Gravitation

Call for proposals
1 Introduction

1.1 Background

Each year, the Ministry of Education, Culture and Science makes a structural budget available for encouraging research consortia that have the potential to belong to the absolute world top in the field of research or have already achieved that level. This programme previously existed under the name Depth Strategy support programme. Since 2012 the revised instrument has been called Gravitation.

1.2 Available budget

For the 2021 funding round, a budget of 142,6 million euros is available for new commitments for the years 2022 to 2031.

1.3 Validity of the call for proposals

This call for proposals is valid for the fifth funding round 2021.
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2 Aim

The Gravitation programme brings together top researchers in a discipline or from several disciplines in consortia and facilitates innovation, excellence and the international position of Dutch research.

The consortia belong to the world top in their field of research or have the potential to do so. The intended scientific research programme is focussed on innovation of the research, makes a substantial contribution at the highest global level, and has the clear potential to realise scientific breakthroughs. The research programmes also contribute to the realisation of the Dutch National Research Agenda.
3 Guidelines for applicants

3.1 Who can apply

The Executive Boards of universities located in the Kingdom of the Netherlands can submit applications to NWO. **Please note!** A limit applies to the number of submissions. Each Executive Board may submit a maximum of four proposals. For those proposals it acts as the official secretary of the consortium. Those entitled to submit proposals are the primary recipients of direct government funding from the Ministry of Education, Culture and Science. University Medical Centres must therefore submit via the Executive Board from which they receive the direct government funding. The principal investigator (leader) of each consortium should submit the application in the electronic submission system of NWO.

A consortium is a collaboration between top researchers in a discipline or from several disciplines. Consortia can arise from Dutch research schools but also from influential top researchers and top research groups consolidating their strengths.

Researchers\(^1\) funded under this programme must be employed at one of the following knowledge institutions:
- Universities established in the Kingdom of the Netherlands;
- University medical centres;
- NWO and KNAW institutes;
- the Netherlands Cancer Institute;
- the Max Planck Institute for Psycholinguistics in Nijmegen;
- the DUBBLE Beamline at the ESRF in Grenoble;
- NCB Naturalis;
- Advanced Research Centre for NanoLithography (ARCNL);
- Princess Máxima Center.

Persons who are involved or have been involved as a principal investigator or co-principal investigator in a programme that is still being realised from a previous Gravitation round may not act as such in a new Gravitation programme as long as they overlap. They may, however, make intellectual contributions to another Gravitation programme, but only as an adviser who is not funded from the programme. Persons may not register as principal investigator or a co-principal investigator for more than one application.

\(^1\) In this Call for Proposals both women and men are referred to as ‘researchers’.

3.2 What can be applied for

Funding can be requested for new and additional new costs directly related to the research programme or to the organisation of the consortium. This includes:
- New (and existing) personnel and material facilities;
- Investments in equipment/infrastructure and other facilities as well as the costs of exploiting these up to a maximum of 25% of the requested contribution;
- Management costs for the consortium for a maximum period of 10 years.

The following rules also apply:
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- Only the principal investigator (principal applicant) and a maximum of five co-applicants from the consortium may request funding to cover their replacement while they are doing research in a Gravitation programme.
- Calculated over a period of 10 years, a maximum of 20% salary of the principal investigator and maximum five co-applicants may be entered as a replacement grant. Costs may be distributed over this 10-year period as the researcher sees fit.
- Costs that have been incurred, or obligations that have already been entered into, prior to the awarding of this grant will not be reimbursed. This also applies to research costs for which funding or (private) co-funding has been received from other sources.
- The size of the grant applied for will be assessed by the selection committee in relation to the research programme and if a grant is awarded then this can be adjusted in line with the selection committee's opinion.

