

eScience Center Fellowship Programme 2023: Call for applications

January 2023





eScience Center Fellowship Programme 2023

Call for applications – deadline April 11, 2023

The Netherlands eScience Center is looking for researchers who have the ambition to promote or improve the use of research software within their organization or discipline. We invite them to apply and become an eScience Center Fellow. Applications are open for individuals from all levels and disciplines, from any Dutch university (including University Medical Centres) or research institute affiliated with NWO or KNAW (see appendix A).

About the eScience Center

The Netherlands eScience Center is the national centre for innovative software solutions in academic research. It was established in 2012 as an independent foundation and receives its funding from NWO and SURF. The eScience Center aims to bridge the gap between digital technologies on the one hand and scientific and scholarly inquiry on the other. Its vision is to establish a robust research community, in which all investigators in all domains can exploit advanced digital technologies and research software to answer research questions, keeping the Netherlands at the forefront of cutting-edge international research.

The eScience Center employs more than seventy Research Software Engineers or RSEs. As experts in digital technologies and methodologies, they may be seen as the equivalents of postdocs, assistant and associate professors and top-level technicians at universities.

Purpose of the Fellowship Programme

The eScience Fellowship Programme is aimed at members of the academic research community who are passionate to act as ambassadors for the use of research software. Research software can be any piece of code, script, package, tool, library, or programme written for the purpose of being used in research. The Fellowship Programme supports those who want to promote or improve the awareness and use of research software within their institute or academic community.

Each Fellow is expected to carry out activities to this end within the duration of their Fellowship (12 months). Any activities related to improving awareness or use of research software will be



considered. **Applicants are also welcome to use the Fellowship to boost existing initiatives or activities that fit the purpose of the programme.** Examples of such initiatives and activities include (but are not limited to):

- Creating a tutorial around a research software package developed in-house.
- Creating a series of videos on good research software practices.
- Inviting speakers on the topic of sustainable research software for an interactive seminar.
- Running a hackathon where researchers can improve the reusability of their research software and exchange ideas.
- Setting up a discipline-specific community to exchange expertise about digital tools within the applicant's field.
- Increasing the visibility and awareness of research software in the applicant's field.
- Increasing the visibility, recognition and wellbeing of researchers who write code in any way.

Fellows will contribute to the visibility and use of research software at their home institutions and/or in their disciplines. During the runtime of the Fellowship, they are also part of the eScience Center community. Fellows will be able to join activities at the eScience Center and draw on its expertise on research software to stimulate the advancement of digital research in their home institutions and within their respective disciplines.

Benefits of becoming an eScience Center Fellow

eScience Center Fellows are ambassadors for research software at their own institution or network. Being selected for the programme is a sign of recognition of the Fellow's talent and potential and will increase the visibility and network of the Fellow. The eScience Center Fellowship programme is inspired by international counterparts such as the Software Sustainability Institute ([SSI](#)) Fellowship Programme, Open Life Science ([OLS](#)), and the [BIDS Data Science Fellowship Program](#); these programmes have demonstrably furthered the careers of their Fellows.

Fellows will also be invited to participate in a series of events aimed at networking with other eScience Center Fellows and with eScience Center staff. The eScience Center will support the Fellows to ensure the successful completion of their planned activities.



Concretely, a Fellow will:

- Have a point of contact at the eScience Center, who can give guidance on the Fellow's activities and put the Fellow in touch with other (eScience Center) experts. eScience Center staff will spend a maximum of **40 hours** in guidance and consultancy on the Fellow during the Fellowship year.
- Receive a personal budget of **€2,000 towards expenses and consumables**.
- Have access to special interest groups (SIGs) meetings at the eScience Center. The Center has a few different SIGs where employees meet to share and learn about different topics. There are SIGs on data analytics, Machine Learning, Natural Language Processing, software sustainability, pedagogy, soft skills and more.
- Have the opportunity to join relevant eScience Center meetings to stay updated about technological developments in specific academic disciplines.
- Be offered a professional workshop that will help them with their skills to create impact within their institute or research community.
- Have the opportunity to reach a wider audience through the eScience Center network. For example, there may be opportunities to publish relevant blog posts on the eScience Center website, or Fellows are invited for presentations at eScience Center events.
- Meet at least three times a year in an informal setting with other Fellows, to exchange experiences and expand their network.
- Be featured on the eScience Center website as an eScience Center Fellow.

Who can apply?

Applicants must be affiliated with a Dutch university (including University Medical Centres) or research institute affiliated with NWO or KNAW (see appendix A). Additionally, applicants should be passionate about research software and be able to act as an ambassador for research software.

An applicant for the Fellowship programme could be:

- A researcher who focuses on the application of research software as part of their research,
- or, a developer who writes tools for researchers,
- or, a research software engineer who supports the work of researchers with software,
- or, an advocate for best practices in software use for their research domain,



- or, an individual in a facilitator role or leadership role in projects or organizations that make use of research software.

Not sure if you are eligible to apply? Attend our information event on **22 February, 2023** to find out more, or reach out to the Fellowship coordinators at fellowship@esciencecenter.nl. To sign up for the information event, check the *Events* under “*What we do*” on www.esciencecenter.nl

Application procedure

1. Written application

This part of the application consists of a plan that should align with the Fellowship Programme’s goals. The application text (in English) must be submitted using the form under “Downloads” on [this page](#).

