

National centre for innovative software solutions in academic research

Information event
Open eScience Call 2024

netherlands
eScience center

Welcome to the information event

Open eScience Call 2024

“Empowering researchers through digitally enhanced research”

netherlands
eScience center

<https://www.esciencecenter.nl/calls-for-proposals/open-escience-call-oec-2024/>



Program

- 10:00 Netherlands eScience Center and OEC call
- 10:45 Q&A session
- 11:30 Break
- 11:45 SURF research infrastructure
- 12:00 Q&A session
- 12:30 END



What is the eScience Center?

“The eScience Center is a **research organization** the task to ensure that the Netherlands remains at the **forefront of international research** in applying **research software** to answer challenging, urgent **research questions**.

We fulfil this purpose by contributing to a robust national research community in which ultimately **all investigators in all disciplines** will be able to exploit **advanced digital technologies**.”

- national centre of expertise
- independent foundation (2012)
- NWO & SURF
- Research Software Engineers (RSEs)
- strategy 2021-2025: two ambitions



What is the objective of the OEC Call?

The proposed research aims to solve a **specific research challenge** in the selected research area.

The proposed research is connected with efforts within the **broader research community** to address the **methodological issue** at hand.

The proposal shows the **technological and/or methodological issue**, shows why current solutions are not suitable and what new/improved research software could lead to.

The proposal considers the **software sustainability** beyond the project.

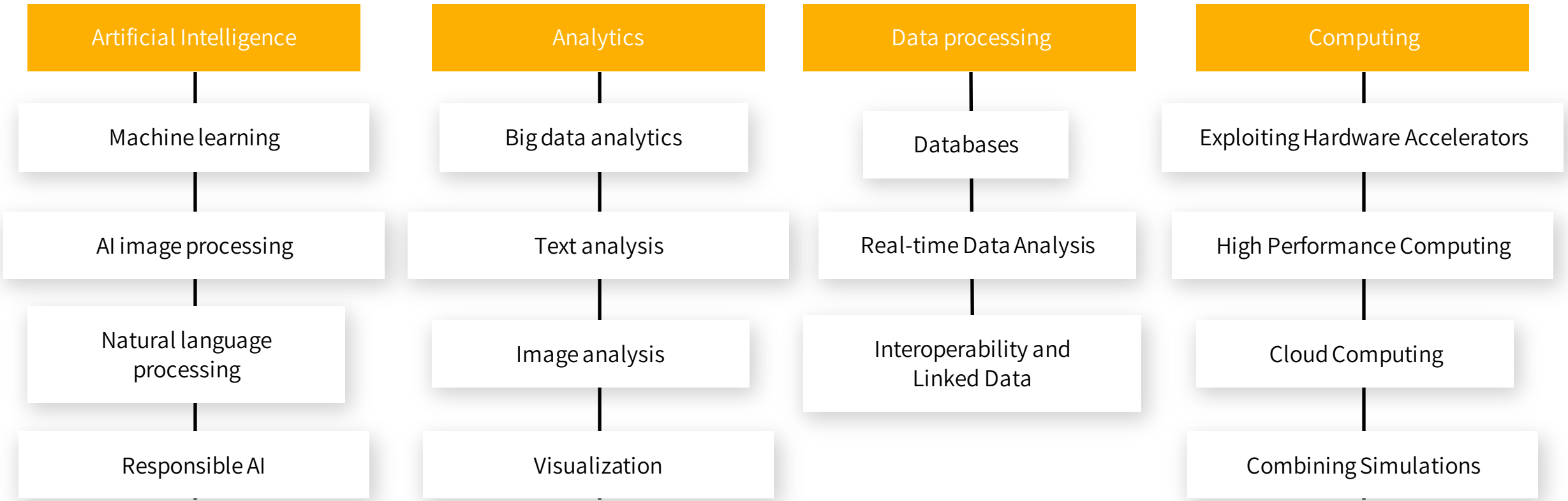


What can be applied for

- fully **in-kind** (unlike NWO or Horizon Europe) 2,3 PYR per project
- **collaborative** research project
- **working with the eScience Center** page on website
- addressing your **research question** through research software
- funded **workshop** to increase software **community** building



