



Advanced healthcare materials

Cooperation Brazil (FAPESP) - The Netherlands (NWO Merian Fund)

Call for proposals

NWO-WOTRO Science for Global development and FAPESP

2022



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1 Introduction

This is a Call for proposals involving researchers from the Netherlands and from the State of São Paulo (Brazil) in the area of “Advanced healthcare materials”. The Call falls under the responsibility of the Dutch Research Council (NWO) and the São Paulo Research Foundation (FAPESP).

In this Call for proposals you will find information about the aim of this programme (Chapter 2), the conditions for the grant application (Chapter 3) and how your proposal will be assessed (Chapter 4). This is the information you need to submit a grant application. Chapter 5 states the obligations for grant recipients in the event you are awarded funding, Chapter 6 contains the contact details, and Chapter 7 the annexes.

The FAPESP applicants should also consult the guidelines for São Paulo researchers published by FAPESP at <https://fapesp.br/15563>.

1.1 Background

There is a long history of scientific collaboration between Brazil and the Netherlands. The Dutch Research Council (NWO), through the Merian Fund¹, and the São Paulo Research Foundation (FAPESP) aim to stimulate long-term research collaboration between their two countries by funding joint research, to strengthen the international position and potential for global impact of their research. Funding is provided for interdisciplinary and transdisciplinary consortia of São Paulo and Dutch research groups and stakeholder partners, for high quality research that has the potential for high societal and scientific impact.

The Cooperation FAPESP (São Paulo/Brazil) and NWO (the Netherlands) is one of the several instruments in the bilateral research cooperation between Brazil and the Netherlands. In 2018, NWO and FAPESP agreed on a strategic knowledge and innovation agenda. A Call for proposals on a jointly agreed theme based on this agenda is published annually. Funded research should be in alignment with national research agendas, as well as international initiatives such as the UN Sustainable Development Goals.

“Advanced healthcare materials” is the ninth Call of Joint Research Projects under the Scientific Cooperation Agreement between the two funding agencies.

1.2 Available budget

The available budget for this Call for proposals is € 2,800,000 at NWO, and R\$ 15,200,000 at FAPESP.

This Call for proposals will accept proposals in one of the two categories described below. The same criteria apply for each budget range, but the number, type and scope of activities are considered in the context of the budget.

Smaller-sized projects: with the maximum duration of four years, these proposals are aimed at building new teams with no prior collaborative track record and must combine team building with the development of creative research and technical approaches that start to address critical, but perhaps untested, novel, or high-risk aspects of the proposed research.

Funding and costs must be in accordance with FAPESP norms for Regular Research Proposals (www.fapesp.br/apr), with the exceptionalities later described in this Call (sections 3.1 and 3.2). The maximum budget is € 350,000 from NWO and R\$1,100,000 from FAPESP.

¹ The Merian Fund is an initiative of NWO, and aims to stimulate long-term collaboration with important (emerging) science nations. The Merian Fund focuses on broad scientific themes of societal importance that require a mission-oriented approach. The Merian Fund cooperates with seven partners in five countries: FAPESP (Brazil), NSFC and CAS (China), DST and DBT (India), RISTEKDIKTI (Indonesia) and NRF (South Africa). WOTRO Science for Global Development is responsible for the implementation of the Calls under the Merian Fund. For more information, see: www.nwo.nl/merianfund

Standard-sized projects: with the maximum duration of five years, standard-sized proposals are suitable for diverse collaborative teams at a more developed research stage, ready to implement a large-scale project addressing issues related to the theme of this Call. Projects should tackle research themes that have high potential to engender substantial research advances in understanding aspects related to the advanced health materials and must clearly articulate a compelling vision of advances beyond existing efforts. Funding and costs must be in accordance with FAPESP norms for Thematic research project or Young Investigator Award, with the exceptionalities later described in this Call (sections 3.1 and 3.2). The maximum budget requested is € 700,000 from NWO; and R\$4Mi from FAPESP.

It is not permitted to change the budget range after the submission of the pre-proposal.

With the available budget, NWO and FAPESP aim to fund at least one proposal with a smaller-sized budget and one proposal with a standard-sized budget. Therefore, the highest ranked smaller-sized budget proposal and the highest ranked standard-sized budget proposal that meet the criteria of the Call and the minimum qualifications will be awarded first. The remaining call budget will be allocated according to ranking.

If the remaining call budget is not sufficient to award the next proposal in the ranking, it is possible to deviate from the ranking in order to award the following proposal in the ranking, if the remaining budget allows for this and if that proposal meets the criteria of the Call and the minimum qualifications.

For example, if the highest ranked standard-sized budget proposal is ranked as number 1, and the highest ranked smaller-sized budget proposal is ranked as number 4, number 1 and number 4 will be awarded first. The remaining call budget will be allocated according to ranking, starting at number 2. If the remaining call budget is not sufficient to award the next proposal in the ranking, the first following proposal in the ranking for which sufficient budget remains and which meets the criteria of the Call and the minimum qualifications may be awarded.

1.3 Submission deadline(s)

8 September 2022	Deadline letters of intent
27 October 2022	Deadline FAPESP and NWO eligibility check
10 November 2022	Deadline preliminary proposals
6 June 2023	Deadline full proposals

The limit of all deadlines above is **23:59:59 hours (GMT-3)**.

The letters of intent must be submitted to FAPESP via e-mail. Pre-proposals and full proposals must be submitted by the São Paulo Principal investigator to FAPESP via SAGE. Please see section 4.2 for instructions on how to submit. The pre-proposal and full proposal do not have to be submitted to NWO within this Call for proposals.

2 Aim

This chapter describes the aim of the programme and the expected societal impact.

2.1 Aim of the programme

The aim of the programme is to advance scientific knowledge and find innovative solutions to research problems through strengthening cooperation between researchers in the State of São Paulo, Brazil, and researchers in the Netherlands by funding joint research projects. This Call in the field of advanced materials for healthcare invites consortia in which researchers from research institutions from both countries will work with partners from public, semi-public and private organisations (for-profit and not-for-profit), in order to increase the societal relevance and impact of their research.

The funded projects combined will focus on catalysing joint research between materials science and clinical science between Brazil and the Netherlands. Project proposals must be jointly written by researchers formally associated with public or private higher education or research institutions in the State of São Paulo and universities or NWO-acknowledged research institutions in the Netherlands, and must reflect unison and close cooperation (see section 3.1). It is expected that the research activities be conducted on both sides, including the exchange of researchers, and that the project and its intellectual contribution are evenly balanced between the State of São Paulo and the Netherlands. It is expected that projects contribute to the creation of stable knowledge ecosystems for advanced healthcare materials in, and between, the Netherlands and Brazil that have the potential to outlive the current programme.

2.2 Thematic focus

The current Call focusses on inter- and transdisciplinary research on engineered biomaterials: Advanced healthcare materials

Engineered biomaterials: Advanced materials for healthcare

Engineered biomaterials are advanced materials that are synthetic or natural-based and have been tailored to be compatible with biological tissues and organs or mimic (a part) of their function (for example muscles, bones, kidneys, eyes, the pancreas or the heart). Engineered biomaterials are nowadays transforming many aspects of preventive and therapeutic healthcare. These materials are already playing an important role in the development of new medical devices, prostheses, tissue repair and replacement technologies, controlled drug delivery systems and diagnostic techniques. With their high potential to improve overall healthcare for society, biomaterials continue to be one of the most rapidly growing areas of research today. Progress in this field, requires a multidisciplinary approach, where scientists (chemists, physicists, mathematicians, biologists and medical practitioners) interact with engineers and (material) manufacturers. Collaborative research is key to achieving breakthrough results that can address medicine's future needs.

Advanced healthcare materials Call for research proposals

This bilateral programme calls for research proposals addressing the most important issues facing the use of engineered biomaterials in clinical or medical practice. The scope of this programme covers the wide range of physical, biological and chemical sciences that underpin the design of biomaterials and the biomedical and clinical disciplines in which they are used. Examples of clinical applications are cardiovascular medical devices (e.g. stents and grafts), orthopaedic (e.g. artificial knee or hips), dental applications (e.g. implants and tissue engineered scaffolds), ophthalmologic applications (e.g. contact lenses, corneal implants, retinal prostheses), bioartificial organs and devices, bioelectrodes and biosensors, wound and burn dressings and skin substitutes, sutures, smart drug delivery systems, and smart diagnostic tools and devices.

2.3 Integrated research approach and international collaboration

2.3.1 Integrated research approach and co-creation

The challenges addressed in this Call are interrelated and multi-scalar, and to reach impact require a holistic approach that spans the entire research and innovation chain. The consortia should crosscut scientific disciplinary boundaries (interdisciplinarity) and integrate scientific and practitioners' knowledge in joint research (transdisciplinarity). Research should focus on the entire knowledge chain, from fundamental to applied and practical research. The proposed research itself should be characterised by integrated perspectives. It should evolve in a process of co-creation with different partners: researchers from both countries and societal partners from public, semi-public and/or private organisations should be actively involved throughout the entire project, in (advising on) defining and conducting the research as well as in communicating the progress and results, in order to jointly produce a mutually valued outcome.

Applications should be based on a thorough review of existing knowledge and should preferably be complementary to existing research initiatives and reinforce these where possible. Project teams are encouraged to use a combination of quantitative and qualitative and quasi-experimental research methods, including operational research, and should include research-into-use approaches.

Projects are also expected to collaborate with other projects awarded in this Call, so as to enhance the impact of the Call as a whole. As a part of this, projects will be expected to attend joint kick-off and midterm workshops, as well as a final conference. Projects should budget for this accordingly, in the NWO budget using the budget module "Knowledge Utilisation", and in the FAPESP budget "Travel Costs".

2.3.2 Fair research collaboration

For research partnerships to be effective, they have to be fair². Proposals should be characterised by equitable partnership and sustainable collaboration among the partners in the consortium and with relevant stakeholders. This includes gender equality. Evidence of such active and significant engagement will be an element in the assessment of project proposals.

Consortium members, in close collaboration with team members and stakeholders, will steer the process of clarifying the demand; translate knowledge gaps into relevant research questions and approaches; formulate and submit the preliminary proposal; conduct, guide and advise on the research activities; coordinate and carry out communication and (possible) capacity strengthening activities; share (intermediary) research outputs with relevant practitioner communities; support and enhance the communication of the research outputs to a broader group of (local) stakeholders outside the consortium, and support the application of new knowledge and insights.

2.3.3 International collaboration

Applications should include inter-institutional cooperation, a balanced contribution to the proposed research, and frequent exchange between the partners, including exchange visits by both senior and junior researchers. Projects must organise a maximum of four research visits (in total) of a minimum of three months for PhD students and/or postdocs. Senior researchers should spend at least three weeks in total, over the duration of the project, on research visits (either to the state of São Paulo or to the Netherlands or both). Projects should budget for this accordingly, using the NWO budget module "Internationalisation" and FAPESP's "costing expense".

² NWO adheres to the *Research Fairness Initiative* of COHRED.

2.4 Societal impact

New knowledge and insights from scientific research can make an important contribution to solutions for current and future societal issues. Knowledge utilisation increases the chances of research having a societal impact and is therefore an important aspect of the Cooperation Brazil - The Netherlands programme.

2.4.1 Knowledge utilisation

This Call defines knowledge utilisation as an iterative process aimed at achieving societal impact, meaning cultural, economic, industrial, ecological or social changes that are (partly) the result of research-generated knowledge and skills. Through interaction and alignment between researchers and possible users of knowledge, the chances of knowledge utilisation and, accordingly, societal impact increase. NWO³ and FAPESP facilitate the possible contribution of research to societal challenges by encouraging productive interactions with societal stakeholders during the development and realisation of the research.

