

Green Water Processes

Cooperation China (CAS) - the Netherlands (NWO) Merian Fund programme

Call for proposals



Contents

1	Introduction	2
1.1	Background	2
1.2	Available budget	2
1.3	Submission deadlines	3
2	Aim	4
2.1	Aim of the programme	4
2.2	Thematic focus	4
2.3	Integrated research approach and international collaboration	5
2.4	Societal impact	6
3	Conditions for applicants	9
3.1	Who can apply	9
3.2	What can be applied for	13
3.3	Preparing an application	14
3.4	Conditions for submission	15
3.5	Conditions on granting	16
4	Assessment procedure	18
4.1	The San Francisco Declaration (DORA)	18
4.2	Procedure	18
4.3	Criteria	21
5	Obligations for grant recipients	23
5.1	Start and runtime of project	23
5.2	Data management	24
5.3	Intellectual property and consortium agreement	24
5.4	Open Access	25
6	Contact and other information	26
6.1	Contact	26
6.2	Other information	26
7	Annexes	27
7.1	Explanation of budget modules	27
7.2	Format letter of commitment	33
7.3	Impact Pathway	34

1 Introduction

In this Call for proposals information is provided about the application procedure for the 'Green Water Processes' funding round. This Call for proposals falls under the responsibility of the Dutch Research Council (NWO) and Chinese Academy of Sciences (CAS).

In this Call for proposals you will find information about the aim of the 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 they are awarded funding. Chapter 6 contains the contact details and Chapter 7 the Annexes.

1.1 Background

There is a long history of scientific collaboration between China and the Netherlands. The Dutch Research Council (NWO), through the Merian Fund¹, and the Chinese Academy of Sciences (CAS) aim to further stimulate long-term research collaborations between their two countries. By funding joint research, they intend to strengthen the international position and global impact of their mutual research. Funding is provided for interdisciplinary and transdisciplinary consortia of Chinese and Dutch research groups and stakeholder partners, for high quality research that has the potential for societal and scientific impact. The Cooperation China - the Netherlands Programme (CAS) is one of several instruments in the bilateral research cooperation between China and the Netherlands.

NWO and CAS have 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, and build bridges between different actors in the knowledge chain, fundamental and applied research, and scientific disciplines. The theme for this call is 'Green Water Processes'.

1.2 Available budget

The available budget for this call is € 2,800,000 on the Dutch side, and RMB 7,2 million on the Chinese side. With the available budget, NWO and CAS aim to fund up to four projects, with a duration of four years on the Dutch and on the Chinese side.

Projects can apply for a maximum of € 700,000 at NWO, and for a maximum of RMB 1,8 million at CAS.

The NWO Grant Rules 2017 are applicable to the part of the project's budget covered by the grant from NWO. The part of the budget covered by the grant from CAS must follow the CAS grant conditions. Please see Chapter 3 for further details.

¹ The Merian Fund is part of NWO, and aims to stimulate long-term collaboration with important (emerging) science nations and increase the visibility and profile of Dutch science abroad. The Merian Fund focuses on broad scientific themes of societal importance that require a mission-oriented approach. Programmes in the Merian Fund are aligned with the National Research Agenda (NWA) of the Netherlands. For more information see: [Merian Fund | NWO](#).

1.3 Submission deadlines

The deadlines for submitting full proposals are:

- **2 March 2023, at 14:00:00 hours CET** at NWO, and
- **3 March 2023, at 16:00:00 hours CST** at CAS.

Applications must be submitted on time to both NWO (via ISAAC) and CAS (via ARP).

When you submit your application to NWO in ISAAC, you will also need to enter some details online, such as the names and organisations of your consortium members. Therefore, **please start submitting your application at least five days** before the deadline of this Call for proposals.

Applications that are submitted after the deadline to either NWO or CAS, or that are not submitted to both funders, will not be taken into consideration.

2 Aim

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

2.1 Aim of the programme

Many societal challenges are complex and interrelated. To address them requires sustainable collaboration, and flexibility and creativity to achieve sustainable results for effective and impactful solutions. The collaborative research financed by CAS and NWO in this call is intended to work towards scientific knowledge and sustainable, innovative solutions for high scientific and societal impact. At the same time, CAS and NWO aim to stimulate strong, sustainable research collaboration between their two countries. They do this by inviting consortia in which researchers from knowledge institutions from both countries will work with societal partners from public, semi-public and private organisations, in order to increase the societal relevance and impact of their research. The current call focuses on 'Green Water Processes'.

2.2 Thematic focus

The current water sector, including drinking water supply and wastewater management systems, is confronted with many challenges. **Climate change** affects both the availability and quality of water, which may lead to huge spatiotemporal fluctuations in water quality and water quantity. This highlights the importance of climate adaptation and mitigation in the water sector. Besides ensuring availability and sustainability of water and sanitation for all, the water sector should also be developed towards a greener route that reduces greenhouse gas emission and combats climate change as agreed by the United Nations. Meanwhile, the combination of **demographic developments, urbanisation and industrialisation** intensified the water sector's pressure in water availability and anthropogenic water contamination. Besides, **circular economy** and **zero pollution** require the water sector to come up with new and green approaches to reduce energy, chemicals, and raw materials consumption, while increasing their recovery and reuse. In joint research projects, consortia should transcend the boundaries between scientific disciplines (interdisciplinarity) and ensure integration of scientific insights and practical knowledge (transdisciplinarity).