Our Technological expertise



Research Software Directory

- Finding software
- Making software accessible
- Quickly judge relevance and usage

All software contributed to by the eScience Center is added to the Research Software Directory

www.research-software.nl

The screenshot shows the profile page for 'Noodles' on the Research Software Directory. At the top right, it indicates '4 mentions' and '9 contributors'. The main description states: 'Task-based parallel programming model in Python that offers the same intuitive interface when running complex workflows on your laptop or on large computer clusters.' Below this is a line graph showing activity from 2017 to 2021, with a peak in 2018 and the text '580 commits | Last update: April 21, 2021'. A 'Get started' button is visible. A 'Cite this software' section shows the DOI '10.5281/zenodo.2600788' and a 'Choose a version' dropdown set to 'v0.3.2'. A 'What Noodles can do for you' section lists features like 'Enables scientists to execute and restart parallel workflows by readable and easily maintainable Python code' and 'Helps to scale computations in Python with complex dependencies to a parallel environment'. A 'Participating organizations' section lists 'netherlands eScience center'. A 'Mentions' section shows 'Computer program' and 'Presentations'. A 'Projects with Noodles' section features 'Computational Chemistry Made Easy' and 'eStep'. A 'Contributors' section lists 'Johannes Hidding', 'Vincent van Hees', 'Hansjo Sprenck', 'Rensd Weel', 'Felipe Zapata', and 'Jans Borgdorff', with a 'CONTACT PERSON' callout for Johannes Hidding.

Who can apply?

- Proposals can be submitted only by researchers employed by a Dutch research performing organization. An overview of all eligible organizations is included in the full call document.
- Each proposal is to be formally submitted by a single named researcher (henceforth the 'Lead Applicant' or LA).
- The LA must:
 - be in possession of a PhD;
 - hold a contract for at least the duration of the requested project;
 - have demonstrable knowledge and experience (relative to the LA's academic seniority) in applying digital methodologies to research;
 - ensure a minimal personal commitment to the project work for half a day per week on average for the duration of the project.



Conditions: Open Science

Open Science is central to the eScience Center

This enables verification, reproducibility, and transparency in all phases in the research process and maximizes the chance for adoption, reuse and impact of outputs resulting from the projects.

Default license: Apache2.0

This means code reuse is allowed for any purpose by anyone. No warranty.

Exceptions are only possible on request before submission.



Conditions: Open Science

Substantial effort is put into making software sustainable.

Preference should be given to extending, improving, and strengthening existing research software supported by existing research communities. Developing new software should only be proposed when no other viable alternatives exist.

Open Access

All research data and academic publications resulting from research awarded under this call for proposals are to be freely publicly accessible, at the earliest possible stage (in open access) under open licenses, at the time of publication.



How to apply

- Submit proposal via ConfTool
- <https://www.conftool.org/escience/>
- Follow Project Proposition and Full Proposal format



A note on (Generative) AI

For applicants:

- Use of AI for writing the proposal is allowed under conditions indicate which text has been (re-)written by which tools
- Lead applicant stays fully responsible for the proposal
This includes plagiarism, biases, factual correctness, references

For reviewers:

- Use of (generative) AI is not allowed.

[Full policy on zenodo](#)



Project Proposition (1)

Research area

Only one research area can be indicated. Indicate the area which fits best and by which experts you would like to be assessed.

Research Idea

Research problem, research question and current scientific approach. Realistic use case. Connection to broader research community.

eScience and technological challenge

Current technology/methodology of choice and limitations. How will working with eScience Center help address Research question. How will this help broader research community.



Project Proposition (2)

Link with eScience expertise

At least one area must be indicated

Existing Software and data

Please describe existing software and data. The eScience Center expects a basic level of accessibility and quality for the software and data used in the projects it awards and collaborates on. This section needs to align with research idea and eScience and technological challenge.