2.4.2 Impact Plan approach

Applicants are asked to include an Impact Plan integrated into the research design that sets out the potential pathways for impact of the proposed research.

In addition to having a societal or industry partner within the consortium, consortia should consider how relevant stakeholders can be involved in, or benefit from, the design and realisation of the proposed project.

The Impact Plan consists of the following elements:

- A *Theory of Change* is a comprehensive description and illustration of how and why a desired change (impact) is expected to occur in a particular context. A Theory of Change is the missing link between what one does in a research study (the activities or interventions) and how that will lead to the realisation of the intended impact. Developing a Theory of Change is a joint effort **with research partners as well as stakeholders, to allow for making explicit which (and whose) problem is being tackled**, and how the desired change is perceived to happen through research efforts. Projections on expected change will be based on a myriad of assumptions; documenting these assumptions allows for reflection on whether and how expected pathways to impact remain adequate or need adjustment. A Theory of Change is not fixed, but rather reflected on continuously throughout the research process. For this reason, it is also used as part of the monitoring, evaluation and learning trajectory.
- The *Impact Pathway*, which is part of the Theory of Change, is the visualisation of the change process following from research execution as described in the Theory of Change. It makes explicit how the research activities will lead to new insights (outputs), and how exchange of knowledge and the uptake of research output will contribute to desired changes in behaviour, relationships, actions and activities of partners and stakeholders (outcomes) that are considered essential to achieving the desired impact.
- *Productive interactions*: Exchanges between researchers and stakeholders in which knowledge is produced and valued that is both scientifically robust and socially relevant. Productive interactions are relational factors that promote (intermediate) knowledge utilisation and that can be consciously steered. The productivity of the interaction determines whether it contributes to knowledge utilisation. Examples of productive interactions are: formulation of research questions and approaches jointly with potential end-users such as practitioners, policy makers and industry (co-design), joint execution of research projects (co-creation), and interactive dialogue on research results. Interactions can be direct/personal, indirect or financial.
- A *Strategic Activity Planning* spells out how the proposed productive interactions contribute to achieving outcomes. Outputs do not automatically lead to outcomes; therefore, strategies are

³ For more information about the NWO knowledge utilisation policy, see the website: www.nwo.nl/en/knowledge-utilisation.

needed to plan and monitor how the consortium's efforts will enhance the potential for outcomes. This planning should include specific activities for:

- *Stakeholder engagement*: who are the relevant stakeholders to engage with according to your context analysis, how are the productive interactions organised and when?;
- *Communication strategy*: how are engagement dialogues organised and results exchanged and translated, and whose responsibility is it?;
- *Monitoring, Evaluation and Learning*: how are results of activities monitored and evaluated, such so that assumptions can be tested and activities adjusted accordingly, and whose responsibility is it?;
- *Capacity strengthening*: how are required capacities (of consortium partners and stakeholders) strengthened in order to achieve the outcomes, how is this organised and whose responsibility is it?

An important part of your Theory of Change and Impact Pathway is to identify assumptions and make them explicit. This concerns assumptions of the members of the consortium as well as stakeholders. Making these assumptions explicit can help you identify where change may happen in a different way than you envision, and where you may find that you need adjustment.

These activities should be placed under the budget module 'Knowledge utilisation' in the NWO budget, or can be requested from the FAPESP budget.

The NWO impact e-learning tool can help consortia with creating their impact plan. The e-learning is available at: <https://impact.nwo.nl/en/working-with-an-impact-plan>.

Box 1: Defining Output, outcome and impact

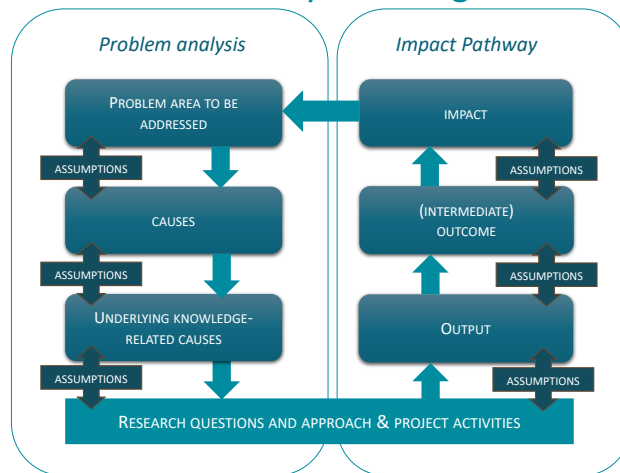
Research outputs relate to the direct and immediate insights obtained by a research project or programme.

Research outcomes relate to the changes in behaviour, relationships, actions, or activities of stakeholders as a result of sharing and uptake of research (*who does what differently*).

Research impact is defined as changes in economic, environmental and social conditions that a project or programme aims to contribute to. It is the “dot on the horizon” and often only realised years after the project has concluded.

Change is a complex process that depends on a variety of actors and factors of which research is only one. Where research outputs fall under the direct sphere of control of a research project or programme, outcomes belong to their sphere of influence, and impact to their sphere of interest.

Theory of Change



3 Conditions for applicants

This chapter contains the conditions that are applicable to your grant application. Firstly, it describes who can apply for funding (section 3.1) and what you can request funding for (section 3.2).

Subsequently, you will find the conditions for preparing and submitting the application (sections 3.3 and 3.4) and the specific funding conditions (section 3.5).

3.1 Who can apply

Eligible consortia are composed of the following key members: one main applicant based in the Netherlands, one main applicant based in the State of São Paulo and at least one collaboration partner from a public, semi-public or private practitioner organisation (for-profit or not-for-profit) from the Netherlands or from Brazil. Smaller-sized proposals may also include one or more co-applicants from the Netherlands. Standard-sized proposals may also include one or more co-applicants from the Netherlands or the State of São Paulo.

All consortium partners, as well as relevant stakeholders, are expected to be engaged in all phases of the project execution, from its inception to sharing the (emerging) results. Evidence of such active engagement will be an important element in the assessment of project proposals and may be demonstrated through references to involvement in project preparation, active involvement as a project partner and links between the proposed research project and ongoing projects of NGOs, private enterprises, and/or policy implementation.

Each main applicant and consortium can only submit one proposal. A main applicant cannot participate as a co-applicant in other proposals. A co-applicant can participate in max. 2 proposals.

3.1.1 Main applicants

A “main applicant”, also referred to as a Principal Investigator (PI) in Brazil, is responsible both for the communication between the consortium members and NWO and FAPESP during the assessment procedure, as well as bearing the main responsibility for the project, such as its technical and administrative coordination, as well as scientific and financial reporting. As the proposal will be submitted only through FAPESP’s online system, the São Paulo PI, will be responsible for ensuring that feedback on the eligibility of the application submitted, reviewer reports, information regarding the rebuttal, and any further information such as the grant award is shared with the other consortium members.

After a proposal has been awarded funding, the main applicants will become the project leaders and point of contact for their respective funding agencies.

Dutch main applicants

Full, associate and assistant professors and other researchers with a comparable position⁴ may submit an application if they have a tenured position (and therefore a paid position for an indefinite period) or a tenure track agreement at one of the following organisations:

- universities located in the Kingdom of the Netherlands;
- university medical centres;
- university of applied sciences as referred to in Article 1.8 of the Higher Education and Scientific Research Act (WHW).
- Institutes affiliated to the Royal Netherlands Academy of Arts and Sciences (KNAW) or NWO; Netherlands Cancer Institute;
- the Max Planck Institute for Psycholinguistics in Nijmegen;
- Naturalis Biodiversity Center;

⁴ A comparable position refers to a researcher that has a demonstrable and comparable number of years of experience in carrying out scientific research and supervising other researchers as a full, associate or assistant professor. A lector or senior researcher employed by a university of applied sciences (hogeschool) or a TO2 institute must be able to demonstrate three or more years of research experience in order to act as a main applicant.

- Advanced Research Centre for NanoLithography (ARCNL);
- Princess Máxima Center.

Or at one of the following organisations:

- IHE Delft Institute for Water Education;
- TO2 organisations.

For these last two (types of) organisations, it is necessary to check whether they meet the following cumulative criteria:

- is based in the Kingdom of the Netherlands;
- is a public institute and carries out its research independently;
- receives at least 50 percent public funding;
- is not-for-profit other than for the purpose of carrying out further research;
- its researchers enjoy freedom of publication in international scientific journals.

Please note: these conditions will be assessed by NWO **prior to** submission of the preliminary proposal. To this end, the applicant's organisation must submit the following documents by e-mail to Brazil-MF@nwo.nl no later than ten working days before the submission deadline of the preliminary proposal, so no later than **27 October 2022**:

- a recent extract from the Chamber of Commerce register;
- the deed of incorporation, articles of association or other formal document indicating the public task and the non-profit status;
- the latest available annual accounts accompanied by an auditor's statement (in English).

If NWO has not assessed the organisation in advance, it cannot take the (pre-)proposal into consideration.

Persons with a zero-hour employment agreement or with a contract for a limited period of time (other than a tenure track appointment) may not submit a proposal. An exception to the required duration of appointment may be made for: lecturers employed by a university of applied sciences (HBO) and senior researchers employed by a university of applied sciences or a TO2 institute under a temporary appointment that does not cover the entire duration of the project.

It could be the case that the applicant's tenure track agreement ends before the intended completion date of the project for which funding is applied for, or that before that date, the applicant's tenured contract ends due to the applicant reaching retirement age. In that case, the applicant needs to include a statement from their employer in which the organisation concerned guarantees that the project and all project members for whom funding has been requested will receive adequate supervision for the full duration of the project.

Applicants with a part-time contract should guarantee adequate supervision of the project and all project members for whom funding is requested.

São Paulo main applicants

Funding from FAPESP will be through the Regular Research Grant, Thematic Project, or Young Investigator Grant. In this Call FAPESP exceptionally will allow Principal Investigators (PIs) in Young Investigator Grants to submit a Regular Research Grant Proposal; Thematic Project PIs to submit a second Thematic Project Grant; and PIs in Regular Research Grants to apply for a second Regular Research Grant or, if otherwise eligible, for a Young Investigator Grant, as detailed below. These applications will be allowed provided that the candidates fulfill all other eligibility requirements, including available dedication time. Except for other rules and characteristics specified in this Call, all of the other rules for each support modality apply.

Eligibility requirements for the support modalities offered:

- a) Regular Research Grant Proposal: www.fapesp.br/apr.

The applicant can be a Principal Investigator of an ongoing Regular Research Grant or Young Investigator Grant. The holder of the Young Investigator Grant must show proof of formal employment with a research institution for the duration of this award. In addition to all eligibility requirements for a Regular Research Grant, the proponent should have demonstrated ability to train researchers, with emphasis on the recent activity of mentoring Doctoral students.

b) Thematic Project Grant Proposal: www.fapesp.br/tematico.

Exceptionally in this Call for proposals, the applicant can be a Principal or Co-Investigator of an ongoing Thematic Project Grant, FAPESP Engineering Research Centre or CEPID, provided that the maximum dedication time will be of 20 hours per project.

c) Young Investigator Grant Proposal: www.fapesp.br/jp

Exceptionally in this Call for proposals, the applicant can be a Principal Investigator of an ongoing Regular Research Award or Pi Award.

Applicants of the Geração Grants are not eligible to compete in this Call for proposals.

Researchers from the State of São Paulo, must consult FAPESP about their eligibility as soon as possible, but no later than **27 October 2022**. Please see more about how to submit the eligibility analysis in section 4.2.2.

3.1.2 Co-applicants

Co-applicants have an active role in realising the project. Co-applicants from the Netherlands (if applicable) must be of a different research group or institution than the main applicant. Co-applicants from São Paulo must be from a different research group or institution than the main applicant.

