (IP) Policy" in the document "Annexes Perspectief 2018/2019" available on the Perspectief funding page (via <https://www.nwo.nl/en/research-and-results/programmes/perspectief>) and the Publication arrangements of NWO Domain AES (part of the "[Brochure Guidelines Users' Committee NWO Domain AES 2017](#)").

Personnel employed by a start-up for which a feasibility study is requested as referred to in Section 3.5.4 under 4b of this call, must waive their entitlement to IP rights arising from the project activities co-funded by AES.

3.3 Who can apply

3.3.1 Phase 1: Who can register a Perspectief initiative on the NWO website?

Anyone can register a Perspectief initiative on the NWO website. The steps to be taken are described in Section 4.1.

3.3.2 Phases 2 and 3: Who can act as main and co-applicants?

Full, associate and professors (or persons with comparable positions) with a permanent appointment at:

- Dutch universities
- University medical centres
- Princess Máxima Center and the Netherlands Cancer Institute (NKI)
- KNAW and NWO institutes
- the Max Planck Institute for Psycholinguistics in Nijmegen
- the DUBBLE Beamline at the ESRF in Grenoble
- Naturalis Biodiversity Center
- Advanced Research Center for Nanolithography (ARCNL).

Researchers with a tenure-track appointment at the above knowledge institutions.

NWO defines a tenure-track appointment as an appointment for experienced scientific researchers with prospects of permanent employment and a professorship in due course. The tenure-track appointment must be confirmed in writing and funded from structural resources of the knowledge institution, as evidenced by a written statement from the institution. NWO Domain AES will verify whether the appointment meets these conditions.

Main applicants and co-applicants with a part-time appointment

- Main applicants and co-applicants employed on a part-time basis should in any case have access to sufficient university facilities and budget to carry out the project properly.
- Main applicants and co-applicants should carry out AES research while they are working for the knowledge institution. If this is not the case, the other employer should sign a waiver so as to guarantee knowledge ownership by NWO Domain AES and the research institution(s).

Who cannot apply?

- Personnel with a zero-hours appointment
- Personnel with a temporary employment contract (e.g. postdocs)
- Emeritus professors
- Personnel of institutions with an applied or technological objective, such as TNO, the Large Institutes of Technology (GTIs) and the non-university part of the University of Wageningen (WUR)
- Personnel of a knowledge institution funded by a public-private targeted grant
- Personnel of foreign knowledge institutions
- Personnel of private parties

At least three researchers associated with at least **three different public research institutions** eligible for NWO Domain AES funding should submit the programme design (Phase 2) and programme proposal (Phase 3).

A researcher may **link his/her name to only one programme design or programme proposal** in each Perspectief round.

Tasks of main and co-applicants

The main applicant is regarded by the NWO Domain AES office as the leader of the initiative and of any programme to be awarded funding throughout its duration, and as the contact person during the assessment and selection procedure.

Knowledge institutions may not be counted twice within these conditions. An institution (e.g. a university medical centre) is either a submitting public knowledge institution or a (potential) user. Different faculties of the same university are not regarded as different public research institutions.

NWO Domain AES Perspectief is not open to initiatives with a strongly local or regional orientation.

After award

The main applicant of the programme proposal ultimately awarded funding is appointed by the AES Board as programme leader of the Perspectief programme. At the time of award, the main applicant of each project within a programme becomes the project leader. The programme leader is responsible for monitoring the coherence of the programme and for achieving its objectives as described in the programme proposal. The duty of project leaders is to carry out the projects approved within the programme in accordance with the project plan. Co-applicants must play an active role in conducting the project (i.e. as (co-) promotor and/or in day-to-day supervision of researchers appointed to the project) and may be designated as sub-project leaders if there are multiple participating knowledge institutions.

The responsibility of the programme leader or programme committee does not release project leaders from their duty to conduct the projects approved within the programme in accordance with the project plan (see [NWO Grant Rules](#) AND "[User committee guidelines NWO Domain AES 2017](#)"; these are available at <https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant>).

3.4 Resubmission

A programme proposal with a similar research question and/or (wholly or partly overlapping) research programme and consortium may be submitted in up to three Perspectief rounds. From Perspectief 2019/2020 onwards, this will be reduced to a maximum of two Perspectief rounds.

If you have submitted a wholly or partly overlapping research programme in a different NWO funding instrument, you should state this in your application. It is not permitted to receive funding for the same research or activities under more than one NWO instrument.

3.5 What can be applied for

In drawing up an application, the applicant makes use of “modules”. These building blocks from which an application can be constructed have been standardised across NWO:

- The domain board (NWO Domain AES) determines which modules are available, their budget and the number of times that a module may be used, depending on the aim of the instrument as well as on the needs of the research field and any stakeholders involved.
- Within that framework, the researcher then chooses the combination of modules he/she needs, and the budget for each module, in order to answer the research question.

The applicant can apply for modules more than once if this opportunity is available under this Perspectief call.

The minimum AES contribution per programme is **ME 1.5**, including VAT. The maximum AES contribution per programme is **ME 4**, including VAT.