Size of proposals; funding pattern
The aim is to award funding to ca. seven proposals in this call. Applicants are expected to find a good balance between consortium size, the size of the grant applied for, and the internal coherency of the scientific programme. In some scientific research fields, compacter consortia can be formed because the required scale for innovative research in those fields is of lesser size. This leaves explicit room for proposals with a smaller budget if this is more appropriate for the scientific content of the programme or for the approach of the contributing researchers or the disciplines concerned. The assessment will also consider this aspect. Applicants are requested to take this into account when budgeting the programme.

Maximum funding period of 10 years
The ambition of the funding instrument requires a longer period of budgetary certainty and a long-term planning. The investments in people and facilities therefore require a certain continuity as well. It is also clear that the quality of research groups is not set in stone. A position at the forefront of science depends on the ability to respond to new scientific developments and the presence and charisma of researchers who daily demonstrate their international renown.

In the Gravitation programme consideration will be given to these requirements of both continuity and dynamics by dividing the funding period in two five-year periods with the possibility to terminate the funding midterm on the basis of the first evaluation in the fourth year. An independent evaluation committee will assess the quality and realisation of the research programme submitted and will issue an advice. Based on this, the Minister for Education, Culture and Science will take a decision about whether the funding should be continued for the second period of five years.

If the programme is continued, the final evaluation will take place at the end of the funding period. A possible further continuation of a consortium will, in principle, be paid for by the standard funding of the institutions concerned. A consortium that after 10 years occupies a frontline position in science is considered to be capable of attracting sufficient local, national and international funding. A further continuation at the cost of funds from the Gravitation programme is therefore only possible if a consortium successfully participates in a new funding round.

3.3 When can applications be submitted

The deadline for the submission of proposals is January 19, 2021, 14:00:00 CE(S)T.

When you submit your application to ISAAC you will also need to enter additional details online. You should therefore start submitting your application at least one day before the deadline of this call for proposals. Applications submitted after the deadline will not be taken into consideration.
**3.4 Preparing an application**

- Download the application form from the electronic application system ISAAC or from NWO’s website. [https://www.nwo.nl/en/research-and-results/programmes/gravitation](https://www.nwo.nl/en/research-and-results/programmes/gravitation).
- Complete the application form.
- Save the application form as a pdf file and upload it in ISAAC.

A full application consists of the following parts:

- signed letter of submission from the highest administrative body of the institution acting as the official secretary
- completed application form.

Please note! Any documents other than those stated above, such as letters of support or CVs, may not be submitted. All parts of the application, including the letter of submission, must be written in English (font Verdana 8.5 pt) and must be submitted as a PDF file via the electronic submission system ISAAC.

If you wish to exclude certain researchers from acting as referees (reviewers) for your proposal, then you should submit a written request to this effect. You may state a maximum of three non-referees. This request may be sent to the email address zwaartekracht@nwo.nl.

**3.5 Conditions on granting**

The NWO Grant Rules 2017 and the Agreement on the Payment of Costs for Scientific Research apply to all applications ([https://www.nwo.nl/en/funding/funding+process+explained/nwo+grant+rules+2017](https://www.nwo.nl/en/funding/funding+process+explained/nwo+grant+rules+2017) and [https://www.nwo.nl/en/funding/funding+process+explained/salary+tables](https://www.nwo.nl/en/funding/funding+process+explained/salary+tables)).

**Dutch National Research Agenda and university research focus areas**

For at least the duration of the programme the members of the consortia will work together intensively. The consortia have a thorough institutional and organisational embedding at the institutions involved. They also make a substantial contribution to the training of talented researchers. Diversity in gender and other aspects are vitally important in the consortium and therefore the participation of women as leaders and co-leaders of consortia is highly desirable.

The research programmes for which funding is requested must be linked to (the routes of) the Dutch National Research Agenda. They must also be linked to the research focus areas of the submitting university.

The link with the Dutch National Research Agenda should be described in the application and this will be assessed by the NWO executive board (see Section 4.1).

The link with the research focus areas of the submitting institution should be motivated in the letter of submission from the university acting as the official secretary. If this motivation is lacking then the application will not be taken into consideration.