Dutch co-applicants

A co-applicant is a participant in the consortium and receives funding through the main applicant. Full, associate and assistant professors and other researchers with a comparable position⁵ may be a co-applicant if they have a tenured position (and therefore a paid position for an indefinite period) or a tenure track agreement at one of the following organisations:

- one of the institutions listed in 3.1.1 (on the Dutch side of the consortium);
- an organisation not listed in paragraph 3.1.1 which meets the following cumulative criteria:
 - is based in the Netherlands;
 - is a public institute and carries out its research independently;
 - receives at least 50 percent public funding;
 - is not-for-profit other than for the purpose of carrying out further research;
 - its researchers enjoy freedom of publication in international scientific journals.

Please note: these conditions will be assessed by NWO **prior to** submission of the pre-proposal. To this end, the co-applicant's organisation must submit the following documents by e-mail to Brazil-MF@nwo.nl no later than ten working days before the submission deadline, so no later than **27**

October:

- a recent extract from the Chamber of Commerce register;
- the deed of incorporation, articles of association or other formal document indicating the public task and the non-profit status;
- the latest available annual accounts accompanied by an auditor's statement.

If NWO has not assessed the organisations in advance, it cannot take the pre-proposal into consideration. **Please note:** If new applicants are added to the consortium in the full proposal, a

⁵ A comparable position refers to a researcher that has a demonstrable and comparable number of years of experience in carrying out scientific research and supervising other researchers as a full, associate or assistant professor. A lector or senior researcher employed by a university of applied sciences (hogeschool) or a TO2 institute must be able to demonstrate three or more years of research experience in order to act as a co-applicant.

further assessment based on these conditions will have to take place. Also in this case, the above documents should be submitted by e-mail no later than ten working days before the submission deadline of the full proposal, so no later than **22 May 2023**.

Persons with a zero-hour employment agreement or with a contract for a limited period of time (other than a tenure track appointment) may not submit a proposal. An exception to the required duration of appointment may be made for: lecturers employed by a university of applied sciences (HBO) and senior researchers employed by a university of applied sciences or a TO2 institute under a temporary appointment that does not cover the entire duration of the project.

It could be the case that the co-applicant's tenure track agreement ends before the intended completion date of the project for which funding is applied for, or that before that date, the co-applicant's tenured contract ends due to the co-applicant reaching retirement age. In that case, the co-applicant needs to include a statement from their employer in which the organisation concerned guarantees that the project and all project members for whom funding has been requested will receive adequate supervision for the full duration of the project.

NWO will not award funding if, in its view, the provision of funding would constitute State aid within the meaning of Article 107 of the Treaty on the Functioning of the European Union.

São Paulo co-applicants

Please note: only standard-sized projects consortia may nominate one or more co-applicants.

- A. To hold a PhD or equivalent title.
- B. To have a formal employment with a São Paulo research institution.
 - B.1.) FAPESP might accept, under certain conditions, a non-employment type of affiliation. This association, however, must prove solidity in the academic dedication in a Research Institution of the State of São Paulo. In such cases, a consultation must be sent to the Scientific Directorate as soon as possible, but no later than **27 October 2022** through the channel "Converse with FAPESP", informing:
 - B.1.1.) the nature of the institutional association;
 - B.1.2.) amount of weekly hours dedicated to research implied in this association;
 - B.1.3.) the source of funds for payment;
 - B.1.3.) the length of such association.
 - B.2.) Retired researchers, associated to USP, UNICAMP and UNESP, must present documentary evidence of the type of association.
- C. Demonstrate an outstanding research record.
- D. Proven experience and competence in the field of the project, demonstrated by:
 - D.1.) Quality, regularity and impact of scientific and technological results of his/her research.
 - D.2.) Experience in training investigators at the graduate level.
 - D.3.) Experience in scientific exchange and research project development in collaboration with investigators from institutions in Brazil and other countries.
 - D.4.) Ability to form research groups that have delivered results recognized by the scientific community in the field.

3.1.4 Collaboration partner from a practitioner organisation

A consortium includes at least one partner from a public, semi-public or private practitioner organisation (for-profit or not-for-profit). They are closely involved with the research and impact plan, and can be from either the Netherlands or Brazil (not limited to the State of São Paulo). The collaboration consortium partners are jointly responsible for realising the entire project. This organisation must be included in the proposal form as a collaboration partner.

This member may or may not provide co-financing (financial or in kind) for the project proposal.

Please note: personnel of these organisations are excluded from payment of salaries and research costs from the NWO grant, unless they are hired through the NWO module 2 – work by third parties (see annex 7). A public and/or private collaboration partner cannot receive funding from the FAPESP grant. All organisations participating in a consortium must be registered as a legal persona.

3.1.5 Main and co-applicants

The Brazilian and/or Dutch main applicant should submit the letter of intent via e-mail. Consortia's pre-proposals and full proposals should be submitted by the Brazilian main applicant via FAPESP's SAGE system, which will be used for the assessment process. The NWO ISAAC system will not be used in this Call. The Brazilian main applicant is responsible for sharing the reviewer reports, information regarding the rebuttal and any further information with the rest of the consortium.

The Brazilian main applicant and the Dutch main applicant will be informed of the grant decision by their respective funding agencies. They are responsible for informing each other and the rest of the consortium of this decision.

Consortium members

In addition to the roles listed above, the consortia consist of research teams from both São Paulo and from the Netherlands, but are not limited to the institutions of the main and co-applicants. Researchers from other States in Brazil may participate in the consortium, and may use the Money follows Cooperation budget module (annex 7.1). Small travel assistance may be required to Visiting Researchers through the FAPESP grant and the Money follows Cooperation budget module (annex 7.1) through the NWO grant.

3.2 What can be applied for

The total available budget for this Call for proposals is € 2,800,000 at NWO, and R\$ 15,200,000 at FAPESP. Applications can be submitted in two different budget ranges. It is not permitted to change the budget range after the submission of the pre-proposal.

As mentioned in section 1.2, with the available budget, NWO and FAPESP aim to fund at least one proposal with a smaller-sized budget (€ 350,000 of NWO funds, and R\$ 1,100,000 of FAPESP funds) and one proposal with a standard-sized budget (€ 700,000 of NWO funds, and R\$ 4,000,000 of FAPESP funds).

The same criteria apply for each budget range, but the number, type and scope of activities are considered in the context of the budget.

It is envisaged that applications will display a balanced partnership, not specifically in monetary terms, but with equivalent research commitment and efforts from both sides. Each country has different currencies and costs, therefore please do not strive to have an exact equal amount from the Dutch and Brazilian sides of the budget, but rather focus on the balanced partnership in terms of research efforts.

Different costs can be funded from the FAPESP and NWO grants. The application form allows you to specify which organisation you would like to cover a certain cost. Applicants should complete two budgets, one specifying the costs to be covered by the NWO grant and one specifying the costs to be covered by the FAPESP grant.

Reimbursable costs from NWO

The budget modules (including the maximum amount) available for this Call for proposals are listed in the table below. Apply only for funding that is vital to realise the project. A more detailed explanation of the NWO budget modules can be found in the annex to this Call for proposals (7.1).

Budget module	Maximum amount
PhD student	Unrestricted number of positions, according UNL rates ⁶
Professional Doctorate in Engineering (PDEng)	Unrestricted number of positions, in combination with PhD student(s) and or postdoc(s), according to UNL rates ⁶
Postdoc	Unrestricted number of positions, according to UNL rates ⁶
Non-scientific staff (NSS) at universities	€100,000, non-scientific staff at (NSS) universities ⁶ , in combination with PhD student(s) and or postdoc(s) ⁶
Other Scientific personnel (OSS) at universities	€100,000, in combination with PhD student and/or postdoc
Research leave	5 months, 1 FTE, according to UNL rates ⁶
Personnel universities of applied sciences, educational institutions and other organisations	Unrestricted number of positions, in accordance with the applicable rate at the time of awarding the grant as taken from Table 2.2, column 'Hourly rate productive hours, excl. Dutch VAT' from the <i>Handleiding Overheidstarieven</i> [HOT-Manual Dutch Government rates] (https://www.nwo.nl/en/salary-tables).
Material costs	€15,000 per year per FTE scientific position
Investments (up to €150,000)	Maximum €150,000
Investments (€150,000 to €500,000)	Greater than or equal to €150,000 (for data collections, a minimum of €25,000 applies) and less than or equal to €500,000
Knowledge utilisation	Maximum 20% of the total budget applied for
Internationalisation	Maximum 20% of the total budget applied for
Money follows Cooperation	Less than 50% of the total budget applied for
Project management	Maximum 5% of the total budget applied for

Eligible costs from FAPESP

Smaller-sized projects:

Funding and costs must be in accordance with FAPESP norms for [Regular Research Grants](http://www.fapesp.br/apr) (www.fapesp.br/apr). Exceptionally in this Call for proposals the grant may be financed for a period of up to four years, with maximum budget of up to R\$150 thousand per year + one post-doc scholarship. The final budget should include all scholarships and overheads costs with the ceiling of R\$1,100,000. Request can include equipment, services, travel allowances and technical training fellowships.

Standard-sized projects:

Funding and costs requested by the São Paulo researcher to FAPESP must be in accordance with FAPESP norms for (i) Thematic research project or (ii) Young Investigator Award. Research projects can have a maximum duration of 60 months, respecting norms of each modality as exposed in mentioned types of funding by FAPESP. Exceptionally in this Call for proposals the maximum amount requested is R\$4 million (including overheads and scholarships).

Thematic Research Project:

This modality can fund projects for 60 months. Request can include equipment, consumables, services, travel allowances and the fellowships: Post-doctoral, Direct PhD, Scientific Initiation, Technical Training, Scientific Journalism and Pedagogical Skills, in all cases according to the FAPESP rules (www.fapesp.br/tematico).

Young Investigator Award:

⁶ For personnel outside the Netherlands, the local rates are reimbursed. These rates are capped at a maximum equal to the UNL rates corrected by the NWO Country correction coefficients (CCC) table, see <https://www.nwo.nl/en/money-follows-cooperation>.

This modality can fund projects for 60 months. Request can include equipment, consumables, services, travel allowances and the fellowships: Masters, Direct PhD, Scientific Initiation, Technical Training, Scientific Journalism and Pedagogical Skills, in all cases according to the FAPESP rules (www.fapesp.br/jp).

3.3 Preparing an application

Webinar

A webinar on the Call for proposals and the Impact Plan approach was held on Thursday 30 June 2022, 9.00-10.30 hours GMT-3 / 14.00-15.30 hrs CEST. In this webinar, possible applicants were given more information about the Call, the main requirements on the Brazilian and the Dutch side, the composition of the consortium and the impact plan approach. Please contact brazil-mf@nwo.nl for the recording of the webinar.

Application

This NWO-FAPESP Call for proposals is receiving applications in a three-step procedure. All documents submitted in this Call should be in English, unless template forms are provided in Dutch or Portuguese.

- a) Submitting a letter of intent (not mandatory)
- b) Submitting a pre-proposal (mandatory)
- c) Submitting a full proposal (mandatory)

For a complete overview of all submission requirements, please see Section 4.2.

The letter of Intent has to be send via e-mail to chamada-nwo@fapesp.br. The pre-proposal and full proposal can only be submitted via the online application system SAGe. Applications that are not submitted via SAGe will not be taken into consideration. **Please note**, the pre-proposal and full proposal do not need to be submitted to NWO via ISAAC.

Submission of the proposal via the SAGe system

The proposal should be submitted by the São Paulo main applicant.

Please note that not all Brazilian and Dutch consortium members need to create an account in SAGe, only the Dutch main applicant and the entire São Paulo research team. For instructions on how to create an account, please access sage.fapesp.br and click on “guides”.