The maximum AES contribution per project is € 750,000, including VAT. For projects of an investment nature (> € 250,000 in investments), the maximum AES contribution is ME 1, including VAT.

The following modules are available at project level for an application within this round:

1. Personnel costs
2. Material costs
3. Investments
4. Valorisation/Impact
5. Internationalisation
6. Project management

3.5.1 Module Personnel

Budget can be requested for the appointment of temporary personnel: a) PhD/PDEng/MD PhD; b) Postdoc; c) Non-scientific personnel; e) Research leave; f) Other scientific personnel

The rates for deployment of temporary personnel are the standard rates used in NWO Domain AES:

- Association of Universities in the Netherlands (VSNU) agreement rates for knowledge institutions under the NWO scheme, with no supplement for the risk of unemployment;
- NFU rates for university medical centres;

There is no limit to the number of times that personnel modules 1a through 1e can be used in applications under this Perspectief call.

NB: Remunerations for PhD students/PhD scholarship students at a Dutch university are not eligible for funding from NWO.

Module 1a) PhD/PDEng/MD PhD

The guideline is that 1.0 FTE PhD for 48 months or 0.8 FTE for 60 months can be applied for. If a different duration of appointment is desired for the realisation of the proposed research, then this guideline may be deviated from as long as this is properly justified (e.g. PDEng 2 years or MD PhD longer than 4 years).

In line with NWO strategy, **Industrial and Societal Doctorates** may also be applied for. In the case of an Industrial or Societal Doctorate, the private or public organisation appointing the candidate should bear part or all of the salary costs. This contribution may be part of the minimum co-funding required.

The salary costs will be remunerated according to the agreements in the "Agreement for Funding Scientific Research" made with the VSNU and are based on the collective labour agreement of the Dutch universities. The costs include a one-off individual bench fee (€ 5,000) to encourage the scientific career of the project employee funded by NWO (including thesis costs). The agreement and the maximum amounts for personnel costs can be found at <https://www.nwo.nl/en/documents/nwo/salary-tables/approval-of-funding-for-scientific-research-2008>.

Module 1b) Postdoc

The guideline is that the appointment period of a postdoc can be between 12 and 48 months with a minimum size of 0.5 FTE. The minimum size of the appointment is 0.5 FTE for 12 months. This deployment can be spread over a longer or shorter period, for example across the entire duration of the project.

If the applicants wish to deploy expertise for a shorter period of time, then the material credit can be used for this.

The salary costs will be remunerated according to the agreements in the "Agreement for Funding Scientific Research" made with the VSNU and are based on the collective labour agreement of the Dutch universities.

In addition to salary costs, the project employee funded by NWO will receive a one-off individual bench fee (€ 5,000) to encourage his or her scientific career. The agreement and the maximum amounts for personnel costs can be found at

<https://www.nwo.nl/en/documents/nwo/salary-tables/approval-of-funding-for-scientific-research-2008> and under "[Fixed rates salary tables AES \(from 01-07-2006\)](#)" (in Dutch) at <https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant>.

Module 1c) Non-scientific personnel

For the appointment of non-scientific personnel, specifically needed for the research project for which funding is requested, a maximum of € 100,000 can be requested with this module. This can concern personnel such as student assistants, programmers, technical assistants, analysts, etc. This module can only be applied for in combination with module 1a and/or 1b.

The minimum size of the appointment is 0.5 FTE for 12 months. The minimum appointment can be spread over a longer period of time. If the applicants wish to deploy expertise for a shorter period of time, then the material credit can be used for this.

Salary costs are dependent on the level and are remunerated in accordance with the agreements in the most recent "Agreement for Funding Scientific Research" made with the VSNU and are based on the collective labour agreement of the Dutch universities. The agreement and the maximum amounts for personnel costs can be found at

<https://www.nwo.nl/en/documents/nwo/salary-tables/approval-of-funding-for-scientific-research-2008> and under "[Fixed rates salary tables AES \(from 01-07-2006\)](#)" (in Dutch) at <https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant>.

Module 1e) Research leave

This module can **only** be requested within the separate Governance project and insofar as it concerns tasks related to programme management. This module can be used to request research leave for the main and/or co-applicant(s), for example to release them from teaching, administrative and management duties.

A research leave grant requested within the Governance project is subject to a maximum of 60 months based on 0.2 FTE at the level of the postdoc employee as described in module 1b, rates according to VSNU agreement. This budget is intended to release the applicant(s) from teaching and supervision duties with a view to deployment on programme management tasks. The employer can use it to cover the costs of the replacement taking over the non-research part of the applicant's responsibilities (such as teaching, administrative and management duties).

Module 1f) Other scientific personnel

Budget for other scientific personnel, such as MA, MSc, AIOs (doctor training to be a specialist) or ANIOs (doctor not training to be a specialist) necessary for the requested research project. This module can only be applied for in combination with module 1a and/or 1b. The maximum period of appointment is 48 months for 1.0 FTE and 60 months for a part-time appointment. The minimum size of the appointment is 0.5 FTE for 12 months. This deployment can be spread over a longer or shorter period, for example across the entire duration of the project. The maximum amounts for personnel costs can be found under "[Fixed rates salary tables AES \(from 01-07-2006\)](https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant)" (in Dutch) at <https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant>.

