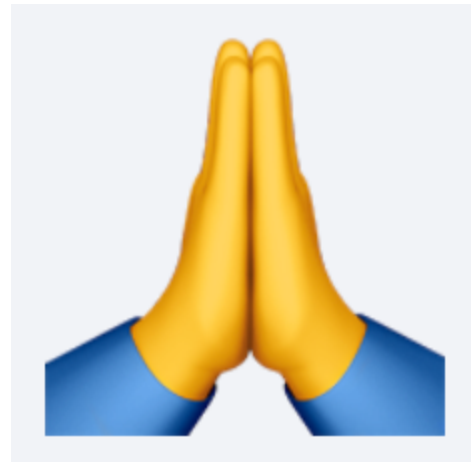


Help us help you



damien.francois@uclouvain.be

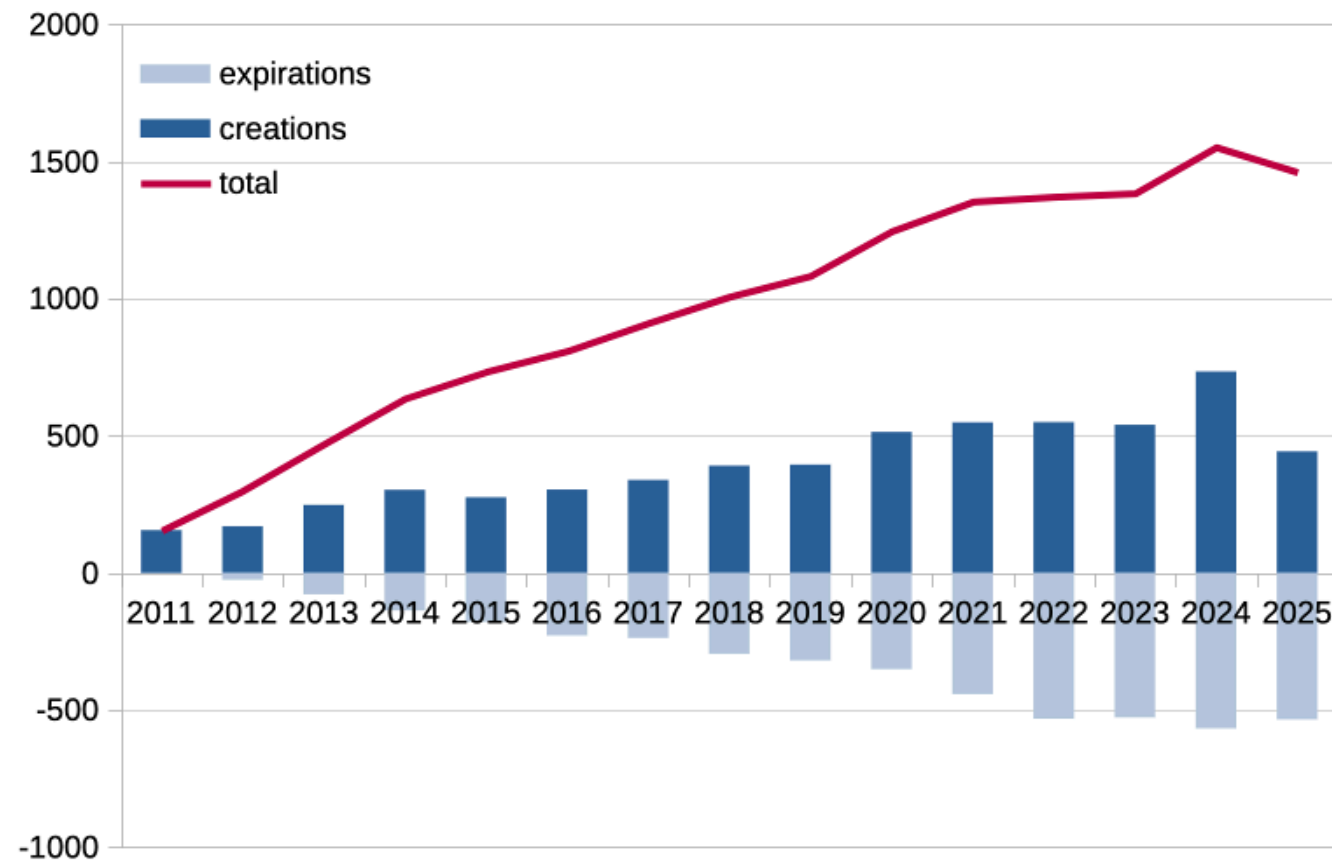
May 2026, CÉCI User day, UNamur

Ask not what CÉCI can do for you — ask what you can do for CÉCI.