It is important to start with your application in SAGe on time:

- If you do not yet have an SAGe account, then you should create this on time to prevent any possible registration problems.

Applications submitted after the deadline will not be taken into consideration by FAPESP and NWO. For technical questions, please contact the SAGe helpdesk, see contact (Chapter 6).

If you work at an organisation that is not included in the SAGe database, you should request the registration of your organisation by selection the option “registration of rsearch institution/company” available via the link “requests” on the main SAGe menu. The registration will take several days. Therefore it is important that you register your organisation at least two weeks before the pre-proposal and/or full proposal deadline.

Applicants must inform the organisation where they work about the submission of the application, and the organisation must accept the granting conditions of this Call for proposals.

3.4 Conditions for submission

3.4.1 Formal conditions for submission

NWO and FAPESP will assess your pre-proposal and full proposal against the conditions listed below. After submitting your application, we request you to be available to implement any possible administrative corrections so that you can (still) meet the conditions for submission.

These conditions are:

- the main applicants and co-applicant(s), as well as composition of the consortium as a whole, meet the conditions stated in Section 3.1;
- the application form is, after a possible request to make additions or changes, complete and filled out according to the instructions;
- the application is submitted via the Brazilian main applicant's SAGe account to FAPESP.
- the application is written in English;
- the application budget is drawn up in accordance with the conditions for this Call for proposals;
- the proposed project has a maximum duration of 48 months for smaller-sized projects or 60 months for standard-sized projects;
- All of the required annexes are, after a possible request to make additions or changes, complete and filled out according to the instructions.

3.5 Conditions on granting

The [NWO Grant Rules 2017](#) and the Agreement on the Payment of Costs for Scientific Research are applicable to all grants awarded by NWO. The FAPESP grant rules are applicable to all grants awarded by FAPESP.

3.5.1 Data management

Responsible data management is part of good research. NWO and FAPESP want research data that emerges from publicly funded research to become freely available. Furthermore NWO and FAPESP want to raise awareness among researchers about the importance of responsible data management.

Data management

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 accessible insofar as this is possible, respecting the legal and ethical constraints. NWO and FAPESP expect that research data resulting from funded projects will be made openly available in public data repositories, as much as possible, for reuse by other researchers. "As open as possible, as closed as necessary" is the applicable principle in this respect. Researchers are at least expected to make the data and/or non-numerical results and/or computer code that underlie the conclusions of work published within the project publicly available at the same time as the work's publication. Any costs incurred for this can be included in the project budget. Researchers should explain how data emerging from the project will be dealt with based on the data management section in the proposal. Proposals that are approved will be requested to submit a Data Management Plan (DMP) that should be compatible with the project's data management section. This DMP will be evaluated as to compatibility and feasibility, and researchers may be asked to correct it to ensure appropriate data handling during the project. DMPs can be updated during the project, and this should be explained as part of the midterm reports.

Data management section

The data management section is part of the proposal. Researchers are asked before the start of the research to consider how the data collected will be ordered and categorised so that this can be made publicly available. Measures will often already need to be taken, during the creation of data and analysis of the data, to make its later storage and dissemination possible. If it is not possible to make all data from the project publicly available, for example due to reasons of privacy, ethics or valorisation, then the applicant is obliged to list the reasons for this in the data management section.

The data management section in the proposal is considered an integral part of the project. Though the evaluation of this section will not receive a separate weight, its compatibility with the proposal and feasibility will be taken into consideration in the overall assessment. Both the referees and the committee can issue advice with respect to the data management section. Projects are required to draft one joint DMP that both the Dutch and the Brazilian side commit to. The DMP has to be approved by both FAPESP and NWO in order for the project to start.

Data analytics

In case local external primary data are used in the research, consortia have to give priority to datasets collected by local public institutes, such as National Statistics Bureaus (NBSs) and National Resource Mapping Organisations (NRMOs). If possible and relevant, consortia are encouraged to proactively involve these institutes in elements of the research process, and, by doing so, to contribute to their strengthened institutional capacity.

3.5.2 Scientific integrity

The projects funded in this Call must be carried out in accordance with the nationally and internationally accepted standards for scientific conduct as stated in the Netherlands Code of Conduct for Research Integrity (2018), the Global Code of Conduct for Research in Resource-Poor Settings and the FAPESP Code of Good Scientific Practice. This is also in accordance with the NWO Grant Rules 2017. By submitting the proposal, the applicant commits to these codes. In case research is conducted in hazardous, remote or complex places, it is advised to consult the following Security Guidelines. In the case of a (possible) violation of these standards during a project funded by NWO and FAPESP, the applicant should immediately inform NWO and FAPESP of this and should submit all relevant documents to NWO and FAPESP. More information about the aforementioned codes of conduct and the policies regarding research integrity can be found on the websites: www.nwo.nl/en/scientific-integrity, and <https://fapesp.br/boaspraticas/>.

3.5.3 Ethical statement or licence

The applicants are responsible for determining whether an ethical statement or licence is needed for the realisation of the proposed project. The applicants should ensure that this is obtained from the relevant institution or ethics committee on time. If the project is awarded funding, then the grant is issued under the condition that the necessary ethical statement or licence is obtained before the latest start date for the project. The project cannot start until NWO has received a copy of the ethical statement or licence.

It is the responsibility of the main applicants, in conjunction with their institutions, to ensure that all research activities comply with the laws and regulations of the country in which the research activities are conducted.

For complex questions related to ethical issues, NWO and FAPESP reserve the right to consult an external adviser. If after consulting external advisor, NWO and FAPESP are of the opinion that an ethical assessment is needed for the application, then the applicant is obliged to take the necessary measures for such an assessment. If the applicant fails to obtain the necessary statement of approval from all pertinent ethics review committees, then the grant shall be immediately withdrawn.

3.5.4 Nagoya Protocol

The Nagoya Protocol 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 and FAPESP assume that researchers will take all necessary actions with respect to the Nagoya Protocol.

3.5.5 Co-funding

- Co-financing by private and/or public parties is not a requirement for this Call, but if available, can take the form of in-kind or in-cash co-financing, with a maximum of 50% of the total project budget;

- It is possible for contributions to be partially in-kind and partially in-cash. The amounts of co-financing specified in the budget should correspond to the amount of co-financing specified in the letter of guarantee. Letters of guarantee are unconditional and do not contain opt-out clauses;
- In the case of such a contribution by a consortium member, this contribution (in FTE and/or financially), such as the fourth year of a PhD trajectory of additional time from consortium members not covered by the NWO and FAPESP grant, should be confirmed in the letter of commitment. If it concerns a contribution to a PhD or postdoc position in the Netherlands, please confirm the numerical amount that is contributed in accordance with the UNL salary tables.
- After a research proposal has been awarded funding, the institution of the Dutch main applicant will invoice the private or public party from the Dutch side that has pledged an in-cash contribution.

3.5.6 Programmatic coherence

The main applicants, researchers and other consortium members are expected to contribute to knowledge exchange and knowledge utilisation at a programme level, and to participate in and contribute to the meetings organised for that purpose. This includes a joint kick-off and midterm workshop with all projects of the Call, as well as a final conference. These events can take place in hybrid form, but in-person gathering are encouraged at least once in the duration of the projects, if the public health situation in both countries allows. This is in addition to the activities organised by the individual projects for this purpose. Consortia should budget for their participation in these meetings in their application (NWO requires that at least € 15,000 of the NWO grant be allocated to this).

4 Assessment procedure

This chapter first of all describes the course of the assessment procedure (Section 4.2). It then states the criteria that the assessment committee will use to assess your application (Section 4.3).

The NWO Code for Dealing with Personal Interests applies to all persons and NWO employees involved in the assessment and/or decision-taking process (www.nwo.nl/en/code-dealing-personal-interests).

NWO and FAPESP strive to achieve an inclusive culture in which there is no place for conscious or unconscious barriers due to cultural, ethnic or religious background, gender, sexual orientation, health or age (www.nwo.nl/en/diversity-and-inclusion). NWO and FAPESP encourage referees and members of an assessment committee or jury to be actively aware of implicit associations and to try to minimise these. NWO and FAPESP will provide them with information about concrete ways of improving the assessment of an application.

4.1 The San Francisco Declaration (DORA)

The San Francisco Declaration on Research Assessment (DORA) is a worldwide initiative that aims to improve the way research and researchers are assessed. DORA contains recommendations for research funders, research institutions, scientific journals and other parties.

DORA aims to reduce the uncritical use of bibliometric indicators and obviate unconscious bias in the assessment of research and researchers. DORA's overarching philosophy is that research should be evaluated on its own merits rather than on the basis of surrogate measures, such as the journal in which the research is published.

When assessing the scientific track record of applicants, a broad definition of scientific products is used in this Call.

NWO and FAPESP request committee members and referees not to rely on indicators such as the Journal Impact Factor or the h-index when assessing applications. Applicants are not allowed to mention these in their applications. You are, however, allowed to list other scientific products besides publications, such as datasets, patents, policy briefs, software and code, et cetera.

For more information on the principles of DORA, see www.nwo.nl/en/dora.

4.2 Procedure

The application procedure consists of the following steps:

- Submission of the letter of intent
- Mandatory submission of documents to FAPESP to check main applicant's eligibility (see 3.1.1 and 3.1.2)
- If applicable: submission documents to NWO to check eligibility applicant's organisation (see 3.1.1 and 3.1.2)
- Submission of the pre-proposal
- Consideration of the pre-proposal
- Assessment of the pre-proposal by International Assessment Committee (IAC)
- Advice by Scientific Director of FAPESP and NWO-WOTRO Steering Committee
- If applicable: submission documents to NWO to check eligibility applicant's organisation (see 3.1.1 and 3.1.2)
- Submission of the full proposal
- Consideration of the full proposal
- Peer review by referees
- Rebuttal
- Assessment by International Assessment Committee (IAC)
- Decision-making by Scientific Director of FAPESP and NWO-WOTRO Steering Committee

4.2.1 Submission of the Letter of intent

Please notice that the letter of intent is not mandatory, but may help in finding partners for the proposal. With a letter of intent, you indicate that you intend to submit an application for this Call for proposals. Applicants who do not submit the letter of intent are still able to participate in the following steps of the Call. It is not mandatory to have all members of the consortium confirmed at this stage.

Researchers can submit a letter of intent by sending it to chamada-nwo@fapesp.br by the deadline of 8 September 2022. The letter of intent should include the Brazilian and/or Dutch main applicants and other consortium members (if known), a project title and a summary of the research proposal. The Brazilian and/or Dutch main applicant will receive a confirmation of receipt of the letter of intent. The letter of Intent allows NWO and FAPESP to establish the expected number of applications.

Please indicate in the letter if you are interested in receiving support in identifying partners for your project. The research initiative in the letter of intent can also be used for matchmaking purposes. All applicants are invited to participate in a hybrid matchmaking event on 6 October 2022, where researchers, companies and other stakeholders in the advanced materials for health area will be invited to make a brief presentation about their research interests. This event is intended to generate links between potential consortia members. Prior to the event, the research initiatives will be placed online on the website of FAPESP.

FAPESP and NWO also ask researchers to provide suggestions for relevant end-user companies and/or organisations in the letter of intent. NWO and FAPESP will invite end-users to reflect on the letters of intent and/or pre-proposal during the assessment phase. That reflection can be used by the applicants as a resource in drafting the pre-proposal and/or full proposal. Those end-users will also be available as a resource to the consortium to elaborate on your pre-proposal (see 4.2.3), and may be involved in the monitoring and evaluation of the awarded projects. With the submission of your pre-proposal applicants will be asked to give permission to share the pre-proposal with end-users. Please be advised that your pre-proposals are not protected by confidentiality other than the law provides.