3.5.2 Module Material

Budget requested for material under this module can be specified according to the three categories stated below:

Project-related goods/services

- consumables (glassware, chemicals, cryogenic fluids, etc.)
- measurement and calculation time (e.g. supercomputer access, etc.)
- costs for acquiring or using data collections (e.g. from Statistics Netherlands)
- access to large national and international facilities (e.g. cleanrooms³, synchrotrons, datasets, etc.)
- work by third parties (e.g. laboratory analyses, data collection, etc.)
- personnel costs smaller in size than those offered in module 1.

Travel and accommodation costs

- travel and accommodation costs (national and international)
- congress visits (max. 2 per year)
- fieldwork
- work visits

Implementation costs

- national symposium/conference/workshop organised by the project
- costs of Open Access publishing
- data management costs
- recruitment costs (incl. advertisement costs)
- costs involved in applying for licences (e.g. for animal experiments)

³For reimbursement of costs of using cleanrooms according to the NWO Domain AES "Cleanroom regulation", see <https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant>.

Costs that cannot be applied for are:

- basic facilities within the institution (e.g. laptops, desks, etc.)
- maintenance and insurance costs
- clinical trials.

A maximum of € 15,000 per year per full-time scientific position (modules 1a, 1b and/or 1e) can be applied for in terms of material credit. If the maximum amount of € 15,000 per year per full-time scientific position is not sufficient for realising the research, then it may be deviated from if a clear justification is provided in the proposal.

3.5.3 Module Investments

Funds for investments in innovative scientific equipment and data collection of national and international importance can be requested under this module. Investment costs must be specified and justified in detail.

Funding can be requested for:

- costs of investment in scientific equipment and datasets;
- personnel costs for the setting up of databases and the initial digitalisation of the bibliographical equipment, if these cannot be purchased;
- personnel costs for staff with specific, essential technical expertise needed in order to build or develop an investment.

Those applying for funding for personnel costs must explain why these costs are necessary, why the facility in question cannot be purchased and why the necessary personnel expertise cannot be hired elsewhere at comparable cost.

Funding cannot be requested for:

- costs of infrastructure facilities that can be regarded as part of the usual infrastructure;
- data collections and any associated software and bibliographies that are already available in other ways (see material costs);
- other personnel costs, including personnel costs required to operate and conduct research with the facility;
- maintenance and use of the equipment, costs of researchers' use of equipment that can be requested on a project via material credit.

There is no maximum limit on investments in this Perspectief round. In projects of an investment nature (> € 250,000 in investment), the maximum AES contribution for the project is M€ 1. No contribution from the university or institution is required for investments in this Perspectief round.

3.5.4 Module Valorisation/Impact: a) Knowledge utilisation; b) Entrepreneurship

This module can be requested at both project level and programme level. In the latter case, the module should be included within the Governance project.

Module 4a) Knowledge utilisation

The aim of this module is to facilitate the use of the knowledge that emerges from the research. The contribution requested must not exceed € 25,000. The amount requested must be specified. If the maximum amount is not sufficient, then it may be deviated from if a clear justification is provided in the proposal.

Because knowledge utilisation takes many different forms in different scientific fields, it is up to the applicant to specify the costs required, e.g. costs of producing a teaching package, conducting a feasibility study into potential applications, or filing a patent application. See <https://www.nwo.nl/over-nwo/organisatie/nwo-onderdelen/ttw/werkwijze/kennisoverdracht> (in Dutch) for more information on knowledge utilisation.

Module 4b) Entrepreneurship

The aim of this module is specifically to facilitate and encourage industrial activity and entrepreneurship following knowledge development and utilisation by researchers. The contribution requested must not exceed € 50,000. The amount requested must be specified.

Funding can be requested for:

- costs of personnel employed by the start-up for which the feasibility study is requested (if already set up), insofar as they carry out project activities on the applicant's behalf; or the applicant's own labour costs and the salary costs of personnel employed by the enterprise.
- costs of patent protection during the term of the project.
- other costs directly related to the project. This item also covers costs of training in entrepreneurial skills.

The types of costs mentioned above should be specified in more detail in the application.

Funding cannot be requested for:

- general operating costs (such as establishment, notarial, accountancy and administration costs, etc.)

3.5.5 Module Internationalisation: b) Money follows Cooperation

Module 5b) Money follows Cooperation (MfC)

The aim of this module is to encourage international cooperation via the principle of Money follows Cooperation (MfC), where national research budget is used for cross-border collaboration. MfC offers the possibility to create added value for individual research projects by deploying expertise from abroad which is not available in the Netherlands at the desired level for the project. This concerns expertise from organisations outside the Netherlands that have a public task and carry out research independently. In the proposal, the applicant must convincingly demonstrate that the expertise concerned is not available in the Netherlands. This will be assessed by the selection committee. If the arguments are not sufficiently convincing, then the funds for this module cannot be made available.

Furthermore, the applicant must state the amount to be deployed for this module in the budget. In principle, there is no limit to the amount that can be requested.