Green Water Processes refer to the processes in drinking water supply and wastewater management that include nature based solutions, and that are simple but robust, involve less consumption of chemicals and energy, and/or promote recovery, recycling and reuse of energy and resources, which are expected to be part of the solutions to all the above-mentioned challenges. To further enhance the possibilities for the development of green water processes, the following research topics can be considered:

Green drinking water supply. The drinking water supply is facing great threats of new contaminants, such as organic micro-pollutants, micro/nano-plastics and viruses. Advanced treatments are making the treatment chain extra-long, complex, and substantially increase the carbon footprint. How can nature-based green processes be implemented into drinking water supply, favouring simple, robust, resilient drinking water systems, while reducing the carbon footprint?

Green wastewater management. Compared to the widely used centralized wastewater treatment systems, green wastewater management may offer new technological and systematic directions. From the technological perspective, the choices of treatment technologies may have significant influences on the effluent quality, the energy and chemical consumption and the potential of energy and resource recovery. From the systematic perspective, will the centralized system be the green solution, or is the decentralized system a better choice for wastewater management?

Energy and resource recovery in the water sector. Energy and resource recovery have been discussed quite a long time and are gradually coming into practice. However, so far, their application is still limited both in the Netherlands and China. What are the limiting factors? How could the thermal energy from both drinking water and wastewater systems, CH₄ recovery, N and P recovery be promoted, by which technologies? What innovations are needed?

Resilience in the water sector. A strategy to deal with the effects of global climate change is to increase the resilience of the systems. Resilience is “a way of thinking to cope with change addresses the dynamics and developments of complex systems”. A strategy to increase the resilience is to develop flexible systems. However, flexibility is not enough. The systems should also be robust as a specific service level is always required, also under conditions of change, and in addition the system should be sustainable. Green water processes may integrate flexibility, robustness, and sustainability. Resilience in the water sector is not only required for drinking water supply and wastewater management, it is especially important for flood and drought management.

Acceptance and governance of green water processes. Green water processes include the recovery and reuse of materials from water. This can be specific materials, but also water itself. It may be a huge contribution to sustainability and circularity, but will it be accepted by the user? Which factors are important for acceptance, and how can the behaviour or the awareness of the “worth” of water of potential users be influenced to increase acceptance? Green water processes seem also attractive for decentralised application. Decentralised systems do not always fit with the existing governance structure in the water sector, often based on larger utilities and central governance. Which governance structures and/or decision models, especially for decentralised green water processes, are needed to make the best use of these processes?

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 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. Added value may be achieved by integrating and synthesising various sources of knowledge to create new knowledge and by creating sustainability through the development of long-term knowledge relations.

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, qualitative and quasi-experimental research methods, including operational research, and should include research-into-use approaches.

Projects are also expected to collaborate with the 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 mid-term workshops, as well as a final conference. Projects should budget for this accordingly, using the NWO budget module “Knowledge Utilisation”.

2.3.2 Fair research collaboration

For research partnerships to be effective, they have to be fair². Proposals should be characterised by equal partnership and sustainable collaboration among the partners in the consortium and with relevant stakeholders. This includes gender equality. Evidence of such active 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 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 furthermore be characterised by equitable partnership and sustainable collaboration between the Chinese and Dutch partners. This includes 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 post docs. Senior researchers should spend at least three weeks in total, over the duration of the project, on research visits. Projects should budget for this accordingly.

2.4 Societal impact

New knowledge and insights from scientific research can make an important contribution to solutions for current and future societal issues. Examples are the energy transition, health care, or climate change. Knowledge utilisation increases the chances of research having a societal impact and is therefore an important aspect of the NWO strategy for 2023-2026, and of the Cooperation China - the Netherlands programme.

2.4.1 Knowledge utilisation

This call defines knowledge utilisation as an iterative process aimed at achieving societal impact. Through interaction and alignment between researchers and possible users of knowledge, the chances of knowledge utilisation and, accordingly, societal impact increase. NWO³ and CAS facilitate the possible contribution of research to societal challenges by encouraging productive interactions with societal stakeholders during the development and realisation of the research.

In this programme, the Impact Plan approach⁴ is used. With this approach, NWO and CAS facilitate projects that make at least one targeted step to realise application of the research results in society. NWO offers an e-learning module to help those interested on their way using the Impact Focus approach. Please visit the NWO website [impact.nwo.nl/en](https://www.nwo.nl/en) for more information.

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

2.4.2 Impact Plan approach

Research conducted as part of this call should have relevance and potential for societal impact, meaning cultural, economic, industrial, ecological or social changes that are (partly) the result of research-generated knowledge and skills. Societal impact is often only realised in the years after completing a research project, and does not happen automatically. This is why, in addition to having a

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

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

⁴ <https://www.nwo.nl/en/impact-plan-approach>.

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 research project, and what potential pathways to impact would look like.

To further enhance the potential for impact of the proposed research, the consortium is asked to state how approaches for achieving impact are integrated in the research design and conducted by the consortium in engagement with end users, such as practitioners, policymakers, and industry. To this end, applicants are asked to include an Impact Plan that sets out the potential pathways for impact of the proposed research. The Impact Plan approach to knowledge utilisation should be integrated into the research design and serves as an aid to increase the impact potential of the proposed research.