The Netherlands Enterprise Agency (RVO) will organise an innovation mission to Brazil on 3-7 October 2022. The theme of the innovation mission is 'advanced materials in health'. If you consent, your research initiative will be shared with RVO so that they can inform possible interested cooperation partners and facilitate matchmaking prior and during the innovation mission to the benefit of consortium forming. Please visit the [RVO website](#) for more information (Only in Dutch).

4.2.2 Eligibility analysis of the São Paulo main applicant

Researchers from the State of São Paulo, must consult FAPESP about their eligibility as soon as possible, but no later than **27 October 2022**. International submissions that do not include this eligibility check will not be considered by FAPESP. In order to have their eligibility analysed, applicants must send an e-mail to (chamada-nwo@fapesp.br) with subject "NWO – request for analysis of eligibility", attaching the following documents:

- 1) Name and affiliation of the applicant (São Paulo and Dutch PIs);
- 2) Tentative title and a 5-line abstract of the project;
- 3) FAPESP Modality desired (Regular Research Project, Thematic Research project, or Young Investigator Awards) and its duration;
- 4) Estimated amount of budget to be requested to FAPESP and to NWO;
- 5) Summary CV (FAPESP model) of the applicant;
- 6) Information about whether the applicant is currently PI of a FAPESP project ongoing or under analysis (indicate project number);
- 7) Estimated time devoted to the project (hours/week).

Within 20 days of receiving this request, FAPESP will send the applicant a declaration as to the applicant's eligibility within this Call. Proposals that do not comply with the terms of this Call will not qualify for analysis. All PI's and their institutions must fulfil the eligibility rules for research proposals as set by FAPESP. Applicants must note that the funding agencies retain the right to reject applications where they fail to comply with the procedures set out in the guidelines. If an application is ineligible with one of the agencies, the complete project will be rejected.

4.2.3 Submission of the preliminary proposal

The submission of a pre-proposal is mandatory for this Call for proposals. Consortia that do not submit a pre-proposal will not be allowed to submit a full proposal later. The pre-proposal is a concise proposal. For the pre-proposal submission, a standard form is available on the funding page of this Call for proposals on the NWO and FAPESP websites. When you write your pre-proposal, you must adhere to the questions stated on this form and the procedure given in the explanatory notes. You must also adhere to the conditions for the maximum number of words and pages. The pre-proposal form completed by you must have been received before the deadline via SAGe (see paragraph 1.3). After submitting the pre-proposal, the São Paulo main applicant will receive a confirmation of receipt via e-mail.

Mandatory annexes are: CVs of the main and co-applicants from São Paulo, who should use the CV model required by FAPESP.

4.2.4 Consideration of the pre-proposal

As soon as possible after the São Paulo main applicant submits the pre-proposal, the applicant will hear from FAPESP and NWO whether or not it will be taken into consideration. The two funders will determine this based on several administrative-technical criteria (see the formal conditions for submission, Section 3.4). NWO and FAPESP can only take your pre-proposal into consideration if it meets these conditions.

Please bear in mind that within three weeks after the submission deadline, we may approach the main applicants with any possible administrative corrections that need to be made so that your pre-proposal can (still) meet the conditions for submission. It is not permitted to make changes to the content of your research proposal. Proponent will be given the opportunity to make the administrative corrections within five working days. If needed, a second opportunity may be granted with a maximum of two working days.

4.2.5 Assessment of the pre-proposal

The International Advisory Committee (IAC) will assess the pre-proposals, without making use of external referees, according to the criteria in section 4.3.1. The IAC will subsequently rank all pre-proposals. The IAC will then present a substantiated advice to the NWO-WOTRO Steering Committee and the Scientific Director of FAPESP regarding which consortia to invite to submit a full proposal.

The Scientific Director of FAPESP and the NWO-WOTRO Steering Committee will check whether the assessment procedure of the pre-proposals has been carried out in accordance with the Call for Proposals and will provisionally decide on which consortia to invite to submit a full proposal, based on the advice of the IAC. The decision becomes definitive when the NWO-WOTRO Steering Committee and the Scientific Director of FAPESP have come to the same provisional decision.

Based on the IAC's ranking and the available budgets, consortia receive a positive or negative advice to elaborate their ideas into full proposals. The positive or negative advice to submit a full proposal will be communicated to the main applicants in March 2023 via e-mail. In both cases, the main applicants will be provided with the IAC's evaluation report on the quality of their pre-proposals. Since it is an advice and not a formal decision, consortia who receive a negative advice to elaborate their ideas into full proposals can still submit a full proposal, despite the negative advice.

Additional feedback from end-users will be sent to the applicants together with the advice from the IAC. This is to advise the consortium on the direction of the application to maximise the chances of application of the results by the users or third parties.

Consortia whose pre-proposal receives a positive advice will receive a small budget from NWO to organise a proposal elaboration workshop. This is a total budget of € 20,000 which will be divided among the pre-proposals that receive a positive advice. This can be used for example to hire a facilitator.

4.2.6 Submission of a full proposal

For the submission of the full proposal, a standard form is available on the funding page of this Call for proposals on the FAPESP and NWO website. When you write your full proposal, you must adhere to the questions stated on this form and the procedure given in the explanatory notes. You must also adhere to the conditions for the maximum number of words and pages.

The full proposal will be submitted by the São Paulo main applicant on behalf of the consortium exclusively through the SAGe system in English. Please visit SAGe (New Proposal > Continuous Funding Stream > + Other Funding Line > Agreements > NWO – Dutch Research Foundation > Call for Proposals 2022 > and select Regular, Thematic or Young Investigator Awards).

Please note: the main applicant from the Netherlands must also create a full login account in the SAGe system. This can be done by accessing SAGe in English in the option “Not registered?”. The researcher must fill out all fields marked as mandatory “ * ”. Please note that if the Dutch institution is not yet registered in SAGe, its registration must be requested before the account is created.

After having been nominated as a participant in the research proposal, the Dutch main applicant must confirm participation in the project via SAGe. Therefore, applicants are strongly encouraged to start working on their applications via SAGe at least two weeks before the deadline of this Call for proposals.

Please download the manual on how to create a SAGe login and how to confirm participation in the project by accessing <https://sage.fapesp.br/> and click on “guides”.

The steps involved in submitting your application are:

1. Download the project proposal form from the NWO or FAPESP programme page (also available in SAGe);
2. Download the excel budget requested by the Dutch team to NWO from the NWO programme page;
3. Complete the application form and the NWO excel budget and save them as PDFs;
4. Fill in the requested information online in SAGe, such as the FAPESP budget.

The budget requested by the São Paulo team to FAPESP should be filled out online in SAGe. Please do not include NWO costs in the SAGe form.

Compulsory annexes:

- Excel NWO budget;
- A letter of commitment from the organisations of the main applicants, co-applicants, and collaboration partner(s), in which the institution or organisation confirms that they agree to the conditions required for the execution of the project and that the main- and co-applicants have the necessary appointment. The letter must be signed by the Dean of the faculty or director of the organisation and be printed on the letterhead of the institution or organisation. See the format in Annex 7.2;
- A draft consortium agreement (see funding page);
- CVs of both main applicants and all co-applicants and collaboration partners (each max 1 A4 page);
- CVs of all the São Paulo members of the research team using the FAPESP CV model;
- (In case of co-financing by organisations that are not part of the consortium) a letter of guarantee from the co-financing institution confirming the numeric amount that will be provided as co-financing. Letters of guarantee or commitment letters which include co-financing are unconditional and do not contain opt-out clauses.

Annexes must be uploaded in SAGE separately from the application. All of the annexes, except for the budget, must be submitted as PDF files (without encryption). The NWO budget must be submitted in SAGE as an Excel file. Any annexes other than those above-mentioned are not permitted.

FAPESP has specific documentation requirement for each different support opportunity. Please access SAGE in advance and download all templates provided. These include a form to be signed by the head of the department of the main applicant host institution.

A formal confirmation e-mail is sent to the São Paulo main applicant after the submission is confirmed by SAGE. The applicant should check their inbox and SPAM folder for an e-mail from sage@fapesp.br.

SAGE will shut down after 23:59 (GMT-3) of the deadline date, applications submitted by any other means will not be accepted.

4.2.7 Consideration of the full proposal

As soon as possible after submission of the full proposal, the main applicant will be informed whether or not the proposal will be taken into consideration. NWO and FAPESP will determine this based on several administrative-technical criteria (see the formal conditions for submission, Section 3.4).

Proposals that do not meet the criteria mentioned above will not continue to the evaluation phase.

Please bear in mind that within three weeks after the submission deadline, we may approach you with any possible administrative corrections that need to be made so that your proposal can (still) meet the conditions for submission. You will be given the opportunity to make the corrections, and you will be given five working days to do this. If needed, a second opportunity may be granted with a maximum of two working days.

4.2.8 Peer review by referees

Before the assessment committee considers your full proposal, NWO and FAPESP will request input from at least external referees. These are independent advisers who are expert in the subject of the proposal. They will assess the proposal based on the assessment criteria stated in the Call for proposals (Section 4.3).

A maximum of three names that should not be referees for the proposal can be registered. Applicants can register these non-referees in SAGE when submitting the full proposal. NWO and FAPESP will not approach these non-referees to assess the proposal as external referees.

4.2.9 Rebuttal

The São Paulo-based main applicant subsequently receives the anonymised referees' reports via SAGE. Your consortium then has the opportunity to formulate a rebuttal. This person will be given 10 working days to submit the rebuttal via SAGE. If the consortium decides to withdraw the proposal, then the São Paulo main applicant should do this as quickly as possible by sending an email stating this to the Call secretariat⁷ and cancelling the proposal in SAGE.

4.2.10 Pre-advice assessment committee

After this, your full proposal, the referees' reports, and your rebuttal will be submitted for comments to several members of the assessment committee (the pre-advisers). The pre-advisers will provide a written substantive and reasoned response to the proposal. They will formulate these comments based on the substantive assessment criteria (see Section 4.3.1) and will give the proposal a numerical score per assessment criterion. For this, the NWO score table will be used (on a scale of 1 to 9, where "1" is excellent and "9" unsatisfactory).

⁷ chamada-nwo@fapesp.br & Brazil-MF@nwo.nl

4.2.11 Meeting of the assessment committee

The pre-advice for each proposal is the starting point for the plenary discussion of the proposals by the assessment committee. The committee will make its own assessment based on the application, the referees' reports, and the rebuttal. The referees' reports will to a large extent 'guide' the final assessment but will not be blindly accepted by the committee without question. The committee will consider and compare the referees' arguments (also among each other) and examine whether the rebuttal contains a well-formulated response to the critical comments from the referees' reports. Furthermore, the committee, unlike the referees, assesses the quality of all proposals and rebuttals submitted. Therefore, the committee may reach a different assessment than the referees.

Following the discussion, the IAC draws up a written recommendation addressed to the NWO-WOTRO Steering Committee and the Scientific Director of FAPESP about the quality and ranking of the proposals. This recommendation is based on the assessment criteria. The proposal must receive an overall qualification of at least "very good" to be eligible for funding. The proposal must also receive at least the qualification "good" for each of the separate assessment criteria. For more information about the qualifications, see www.nwo.nl/en/apply-funding-how-does-it-work.

If, after the discussion of the full proposals, it transpires that two or more of the proposals based on their weighted total score cannot be distinguished from each other, then there is an ex aequo situation (see the paragraph about ex aequo).

4.2.12 Ex aequo

NWO and FAPESP understand ex aequo to be a situation in which two or more proposals based on their weighted score cannot be distinguished from each other. An ex aequo situation is relevant with respect to the selection- or funding limit. The existence of an ex aequo situation is determined as follows. The starting point is the ranking drawn up by the assessment committee, with the final scores rounded to two decimal points. The reference score is the score of the lowest-ranked proposal within the limit of the number of applications that can be selected or the available budget. All proposals with a score that is within 0.05 or less of the reference score will be considered. In this way, the proposals that are within a score of 0.1 of each other will be discussed again by the committee.