3.5.6 Module Project Management

This module can only be requested within the Governance project.

Project management includes the following: optimising the organisational structure of the consortium, supporting the consortium and the main applicant, monitoring the coherence, progress and unity of the programme, coordinating between the sub-projects within the programme and organising programme activities. These tasks may also be carried out by external parties; see description of the Governance project given above under "Specific provisions".

Funding to be requested for this item may consist of material or implementation costs and personnel costs. The hourly rate can be based on the cost-covering rate, including applicable increments from the overall salary costs table in the "Research Tariffs Manual (HOT) 2017", table 2.2 HOT 2017 up to scale 16. The part of (commercial) hourly rates that exceeds the above tariffs is not eligible for funding so cannot be included in the budget.

3.6 When can applications be submitted

- Phase 1: The deadline for publishing a Perspectief initiative and for sending in a form confirming its fit within the Top Sectors agenda ("Compulsory testing EZK") is **Tuesday 6 November 2018**, 14:00 CE(S)T.
- Phase 2: The deadline for submitting a Perspectief programme design is **Thursday 6 December 2018**, 14:00 CE(S)T.
- Phase 3: The deadline for submitting a Perspectief programme proposal (only after invitation by the AES Board) is **16 May 2019**, 14:00 CE(S)T.

Applications submitted after the deadline will not be taken into consideration. In the event of departure from the guidelines as described in this call, your programme design or proposal will **not** be considered. In the case of minor shortcomings, the AES office may ask you to submit an amended version within three working days (Phase 2) or five working days (Phase 3).

3.7 Preparing an application

You can register your programme initiative (Phase 1) on the website. See also Section 4.1.1.

For Phases 2 and 3:

- Download the application form from the NWO website (at the bottom of the webpage for the Perspectief funding instrument via <https://www.nwo.nl/en/research-and-results/programmes/perspectief>).
- Complete the application form.
- Save the form as a PDF file.
- Save the compulsory annexes and forms referred to in Sections 4.1.2 and 4.1.3 as PDF files.

For more details, see Section 4 of this call.

3.8 Registering and submitting an application

To register a programme initiative (Phase 1), you can use the web form <https://www.nwo.nl/en/research-and-results/programmes/perspectief/application+programme+initiative>.

To submit an application, in both Phase 2 and Phase 3, you must send an e-mail with annexes to ttw-perspectief@nwo.nl.

4 Procedure and assessment

4.1 Procedure

4.1.1 Procedure, Phase 1: Programme initiative, publication and review

Publication of the initiative is a **mandatory condition** for submitting a programme design to NWO Domain AES, but it is **not** taken into account in the assessment by the referees or committee (Phases 2 and 3).

The Perspectief instrument is focused specifically on the development of new technologies and the potential for new forms of collaboration. NWO Domain AES is keen that research themes should be developed in openness and dialogue, preferably with the involvement of new partners. To be eligible to submit a programme design, you must therefore publish your programme initiative in advance on the AES website. By publishing Perspectief initiatives, NWO Domain AES aims to facilitate or increase the accessibility of Perspectief programmes for new research groups and to promote the pooling of resources. This also gives NWO Domain AES an insight into the diversity of research themes and the expected volume of applications *before* the actual submission of programme designs, and enables it to be proactive as the procedure continues.

A matchmaking meeting is optional, but it is recommended that such a meeting be organised in cooperation or coordination with one or more Top Consortia for Knowledge and Innovation (TKIs). Ideally, the limits of the theme and the possible content and architecture of the programme will be discussed, and the relevant research community and other stakeholders will be invited to attend or identified during the meeting.

Register your programme initiative as soon as possible. Any matchmaking meetings or workshops can be announced at the same time. NWO Domain AES recommends that you organise this meeting as soon as possible, but in any case before **16 November 2018**, so that it still can generate input for the programme design to be submitted.

Your programme initiative should contain:

- provisional title of the suggested theme;
- any limits of the theme;
- contact person/leader of the theme;
- names and institution/company of the other initiators;
- Top Sector(s), KET(s) including category and theme/societal challenges
- optional: date, time and location of the public meeting.

You can register your programme initiative on the AES website until Tuesday **6 November 2018, 14.00 CE(S)T**, by completing a form at <https://www.nwo.nl/en/research-and-results/programmes/perspectief>.

Assessment of suitability or “fit” with the current Top Sector roadmaps/innovation agendas is mandatory. In addition, Perspectief applications in 2018/2019 should either contribute by means of one or more KETs to one of the four themes/societal challenges or make a substantial contribution to the development of a KET from the eight categories. The eight KET categories are Advanced Materials, Photonics and Light technologies, Quantum technologies, Digital technologies, Chemical technologies, Nanotechnologies, Life science technologies and Engineering and Fabrication technologies (for the KETs covered, see the “[Overview of key enabling technologies](http://www.nwo.nl/en/ket)” at www.nwo.nl/en/ket).

For the ex-ante assessment, you should complete the form in which the programme leader gives a written explanation of how the programme proposal makes an explicit contribution to one or more Top Sector roadmaps/innovation agendas, and states the KET(s), KET category and societal challenges.