Full proposal (1)

Research Team

At least 0,1 fte commitment from LA. At least one person from another institution. Research team expertises and contribution should match the proposed project.

Project proposal

Research Idea, eScience and technological challenges and software sustainability and impact. Refer to SMP where/if possible.

Project plan

Requested in-kind eScience capacity and project duration. Research team. Key publications. Workplan and deliverables.



Full proposal (2)

Existing software and data

Similar to project proposition, update if needed.

Digital infrastructure

Indicate project's infrastructural needs, like compute services, storage, data transfers, hardware, etc. National infrastructure such as SURF and DANS.

Statements

GDPR. Code Openness Animal Experiments. eScience Center IP rules. eScience Center generative AI policy (and indicate whether you've used gen. AI). eScience Center Special Conditions on Granting. Informed the representative from your institution about submission.



Full proposal (3)

Software management plan mandatory

Include SMP as document with submission. Use the provided format.

Support letter optional

Indicate project's infrastructural needs, like compute services, storage, data transfers, hardware, etc. National infrastructure such as SURF and DANS.

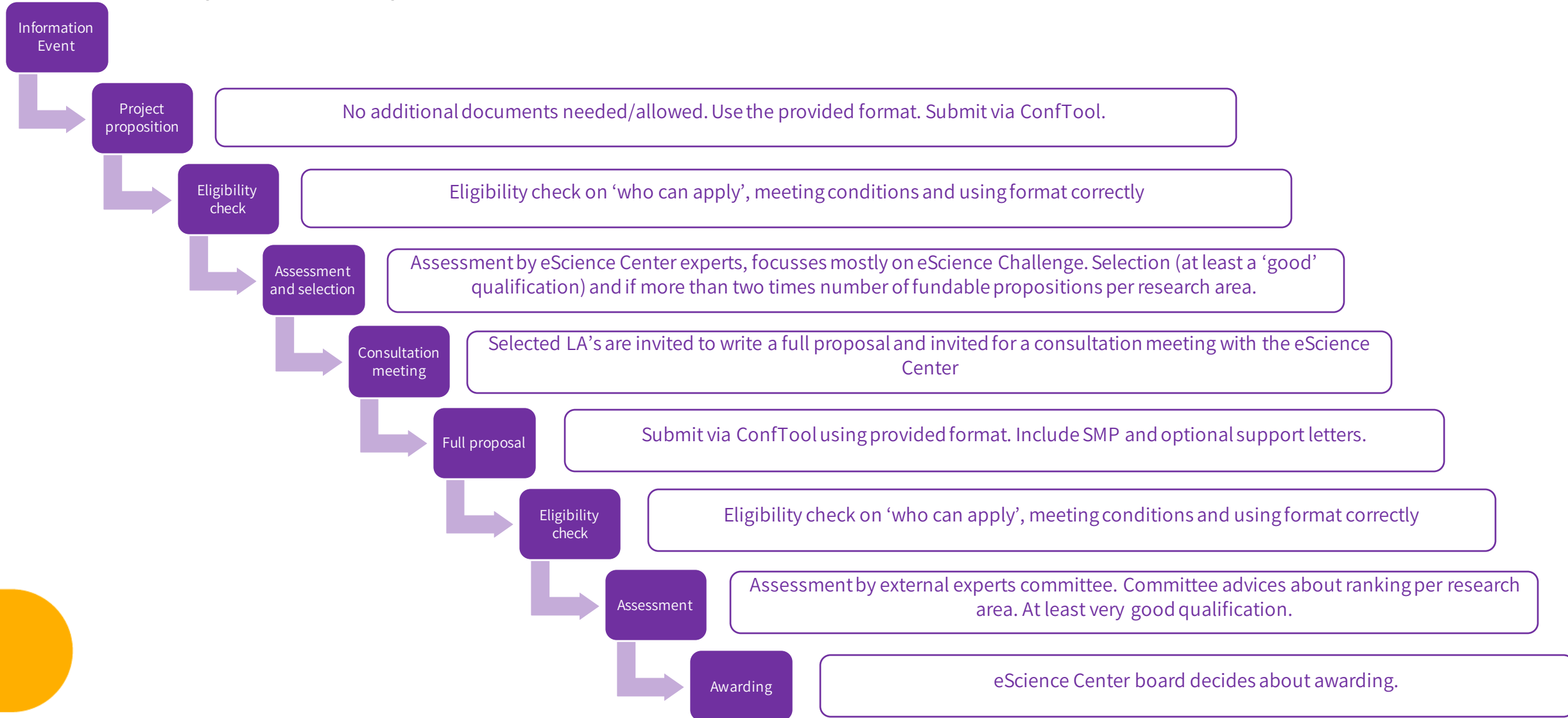


Software management plan

- Mandatory questions for proposal
 - Software description
 - Version control system
 - Open sharing of software
 - Licenses
 - Long term sustainability
 - Resources needed for long-term usability and availability and how are they obtained
 - Other measures taken to promote software's longevity
- Optional questions
 - *Are usually answered during the starting phase of the project together with eScience Center. This usually leads to an update of the SMP*
 - Documentation
 - System requirements
 - Enabling software citation
 - Software testing
 - Software packaging and distribution



Steps in procedure



Current CfP: Timetable

- 1 February 2024
- **27 February 2024, 14:00 CET**
- March 2024
- April-May 2024
- **30 May 2024, 14:00 CET**
- June 2024
- September 2024
- Oktober 2024
- November 2024

information event

deadline project proposition

eligibility check, selection and notification

consultation sessions

deadline full proposal + software management plan

eligibility check

panel assessment

board decisions

applicants informed of final decision



Contact