**Open Access**

As a signatory to the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (2003), NWO is committed to making the results of scientific research funded by NWO freely available in open access on the internet. In doing so, NWO is implementing the ambitions of the Dutch government to make all publicly funded research openly available. All scientific publications of research funded on the basis of this call for proposals should therefore be available in open access immediately (at the time of publication). NWO accepts various routes:

- publication in an full open access journal,
- deposit a version of the article in a repository or
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- publication in a hybrid journal covered by one of the agreements between the VSNU and publishers. See www.openaccess.nl.

Any costs for publication in full open access journals can be incurred in the project budget. NWO does not reimburse costs for publications in hybrid journals. These conditions apply to all forms of scholarly publications arising from grants awarded on the basis of this call for proposals. Also academic monographs, edited volumes, proceedings and book chapters. For more information on the NWO’s open access policy, see: www.nwo.nl/openscience.

Datamanagement

The results of scientific research must be replicable, verifiable and falsifiable. In the digital age this means that, in addition to publications, research data must also be freely accessible. As much as possible, NWO expects that research data resulting from NWO-funded projects will be made publicly available for reuse by other researchers. “As open as possible, as closed as necessary” is the guiding principle in this respect. As a minimum, NWO requires that the data underpinning research papers should be made available at the time of the article’s publication. The costs for doing so are eligible for funding and can be included in the project budget. In the data management section, and in the data management template if the project is awarded funding, researchers explain how they plan to manage the data expected to be generated by the project.

1. Data management section

The data management section is part of the research proposal. Researchers are asked to prospectively consider how they will manage the data the project will generate and plan for which data will be preserved and made publicly available. Measures will often need to be taken during the production and analysis of the data to make their later storage and dissemination possible. If not all data from the project can be made publicly available, the reasons for not doing so must be explained in the data management section. Due consideration is given to aspects such as privacy, public security, ethical limitations, property rights and commercial interests.

2. Data management plan

After a proposal has been awarded funding, the researcher should elaborate the data management section into a data management plan. In this plan, the researcher describes whether use will be made of existing data, whether new data will collected or generated, and how the data will be made FAIR: Findable, Accessible, Interoperable, Reusable. The data management plan must be completed in consultation with a data steward or equivalent research data management support staff at the home institution of the project leader. 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.

Further information on the NWO data management protocol can be found at www.nwo.nl/datamanagement-en.

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 sources 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.

Ethical aspects

Research proposals that can elicit ethical questions must be considered carefully before the research starts. For certain research projects, a statement of approval is needed from the recognised medical ethics review committee (MERC) or Central Animal Experiments Committee (CCD in Dutch). In addition, for certain research proposals a licence is needed in accordance with the Population Screening Act (WBO). Further information about the medical ethics review committees is available from the Central Committee on
Research Involving Human Subjects (CCMO). Information about the CCD can be obtained from the Dutch Association of Animal Experiment Committees. Information about the WBO can be obtained from sources such as from the Health Council of the Netherlands.

Researchers who make use of infrastructure are responsible for determining whether their research proposal can elicit ethical questions and, if applicable, for obtaining a statement of approval from the appropriate ethics committee and/or obtaining a licence in accordance with the WBO, or from similar organisations.

NWO subscribes to the Animal Experiments Openness Code and the Code of Conduct for Biosecurity. Researchers who want to use infrastructure with the help of NWO funds should subscribe to and comply with the existing codes.

These projects can only start if NWO has received a copy of the ethical statement of approval and/or WBO licence (if applicable).

If after consulting with the applicant NWO is of the opinion that such an ethical assessment is needed for an application, then the applicant is still required to take measures for an assessment by an ethics committee. If the necessary statement of approval from the ethics committee is not obtained then the funding will be withdrawn.

### 3.6 Submitting an application

An application can only be submitted to NWO via the online application system ISAAC. Applications not submitted via ISAAC will not be taken into consideration. A principal applicant must submit his/her application via his/her own ISAAC account. If the principal applicant does not have an ISAAC account yet, then this should be created at least one day before the application is submitted to ensure that any registration problems can be resolved on time. If the principal applicant already has an NWO-account, then he/she does not need to create a new account to submit an application.