The form intended for this purpose ("Compulsory testing EZK") can be downloaded from the website (via <https://www.nwo.nl/en/research-and-results/programmes/perspectief>).

The **deadline** for submitting this explanation is Tuesday **6 November 2018, 14:00 CE(S)T**. You can send it by e-mail to ttw-perspectief@nwo.nl.

The explanation of the fit within the current Top Sector roadmaps/innovation agendas is then forwarded by NWO Domain AES to the roadmap lead/contact of the first Top Sector mentioned. Based on this explanation, the roadmap lead/contact decides whether or not a proposal fits within the Top Sector roadmap/innovation agenda. If the roadmap lead/contact is prevented from doing so or there is a potential conflict of interest, a replacement will be requested or the task will be delegated to the NWO lead. The decision taken by the roadmap lead/contact or NWO lead concerning fit within a Top Sector roadmap is then adopted by the AES Board. NWO coordinates the assessment of the contribution to one or more KETs. The contribution to one of the four themes/societal challenges will normally be assessed by the lead Top Sector for the theme, with an attempt being made to involve the relevant ministries.

Proposals whose fit within a Top Sector is not or is insufficiently substantiated, or which receive a negative evaluation from the roadmap lead/contact or NWO on their fit or contribution, will be excluded from further participation in the Perspectief round.

4.1.2 Procedure, Phase 2: Programme design

Your programme design should contain an outline describing the research lines and the type and number of projects within them that would be required in order to achieve the programme objective(s). Your programme design should contain an estimate and justification of the financial resources required to achieve the proposed research objective (See Section 3.3 "What can be applied for"). This estimated budget for the proposed programme should involve an NWO Domain AES contribution of not less than M€ 1.5 incl. VAT, and no more than M€ 4 incl. VAT (include costs of materials and investments including VAT).

Mandatory format for submitting programme designs

The mandatory format and the guidelines for drawing up a programme design can be downloaded from www.nwo.nl/perspectief. The programme design (Sections 1 to 6) should consist of a **maximum of 7 pages** (completed form) **and** the 4 mandatory annexes in Section 7. Additional annexes are not permitted.

Submission of programme designs

The deadline for submitting programme designs is **Thursday 6 December 2018, 14.00 CE(S)T**. Designs should be sent to ttw-perspectief@nwo.nl stating "Perspectief round 2018/2019" and the specific code P18-XX, where XX is the number assigned to your programme initiative on the NWO Domain AES website after submission.

NB. Perspectief submissions CANNOT be made through ISAAC.

Not taken into consideration

Applications submitted after the deadline will not be taken into consideration. In the event of departure from the guidelines as described in this call, your programme design will not be considered. In the case of minor shortcomings, for example if the proposal exceeds 7 pages, the AES office may ask you to submit an amended version within three working days. An amended programme design received by NWO Domain AES after that deadline will not be

considered further. This also applies to an amended programme design if it does not meet the criteria.

Assessment

Programme designs are assessed on the criteria described in Section 4.2 by a multidisciplinary assessment committee set up by the AES Board.

Announcement of selected programme designs

The main applicants for the programme designs will be informed in writing about the decision of the competent NWO board in mid-February 2019. Applicants who submitted a selected programme design will be given the opportunity to develop their programme design into a detailed programme proposal.

To encourage the forming of new networks, the selected programme designs will be announced on the AES website, stating the name and contact details of the main applicant. Interested parties may still be able to join the programme at project level.

4.1.3 Procedure, Phase 3: Programme proposals

If your submitted programme design is selected, you will have until **Thursday 16 May 2019, 14.00 CE(S)T** to define the programme proposal and give a precise description of the projects defined within it, the financial resources required (per project) and the co-funding required from potential users.

There is a **clear one-to-one relationship** between the selected programme design and the programme proposal, in terms of scope of the theme, applicants (original applicants + any additional groups), community and stakeholders, and requested budget. If there are compelling reasons to deviate from this one-to-one relationship, written permission must be obtained from the AES office **before 15 April 2019**. NWO Domain AES will only grant this permission if, in its opinion, an important interest is at stake.

Mandatory format for submitting programme proposals

NWO Domain AES uses a mandatory format for Perspectief programme proposals. Both the mandatory format and the format for the accompanying forms will be sent to the programme's main applicant by personal e-mail.

To offer equal opportunities to all, the **programme proposal should consist of a maximum of 37 pages, excluding letters of support**. Your programme proposal should be accompanied by the following forms, which must be completed in full. You may **not** add any **additional annexes** (e.g. containing figures, tables, etc.).

Programme forms:

- Overview of programme finances
- Form for responding to committee concerns

Project forms:

- Project details form (contains "Project Applicant Details", "Declaration and Signature of Project Main Applicant", "Project Budget Substantiation")
- Form for project's financial planning
- Completed Data Management form at <https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant>.

Submission of programme proposals and forms:

- The programme proposal with the accompanying letters of support is submitted as a single unsecured PDF file.
- The programme form "Response to committee concerns" is submitted as a separate PDF file.