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 is 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 (output), 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 (outcome) that are considered essential to achieving the desired impact. See Box 1 and Annex 7.3 for more details.
- *Productive interactions* are exchanges between researchers and stakeholders in which knowledge is produced and valued which 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: joint formulation of research questions and approaches with potential end-users (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 Plan* spells out how the proposed productive interactions contribute to achieving outcomes. Outputs do not automatically lead to outcomes, thus strategies are needed of the research consortium to plan and monitor how their 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 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 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 the 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 those of stakeholders.

Making these assumptions explicit can help identify where change may happen in a different way than envisioned, and where adjustment may be necessary.

Activities that are related to the Impact Plan should be placed under the budget module “Knowledge utilisation” in the NWO budget, or can be requested from the CAS 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

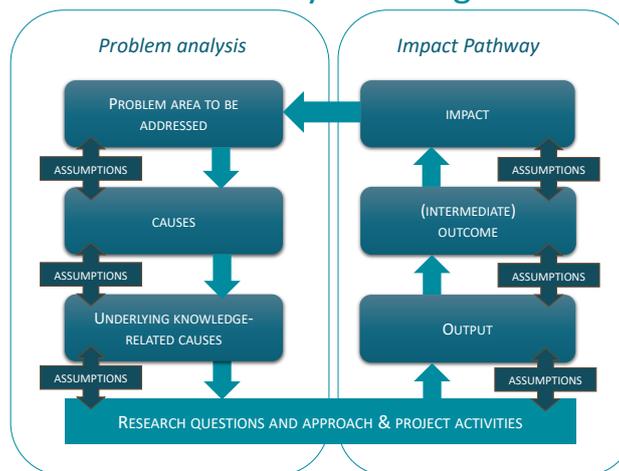
Research outputs relate to the direct and immediate insights obtained by a research project or programme.

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 a project or programme is aiming at.

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 researchers based in the Netherlands and in China, with active involvement in the project of a main applicant⁵ on both the Dutch and the Chinese side, as well as a Dutch and a Chinese co-applicant from different organisations than the main applicants. The consortium must also include a collaboration partner from a public, semi-public or private practitioner organisation (for-profit or not-for-profit).

Specifically, the Dutch and Chinese sides of the consortium must fulfil the following requirements:

Dutch side of the consortium:

- One main applicant who fulfils the requirements of 3.1.1, who will be the Dutch project leader if the proposal is awarded funding;
- At least one co-applicant who fulfils the requirements of 3.1.2, who is of a different organisation than the main applicant; Please note: a different faculty or different department is not sufficient;
- A collaboration partner from a public, semi-public or private practitioner organisation (for-profit or not-for-profit) from either the Netherlands or China.

Chinese side of the consortium:

- One main applicant who fulfils the requirements of 3.1.1, who will be the Chinese project leader if the proposal is awarded funding;
- A co-applicant from a CAS institute or CAS university, who must be from a different CAS institute or CAS university than the Chinese main applicant.
- A collaboration partner from a public, semi-public or private practitioner organisation (for-profit or not-for-profit) from either the Netherlands or China is encouraged.

Together, the consortium members will: 1) formulate relevant research questions and approaches; 2) formulate and submit the proposal through the main applicants; 3) conduct the project activities; 4) coordinate knowledge sharing and support the implementation, dissemination and communication of the project results to a broader group of possible knowledge users that are not a member of the consortium; and 5) take responsibility for the adequate and timely reporting conditions.

Only one application will be admitted to the assessment procedure for each main applicant and each consortium.

This call aims at knowledge chain-wide collaboration, to enhance demand articulation, ownership, and the effective uptake of results. For this reason, 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 and execution, and links between the proposed research project and ongoing projects of NGOs, private enterprises, and/or policy implementation.

⁵ A “main applicant” is responsible for the communication between the consortium and NWO and CAS during the assessment procedure, as well as bears the main responsibility for the project, such as its technical and administrative coordination, and the scientific and financial reporting.

3.1.1 Main applicants

Dutch side

Full, associate and assistant professors and other researchers⁶ with a comparable position* 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;
- 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 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 proposal. To this end, the applicant's organisation must submit the following documents by email to cas-nwo@nwo.nl by 14:00:00 hours CET on 16 February 2023:

- 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 non-profit status;
- The latest available annual accounts accompanied by an auditor's statement.

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

*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.

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 applies for lectors and senior researchers employed by a university of applied sciences, and senior researchers employed by a TO2 institute: if such persons are employed under a temporary appointment (excluding zero-hour employment agreements) not covering the entire duration of the project, they may still submit a proposal for this call.

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

⁶ Such as the position of lector, which applies to researchers from a university of applied sciences (hogeschool).

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.

Chinese side

For Chinese scientists, CAS requires the main applicant to be affiliated to a CAS institute or CAS university;

AND

have an employment contract for at least the duration of the application procedure and the duration of the research the grant is applied for;

AND

have at least a PhD or an equivalent qualification;

AND

be associate professor or titled higher.

Please refer to the Chinese Call for proposals on the CAS website for more information:

http://www.bic.cas.cn/tzgg/202210/t20221024_48522339.html

3.1.2 Co-applicants

A co-applicant is a participant in the consortium and receives funding through the main applicant.

Dutch co-applicants

Full, associate and assistant professors and other researchers⁷ with a comparable position* 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 organisations 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 proposal. To this end, the co-applicant's organisation must submit the following documents by email to cas-nwo@nwo.nl by 14:00:00 hours CET on 16 February 2023:

- 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 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 proposal into consideration.

