

28 Mar 2024 | 📅 GreenDIGIT meeting with EGI sites and VOs

Attendees:

1. Catalin Condurache
2. Marcos Llopis
3. Sophie Ferry (CEA GRIF, FR)
4. Andrei Tsaregorodtsev (CNRS)
5. Attila Farkas (SZTAKI)
6. David Britton (GRIDPP, UK)
7. Edith Knoops (CNRS Marseille)
8. Jens Jensen - STFC UKRI
9. Klára Moravcová (CESNET)
10. Krisztián Póra (SZTAKI)
11. Mindaugas Macernis, Lithuania
12. Shaun de Witt (UKAEA)
13. Alison Packer - SFTC UKRI
14. Tamas Maray (SZTAKI)

Catalin Condurache led the meeting to discuss the Green Digit project, focusing on green computing initiatives and reducing environmental impact. Attendees represented organisations like EGI Foundation, CessNet, and CNRS with partnerships involving CERN and Eurospalicious Station. Coordinated by the University of Amsterdam (UvA), the project aims to demonstrate green computing strategies over three years with a funding of five million euros. Key topics include measuring environmental impact, green computing strategies, infrastructure capabilities, and collaboration efforts. Plans for disseminating recommendations and project outcomes to stakeholders were discussed, along with the importance of demoing the successful implementation of green policies and algorithms.

Meeting organisation and chairing

- Catalin Condurachei chaired the meeting and gave a thorough introduction to the attendees.
- The purpose of the meeting was to discuss the Green Digit project, which started in March.

Participant introductions and affiliations

- Attendees introduced themselves, with familiar names from past collaborations mentioned.
- Organisations like EGI Foundation, CESNET, CNRS, CIC, and SZTAKI are represented.
- Different institutes like the UK Atomic Energy Authority and CEA participated.

Project overview: Green Digit

- Green Digit is an acronym for Greener Future Digital Research Infrastructure.
- The project spans from March 2024 to February 2027 and is part of the Horizon Infra 2023 Tech 0101 call.
- University of Amsterdam coordinates the project, led by coordinator Yuri Demchenko.
- The project has funding of five million euros with 15 partners, including EGI Federation entities like EGI Foundation, CESNET, CNRS, CIC, and SZTAKI.
- Three additional projects succeeded in the same call focused on accelerators and beam sources.
- Partners like CERN, ESS, and Eurospalicious Station are involved in multiple projects within the call.
- Collaboration efforts with new procurement lots were mentioned
- Commercial entities like Mandat International are part of the project's consortium

Project timeline and deliverables

- The project has a three-year timeline from March 2024 to February 2027
- Initiated one year earlier than planned due to a change by the commission, EGI Foundation and partners were prepared with the submitted and approved project proposal
- Implementation of green computing strategies and algorithms is a crucial goal to be demonstrated in the project outcomes

Measurement of environmental impact

- Objectives include assessing environmental impact within research infrastructures, providing reference architecture and design principles, developing technologies to reduce energy consumption, and educating providers and researchers on good environmental practices.
- Emphasis on assessing environmental impact through metrics and developing tools for lower environmental impact in digital applications

Green computing initiatives and strategies

- Efforts include collecting impact metrics, implementing workload optimisation, and using various algorithms in the HPCAI Cloud Container.
- Organisations like EGI Foundation, CESNET, and SZTAKI are tasked with responsibilities related to green computing.
- Partnerships on green computing initiatives are to be built and maintained with ESRIS.

Infrastructure contributions and capabilities

- Various partners like EGI Foundation and SZTAKI contribute infrastructure like cloud services, GPUs, and storage nodes.
- Metrics regarding GPU utilisation and storage capacity are highlighted to provide insights into the environmental impact.

Task force participation and collaboration

- Task forces such as the EGI Green Computing Task Force from EGI-ACE are being revived to continue efforts in green computing.
- Efforts are underway to review participation rules and onboard members for enhanced collaboration.
- Reported activities focus on assessing carbon footprint, reducing emissions, and collaborating with partners on green initiatives.

Survey responses and data collection

- A survey will gather information on green computing initiatives and their environmental impact.
- Responses from the survey will be used to define metrics and algorithms to optimise energy consumption.

Implementation of green policies and algorithms

- Tasks include assessing landscapes, developing workload management solutions, and working on power grid analysis.
- Efforts aim to minimise power consumption and optimise environmental impact by implementing green policies and algorithms.

Baseline power usage of facilities

- Initiatives are underway to baseline power usage of facilities for tracking and optimising energy consumption levels.

Work package responsibilities

- EGI Foundation and SZTAKI are leading specific work packages within the project
- Activities like assessment, landscape survey, and metrics collection are key responsibilities.

Discussion and Q&A

- Attendees discussed their organisations' initiatives for green computing and lowering environmental impact.
- Questions about the project's deliverables, timeline, and implementation strategies were raised.
- Collaboration efforts and contributions from various participants were highlighted during the discussion.

Dissemination and recommendation strategies

- Plans are in place to disseminate recommendations and outcomes from the project to stakeholders.

- Efforts include reviving the EGI Green Computing Task Force for continued collaboration and knowledge-sharing
- Strategies involve providing policy recommendations, technical solutions, and training programs to lower environmental impact.

Demo and project outcomes

- The project aims to demonstrate tangible outcomes in green computing initiatives.
- Efforts will be made to showcase the successful implementation of green policies and algorithms to reduce environmental impact.

Action Items

- Respond to the survey to contribute vital information for the project by September.
- Participate in the EGI Green Computing Task Force for ongoing collaboration and knowledge-sharing
- Collaborate on assessing landscapes, developing workload management solutions, and analysing power grid consumption to improve environmental impact.
- Onboard members to task forces for enhanced collaboration and participation in green computing initiatives
- Review and update the Green Computing Task Force participation rules to ensure alignment with current goals.

Meeting saved chat

15:02:43 From David Britton to Everyone:

I am unable unmute?

15:05:05 From Shaun de Witt to Everyone:

Seems off - work for me. But I have seen similar if your zoom client is out of date?

15:22:35 From David Britton to Everyone:

Fine - don't worry about me - just installed new OS

15:24:20 From Shaun de Witt to Everyone:

Does this work only include the environmental impact during operations or are you including full lifecycle through procurement?

15:26:16 From Shaun de Witt to Everyone:

Could someone also put up the indico link...

15:26:48 From Catalin Condurache to Everyone:

<https://indico.egi.eu/event/6461/>

15:34:46 From Catalin Condurache to Benjamin's OtterPilot(Direct Message):

HI, Are you recording locally?

15:47:16 From Shaun de Witt to Everyone:

(Glad to see everyone has the video off - saves ~40-60% of power 😊)

15:52:14 From Shaun de Witt to Everyone:

(I should say UKAEA and STFC RAL have had a few meetings to make sure we are aligned for IT related green projects)

15:55:39 From Alison Packer - STFC UKRI to Catalin Condurache(Direct Message):

Apologies I have to leave to get to my next meeting. Hope to join/collaborate on this in future. Thanks

16:04:26 From Shaun de Witt to Everyone:

Have a good long weekend to those lucky enough to have one