If an ex aequo situation occurs at the limit of the number of applications that can be selected or the available budget, and after discussion the committee concludes that there is no clear distinction in their assessment and the proposals should indeed be considered ex aequo, then the proposal with a higher score for the 'Quality of the consortium' will end as the highest. If the ex aequo situation is not resolved with this, then the proposal with the highest score for the criterion 'Quality of the research' will end highest. If the proposals are still tied following this, the assessment committee, with the help of an (anonymous) majority vote, will determine the ranking (in accordance with Article 2.2.7, third paragraph, sub a, part iv of the NWO Grant Rules 2017). If this vote provides no resolution either, or is not desirable to vote, the ex aequo situation will be sent on to the NWO-WOTRO Steering Committee and the Scientific Director of FAPESP.

4.2.13 Decision taking

Finally, the NWO-WOTRO Steering Committee and the Scientific Director of FAPESP will assess the procedure followed and the advice from the IAC. It will subsequently determine the final qualifications and take a decision about awarding or rejecting the proposals. The decision becomes definitive when the NWO-WOTRO Steering Committee and the Scientific Director of FAPESP have come to the same provisional decision.

After the proposal has been awarded funding, the composition International Advisory Committee is expected to change. This International Advisory Committee will supervise and advise the projects. More information about this committee will be provided in the award letter.

4.2.14 Timetable

Below, you will find the timetable for this Call for proposals. During the current procedure, NWO and FAPESP might find it necessary to make changes to the timetable for this Call for proposals. You will, of course, be informed about this in time.

Activity	Deadline
Webinar for interested applicants (recording available)	30 June 2022, 9:00-10:30 hours GMT-3 14:00-15:30 hours CEST
Deadline letter of intent (via e-mail)	8 September 2022, 23:59:59 hours (GMT-3)
Innovation mission to Brazil with matchmaking activities (at own expenses), organised by RVO (Netherlands Enterprise Agency) – exact dates to be confirmed.	3-7 October 2022
Hybrid matchmaking event	6 October 2022 9:00-12:00 hours GMT-3 14:00-17:00 hours CEST
Deadline consultation on eligibility Dutch and São Paulo main and co-applicants (3.1.1 and 3.1.2) via e-mail	27 October 2022
Deadline pre-proposals (via SAGe)	10 November 2022, 23:59:59 (GMT-3)
Assessment committee meeting	February 2023
Applicants receive advice about whether or not to elaborate the pre-proposal into a full proposal	March 2023
(if applicable) Assess eligibility Dutch main applicant and Dutch co-applicants (3.1.1 and 3.1.2)	22 May 2023
Deadline full proposals (via SAGe)	6 June 2023, 23:59:59 hours (GMT-3)
Referees consulted	June-September 2023
Applicants can submit a rebuttal	September 2023
Assessment committee meeting	November 2023
Decision by the NWO-WOTRO Steering Committee and the Scientific Director of FAPESP – and announcement of results	December 2023

4.3 Criteria

4.3.1 Substantive assessment criteria

The pre- and full proposals submitted within this Call for proposals will be substantially assessed on the basis of the following criteria:

- I. Quality of the research
- II. Potential for societal impact
- III. Quality of the consortium

The same criteria apply for each budget range, but the number, type and scope of activities are considered in the context of the budget.

The criteria carry equal weight and each count for one-third of the final assessment. In case of an ex aequo situation where the committee has concluded two applications should be considered ex aequo, the score for criterion III will determine which proposal is awarded of the ex aequo proposals.

Pre-proposals will be assessed based on the criteria **without** asterisk. Full proposals will be assessed based on all criteria listed.

The assessment criteria are further operationalised below:

I. Quality of the research

- Scientific importance and innovativeness of the research questions and approach;
- Degree to which the proposal substantiates convincingly how the research relates to the thematic focus of the Call for proposals;
- Complementarity to other research programmes or (inter)national research agendas;
- Rigour of the research design: adequacy, feasibility and coherence of the research approach and methodology in view of the problem addressed;
- The research is inter -or transdisciplinary; and incorporates these scientific disciplines to address the problem, as well as knowledge from outside the scientific community;
- Adequacy of the budget*.

II. Potential for societal impact

- Relevance for society and potential for societal breakthroughs;
- Suitable involvement of target groups, convincingly responding to their demand;
- Quality of the impact plan:
 - i. a clear problem statement, analysis and vision on the desired societal impact;
 - ii. a logical impact pathway presenting plausible pathways to societal impact*;
 - iii. appropriate and feasible strategic activity planning*;
 - iv. relevant stakeholder involvement in the development and execution of the impact plan*.

III. Quality of the consortium

- Suitability of the consortium partners' expertise in relation to the research project;
- Potential for long term knowledge relations;
- Quality of the Brazilian-Dutch collaboration, including fair and equitable partnership.

5 Obligations for grant recipients

This chapter details the various obligations that - in addition to the conditions stated in Section 3.5 - apply after funds have been awarded.

5.1 Start and runtime of project

The project should start in the first semester of 2024, or no later than 6 months after the project is awarded. The same start date should be considered for the Brazil and Dutch projects. If the project has not started within this timeframe, the NWO-WOTRO Steering Committee and the Scientific Director of FAPESP can decide to revoke the granting decision.

Start documents

The Dutch project leader and the Brazilian project leader are responsible for ensuring the necessary documents for the start of the project are submitted to their respective funding agencies, so that the project in its entirety can start on time.

NWO

The project can start if the following documents have been approved by NWO:

- A project notification form with information of project staff;
- A data management plan;
- A consortium agreement, signed by all consortium organisations;
- (If applicable) approval of relevant ethics committees;
- (If applicable) receipt by NWO of the first tranche of in-cash co-financing.

FAPESP

The project can start if all documents requested via SAGE are signed and agreed by the Brazilian PI, and by the Head of the department or institution.

Publications

When publishing the results of the subsidised research, the support by NWO and FAPESP should be mentioned.

Annual report

Annually, the projects with a duration of 4 years will be asked to submit a written report (in English) to inform NWO and FAPESP on the overall project progress, experiences and output. The projects with a duration of 5 years will be asked to submit a report at the beginning of the second year of the project and in the second half of the fourth year. This report will be jointly written by the project from both countries, who will receive instructions and a format for this report in advance. The same reports should be submitted to FAPESP and NWO. The project leaders from both countries will receive instructions and a format for this report in advance.

Midterm report

The projects will also be evaluated at the midterm of the projects' running time by a self-assessment. This includes a workshop, organised by the consortium, and sharing and discussing the results with stakeholders from outside the project team. Consortia should include this workshop in their budget. The midterm report will be based on the conclusions of the workshop, including a reflection on and, if required, revision of the impact plan, the underlying assumptions and the indicators. The assessment committee created by FAPESP and NWO will evaluate the progress of the projects based on midterm reports submitted by the consortia. Interviews or field visits may be organised to evaluate the progress and impact of the projects. The assessment committee will give recommendations to the projects based on their evaluations.

The midterm report of all the projects of a Call need to be submitted before the joint midterm workshop and will be used as input for organising this midterm workshop.

Final report and final accountability to NWO

A substantive final report should be submitted within three months after the end of the project's runtime, detailing the research done and the achieved results, as well as a reflection on the project's impact plan and its indicators. As part of this, projects will be asked to again complete a self-assessment, and hold a final workshop and a discussion with stakeholders from outside the project team. The final substantive report will again be evaluated by the assessment committee, created by FAPESP and NWO.

The final workshop should again be taken into account in the consortium's budget.

Simultaneously, the Netherlands-based project leader and the controller/financial manager of the Dutch project leader's institution should submit a signed financial end report, organised according to the budget lines of the approved NWO budget. The report should detail, among others, the effective duration (period) and size (fte) of the personnel appointed to the project, and, if applicable, how eventual replacements were arranged. The realised in-cash and in-kind co-financing should also be accounted for.

If the Netherlands-based project leader is not based at a knowledge institution that is subject to the education accountants protocol of the Ministry of Education, Culture and Science, an external audit report must also be submitted (in English). NWO reserves the right to conduct an external financial audit.

NWO reserves the right to externally evaluate projects financed under this Call. The project ends with the issuing of the grant settlement decision. This decision is taken after approval of the final document(s) by NWO.

Final report and final accountability to FAPESP

Deadlines for submitting Scientific and Financial Reports are defined in the Grant or Fellowship Contract. Their submission within stipulated time limits is essential for the release of the remaining balances of the awarded grant.

Eventual balances will be automatically cancelled on the very date stipulated in the Grant Contract to be the end of the project.

The Financial Report must be written according to the model available at <https://fapesp.br/prestacaodecontas/>.

Upon submission of the Final Scientific Report, the São Paulo Principal Investigator must provide a link to a Web page that describes how to access the data made available by the project. This link can be provided upon submission of the first Scientific Report, and is compulsory upon submission of the Final Report.

5.2 Data management

After a proposal has been awarded funding, the researcher should elaborate the data management section into a data management plan. For this, applicants can make use of the advice from the referees and committee. The applicant describes in the plan whether use will be made of existing data, whether new data will be collected or generated, and how the data will be made FAIR: Findable, Accessible, Interoperable, Reusable. Before submission, the data management plan should be checked by a data steward or similar officer of the organisation where the project will be realised. The plan should be submitted to NWO (via ISAAC) and FAPESP (via SAGE) within 4 months after the proposal has been awarded funding. NWO and FAPESP will approve the plan as quickly as possible. Approval of the data management plan by NWO and FAPESP is a condition for disbursement of the funding. The plan can be adjusted during the research. More information about the data management protocol of NWO can be found at: www.nwo.nl/en/research-data-management.

5.3 Consortium agreement and intellectual property

For research partnerships to be effective, they have to be fair and equitable. A consortium agreement should be signed by all consortium partners prior to the start of the awarded project, detailing agreements regarding rights (such as copyright, publications, intellectual property etc. of products or other developments in the project), knowledge utilisation, as well as affairs such as payments, progress- and final reports, and confidentiality. The agreement furthermore details agreements on governance of the consortium (to the extent that it gives sufficient guarantee for effective collaboration), finances, and if applicable, basic knowledge to be contributed, of equity. The initiative for the concluding of these agreements lies with the main applicants. NWO and FAPESP will subsequently check whether the project agreement meets the conditions and will not itself sign the agreement.

The model consortium agreement that NWO and FAPESP make available must be used and can be found on the funding page of this Call for proposals.

With respect to intellectual property (IP), the NWO IP policy applies. This can be found in [Chapter 4 of the NWO Grant Rules 2017](#). Dutch main applicants and co-applicants must carry out a project funded by NWO during the time that they work for the knowledge institution. If an applicant or a researcher funded by NWO is appointed by more than one employer, then the other employer should relinquish any possible IP rights that emerge from the project of the applicant. Brazilian main applicants and co-applicants should furthermore ensure that any IP emanating from the execution of their project is managed in accordance with the Brazilian law.

5.4 Socially responsible licensing

The knowledge that emerges from the project could be suitable for use in society. When agreements about licensing and/or the transfer of research results developed under this Call for proposals are made, due consideration should be given to the ten principles for socially responsible licensing, as stated in the NFU factsheet “Socially Responsible Licensing Toolkit for knowledge institutions” (www.nfu.nl/sites/default/files/2020-09/200902-NFU%20Factsheet%20Toolkit%20SRL.pdf).

5.5 Open access

NWO, as a signatory to the Berlin Declaration (2003) and a member of cOAlition S (2018), and FAPESP are committed to making the results of the research it funds openly accessible via the internet. Scientific publications arising from projects awarded on the basis of this Call for proposals must therefore be made available in Open Access form in accordance with the Open Access Policy.

