

Webinar joint call on unconventional information processing technologies

Japan Science and Technology Agency (JST) and Dutch Research Council (NWO)

June 3rd 2025



Agenda

Inform the research community on the Call by NWO and JST Time: 9.00-11.00 hrs (CET)

09:00 Welcome and Introduction

09:10 Introduction to the Call by NWO and JST:

- > Call theme
- > Call overview
- > What can be applied for
- > Extended research stays in JP/NL
- > Submitting an application
- > Assessment process
- > Timeline
- 09:45 Knowledge security at NWO and JST
- 10:00 Break out rooms matchmaking session
- 10:20 Final questions
- 10:30 Closing remarks



Call theme

- "Unconventional information processing technologies"; These are innovative technologies that solve current bottlenecks for information processing.
- Unconventional here means game-changing and alternative technologies to existing technologies (conventional technologies being e.g. digital computing, silicon-based, CMOS technology).
- Projects should aim to solve bottlenecks such as improving computing power, lower energy consumption, improve latency times, etc.
- Focus on hardware from materials to device level, possibly combined with software.
- Example research areas: brain-inspired computing, quantum computing, (integrated)
 photonics, innovative semiconductor technologies, nanomaterials.



Call overview

- The objective of this call is to build talent, mobility and networking between researchers in Japan and the Netherlands.
- Stimulate researcher mobility: Requirement of the early career researchers in all projects to stay a considerate amount of time in the other country.
- Assessment procedure via peer review, international assessment committee.



Call overview - budget

- Total budget available: €4,650,000 from NWO and 769,230,769 JPY from JST
- Project budget: ≈ 2.25M€ (410M ¥): 1.15M€ (205M¥) on both sides (NL/JP). Separate JP/NL budgets -> in total fund ~4 projects
- Non-obligatory co-financing of maximum 20% in-kind



What can be applied for? – joint guidelines

- Funding for joint projects that consist of Dutch and Japanese work package(s). Work packages within one project should be equally balanced between both countries.
- The minimum duration of the project is 48 months, and the maximum duration is 60 months/ 5 years.
- Note: Appropriate budget needs to be reserved to fund the organisation/attendance of the kick-off meeting, midterm meeting, and final closing meeting of this research programme.
 These meetings are to be held in person, alternating between Japan and the Netherlands.
 - * More information: section 3.2 of the Call for proposals



What can be applied for? – NWO guidelines

- From NWO a budget of at least €800,000 and at most €1,150,000 can be requested
- Personnel: at universities, umc's, universities of applied sciences, or other research organisations
- Materials: max. 50% of the NWO grant. The material budget includes travel budget, extra costs for accommodation/sustenance in Japan, and budget for the in-person kick-off, midterm, and closing meetings.
- Knowledge utilisation: max. 5% of the NWO grant
- Programme management: max. 5% of the NWO grant



What can be applied for? – JST guidelines

- From JST a maximum amount of 250,000,000 JPY(including indirect costs which are 30% of direct costs)
- Direct costs: Personnel, travel, Facilities, Equipment and Consumables, miscellaneous
- 70% of the total direct JST cost needs to be spend on activities that further ASPIRE's objectives of
 - (1) building and expanding international research networks that foster cutting-edge research and development.
 - (2) laying the foundation for long-lasting relationships and continued involvement in the international research community by promoting international talent mobility and providing research opportunities to early career researchers.
- Private company can't be Main applicant and Co-applicants.



Note for Japan-side team

• The Japanese budget for this Call comes from the ASPIRE programme. Applicants (main applicants and co-applicants) may only apply to one of the ASPIRE 2025 Call for Proposals. Also there are some conditions for PIs or Co-PIs currently supported by ASPIRE, please kindly see the detail in 3.1.1 Main applicants (Principal Investigators).



Extended research stays in the other country

Strengthening research networks between the Netherlands and Japan and promoting international research mobility.

- For JST: The Japan-side team should include outgoing researcher(s) who fall under either (i) or (ii) to be eligible. The outgoing researcher(s) will conduct research activities in the Netherlands for about one year. Outgoing researchers are:
 - (i) Students enrolled in an advanced degree course (i.e., master's or doctoral course) *
 - (ii) Researchers who have obtained their final degree less than 15 years ago and are conducting research activities at universities, public research institutions, etc.



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 - (ii) Researchers who have obtained their final degree less than 15 years ago and are conducting research activities at universities, public research institutions, etc.
- For NWO: All early-career researchers (PhDs and postdocs) ≥ 20% of total employment time in Japan.
 - The research stay can be scheduled in one continuous block, or in shorter visits throughout the project.
 - Appropriate budget needs to be reserved to fund these extended research stays. This budget can be requested via the budget module "Material".



Submitting an application

- The Netherlands and Japanese research teams need to write **one application together**.
- You need to submit the application to NWO via the ISAAC system <u>and</u> to JST via the e-Rad system.
- Each funding organisation has their own compulsory annexes to upload with the application form see section 3.3 in the Call text for more information.



Assessment

Assessment by peer review: external international referees + international assessment committee. See chapter 4 of the Call for proposals for more information.