- The Project Details Form (containing "Project Applicant Details", "Project Budget Substantiation" and "Declaration and Signature of Main Applicant"), Data Management form and Financial Planning form (xls) are submitted per project in a single separate PDF file.

You should submit your programme proposal **before 16 May 2019**, 14.00 CE(S)T by email to **ttw-perspectief@nwo.nl**. In all correspondence concerning your programme proposal, please use the **specific code P18-XX** that NWO Domain AES assigned to your programme design at an earlier stage.

Assessment of programme proposals on formal requirements and administrative criteria

Your submitted programme proposal will be examined by the AES office against administrative criteria. In the event of departure from the guidelines as described in this call, your programme proposal will not be considered. In the case of minor shortcomings, the AES office may ask you to submit an amended version within five working days. The AES office may also decide to consider your programme proposal conditionally if certain details require further investigation, such as issues relating to co-funding, intellectual property or freedom to operate.

Not taken into consideration

Applications submitted after the deadline will not be taken into consideration. In the event of departure from the guidelines as described in this call, your programme proposal will not be considered. In the case of minor shortcomings, the AES office may ask you to submit an amended version within five working days.

Assessment by referees

Each programme proposal is submitted for peer review to approximately four independent (preferably international) referees or expert reviewers. The questions submitted to referees can be found in the document "Annexes Perspectief 2018-2019", "Questions to referees (expert reviewers)" at <https://www.nwo.nl/en/research-and-results/programmes/perspectief>.

The referees' written assessments are anonymised and compiled into a "Referees' commentary".

Applicants' rebuttal

The main applicant for the programme proposal is given the opportunity to submit a written rebuttal to the compiled referees' assessments. As a rule, your rebuttal should not be longer than the text of the referees' assessments. The referees' assessments and the rebuttal are then compiled.

If the referees' assessments lead you to amend your programme proposal, this is permitted to a limited extent:

- You can choose to delete a project that has been assessed as weak if this does not affect the coherence or objectives of the programme.
- You can choose to scale back the financial planning of a project, or of the programme as a whole.
- Any content amendments to strengthen the programme proposal should not lead to a substantial change in the proposed research plan (which has already been assessed); this is at the discretion of the AES office.

You can propose any changes in a written addendum (max. 1 page of A4) to your rebuttal, which you send to the AES office together with your rebuttal. Amendments to the text of the already assessed programme proposal will not be accepted.

Assessment committee and interviews

The programme proposals, referees' commentary, rebuttal and form for the committee's concerns are submitted to the multidisciplinary assessment committee set up by the AES Board. AES aims to ensure as far as possible that this is the same committee that assessed the programme designs at an earlier stage.

You will be given the opportunity to explain your programme proposal orally by means of a presentation to the assessment committee followed by a discussion. You will be informed of the interview date as soon as it is known. You can be accompanied by your co-applicants and/or representatives/leads from the group of actual or potential users. If you are unable to present your programme proposal on the proposed date, one of the co-applicants may take your place or you may opt to be assessed on the basis of the written information provided to the committee. You will receive detailed information about the time, location and organisation of this meeting, as well as about the composition of the assessment committee in due course.

Quality requirement

To be eligible for funding, programme proposals must not score higher than 4.0 on the individual assessment criteria of Scientific Quality and Utilisation. In addition, the average of these two scores must not exceed 3.5.

The meaning of the scores on the assessment scale is as follows: 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 substandard, 9. Substandard.

Decision-making and informing of applicants

Based on the assessment committee's recommendations, the order of ranking indicated by the committee, any additional information requested from external parties, any additional strategic considerations and the available budget, the AES Board will make a policy choice and decide which programme proposals will be accepted and rejected. The AES Board determines the size of the programme budget and the resources to be allocated to the individual projects described in the programme proposal.

NWO assigns a qualification to all full proposals. This qualification is notified to the applicant when the decision is taken on whether to grant funding.

4.1.4 Conflicts of interest and enforcement of deadlines

NWO Code of Conduct on Conflicts of Interest

To ensure a fair assessment and transparency for applicants, NWO Domain AES uses a code of conduct on conflicts of interest that is in line with the NWO Code of Conduct on Conflicts of Interest. This code identifies possible forms of conflicts of interest and indicates the steps to be taken to avoid conflicts of interest. Parties to which the code of conduct applies include referees, jury members, committee members, members of decision-making bodies and employees of NWO Domain AES.

The full text of the code of conduct on conflicts of interest used by NWO Domain AES is available at <https://www.nwo.nl/en/documents/nwo/legal/nwo-code-of-conduct-on-conflicts-of-interest>.

Enforcement of deadlines

The submission of a programme initiative on the NWO Domain AES website, the sending of the ex-ante assessment form by e-mail (Phase 1) and the submission of a programme design (Phase 2) and programme proposal (Phase 3) are confirmed with a date and time stamp of registration and/or receipt.

Please note that submitted programme initiatives (Phase 1) and designs (Phase 2) with a date and time stamp of 14:01 CE(S)T on the deadline date or later are **not** eligible for submission of a programme design (Phase 2) and proposal (Phase 3) and cannot be considered further in accordance with NWO guidelines.

