Open Competition XS – proposal writing

Background:

The NWO Open Competition Domain Science (ENW) offers researchers opportunities to apply for funding for individually or in collaboration for curiosity-driven, fundamental research. There are three different types of funding: XS, M and XL grants and it should be noted that these schemes differ, among other things, in size, duration and reviewing process. In the past, the Mathematical Sciences have been very successful in the M and XL schemes, but less so in the XS scheme.

Acceptance rate	XS (2025)	M (2025)	XL (2019, 2021, 2023)
Mathematics	~5%	~36%	~20%
Average	~14%	~24%	~16%
% of Mathematics applications	~1%	~9%	~5%

Data from factsheets NWO Science Open Competition and Talent Line 2019-2025.

PWN Think Big with Small Grants:

In addition to the low acceptance rate for Mathematics in the XS scheme, also the number of applications tends to be low (<10). Late 2025, PWN wrote a three-pager titled: "*Think Big with Small Grants: Why Mathematicians Should Apply for an NWO-ENW XS Grant"* to address this dichotomy (document attached). While this resulted in a significant increase in the number of applications in the NWO ENW XS 2026-1 batch (19 out of the 128 in the cluster Physical and Exact Sciences), the acceptance rate did not increase. In fact, no Mathematics proposals were funded.

Feedback reviewers:

NWO analysed, in consultation with the Roundtable Mathematics, the reviewer reports from these proposals. Here, it should be noted that applicants review the proposals of other applicants in the same cluster. A global overview of common themes in the reviews is:

- Criterium I: High-risk/high-gain
    - The proposal is not clear to a wider scientific audience, abbreviations and technical concepts are not well-explained.
    - The proposal does not clearly explain why the proposed research is high-risk/high-gain. In particular, an explanation of why a proposal is high-risk is often noted to be missing.

    - The proposal lacks an explanation of the potential impact of the proposed work outside the proposals own field, in the wider scientific community.
- Criterium II: Feasibility
    - The proposal is not clear to a wider scientific audience, abbreviations and technical concepts are not well-explained.
    - For proposals requesting funding for an academic visit: it is unclear what the research problem is and/or how it will be addressed.
    - The proposal lacks a (clear) timeline, objectives, work packages, milestones, etc..

Note that how positive or negative reviews are does not appear to correlate with the assessor's own discipline.

Going forward:

Based on the above the following steps/actions are being taken by the Roundtable Mathematics and PWN:

- **Cluster.** Investigate the possibility of a new/different cluster. However, this seems highly unfeasible, especially due to the low number of applications.
- **Call text.** Work with NWO and Computer Science and Theoretical Physics, who face similar challenges, to improve the text of the call to better align with Mathematical research practices.

Writing tips:

In addition, and after further consulting previous Mathematics awardees of the schema, below a few writing tips for upcoming Mathematics applicants:

- Ensure that the proposal is clear to a wider scientific audience and avoid the use of abbreviations and technical concepts as much as possible.
- Consider explaining basic concepts and frame the research question in a broader scientific context (and maybe not in all mathematical technical details).
- Clearly describe the potential impact of the proposed research outside of Mathematics.
- Explicitly explain why the proposed research is high-risk and why it is high-gain.
- Make sure the proposal has a timeline, objectives, work packages, milestones, etc..

Think Big with Small Grants: Why Mathematicians Should Apply for an NWO-ENW XS Grant

A unique opportunity for bold mathematical ideas

The NWO Open Competition Domain Science (ENW) – **XS** scheme offers researchers a rare chance to explore *high-risk, high-gain* ideas that may not fit traditional funding programmes.

With a maximum budget of **€50,000** and a short project duration (up to **12 months**), the XS instrument is designed for **curiosity-driven, fundamental, and speculative research** that could open new directions — even if outcomes are uncertain. Every result, positive or negative, helps advance science.

Mathematics thrives on boldness and creativity — precisely what XS supports. Whether it's testing a daring conjecture, developing a new computational method, or exploring an unexpected link between pure and applied mathematics, the XS programme provides a *low-threshold, high-freedom* environment to make it happen.

Why mathematics should seize this chance

In recent rounds, relatively few mathematics and computer science proposals have been submitted or funded. Yet both disciplines are explicitly listed among the seven ENW domains, under the *Physical and Exact Science*, that can participate in the XS funding scheme. This is the moment to change that trend. By submitting more high-quality mathematical proposals, we can:

- Strengthen the presence of mathematics in NWO's open competition;
- Ensure mathematical ideas are evaluated by peers who understand their value;
- Demonstrate the creative power of mathematics for scientific discovery.