*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.

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 applies for lectors and senior researchers employed by a university of applied sciences, and senior researchers employed by a

⁷ Such as the position of lector, which applies to researchers from a university of applied sciences (hogeschool).

TO2 institute: if such persons are employed under a temporary appointment (excluding zero-hour employment agreements) not covering the entire duration of the project, they may still submit a proposal for this call.

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.

Please note that at least one co-applicant must be from a different organisation than the main applicant. 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.

Chinese co-applicants

CAS requires one co-applicant, who should be affiliated to a CAS institute or CAS university. If the co-applicant is from the same institute as the main applicant, then he/she must be from a different department. Furthermore, the Chinese co-applicant should:

- have an employment contract for at least the duration of the application procedure and the duration of the research the grant is applied for;
- AND
- have at least a PhD or an equivalent qualification;
- AND
- be associate professor or titled higher.

Please refer to the Chinese Call for proposals on the CAS website for more information:
http://www.bic.cas.cn/tzgg/202210/t20221024_48522339.html

3.1.3 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). Public and/or private practitioner collaboration partners are partners from the public and/or semi-public sectors and/or industry. They are closely involved with the research and Impact Plan.

Please note: personnel of these organisations are excluded from payment of salaries and research costs from the NWO and CAS grant, unless they are hired through the NWO module "project goods and services – work by third parties" (see Chapter 7).

All organisations participating in a consortium must be registered as a legal person.

3.1.4 Responsibilities and tasks of main applicants, co-applicants and consortium members

The Dutch main applicant submits the full proposal via the NWO web application ISAAC and the Chinese main applicant submits the full proposal via the CAS ARP submission system. They are responsible for informing each other and the rest of the consortium of any feedback received with regard to the consideration of the application and the final decision. The Dutch main applicant is also responsible for submitting any additional documentation (such as the rebuttal) in ISAAC.

During the assessment process, NWO will communicate with the Dutch main applicant. The Dutch main applicant is responsible for sharing feedback with the other consortium members on the eligibility of the application, reviewer reports, information regarding the rebuttal, and any further information such as the NWO grant award decision communicated regarding the assessment of the proposal. The Chinese main applicant and the Dutch main applicant will be informed of the grant decision by their respective funding agencies.

After a proposal has been awarded funding, the Dutch and Chinese main applicants will become the project leaders and point of contact for their respective funding agencies. The (knowledge) institution of the main applicants are the main beneficiaries and will take responsibility for the project secretariat, the day-to-day management and all financial affairs of the research project, including the final financial accountability towards their respective funding agencies.

Co-applicants have an active role in realising the project. The (sub)project leaders, beneficiary/beneficiaries, and practitioner consortium partners are jointly responsible for realising the entire project.

3.2 What can be applied for

Different costs can be reimbursed from the CAS and NWO grants. The application form allows applicants to specify which organisation should cover a certain cost. For this call, two budgets should be completed; one specifying all costs to be covered by the NWO grant and one specifying all costs to be covered by the CAS grant.

Reimbursable costs from NWO

For an application in this Call for proposals, a maximum of € 700,000 can be applied for from NWO. The maximum duration of the proposed project is 4 years. The budget modules (including the maximum amount) available for this Call for proposals are listed in the table below. Applicants should only apply for funding that is vital to realise the project. A more detailed explanation of the budget modules can be found in Annex 7.1 to this Call for proposals.

Budget module	Maximum amount
PhD student	Unrestricted number of positions, according to UNL rates ⁸
Professional Doctorate in Engineering (PDEng)	Unrestricted number of positions, in combination with PhD student(s) and or postdoc(s), according to UNL rates ⁸
Postdoc	Unrestricted number of positions, according to UNL rates ⁸
Non-scientific Staff (NSS) at universities	€ 100,000, non-scientific staff at (NSS) universities ⁸ , in combination with PhD student(s) and/or postdoc(s) ⁸
Other Scientific Staff (OSS) at universities	€ 100,000, in combination with PhD student and/or postdoc
Research leave	5 months, 1 FTE, according to UNL rates ⁸
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
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

⁸ 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>. Please note: costs for personnel from China may only be applied for in the CAS grant.

Reimbursable costs CAS

The maximum project duration on the Chinese side is four years. Projects can apply for a maximum of RMB 1,8 million at CAS – which equals RMB 450,000 for each project year.

The use and management of CAS project funds shall be carried out in strict accordance with the CAS Fund Management Provisions of all the Academy-level Research Projects. For more information, please see: <http://www.bpf.cas.cn/gzzdzb/>.

Please refer to the Chinese Call for proposals on the CAS website for more information: http://www.bic.cas.cn/tzgg/202210/t20221024_48522339.html.

3.3 Preparing an application

Webinar

A webinar on the Call for proposals and the Impact Plan approach will be held on 14 December 2022. In this webinar, participants will be given more information regarding the Impact Plan approach, as well as have the opportunity to ask questions. It is not mandatory to attend the webinar. More information, including the link for joining the webinar, will be made available on the Cooperation China (CAS) - the Netherlands (NWO) [programme page](#).

Application

Applications must be written in English. The steps involved in writing the application are:

- Download the application form from the NWO web application ISAAC or from the NWO web page (on the grant page of the funding instrument concerned);
- Complete the application form and the Excel budget;
- Save the application form in ISAAC as a PDF file and upload it with any compulsory Annexes in ISAAC and in ARP;
- Fill in the requested information online in ISAAC and ARP.