Criteria

- 1. Quality and relevance of the research content and plan 30%
- 2. Quality of the consortium 20%
- 3. Quality of stimulating researcher mobility and international collaborations 30%
- 4. Scientific and/or societal impact 20%



Note

Rebuttal

• The main applicant based in the Netherlands subsequently receives the anonymized referee reports, and should share these with the Japan-based main applicant and the rest of the consortium.

Interview for Japan-side

• For the Japanese side, JST will conduct interviews with Japan-based main applicants during the assessment process to verify that the proposed research project aligns with the goals of the Japanese ASPIRE program. The applicants will be notified by email and interview dates are arranged on an individual basis.



Timeline of the Joint Call

31 July 2025 Deadline statements of intent

14:00.00 CEST, 9 September 2025 Deadline proposals at NWO

14:00.00 JST, 9 September 2025 Deadline proposals at JST

September/October 2025 Admissibility of the proposal including research security check

November 2025 Outcome pre-selection (if applicable)

October/November 2025

December 2025

Referees consulted

Applicants can submit a rebuttal

January 2026 Assessment committee meeting

March 2026 Decision by NWO Executive Board and Executive Board of JST



Starting the project

at NWO

- The project should start within six months of the project being awarded. At least one researcher must be appointed to the project at the time of its start. If the project has not started within six months, the NWO Executive Board can decide to revoke the granting decision.
- Note: the project can only start once the Consortium Agreement has been signed by all consortium members.

at JST

• The allocation of funds to projects will start in June 2026 and project should start at the same time.



Knowledge security checks for proposals JST's Efforts to Ensure Research Security

- The impact of basic research on society, the importance of international collaboration, and geopolitical tensions make research security urgent.
- Research freedom, transparency, and openness are essential for knowledge and societal
 development. However, improper use of open research systems can harm integrity, fairness, and lead
 to misuse and leaks. So, it is necessary to protect academia from improper use without
 discrimination.
- JST will ensure research security in supporting projects through JST-TRUST and engage with the research community.
- At **JST-TRUST**, JST assesses the risks and potential impacts on research security based on the content of proposals and experts' confirmation.

JST's Research Security Assessment Process

- In this Call, research security measures will be taken in consultation with the Japan-side

 Principal Investigator and their research organisation. When submitting an application in e-Rad,
 the Japan-side Principal Investigator must fill in the questionnaire on research security and
 submit it together with the application form specified by JST.
- The content of the questionnaire includes questions <u>concerning only Japan-based research</u>
 <u>team.</u> The questionnaire can be found through the following link:
 https://www.jst.go.jp/aspire/en/program e/announce e/announce aspire2025 nl e.html
- JST assesses the risks and potential impacts on research security based on the content of proposals and questionnaire. Depending on the nature of the research and the answers to the questionnaire, you may be asked to take risk mitigation measures.



Enhancing research security

- On the Japanese side
 - ✓ When submitting an application in e-Rad, the Japanese Principal Investigator must fill in the questionnaire on research security and submit it together with the application form specified by JST
 - ✓ Research security measures will be taken in consultation with the Japanese Principal Investigator and their research organisation
- On the Dutch side
 - ✓ Compliance with the recommendations in the National Knowledge Security Guidelines and the research security policy of the knowledge institution
 - ✓ Applicants are responsible for ensuring that their project complies and will continue to comply with the Guidelines
 - ✓ NWO can request substantiation of how the application or research project complies with the National Guidelines, and discuss possible mitigating measures with the knowledge institution
 - ✓ Monitoring of funded projects across their life cycle



National Guidelines

- National Guidelines provide tools that knowledge institutions can use to ensure that international collaboration can take place safely
 - → implementation varies per knowledge institution
- Country neutral & country aware
- Knowledge security awareness, safety culture and thus increasing the resilience of knowledge institutions
- Room for personal consideration, self-regulation by the knowledge sector is central
- Knowledge institutions can contact the National Contact Point for advice



Criteria for risk assessment

- 1. Legal frameworks Is the organisation or person with whom the collaboration is being established on the EU or UN sanctions list? Does the research fall under the Dual-use Regulation?
- 2. Affiliations and type of organisation Does it involve a collaboration with a partner from a country with an offensive (cyber) programme against the Netherlands and Western interests? Is the partner (or has it been) affiliated with a military organisation outside the EU?
- 3. Field and type of research Is research being done on or with sensitive technology? Is there a risk that the freedoms of the researcher(s) will come under pressure? Could the research results and/or data be used for other (unethical) purposes? Are there moral dilemmas in the collaboration?
- 4. Foreign funding



Questions?

For Dutch applicants, contact the NWO office:

nwo-jst-joint-call@nwo.nl

Rosanne van Beek, Emma Winkels, Paul Schuddeboom

For Japanese applicants, contact the JST office:

aspire-nl@jst.go.jp

Shiho Hashimoto, Masaki Sato, Shuri Takida



Matchmaking session in break out rooms

- 1. Quantum & photonics information processing
- 2. Brain-inspired information processing
- 3. Hardware and devices
- 4. Integrated approaches and hybrid solutions

Breakout session: please introduce yourself, addressing these items:

- 1) Who you are
- 2) Why you are at this matchmaking
- 3) Which expertise you can bring
- 4) What expertise or research group you are looking for



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