4.2 Criteria

The assessment committee assesses the programme designs (in Phase 2) and proposals (in Phase 3) against the two criteria of Scientific Quality and Utilisation, taking into account the questions below. These two assessment criteria have equal weighting.

Scientific quality

1. Are the technical and scientific objectives of the programme clear?
2. Is the proposed research technically and scientifically challenging?
3. Are the technical and scientific challenges described innovative?
4. Is the programme distinctive and does it have clear added value compared to other existing research initiatives?
5. Is the scientific community of sufficient quality and is its composition appropriate to achieve the intended programme objectives?
6. To what extent do the projects constitute a single programme? Is there good coherence between the projects and is the synergy clear?
7. Do all of the different projects contribute to the programme objectives?
8. Does the organisation of the programme make it possible to achieve the scientific objectives at programme level?
9. Is the Governance project sound enough to achieve the programme's intended added value in the area of research?

Utilisation

1. Does the research theme have sufficient social relevance and economic impact for the Netherlands?
2. Is the research demand-driven?
3. Is it necessary to tackle the programme *now*?
4. Is the utilisation plan clear?
5. Will the proposed steps in the utilisation plan actually lead to application by users?
6. Does the user group show sufficient convincing interest?
7. Have all facets of possible application of results been covered with relevant users? Is the entire knowledge chain involved?
8. Is there clear interaction and cooperation between researchers and private and public partners in the consortium? Apart from scientific research, is the consortium also focused on promoting cooperation and valorisation?
9. With the requested budget and proposed consortium, will it be possible to make a real difference nationally and internationally to the chosen research theme?
10. Is the Governance project sound enough to achieve the programme objectives in the area of utilisation?

4.3 After award

After receiving consent from the Ministry of Economic Affairs and Climate Policy and NWO, the award decision taken by the AES Board will lead to a conditional programme budget and conditionally approved projects. Each project leader involved will receive an award letter with appendices which sets out the legal and financial conditions of funding and should be signed individually for approval by each project leader and each research institution. The credits allocated do not become available until after the necessary documents have been signed and received by NWO Domain AES and all relevant award conditions have been fulfilled.

After the research proposal has been approved, NWO Domain AES will ask the users who have pledged co-funding to confirm it ("confirmation of commitment by third parties") and, in relevant cases, will lay down further arrangements in an agreement.

The AES office reserves the right to request additional information or a more detailed project description from the applicants before making the allocated credits available.

After an application has been approved, the applicant should elaborate the data management section into a data management plan. Applicants can draw on the referees' and committee's recommendations when writing the data management plan. The project can start as soon as the data management plan has been approved by NWO Domain AES.

To promote the effective transfer to users of knowledge generated by the research, NWO Domain AES sets up a user committee for each research project in consultation with the project leaders. In principle, the user committees will meet twice a year: once separately per project and once jointly per programme. More information on user committees is available in the "Brochure Guidelines Users' Committee NWO Domain AES 2017", at <https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw/applicant>.

Initial discussion and kick-off meeting

Shortly after a programme has been approved, AES will hold an initial discussion with the programme leader and programme manager.

This is soon followed by a kick-off meeting with all project leaders, researchers and users. Budget should be reserved for this in the Governance project. The kick-off can also take place in phases:

- A first kick-off meeting with the partners or main partners, i.e. without the researchers.
- A large kick-off meeting once all or most of the researchers have been recruited.
- A separate introductory event for temporarily appointed researchers.

4.4 Monitoring, Open Access, data management and Nagoya Protocol

Monitoring and evaluation

To gain a prior insight into the results of a programme and projects, monitor progress and allow accountability, a number of Key Performance Indicators (KPIs) will be set, such as the number of SMEs or other enterprises involved and identifiable knowledge transfer moments. These KPIs will be included in the mandatory format for programme proposals (Phase 3). These aspects should be detailed in the progress reports and final report.

Open Access

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 can be found at <https://www.nwo.nl/en/policies/open+science>.

Data management

Responsible data management is part of good research. NWO wants research data that emerge from publicly funded research to become freely and sustainably available, as much as possible, for reuse by other researchers. Furthermore, NWO wants to raise awareness among researchers about the importance of responsible data management. Proposals should therefore satisfy the NWO data management protocol. This protocol consists of two steps:

1. Data management section

The data management section is part of the research proposal. However, the data management section in the application is not evaluated and hence is not included in the decision on whether to award funding.

Researchers should answer four questions about data management within their intended research project. Therefore, before the research starts, the researcher will be asked to think about how the data collected must be ordered and categorised so that it can be made freely available. Measures will often need to be taken during the production and analysis of the data to make their later storage and dissemination possible. Researchers can state which research data they consider to be relevant for storage and reuse.

2. Data management plan

After an application has been approved, the applicant should elaborate the data management section into a data management plan. The data management plan is a concrete elaboration of the data management section. In the plan, the researcher describes whether use will be made of existing data or a new data collection and how the data collection will be made FAIR: Findable, Accessible, Interoperable and Reusable. The plan should be submitted to NWO via ISAAC within four months after the proposal has been awarded funding. NWO will approve the plan as quickly as possible. Approval of the data management plan by NWO is a condition for disbursement of the funding. The plan can be adjusted during the research.