Compulsory Annexes:

- Excel budget (Dutch side only);
- 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 appointments. This letter confirms the participation of the consortium members named in the application, as well as confirms any contributions by the organisation (in FTE and/or financially), such as the fourth year of a PhD trajectory or additional time from consortium members not covered by the NWO grant. If it concerns a contribution to a PhD or postdoc position, please confirm the numerical amount that is contributed in accordance with the UNL salary tables. The letter of commitment must be signed by the Dean of the faculty or Director of the respective 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 the main applicants and all co-applicants and collaboration partners (each CV may take up max 1 A4 page). If you wish, you can choose to submit the CV in narrative form;
- *(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 ISAAC separately from the application. All of the Annexes, except for the budget, must be submitted as PDF files (without encryption). The budget must be submitted in ISAAC as an Excel file. Any Annexes other than those above-mentioned are not permitted.

Please note: the Chinese main applicant may need to submit additional information to CAS. Please refer to the Chinese Call for proposals on the CAS website at http://www.bic.cas.cn/tzgg/202210/t20221024_48522339.html for more information.

Submission to NWO

An application can only be submitted to NWO via the web application ISAAC. Applications that are not submitted via ISAAC will not be taken into consideration. Dutch main applicants are required to submit the application via their own personal ISAAC account.

It is important to start the application in ISAAC on time:

- If applicants do not yet have an ISAAC account, then they should create this in time to prevent any possible registration problems;
- Any new organisations must also be added to ISAAC by NWO, see text below for whom to contact;
- Other details, such as the names and organisations of all consortium partners, need to be submitted online, too.

Applications submitted after the application deadline will not be taken into consideration by NWO. For technical questions, please contact the ISAAC helpdesk. For contact details, please refer to Chapter 6 'Contact and other information'

If the Chinese main applicant, co-applicants, or a practitioner partner work at an organisation that is not included in the ISAAC database, this can be reported via relatiebeheer@nwo.nl. The management team can add the organisation in the system. Please note that this process may take several days. It is therefore important that any such request are submitted to NWO relatiebeheer (see email address above) at least one week before the deadline.

Applicants must inform the organisation where they are employed about the submission of the application, and the organisation must accept the granting conditions of this Call for proposals (Section 3.5) through the letter of commitment.

Submission to CAS

The Chinese main applicant should submit the application via ARP system. Please see the Chinese version of the Call for Proposals on the CAS website: http://www.bic.cas.cn/tzgg/202210/t20221024_48522339.html.

Please note: the Chinese main applicant may need to submit additional information to CAS. Please refer to the Chinese Call for proposals on the CAS website for more information.

3.4 Conditions for submission

3.4.1 Formal conditions for submission

NWO and CAS will assess applications against the conditions listed below. Applications will only be admitted to the assessment procedure if they meet these conditions. After submitting the application, main applicants should be available to implement any possible administrative corrections so that their application 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 to NWO via the Dutch main applicant's ISAAC account and via the Chinese main applicant to ARP;
- The application is received at or before the deadline set by both NWO and CAS;
- 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 duration of at most four years on the Dutch side and on the Chinese side;
- All of the compulsory Annexes (mentioned in Section 3.3) are, after a possible request to make additions or changes, complete and filled out according to the instructions.

Please note: the Chinese main applicant may be required to submit additional documentation to CAS. On the Chinese side, applications cannot be corrected, and, if they do not meet the CAS eligibility criteria, will be declared inadmissible.

If an application is declared inadmissible by NWO or by CAS, it will also be declared inadmissible by the other funding agency and will not be admitted to the assessment procedure.

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 part of the budget covered by the grant from CAS must follow the CAS grant conditions.

3.5.1 Data management

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

Data management at NWO

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 publicly accessible to the extent this is possible. NWO expects that research data resulting from NWO-funded projects will be made publicly available, 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 that underlie the conclusions of work published within the project, publicly available at the same time as the work’s publication. Any related costs 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 and the data management plan that is drawn up after funding is awarded.

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 privacy, ethical or valorisation reasons, then the applicant is obliged to list the specific reasons in the data management section.

The data management section in the proposal is not evaluated and will therefore not be weighed in the decision whether or not to award funding. However, both the referees and the committee members can issue advice with respect to the data management section.

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). By submitting the proposal, all applicants commit to this code. In the case of a (possible) violation of these standards during a project funded by NWO and CAS, the applicants should immediately inform NWO and CAS of this and should submit all relevant documents to NWO. More information about the code of conduct and the policy regarding research integrity can be found on the website: www.nwo.nl/en/scientific-integrity.

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.

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 assumes 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. Please note that contributions from the organisations of main applicants or co-applicants are not considered co-financing;
- 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 a contribution by the organisation of a main or co-applicant, this contribution, such as the fourth year of a PhD trajectory or additional time from applicants not covered by the NWO grant, should be confirmed in the letter of commitment (See Annex 7.2). If it concerns a contribution to a PhD or postdoc position, please confirm the numerical amount that is contributed in accordance with the UNL salary tables.
- Co-financing provided by a Chinese institution or organisation should preferably be included in the CAS budget, and should be accounted for to CAS. Co-financing provided by other institutions or organisations should preferably be included in the NWO budget, and accounted for to NWO;
- 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 projects awarded under this call should contribute to 'Green Water Processes'. To this end, project leaders, 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 mid-term workshop with all projects of the call, as well as a final conference. This is in addition to the activities organised by the individual projects. Consortia should budget for their participation in these meetings in their application (at least € 15,000).