Scientific articles

Scientific articles must be made available in Open Access form immediately at the time of publication (without embargo) via one of the following routes:

- publication in a fully Open Access journal or platform registered in the DOAJ;
- publication in a subscription journal and the immediate deposition of at least the author accepted manuscript of the article in an Open Access repository registered in Open DOAR;
- publication in a journal for which a transformative Open Access agreement exists between VSNU and a publisher. For further information, see www.openaccess.nl/en.

Books

Different requirements apply to scholarly books, book chapters and edited collections. See the Open Access Policy Framework at www.nwo.nl/en/open-science.

CC BY licence

To ensure the widest possible dissemination of publications, at least a Creative Commons (CC BY) licence must be applied. Alternatively – in case of substantial interest – the author may request to publish under a CC BY-ND licence. For books, book chapters and collected volumes, all CC BY licence options are allowed.

Costs NWO

Costs for publication in fully Open Access journals can be budgeted in the application using the budget module for “material costs”. Costs for publications in hybrid journals are not eligible for reimbursement by NWO. For Open Access books, a separate NWO Open Access Books Fund is available. For more detailed information about NWO’s Open Access policy, see www.nwo.nl/en/open-science.

Costs FAPESP

For projects approved in this Call for proposals, FAPESP may approve an additional budget for the payment of article processing charges so that they are made available, in the accepted version (after review), in immediate open access (without embargo). This request will be analyzed if the first author, the corresponding author or the last author is a member of the research team of the state of São Paulo and if the cost is too high for the use of resources from the Overheads approved in the project (“Reserva Técnica”). This must be requested via SAGe in the field Request for Changes - Budget (Solicitação de Mudança – Alteração de Orçamento).

6 Contact and other information

6.1 Contact

6.1.1 Specific questions

For specific questions about this Call for proposals, please contact:

- FAPESP: email: chamada-nwo@fapesp.br
- NWO: email: Brazil-MF@nwo.nl, Helena Arntz, tel. +31 (0)70 349 40 23

6.1.2 Technical questions about the web application SAGe

For technical questions about the use of SAGe, please read [SAGe guides](#) available here. Please also check the Frequently Asked Questions (in Portuguese) [here](#). If you don't find the answers to your questions in these links, please contact Converse com at FAPESP (<https://fapesp.br/converse>) or via telephone (11) 3838-4000. You will then receive an answer within three working days.

6.2 Other information

NWO processes data from applicants received in the context of this Call in accordance with the NWO Privacy Statement, <https://www.nwo.nl/en/privacy-statement>.

NWO might approach applicants for an evaluation of the procedure and/or research programme.

7 Annexes:

7.1 Explanation of budget modules

It is possible to apply for the funding of the salary costs of personnel who make a substantial contribution to the research. Funding of these salary costs depends on the type of appointment and the organisation where the personnel are/ will be appointed.

- For university appointments, the salary costs are funded in accordance with the UNL salary tables applicable at the moment the grant is awarded (www.nwo.nl/en/salary-tables).
- For university medical centres, the salary costs are funded in accordance with the NFU salary tables applicable at the moment the grant is awarded (www.nwo.nl/en/salary-tables).
- For personnel from universities of applied sciences, educational institutions and other organisations, the salary costs will be funded based on the collective labour agreement pay scale of the employee concerned in accordance with the applicable rate at the time of awarding the grant as taken from Table 2.2, column ‘Hourly rate productive hours, excl. Dutch VAT’ from the *Handleiding Overheidstarieven* [HOT- Manual Dutch Government Rates] (<https://www.nwo.nl/en/salary-tables>).
- For the Caribbean Netherlands, the Dutch government employs civil servants on Bonaire, Sint Eustatius and Saba under different conditions than in the European part of the Netherlands <https://english.rijksdienstcn.com/working-at-the-rijksdienst-caribisch-nederland/employment-terms-and-conditions>.

NWO will apply a mandatory one-off indexing of the salary costs with respect to:

- UNL rates: for proposals submitted before 1 July and that are awarded funding after 1 July;
- NFU rates: for proposals submitted before 1 August that are awarded funding after 1 August;
- HOT rates: for proposals submitted before 1 January that are awarded funding after 1 January.

The mandatory one-off indexing has no influence on the level of the grant ceiling or on the maximum amount of the grant awarded per proposal. The level of the grant ceiling and the maximum amount of the grant awarded will remain unchanged during the assessment procedure. The mandatory one-off indexing will be applied after the decision-taking about awarding or rejecting proposals has been completed.

If co-funding is required or permitted then the one-off mandatory indexing will have no consequences for the co-funding requirement or the IP rights that can emerge from the co-funding.

The rates for all budget modules are incorporated in the budget template that accompanies the application form. For the budget modules “PhD student”, “PDEng” and “Postdoc”, a one-off individual bench fee of €5,000 is added on top of the salary costs to encourage the scientific career of the project employee funded by NWO. Remunerations for PhD scholarship students (‘bursalen’) at a Dutch university are not eligible for funding from NWO.

The available budget modules are explained below.

PhD student (including MD-PhD student)

A PhD student is appointed for 1.0 FTE for a duration of 48 months. The equivalent of 48 full-time months, for example an appointment of 60 months for 0.8 FTE, is also possible. If a different duration of appointment is considered necessary for the realisation of the proposed research, then the standard time can be deviated from as long as this is properly justified. However, the duration of appointment must always be at least 48 months.

Professional Doctorate in Engineering (PDEng)

Funding for the appointment of a PDEng can only be applied for if funding for a PhD student or postdoc is also applied for.

The appointment for a PDEng position is a maximum of 1.0 FTE for 24 months. The PDEng trainee is employed by the institution applying for funding and can realise activities that are part of the research at an industrial partner for a specified time. If the research proposal is awarded funding, then an agreement must be concluded with the industrial partner(s) concerned. The underlying “Technological Designer Programme” must be described in the proposal.

Postdoc

The size and duration of the postdoc appointment is at least 6 full months and at most 48 full-time months. The size and duration of the appointment is at the applicant’s discretion, but the appointment is always for at least 0.5 FTE or for a duration of at least 12 months. The product of FTE x duration of appointment should always be a minimum of 6 full-time months.

The material budget is available to cover the costs of a more limited appointment of a postdoc.

Non-scientific staff (NSS) at universities

Funding for the appointment of NSS required to realise the research project can only be applied for if funding for a PhD student or postdoc is also applied for. A maximum of €100,000 can be requested for NSS. This includes personnel such as student assistants, programmers, technical assistants or analysts. Depending on the level of the position, the appropriate salary table for NSS at MBO, HBO or university level applies.

The size of the appointment is at least 6 full-time months and at most 48 full-time months. The size and duration of the appointment is at the applicant’s discretion, but the appointment is always for at least 0.5 FTE or for a duration of at least 12 months. The product of FTE x duration of appointment should always be a minimum of 6 full-time months.

The material budget is available to cover the costs of a more limited appointment of NSS.

Other Scientific personnel (OSS) at universities

Budget for OSS such as AIOS (doctor training to be a specialist), ANIOS (doctor not training to be a specialist), scientific programmers or employees with a master’s degree can only be applied for if funding for a PhD student or postdoc is also applied for. For this category, a maximum of €100,000 can be applied for.

The size of the appointment is at least 6 full-time months and at most 48 full-time months. The size and duration of the appointment is at the applicant’s discretion, but the appointment is always for at least 0.5 FTE or for a duration of at least 12 months. The product of FTE x duration of appointment should always be a minimum of 6 full-time months.

Research leave for applicants

With this budget module, funding can be requested for the costs of the research leave of the main and/or co-applicant(s). The employer of the applicant(s) can use this to cover the costs of relinquishing him or her from educational, supervisory, administrative or management tasks (not research tasks). The time that is released through the research leave grant can only be used by the applicant(s) for activities in the context of the project. The proposal must describe which activities in the context of the project the applicant(s) will carry out in the time relinquished.

The maximum amount of research leave that can be applied for is the equivalent of 5 full-time months. NWO funds the research leave in accordance with the salary tables for a senior scientific employee (scale 11) at the time the grant is awarded (www.nwo.nl/en/salary-tables).

Personnel universities of applied sciences, educational institutions and other organisations

With the exception of personnel that fall under UNL or NFU rates, costs for the funding of personnel employed at a university of applied sciences, educational institutions or at other organisations will be remunerated in accordance with Table 2.2, column ‘Hourly rate productive hours, excl. Dutch VAT’ from the *Handleiding Overheidstarieven* [HOT- Manual Dutch Government Rates] (www.nwo.nl/en/salary-tables).

For the calculation you should use the number of productive hours stated in the valid volume of the *Handleiding Overheidstarieven*.

Explanation of budget module Material

For each FTE scientific position (PhD student, postdoc, PDEng) applied for, a maximum of €15,000 material budget can be applied for per year of the appointment. Material budget for smaller appointments can be applied for on a proportionate basis and will be made available by NWO accordingly. Per 0.2 FTE scientific employee applied for at a university of applied sciences, educational institution or other organisation (with a minimum appointment of 0.2 FTE for 12 months) a maximum of €15,000 in material budget can be applied for per year.

The applicant is responsible for distributing the total amount of material budget across the NWO-funded personnel positions. The material budget that can be applied for is specified according to the three categories below:

Project-related goods/services

- consumables (e.g. glassware, chemicals, cryogenic fluids, etc.)
- measurement and calculation time (e.g. access to supercomputer, etc.)
- costs for acquiring or using data collections (e.g. from Statistics Netherlands [CBS]), for which the total amount may not be more than € 25,000 per proposal
- access to large national and international facilities (e.g. cleanroom, synchrotron, etc.)
- work by third parties (e.g. laboratory analyses, data collection, citizen science, etc.)
- personnel costs for the appointment of a postdoc and/or non-scientific personnel for a smaller appointment size than those offered in the personnel budget modules

Travel and accommodation costs for the personnel positions applied for

- travel and accommodation costs
- conference attendance (maximum of two per year per scientific position applied for)
- fieldwork
- work visit

Implementation costs

- national symposium/conference/workshop organised by the project researchers
- costs for Open Access publishing (solely in full gold Open Access journals, registered in the “Directory of Open Access Journals” <https://doaj.org/>)
- costs data management
- costs involved in applying for licences (e.g. for animal experiments)
- audit costs (only for institutions that are not subject to the education accountants protocol of the Ministry of Education, Culture and Science), maximum €5,000 per proposal; for projects with a duration of three years or less, a maximum of €2,500 per proposal applies

Costs that cannot be applied for are:

- basic facilities within the institution (e.g. laptops, office furniture, etc.)
- maintenance and insurance costs

If the maximum amount is not sufficient for realising the research, then this amount may be deviated from, if a clear justification is provided in the proposal.

Citizen science

Involving citizens (citizen science) can contribute to the quality of the research. With the help of citizens, data and insights can be acquired that would not otherwise be available for research. NWO also funds citizen science. Applicants can use the budget module “material, project-related goods/services, work by third parties” to request a remuneration for the involvement of citizens in projects. The budget module offers a possibility and is not a requirement. Applicants are free to decide whether it is worthwhile involving citizens in the project and what exactly they use this budget for (for example, reimbursement of expenses of citizens, skills training for citizens or technical devices for the participating citizen).

Explanation of budget module Investments (up to € 150,000)

In this budget module, funding can be requested up to a maximum of € 150,000 for investments in equipment, datasets and/or software (e.g. lasers, specialised computers or computer programs).

Explanation of budget module Investments (€ 150,000 to € 500,000)

In this budget module, funding can be requested for project-related investments in scientifically innovative equipment and/or data collections of national and international importance. The costs for these project-related investments should be adequately specified and justified in the proposal. The minimum amount that can be applied for is €150,000. The maximum amount that can be applied for is €500,000.