For more information on the NWO data management protocol, see:

<https://www.nwo.nl/en/policies/open+science/data+management>.

Nagoya Protocol

The Nagoya Protocol became effective on 12 October 2014 and ensures an honest and reasonable distribution of benefits emerging from the use of genetic resources (Access and Benefit Sharing; ABS). Researchers who make use of genetic resources from the Netherlands or abroad for their research should familiarise themselves with the Nagoya Protocol (www.absfocalpoint.nl). NWO assumes that researchers will take all necessary actions with respect to the Nagoya Protocol.

5 Contact

For specific questions about Perspectief and this call for proposals, please contact the Perspectief coordinators via ttw-perspectief@nwo.nl:

Dr Anke Stekelenburg

NWO Domain AES

Tel: +31 30 600 1314

E-mail: a.stekelenburg@nwo.nl**Dr Lise de Jonge**

NWO Domain AES

Tel: +31 30 600 1223

E-mail: l.dejonge@nwo.nl**Bastiaan de Jonge, MA**

NWO Domain AES

Tel: +31 30 600 1273

E-mail: b.dejonge@nwo.nl**Secretarial Support****Cora Heesakkers**

NWO Domain AES

Tel: +31 30 600 1304

E-mail: c.heesakkers@nwo.nl

6 Perspectief schedule

PHASE 1: Programme initiatives	
Activity	Date/period
Opening	Monday 1 October 2018
Deadline for publication of programme initiatives on NWO Domain AES website	Tuesday 6 November 2018, 14:00 CE(S)T
Deadline for submission of form on fit within Top Sectors, themes/societal challenges and KETs.	Tuesday 6 November 2018, 14:00 CE(S)T
Organisation of a matchmaking meeting (optional)	Before Friday 16 November 2018
PHASE 2: Programme designs	
Activity	Date/period
Deadline for submitting programme designs	Tuesday 6 December 2018, 14:00 CE(S)T
Applicants informed whether programme will be considered	Before Tuesday 18 December 2018
Assessment and ranking by committees	December 2018 to February 2019
Board decision on programme designs	Mid-February 2019
Applicants informed of decision	Within five days after board decision
PHASE 3: Programme proposals	
Activity	Date/period
Development of programme designs into programme proposals	Late February to mid-May 2019
Deadline for submitting programme proposals	Thursday 16 May 2019, 14:00 CE(S)T
Assessment by (international) referees	Late May to early September 2019
Main applicants' rebuttal	Early September to mid-September 2019
Interview round with applicants / ranking by assessment committee	Mid-October 2019
Board decision on programme proposals 2019	8 November 2019
Main applicants informed of decision	Within five days after board decision
In event of amendments: Project budgets submitted to board	December 2019

7 Annexes and relevant references

The following annexes apply in the case of Perspectief 2018/2019. These can be found in the PDF published with this call on the funding page for the Perspective instrument (via <https://www.nwo.nl/en/research-and-results/programmes/perspectief>).

- Intellectual Property (IP) Policy
- Notes on criteria relating to co-funding
- Co-funding example calculations
- Requirements relating to letters of support
 - Requirements relating to letters of support, Phase 2
 - Template for letter of support, Phase 2
 - Requirements relating to letters of support, Phase 3
 - Template for letter of support, Phase 3
- Examples of questions to referees (expert reviewers)
- Technology Readiness Level
- Data management section

Links

- [Perspectief programme applications](#)

(Phase 2 Perspectief_format_programme_design_2018-2019 and from February 2018, Phase 3 format programme proposal):

<https://www.nwo.nl/en/research-and-results/programmes/perspectief>

- [Overview of key enabling technologies](#)

www.nwo.nl/ket

- Help sheet Financial planning, Phase 2

<http://www.nwo.nl/perspectief>

- [NWO Grant Rules 2017](#):

<https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw>

- [Brochure Guidelines Users' Committee NWO Domain AES 2017](#):

<https://www.nwo.nl/en/documents/ttw/project-management/brochure-guidelines-users-committee-nwo-domain-aes>

- [Code of conduct on conflicts of interest](#):

<https://www.nwo.nl/en/documents/nwo/legal/nwo-code-of-conduct-on-conflicts-of-interest>

- [Fixed AES rates salary tables](#) (in Dutch):

<https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw>

- [Hourly rates for contributions in kind by third parties in the form of man-hours](#) (in Dutch):

<https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw>

- [AES cleanroom regulation](#) (in Dutch):

<https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/ttw>

- [Nagoya Protocol](#):

<https://www.cbd.int>

- [Netherlands Organisation for Scientific Research \(NWO\)](#):

<https://www.nwo.nl/en>

- Open Access:

<https://www.nwo.nl/en/policies/open+science>

Published by:
Netherlands Organisation for
Scientific Research (NWO)

Visiting address:

The Hague site
Laan van Nieuw Oost-Indië 300
2593 CE The Hague
The Netherlands

Utrecht site
Van Vollenhovenlaan 661
3527 JP Utrecht The Netherlands

October 2018