What makes XS special

- **Fast, fair, and transparent review** – applicants themselves review the proposals of others within the same cluster. The process is *anonymous*, meaning assessments focus purely on the *quality of ideas*, not on names or affiliations.
- **Three calls per year** – giving you several opportunities to submit: February, May, and September.
- **Simple proposal structure** – short, clear, and focused on two criteria:
    1. *High-risk / high-gain potential* – is the idea bold, original, and potentially transformative?
    2. *Feasibility* – can it be executed convincingly within 12 months and €50,000?
- **Freedom of use** – the budget can cover a PhD or postdoc contribution, equipment, computing resources, travel, or student assistance — whatever best serves your idea.

What kinds of mathematical projects fit XS

Think *exploratory, bold, and creative*. Examples:

- Developing and testing a radical new numerical scheme or model reduction concept;
- Exploring the mathematical underpinnings of data-driven modelling or AI;
- Investigating new proof strategies or algorithms for complex systems;
- Linking abstract theory to emerging applications in physics, biology, or industry;
- Using mathematics as an enabling language for multidisciplinary challenges.

The key is *risk*: ideas that might fail but could redefine what's possible.

Who can apply

Any researcher with a **PhD** (including postdocs and professors) who holds a salaried position during the project period is eligible. Each researcher can submit **one proposal per round**, and those who participated in the immediately preceding round must wait until the next one.

Special incentive measure for female researchers (XS 2026)

The 2026 Call includes a special incentive measure aimed at improving gender balance within ENW. An additional budget has been made available to support extra XS proposals from female researchers. See page 3 for details.

How to get started

1. Visit www.nwo.nl/en/enw-xs for the latest call: Open Competitie ENW XS 2026 pakket 26-1 | NWO
2. Choose the **Physical and Exact Sciences** cluster.
3. Download the application form and budget template from NWO's ISAAC system.
4. Write a concise, accessible, and imaginative proposal.
5. Submit before the next deadline (expected February, May, and September 2026).

If in doubt about eligibility or fit, contact the programme officers — they are happy to help (enw-xs@nwo.nl).

Final encouragement

This is the perfect instrument to **try something completely new**, to **test the limits of your ideas**, or to **explore a mathematical intuition that deserves a first step**. The projects are small, but their impact can be huge. Many successful larger NWO projects began as XS explorations.

Let's make sure mathematics is fully visible and vibrant in the 2026 XS rounds — submit your idea, inspire others, and show how mathematical curiosity drives scientific discovery.

Incentive Measure for Female Researchers
To improve gender balance within the Exact and Natural Sciences (ENW), an additional budget of €1,200,000 has been made available for ENW-XS 2026. With these funds, up to 24 additional proposals submitted by female researchers may be awarded, on top of the regular allocations. This corresponds to a maximum of eight additional proposals per package, provided that: they have received a final prioritisation score with an average in the range 1.0–5.5, the highest and lowest prioritisation scores are excluded from the calculation of this average, and they could not be funded from the regular budget of the ENW-XS 2026 Call for proposals. Awards will be made in order of final prioritisation. In the case of a tie (ex aequo) between two or more proposals from female applicants (rounded to one decimal place), the following rule applies: the proposal with the greater number of highest prioritisation scores will be given preference, considering only the scores used to determine the final average.
Important: To be eligible for this preferential treatment, female applicants must have selected the category “Female” under ‘Gender’ in the ISAAC system at the time of the submission deadline for the ENW-XS package.

Stimuleringsmaatregel vrouwelijke onderzoekers
Ter verbetering van de genderbalans in de Exacte en Natuurwetenschappen (ENW) is een additioneel budget van € 1.200.000 beschikbaar gesteld voor ENW-XS 2026. Met deze middelen worden tot maximaal 24 extra voorstellen van vrouwelijke onderzoekers toegekend bovenop de reguliere toewijzingen. Dit komt neer op maximaal 8 voorstellen van vrouwelijke onderzoekers die per pakket extra toegewezen kunnen worden, mits die een gemiddelde in de range van 1,0 tot en met 5,5 hebben ontvangen in de eindprioritering, waarbij éénmaal de hoogste en éénmaal de laagste prioritering niet meetellen voor het gemiddelde, en die niet op basis van het reguliere budget voor deze ENW-XS 2026 Call for proposals konden worden gefinancierd. Toewijzing zal plaatsvinden op volgorde van eindprioritering. In het geval van een ex aequo-eindprioritering van twee of meerdere aanvragen van vrouwelijke onderzoekers (afgerond op één decimaal) geldt het volgende uitgangspunt: - de aanvraag met de meeste hoogste prioriteringen krijgt de voorkeur, waarbij alleen gekeken wordt naar de prioriteringen die gebruikt zijn voor het bepalen van het gemiddelde voor de eindprioritering.
Let op: hiervoor moeten vrouwelijke aanvragers in ISAAC bij basisgegevens onder het kopje ‘Geslacht’ de categorie ‘Vrouw’ ingevuld hebben op het moment van de deadline van het ENW-XS pakket om aanspraak te maken op deze voorkeursbehandeling.