For technical questions please contact the ISAAC helpdesk, see Section 5.1.2.
4 Assessment procedure

4.1 Procedure

The first step in the assessment procedure is to test whether an application is admissible. Only those proposals that satisfy the criteria stated in Chapter 3 are admissible and will be taken into consideration.

The NWO Code for Dealing with Personal Interests applies to all persons and NWO staff involved in the assessment and/or decision-making process. See also: www.nwo.nl/en/code

Data management

The data management section in the application is not evaluated and therefore not included in the decision about whether to award funding. However, both the referees and the committee can issue advice with respect to the data management section. After a proposal has been awarded funding, the researcher should elaborate the data management section into a data management plan. Applicants can use the advice from the referees and the committee when writing the data management plan. A project awarded funding can only start after NWO has approved the consortium agreement.

Qualification

NWO will award a qualification to all full proposals and will make this known to the researcher with the decision about whether or not the application has been awarded funding. Only applications that receive the qualification "excellent", "very good" or "good" will be eligible for funding. For more information about the qualifications please see: https://www.nwo.nl/en/funding/funding+process+explained/nwo+qualification+system.

For the selection, the NWO executive board will appoint an independent, international and science-wide committee. This will be made up of top researchers with a broad knowledge of scientific developments and experience with larger scientific consortia/institutes.

For all admissible proposals every effort will be made to obtain at least four referees' reports. Applicants will respond to these in the form of a rebuttal. After this, the proposals and information obtained will be studied by the selection committee. This committee will subsequently realise the selection of the proposals in two phases. In the first phase proposals will be split across three scientific areas: humanities and social sciences, natural and technical sciences, and biomedical and life sciences. For each area, the committee will establish a ranking based on the assessment criteria. In the case of sufficient quality and based on the ranking, a limited number of applicants from each area will be invited by the selection committee for an interview in the next phase.

After the science-wide interview phase, a ranking will be established based on the assessment criteria. From each area, the proposal with the highest ranking will definitely be proposed for funding unless the scientific quality does not allow for that. Additional nominations for funding will be made on the basis of the ranking that was established in the science-wide comparison. This approach will also help to ensure an overall balance in the distribution of proposals across scientific areas being realised.

The committee will subsequently submit its funding recommendation to the NWO executive board. The executive board will assess how the procedure was carried out and how the proposals link with the Dutch National Research Agenda. It will subsequently draw up an award proposal for the Minister for Education Culture and Science. The Minister will then take a funding decision and will make the funding available to each consortium concerned via the university that acts as the official secretary.
### 4.2 Criteria

#### Assessment criteria

The ambition and conditions that the intended proposals must satisfy are stated in the Aim of the programme (Chapter 2). Proposals will be assessed on the basis of the following criteria:

1. **Quality of the researchers involved and of the consortium (weighting 30%)**
   - Researchers with a strong international reputation are involved in the consortium. These influential, and innovative researchers are capable of making a very important and innovative contribution to the development of their discipline or disciplines.
   - The composition of the consortium at group and individual level and the expertise present are superbly matched to the realisation of the proposed research programme.
   - Leaders of the consortium have demonstrated their ability to lead and inspire teams and partnerships and together form a balanced team.
   - The consortium devotes a lot of attention to the raising of a new generation of research leaders who can keep excellent and innovative lines of research at the top. This is realised through actions such as a detailed plan for the career development of talented researchers in the middle level.
   - The consortium is optimally composed and geared towards the content and the realisation of the proposed research programme.