4 Assessment procedure

This chapter describes the course of the assessment procedure (Section 4.2). It also states the criteria that the assessment committee will use to assess the applications (Section 4.3).

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

NWO and CAS 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 CAS encourage referees and members of the assessment committee or jury to be actively aware of implicit associations and to try to minimise these. NWO and CAS will provide them with information about concrete ways of improving the assessment of an application.

4.1 The San Francisco Declaration (DORA)

NWO is a signatory to the San Francisco Declaration on Research Assessment (DORA). 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 CAS request referees and committee members not to solely rely on indicators such as the Journal Impact Factor (IF) or the H-index when assessing applications. Applicants are not allowed to mention these in their applications. They 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 <https://www.nwo.nl/en/dora>.

4.2 Procedure

The application procedure consists of the following steps:

- Submission of the full proposal;
- Consideration of the full proposal;
- Peer review by referees;
- Rebuttal;
- Assessment by International Assessment Committee (IAC);
- Decision-making by CAS and the NWO WOTRO Steering Committee.

4.2.1 Submission of a full proposal

For the submission of the proposal, a standard form is available on the funding page of this Call for proposals on the NWO website. When writing the proposal, applicants must adhere to the questions stated on this form and the procedures explained in the explanatory notes. They must also adhere to the conditions for the maximum number of words and pages.

The complete application form must have been received before the deadline via ISAAC and the ARP submission system (see Section 1.3). After this deadline, proposals can no longer be submitted. After submitting the proposal, the main applicants will receive a confirmation of receipt from their respective funders.

4.2.2 Consideration of a full proposal

After the submission of the proposal, the main applicants will hear from NWO and CAS whether or not their proposal will be taken into consideration, as soon as possible. NWO and CAS will determine this based on several administrative-technical criteria (see the formal conditions for submission, Section 3.4). NWO and CAS can only take proposals into consideration if they meet these conditions.

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

Please note: On the Chinese side, applications cannot be corrected, and, if they do not meet the CAS eligibility criteria, will be declared inadmissible.

If an application is declared inadmissible by NWO or by CAS, it will also be declared inadmissible by the other funding agency and will not be admitted to the assessment procedure.

4.2.3 Peer review by referees

Before the assessment committee considers the submitted proposals, NWO and CAS will request input from at least two external referees per proposal. They are independent advisers who are an 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 non-referees can be registered. Applicants can register these non-referees in ISAAC when submitting the proposal. NWO and CAS will not approach these non-referees to assess the proposal as external referees.

4.2.4 Rebuttal

The Netherlands-based main applicant subsequently receives the anonymised referees' reports via ISAAC. The consortium then has the opportunity to formulate a rebuttal. They will be given ten working days to submit the rebuttal via ISAAC. If the consortium decides to withdraw the proposal, then this should be done as quickly as possible by sending an email stating this to the call secretariat (cas-nwo@nwo.nl) and withdrawing the proposal in ISAAC. The Chinese main applicant should inform the management team of ARP if they wish to withdraw the proposal. If NWO receives the rebuttal after the submission deadline, then it will not be included in the rest of the procedure.

4.2.5 Pre-advice assessment committee

Your proposal, the referees' reports, and rebuttal will be submitted for further commenting by 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).

4.2.6 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 committee draws up a written recommendation addressed to the NWO-WOTRO Steering Committee and CAS 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. 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, two or more of the proposals cannot be distinguished from each other based on their weighted total, then there is an ex aequo situation (see the following paragraph about ex aequo).

If, after the discussion of the 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).

4.2.7 Ex aequo

NWO and CAS 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 amount 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 amount 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 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 it is not desirable to vote, the ex aequo situation will be forwarded to and discussed amongst the NWO-WOTRO Steering Committee and CAS for final decision taking.

4.2.8 Decision-taking

Finally, the NWO-WOTRO Steering Committee and CAS will assess the procedure followed and the advice from the assessment committee. They 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 CAS have come to the same provisional decision.

4.2.9 Timetable

Below, the timetable for this Call for proposals is included. During the pending procedures for this Call for proposals, NWO and CAS might find it necessary to make changes to the timetable. Applicants will, of course, be informed about this in time.

Date	
14 December 2022	Informative webinar
16 February 2023, 14:00:00 CET	<i>(if applicable)</i> Deadline to assess eligibility Dutch main applicant and Dutch co-applicants whose organisation is not listed in Section 3.1.1.
2 March 2023 14:00:00 CET	Submission deadline full proposals NWO
3 March 2023 16:00:00 CST	Submission deadline full proposals CAS
March 2023	Eligibility check by secretariats
April - May 2023	Peer reviewers (referees) are consulted
June 2023	Consortia have ten working days to submit a rebuttal, via the ISAAC account of the Dutch main applicant
September 2023	Meeting and advice by assessment committee to NWO-WOTRO Steering Committee and CAS
October 2023	Decision NWO-WOTRO Steering Committee and CAS
October 2023	NWO and CAS inform main applicants about the decision
1 May 2024	Deadline start projects

4.3 Criteria

4.3.1 Substantive assessment criteria

The applications submitted within this Call for proposals will be substantially assessed on the basis of the following criteria:

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

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

The assessment criteria are further operationalised below:

- I. *Quality of the research proposal*
 - Scientific importance and innovativeness of the research questions and approach;
 - Degree to which the proposal convincingly substantiates 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;
 - Interdisciplinarity and transdisciplinarity; the proposal incorporates the scientific disciplines necessary for addressing 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 demands;

- 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 Sino-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 by 1 May 2024. At least one researcher must be appointed to the project at the time of its start. If the project has not started by 1 May 2024, the NWO-WOTRO Steering Committee, on behalf of NWO, and CAS can decide to revoke the granting decision.