The costs for investments should be adequately specified and motivated in the proposal.

Funding can be requested for:

- costs for investments in scientific equipment;
- costs for investments in datasets;
- personnel costs for the setting up of databases and the initial digitisation of the bibliographical equipment, if these cannot be purchased;
- personnel costs for employees with essential technical expertise that is necessary in order to build or develop an investment.

If funding for personnel costs is applied for, then the need for these personnel costs must be justified. If the applicant does not have this expertise available, then it must be stated that this expertise needs to be procured with these costs. The internal procurement procedures and/or guidelines of the applicant are applicable.

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;
- other personnel costs, including personnel costs required to operate and conduct research with the facility;
- costs for maintenance and use of the equipment on a project. The costs for researchers using equipment for a project can be applied for via the material budget.

Explanation of budget module Knowledge utilisation

A maximum of 20% of the grant can be requested under this Call as funding for knowledge utilisation activities. The following conditions apply:

- The aim of this budget module is to facilitate the use of the knowledge that emerges from the research⁸.
- 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.
- The budget applied for should be adequately specified in the proposal.

⁸ In this budget module, the definition for “knowledge transfer” as used by the European Commission in the Framework for State aid for research and development and innovation (PbEU, 2014, C198) applies.

- Please ensure to budget for activities related to your impact plan, specifically the strategic activity planning, being:
 - Stakeholder engagement (e.g. consultation workshops, expert meetings, roundtable meetings);
 - Communication strategy (e.g. international exchange events, videos, blogs, newsletters);
 - Monitoring, evaluation, and learning, including your project’s kick-off, midterm, and final workshop, learning events, and participation in the programme’s joint kick-off, midterm, and final workshop; and
 - Capacity strengthening (e.g. (development of) trainings for researchers or stakeholders (organisations)).

NB: please take into account requirements of knowledge utilisation stated elsewhere in this Call for proposals, such as budgeting for kick-off, midterm, and final workshops, and 2.4.2 Impact Plan.

Explanation of budget module Internationalisation

A maximum of 20% of the grant can be requested under this Call as funding for internationalisation activities. The budget for internationalisation is intended to encourage international collaboration. The amount requested must be specified. If the maximum amount is not sufficient for realising the research, then it may be deviated from if an adequate justification is provided in the proposal.

Funding can be requested for:

- travel and accommodation costs in so far as these concern direct research costs emerging from the international collaboration and additional costs for internationalisation that cannot be covered in another manner, for example from the bench fee;
- travel and accommodation costs for foreign guest researchers;
- costs for organising international workshops/symposia/scientific meetings.

Explanation of the budget module Money follows Cooperation (MfC)

The module Money follows Cooperation provides the possibility of realising a part of the project at a publicly funded knowledge institution outside of the Netherlands.

The applicant must convincingly argue how the researcher from the foreign knowledge institution will contribute specific expertise to the research project that is not available in the Netherlands at the level necessary for the project.

This condition does not apply if NWO has concluded a bilateral agreement concerning Money follows Cooperation with the national research council of the country where the foreign knowledge institution is located. At www.nwo.nl/en/money-follows-cooperation you will find an overview of research councils that signed a bilateral MfC agreement with NWO.

The budget applied for within this module must be less than 50% of the total budget applied for.

The co-applicant from the participating foreign knowledge institution must meet the conditions set for co-applicants in Section 3.1 of this Call for proposals, with the exception of the condition that the co-applicant must be employed in the Kingdom of the Netherlands.

The rates for the personnel costs of researchers at the foreign knowledge institution are calculated on the basis of the correction coefficients table of the Marie Skłodowska-Curie grants (EU, Horizon 2020), based on the Dutch VSNU rates. The table can be found at www.nwo.nl/en/money-follows-cooperation.

The main applicant receives the grant and is responsible for transferring the amount to the foreign knowledge institution and for providing accountability for the MfC part of the grant. The MfC part will be part of the overall financial accountability of the project.

The exchange rate risk lies with the applicants. Therefore, gains or losses due to the exchange rate are not eligible for funding.

The applicant is responsible for:

- the financial accountability for all costs in both euros and the local currency, for which the exchange rate used must be visible;
- a reasonable determination of the size of the exchange rate. If requested by NWO, the applicant must always be able to provide a description of this reasonable determination.

If more than €125,000 is requested within this module, then the final financial statement must be accompanied by an audit report (in English).

NWO will not award any funding to co-applicants in countries that fall under national or international sanction legislation and rules. The EU Sanctions Map (www.sanctionsmap.eu) is guiding in this respect.

Explanation of the budget module Project management

The Project management module offers the opportunity to request a project management post up to a maximum of 5% of the total budget requested from NWO. The main applicant must adequately justify this post. Project management includes the following: optimising the organisational structure of the consortium, supporting the consortium and the main applicant, safeguarding the coherence, progress and unity of the project, and coordinating between the sub-projects within the project. These tasks may also be carried out by external parties if they are not available within the main applicant's knowledge institution. Knowledge institutions should take account of public procurement rules in the tender procedure for selecting a third party and, where appropriate, follow a European procurement procedure. The activities of main applicants and co-applicants themselves in relation to the project (management) may not be funded under this budget module. The budget to be requested for project management can consist of material or implementation costs and personnel costs. For personnel costs, a maximum rate of €121 per hour can be claimed. The hourly rate of personnel to be appointed must be based on a cost-covering rate and is calculated on the basis of the standard productive number of hours used by the organisation. The cost-covering rate includes:

- (average) gross salary corresponding to the position of the employee who will contribute to the project (based on the collective labour agreement grade of the employee concerned);
- holiday allowance and 13th month (if applicable in the relevant collective labour agreement) in proportion to the FTE deployed;
- social security charges;
- pension costs;
- overheads.

Project management tasks may be carried out by external parties, but the part of (commercial) hourly rates that exceeds the rates stated is not eligible for funding and therefore cannot be included in the budget.

7.2 Format letter of commitment

[Template letter of commitment for consortium organisation]

[The letter should be printed on the stationery of the consortium organisation concerned]

[Address main applicant]

Concerns: Letter of Commitment

[Location], [date]

Dear [name main applicant],

Through this letter, I confirm that [name consortium organisation] is available and committed to participate in the proposed project, when funded by FAPESP and NWO, entitled '[*proposal title*]', which was submitted to the 'Advanced healthcare materials'.

[Outline the availability and commitment of the consortium organisation]

[If applicable, indicate the consortium organisation's total contribution in-cash, or quantify the in-kind contribution. This amount should be the same as indicated in the application form.]

Yours sincerely,

[Signed by Dean of Faculty/director of organisation]

Location: [...]

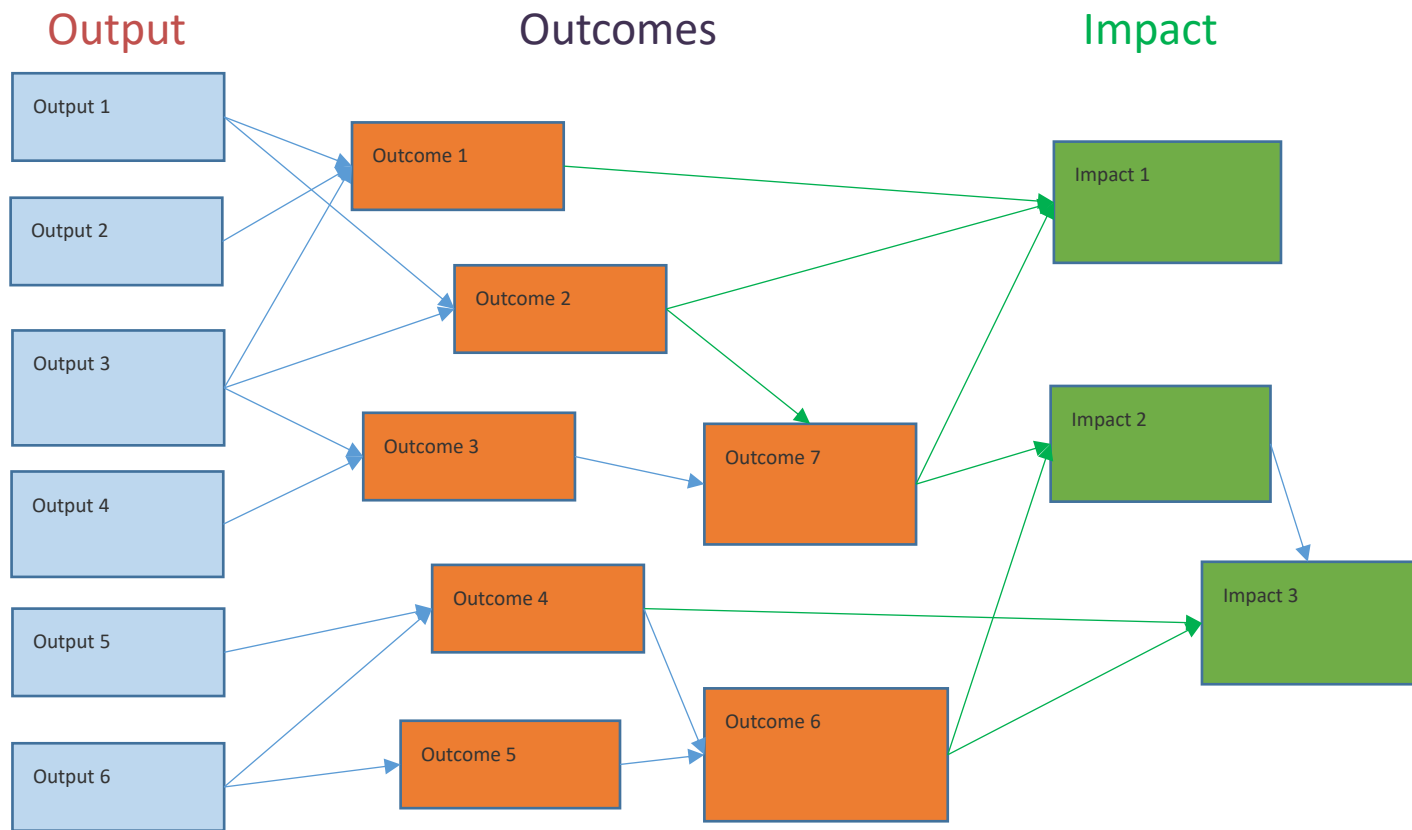
Date: [...]

..... [Signature]

[NAME + POSITION]

7.3 Impact Pathway

Please note the lay-out of the diagram is indicative; variations are allowed, as long as all boxes of the diagram remain included. We recommend to limit the diagram to a maximum of one page, for it to present only key elements. If absolutely needed the length could be extended to two pages maximum.



Impact pathway indicators

Formulate SMART indicators for the output and outcomes (Specific, Measurable, Achievable, Realistic, Time-related). Indicators illustrate how success will be recognised at each step in the pathway to impact. It enables verifying if the research project is 'on track' and where it can improve, it helps to steer and manage the research program. Indicators, especially of outcomes, can also be adjusted or made more specific during the execution of the project, since they are also part of the reflective approach (the impact pathway, including indicators, are not set in stone). No indicators need to be formulated at the Impact level.

Output	Indicator
<i>Output 1</i>	
<i>Output 2</i>	
<i>Output 3</i>	
<i>Output 4</i>	
<i>Output ...</i>	

Outcome	Indicator
<i>Outcome 1</i>	
<i>Outcome 2</i>	
<i>Outcome 3</i>	
<i>Outcome 4</i>	
<i>Outcome 5</i>	
<i>Outcome ...</i>	

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Dutch Research Council

www.nwo.nl/en

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