2. **Quality of the scientific research programme (weighting 30%)**
   - The research programme is highly challenging and urgent and focuses on specific innovation in the scientific domain concerned: proposals focus on new subjects and have the potential to realise breakthroughs of international stature.
   - The research is excellent and internationally well positioned and clearly visible. It belongs to the world top or has the clear potential to do so.
   - The research programme is focused, has an optimal scientific coherency and integrates all perspectives that are relevant for the main research question. The potential of the entire programme clearly outweighs the sum of its parts.
   - The programme is superbly put together with respect to the theoretical and methodological solidity and with respect to the planning and realisation.
   - In some scientific research fields, more compact consortia can be formed because the required scale for innovative research in those fields is of lesser size. It will therefore be assessed whether the
scientific aims of the programme and the required size of the consortium are of the right size in relation to the intrinsic needs of these fields.

3. Organisation structure and policy of the consortium; budget (weighting 30%)
   - The organisation structure and management of the consortium have a clear and logical structure and provide an outstanding framework for the development and management of the consortium. The continuity of the leadership throughout the duration of the programme is safeguarded.
   - The lines of responsibility and the structure have been set up such that the harmonisation and collaboration are structurally safeguarded. The organisational embedding in the various institutions has been arranged transparently, the responsibilities have been properly and clearly distributed. The necessary agreements have been recorded in a consortium agreement.
   - The consortium provides adequate monitoring of the progress and has clear structures to adjust the programme where necessary. Clear thought has been given to conflict resolution and dealing with risks.
   - A substantial contribution is made to the training of talented scientists.
   - The consortium has adequate instruments aimed at facilitating scientific interaction and strengthening mutual collaboration.
   - There is a detailed policy aimed at data management and ethical aspects.
   - The consortium forms a good reflection of the discipline in terms of gender and diversity, and with this it is an example for the research field. A convincing explanation is provided in the event that there is a poor participation of ethnic minorities among the leaders and other participants in the consortium. The consortium has concrete and satisfactory measures to deal with any diversity issues. The submitting institution convincingly states how it pays attention in the consortium to diversity in gender and other aspects.
   - The budget, including the personnel to be deployed and the requested investment component, bears close relationship with the research programme to be realised and is satisfactorily motivated. The personnel to be deployed are vital for realising the research programme, the investments are strictly necessary and alternatives are not available.

4. Knowledge use and transfer (weighting 10%)
Scientific research touches upon important issues in society, culture and the economy. NWO therefore asks applicants to describe how their research could contribute to that. Furthermore, NWO requests plans for the dissemination of research results outside of the scientific community, even if a concrete application is not conceivable or feasible in the near future. NWO realises, however, that knowledge utilisation is not applicable to all research results. If a researcher can give clear arguments as to why knowledge utilisation does not play a role, then this will also be accepted. Further information about this subject can be found on the NWO website via www.nwo.nl/knowledge_utilisation.
   - The consortium is aware of and has thought about the possibilities for knowledge utilisation by third parties outside of the scientific community (in society, industry, government, cultural institutions or by the general public) as well as in other scientific disciplines.
   - The consortium has detailed innovative and well-considered plans for the potential use of research results and about how the knowledge obtained can be transferred. It has a clear picture of possible stakeholders and involves them in realising the research plans where relevant.

Policy criteria
In terms of content the research programme is well linked to (the routes of) the Dutch National Research Agenda: the links between questions from the research programme and questions included in routes of the Dutch National Research Agenda are relevant and well implemented.
5 Contact details and other information

5.1 Contact

5.1.1 Specific questions

For specific questions about Gravitation and this call for proposals please contact:

Drs. J.K. (Anko) Wiegel
Telephone: +31 (0)70 344 06 44
E-mail: zwaartekracht@nwo.nl

5.1.2 Technical questions about the electronic application system ISAAC

For technical questions about the use of ISAAC please contact the ISAAC helpdesk. Please read the manual first before consulting the helpdesk. The ISAAC helpdesk can be contacted from Monday to Friday between 10:00 and 17:00 hours CE(S)T on +31 (0)20 346 71 79. However, you can also submit your question by e-mail to isaac.helpdesk@nwo.nl. You will then receive an answer within two working days.

5.2 Other information

The composition of the committee will be published on the NWO website (www.nwo.nl/en/research-and-results/programmes/gravitation) after the funding decision has been taken.