Start documents

The Dutch project leader and the Chinese project leader are responsible for ensuring that 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 on 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.

CAS

CAS will inform the Chinese main applicant of the necessary steps. The main applicant must submit all necessary documentation to CAS in time for the project to start.

Publications

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

Annual report

Annually, the project must submit a written report (in English) to inform NWO on the overall project progress, experiences and outputs. CAS will inform the Chinese project leader of the requirements for reporting on the Chinese side. The project leaders from both countries will receive instructions and a format for the annual report in advance.

Mid-term report

The projects will also be evaluated by a self-assessment around the mid-term of the projects' running time. This includes a report, 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 mid-term 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 project report will be evaluated and interviews or field visits may be organised to evaluate the progress and impact of the respective projects.

The mid-term report of all projects within a call need to be submitted before the joint mid-term workshop and will be used as input for organising this mid-term 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 discussion with stakeholders from outside the project team. The final substantive report will again be evaluated. The final workshop should also 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 Dutch Ministry of Education, Culture and Science, an external audit report must also be submitted.

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.

End report and final accountability to CAS

For final accountability to CAS, please see the Chinese version of the Call for proposals: http://www.bic.cas.cn/tzgg/202210/t20221024_48522339.html.

5.2 Data management

After a proposal has been awarded funding, the researchers should convert the data management section into a data management plan. For this, applicants can make use of the advice from the referees and committee. The applicants describe 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 an equivalent officer of the organisation where the project will be realised. The plan should be submitted to NWO via ISAAC within four months after the proposal has been awarded funding. NWO will approve the plan as quickly as possible. Approval of the data management plan by NWO is a condition for disbursement of the funding. The data management plan may 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 Intellectual property and consortium agreement

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 should furthermore detail any 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, in the spirit of equity. The initiative for the concluding of these agreements lies with the main applicants. NWO and CAS will subsequently check whether the project agreement meets the conditions, but they will not sign the agreement.

The model consortium agreement that NWO and CAS 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. Chinese main applicants and co-applicants should furthermore ensure that any IP emanating from the execution of their project is managed in accordance with the CAS grant conditions.

5.3.1 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). (<https://www.rijksoverheid.nl/documenten/rapporten/2019/05/29/tien-principes-voor-maatschappelijk-verantwoord-licentieren>).

5.4 Open Access

NWO and CAS are committed to making the results of the research it funds openly accessible via the internet (Open Access). 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 UNL 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

Costs for publication in fully Open Access journals can be budgeted in the application using the budget module for “Material costs” on the NWO side. Open Access costs can also be budgeted for from the CAS budget. 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.

6 Contact and other information

6.1 Contact

6.1.1 Specific questions

For specific questions about Cooperation China - the Netherlands (CAS) and this Call for proposals on 'Green Water processes' please contact:

NWO:

Mr Berry Bonenkamp
+31 (0)70 349 44 16

Mr Matthijs Kallenberg
+31 (0)70 349 4094

CAS-nwo@nwo.nl

CAS:

Mr FANG Qiang
+86 (0)10 68597396

6.1.2 Technical questions about the web application ISAAC

For technical questions about the use of ISAAC, please contact the ISAAC helpdesk. Please read the manual, which can be found in ISAAC, first before consulting the helpdesk. The ISAAC helpdesk can be contacted from Monday to Friday between 10am and 5pm on +31 70 344 0600. Applicants can also submit their question by email to isaac.helpdesk@nwo.nl. They will then receive an answer within two 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, salary costs are funded in accordance with the UNL salary tables applicable at the time the grant is awarded (www.nwo.nl/en/salary-tables).
- For university medical centres, salary costs are funded in accordance with the NFU salary tables applicable at the time 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 may 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 a deviation from the standard time is allowed 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 (see page 29).

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 (see page 29).

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 five 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 applicants 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:

1. 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.

2. 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.

3. 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 for 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 research. With the help of citizens, data and insights can be acquired that would otherwise not 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. This 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 (eg., 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).

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 percent of the grant, € 140,000, 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 research .
- 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.
- 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 percent of the grant, € 140,000 can be requested under this call as funding for internationalisation activities. The following conditions apply:

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 a clear 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 applicants must convincingly argue how researcher from the foreign knowledge institution will contribute specific expertise to the research project that is not available in the Netherlands at a 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 UNL 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 to 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.

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.

N.B.: in this call, this module may not be used for researchers in China. Costs for Chinese researchers should be budgeted to the CAS budget.

Explanation of budget module Projectmanagement

The module project management provides a possibility to request a budget for project management that is at most 5% of the total budget requested from NWO. This budget can only be used for activities that solely support the project for which the grant is requested. The applicant must satisfactorily justify this budget.