The application should include:

- A plan that describes how the Fellow will contribute to improving the state of research software (max 1500 words including references) within the Fellowship year. This must include
 - A reflection on the awareness and/or use of research software in the academic community, discipline, or field of the applicant.
 - A description of the applicant’s objectives related to improving research software.
 - A description of the activities that will be undertaken to achieve the applicant’s objectives.
 - A justification of why the applicant is well situated to execute the planned activities, and act as an ambassador for research software.
- A timeline for the proposed activity or activities, running for 12 months from the start of the Fellowship, starting June 2023 until end of May 2024.
- A budget plan, outlining how the personal budget of **40 hours of eScience Center expertise** (“in-kind support”) + **€2,000** will be used: The plan should outline how eScience Center employee time is expected to be used. It should be clear from the plan that these hours are directly relevant to the proposed activities. Hours can be used at different times throughout the year, or all at once, for several eScience Center employees simultaneously. For a list of topics in which the eScience Center has employees with expertise, see



appendix B. The plan should also outline the expenses and consumables the budget will cover in the form of declared costs.

We expect to grant 20 applicants an eScience Center Fellowship.

2. Personal interview

Shortlisted applicants will be invited to participate in a 15-minute (online) interview. During the interview, candidates will briefly explain their Fellowship plan and how they expect it will impact the state of research software in their field. The internal review committee will have the opportunity to ask clarifying questions and discuss with the applicant their reflection on the state of research software. Applicants will be assessed on their communication and collaboration skills, as well as how passionate they are about the topic and their ability to inspire others.

The interviews will take place on May 8 and May 9, 2023, between 10:00 and 16:00 CET. If you are interested in becoming an eScience Center Fellow, save the date!

Application review procedure

Applications will be reviewed by an Internal Review Committee (IRC), consisting of members of the eScience Center. The IRC will select based on their assessment of feasibility, impact and alignment of the applicant's plan with the goals of the programme, and on their assessment of the applicant's potential of being a suitable ambassador for research software. Based on the recommendations from the IRC, the eScience Center Directors' Team will grant the Fellowships.

When and how to apply?

Applicants should apply using the form under "Downloads" on [this page](#). The deadline for submission of proposals is: **Tuesday, 11 April 2023, 14:00 CET**. Full proposals must be submitted in PDF format to fellowship@esciencecenter.nl.

Information event

To inform interested applicants of the specific aims of this call for proposals, as well as the role and expertise of the eScience Center, an online information event will be organized on **Wednesday, 22 February, 2023** (14.00-16.00 CET).



Appendix A - Eligible organisations

1. Universities

Erasmus Universiteit Rotterdam
Open Universiteit Nederland
Protestantse Theologische Universiteit
Radboud Universiteit Nijmegen
Rijksuniversiteit Groningen
Technische Universiteit Delft
Technische Universiteit Eindhoven
Theologische Universiteit Apeldoorn
Theologische Universiteit Kampen
Universiteit Leiden
Universiteit Maastricht
Universiteit Twente
Universiteit Utrecht
Universiteit van Amsterdam
Universiteit van Tilburg
Universiteit voor Humanistiek
Vrije Universiteit Amsterdam
Wageningen Universiteit en Research centrum

2. University Medical Centers (UMCs)

Amsterdam UMC (locaties: AMC en VUMC)
Erasmus MC
Leiden UMC
Maastricht UMC+
Radboud UMC
UMC Groningen
UMC Utrecht

3. KNAW Institutes

Hubrecht Instituut voor Ontwikkelingsbiologie en Stamcelonderzoek
Huygens ING
Internationaal Instituut voor Sociale Geschiedenis (IISG)



Koninklijk Instituut voor Taal-, Land- en Volkenkunde (KITLV)
Meertens Instituut
Nederlands Herseninstituut
Nederlands Instituut voor Ecologie (NIOO)
NIOD Instituut voor Oorlogs-, Holocaust- en Genocidestudies
Nederlands Interdisciplinair Demografisch Instituut (NIDI)
Westerdijk Fungal Biodiversity Institute

4. NWO Institutes (NWO-I)

AMOLF - Physics of Functional Complex Matter
ARCNL - Advanced Research Center for Nanolithography
ASTRON - Netherlands Institute for Radio Astronomy
CWI - Centrum Wiskunde & Informatica
DIFFER - Dutch Institute for Fundamental Energy Research
Nikhef - Nationaal instituut voor subatomaire fysica
NIOZ - Koninklijk Nederlands Instituut voor Onderzoek der Zee
NSCR - Nederlands Studiecentrum Criminaliteit en Rechtshandhaving
SRON - Netherlands Institute for Space Research



Appendix B - eScience Center Expertise

The eScience Center has the following expertise areas:

Software Quality

- developing workflow technologies: setting up an optimal and reproducible workflow
- improving software practices: robust programming to enable reuse
- advancing software sustainability: embedding software in the open science community

AI

- machine learning: using data to train computer models
- image processing: understanding patterns in images and video

Analytics

- big data analytics: exploring large volumes of complex data
- text analysis: understanding patterns in texts
- visualization: creating images to drive interpretation

Data Processing

- databases: making data accessible and searchable
- real-time data analysis: processing sensor data ultra-fast
- interoperability and linked data: interconnecting data sets

Computing

- exploiting hardware accelerators: increasing speed at lower cost
- high performance computing: increasing computational scale
- cloud computing: easily accessing computing power
- combining simulations: replicating complex systems

Community Building

- knowledge of and connections within academic landscape in the Netherlands
- ability to set up academic networks on a national scale

Teaching



- organising and running workshops on version control and introductory programming skills
- organising advanced workshops in advanced digital methodologies, such as parallel programming in Python, advanced software development skills and GPU programming
- lesson development in advanced digital skills, software development and domain-specific methods
- knowledge of pedagogical skills and application of these in a (virtual) classroom setting where digital skills are taught