- Programme Management, Netherlands eScience Center
- Email: open-calls@esciencecenter.nl



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Q&A

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Break

Extra slides

To be deleted when the presentation is finished or can be used for questions



Practical guide to SMPs

- Core requirements for SMPs
- Different levels of management: **not all software is created equal!**
- **NOT** another bit of admin: software management leads to better science!

Practical guide to
Software
Management
Plans





Software and Data Health checks

Part of the project proposition review

We check the accessibility and quality of existing data and software that the project builds on

Aims: prevent surprises, delay and disappointment after the project start





How do we work?

- we **collaborate** with researchers in projects of varying size
- projects are driven by **research challenges** faced by project partners
- we offer **expertise (in-kind)**, not money (in-cash)
- we apply **state-of-the-art solutions** from computer science and digital infrastructure
- our research software, data and knowledge is **reusable & open**
- we encourage **software sustainability**, with all projects investing in **communities**





What are RSEs?

- specialized, high-end **researchers** (most have a PhD), who have
- a **broad orientation** + **strong affinity with ICT**, so that
- they understand both the research question and modern ICT solutions
 - (a) performing research focused on **digital technologies and methodologies**
 - (b) **engineering software**
- 50-70 RSEs are members of the **eScience Center community**



Our Team



Workshops

Open & Reproducible Research Software

Unix Shell

Version Control with Git & Collaboration on GitHub

Introduction to R

Introduction to Python

R Packages and Publishing

Software Carpentry

Domain specific courses

Genomics

Ecology

Geospatial

Social Sciences

Introduction to R

Introduction to Python

FAIR Data for Climate Science

Data Carpentry

- ✓ Hands-on courses, 2-3 days
- ✓ Based on The Carpentries & CodeRefinery
- ✓ Overview and course materials: esciencecenter.nl/digital-skills

Skills – advanced level

Collaboration in Teams with Git & GitHub or GitLab

Documentation

Testing

Modular Code Development

Reproducible Computational Environments Using Containers

CodeRefinery

Technologies - advanced level

Introduction to Deep Learning

Parallel Programming in Python

GPU Programming