Amongst other things, project management is understood to mean the optimal shaping of the organisation structure of the consortium, support of the consortium and the main applicant, monitoring coherency, progress and unity of the project, and alignment between the sub-projects within the project. This task may also be realised by external parties insofar as the expertise is not available at the knowledge institution of the main and/or co-applicant(s). During the tendering procedure for the selection of a third party, knowledge institutions should take into account the procurement rules of the government and, where necessary, follow a European tendering procedure. The activities of the main applicant and co-applicants in the context of the project (management) may not be funded from this budget module.

The budget to be requested for project management can consist of material costs, realisation costs and personnel costs. For personnel costs a maximum rate of 119 euros per hour may be used. The hourly rate of personnel to be appointed is based on the cost-covering rate (kostendekkend) and is calculated in accordance with the standard productive number of hours used by the organisation. The cost-covering rate includes:

- (average) Gross salary for the post of the employee who will contribute to the project (based on the collective labour agreement scale of the employee concerned);
- Holiday allowance and 13th month (if applicable in the relevant collective labour agreement) in proportion to the use in fte;
- Social security contributions;
- Pension costs;
- Overheads.

7.2 Format letter of commitment

Template letter of commitment for consortium organisation

Note: 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 CAS and NWO, entitled '[proposal title]', which was submitted to the 'Green Water Processes'.

[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,

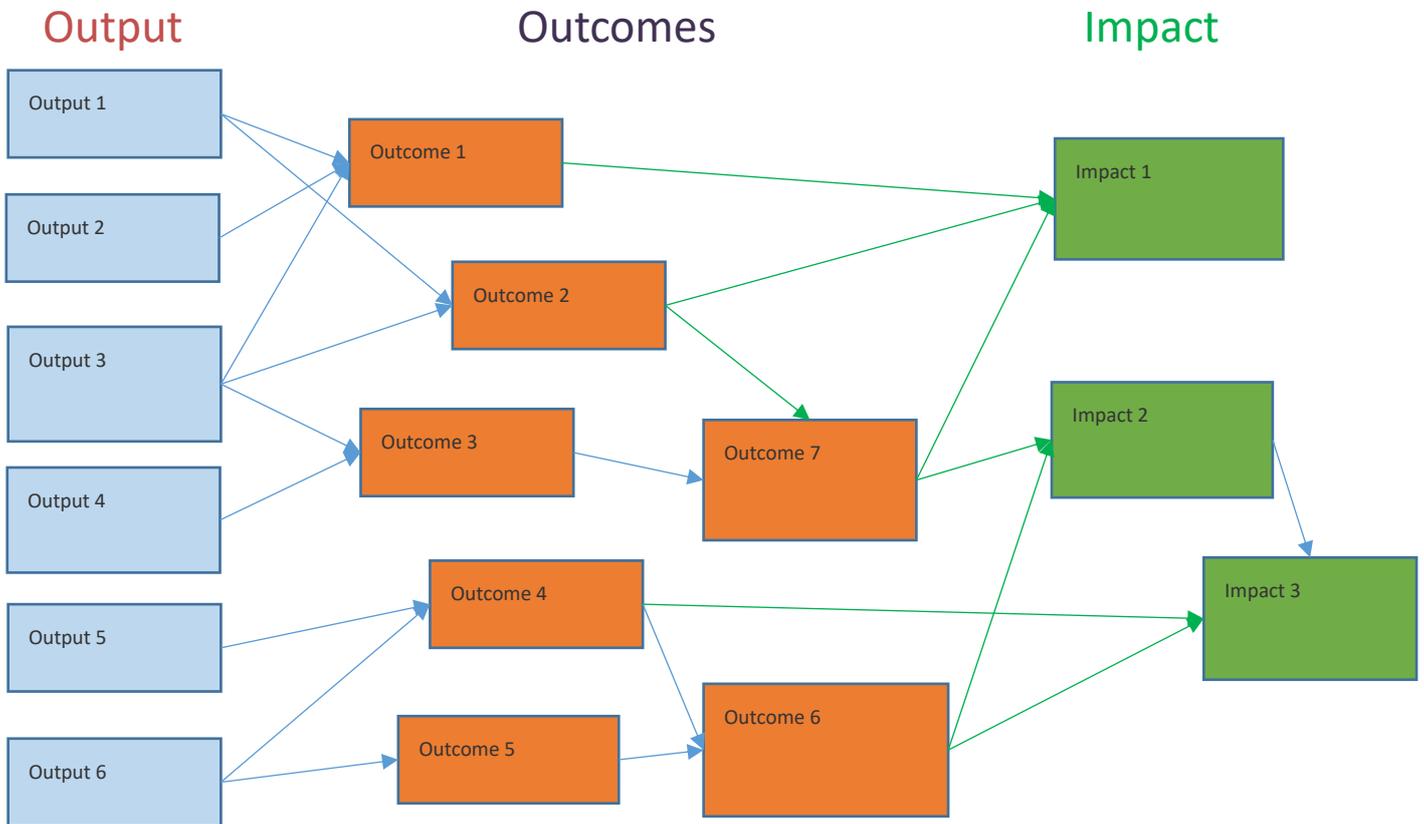
[Signed by Dean of Faculty/director of organisation]

..... [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.



Publication: November 2022

Dutch Research Council

Cover image: Shutterstock

Visiting address:

Location The Hague

Laan van Nieuw Oost-Indië 300

2593 CE The Hague

The Netherlands

Location Utrecht

Winthontlaan 2

3526 KV Utrecht

The Netherlands

www.nwo.nl/en