John F. Kennedy, 2010

You are legion, we are few (~11 FTE)

April 2011 - Sept. 2025



Our goals :

-  provide as much uptime as possible for the CÉCI infrastructure
-  maximize resource (CPUs, GPUs, memory) utilization
-  accommodate a wide spectrum of jobs
-  minimize turnaround for your jobs

How can you help us? Spread the word...

1. play along with others
2. prepare your interactions with us
3. be demanding with yourself

1. Tell them: play along with others!

Know the rules

- the rules of your university
- the rules of the institution hosting the cluster you are using
- the rules of CÉCI: <https://www.cec-hpc.be/faq.html#2.5>
- do not harm security
 - **do not share secrets**
 - **do not give access to the clusters to others**
 - **do not test random exploits found in the wild**

Do not game the system

- when we enforce something on users it is always to ensure fairness among users
- more constrains hinders performances and harms complex workflows
- do not stalk other users their science is as important as yours

Here is a game you can play:

 You have 90 seconds.

Massively parallel CISM-CECI cluster

40 nodes: 2 x AMD EPYC 9534 64-Core processors (128 HT) 768GB RAM
non-blocking 100Gbps Infiniband network
318T BeeGFS global scratch

contact, support: egs-cism@listes.uclouvain.be

CÉCI clusters: Lyra - Lemaitre4 - NIC5 - Hercules2 - Dragon2

==== 15th CÉCI Users Meeting : Registration is open ====

The next CÉCI Users Meeting will take place on May 21st 2026
in Namur. Program and registration available here:

- <https://indico.cism.ucl.ac.be/event/180/>

36/10240 CPUs available (load 99%) - 301 jobs running, 1111 pending.

* Job info for user dfr: 0 job running, 0 pending.

* Diskquotas for user dfr

Filesystem	used	limit	files	limit
\$HOME	15.8G	100G	153K	
\$GLOBALSCRATCH	61.7 kiB	unlimited	4	unlimited
\$CECIHOME	562.0 B	100.0 GiB	5	100000

Diskquotas for the projects you are part of

Project	used	limit	files	limit
training	33.9 GiB	300.0 GiB	86032	100000
whisper	59.0 GiB	300.0 GiB	173	100000

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⚠ WARNING: UPCOMING MAINTENANCE & SCRATCH CLEANUP ⚠

- Scheduled maintenance will occur in the near future
- ALL DATA IN /scratch WILL BE DELETED
- Please back up your data as soon as possible

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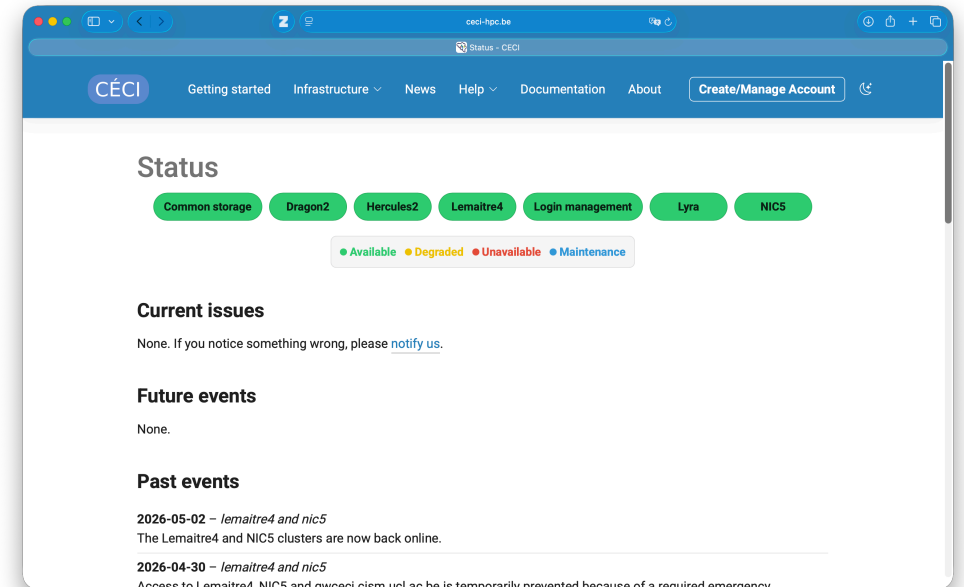
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Be cooperative

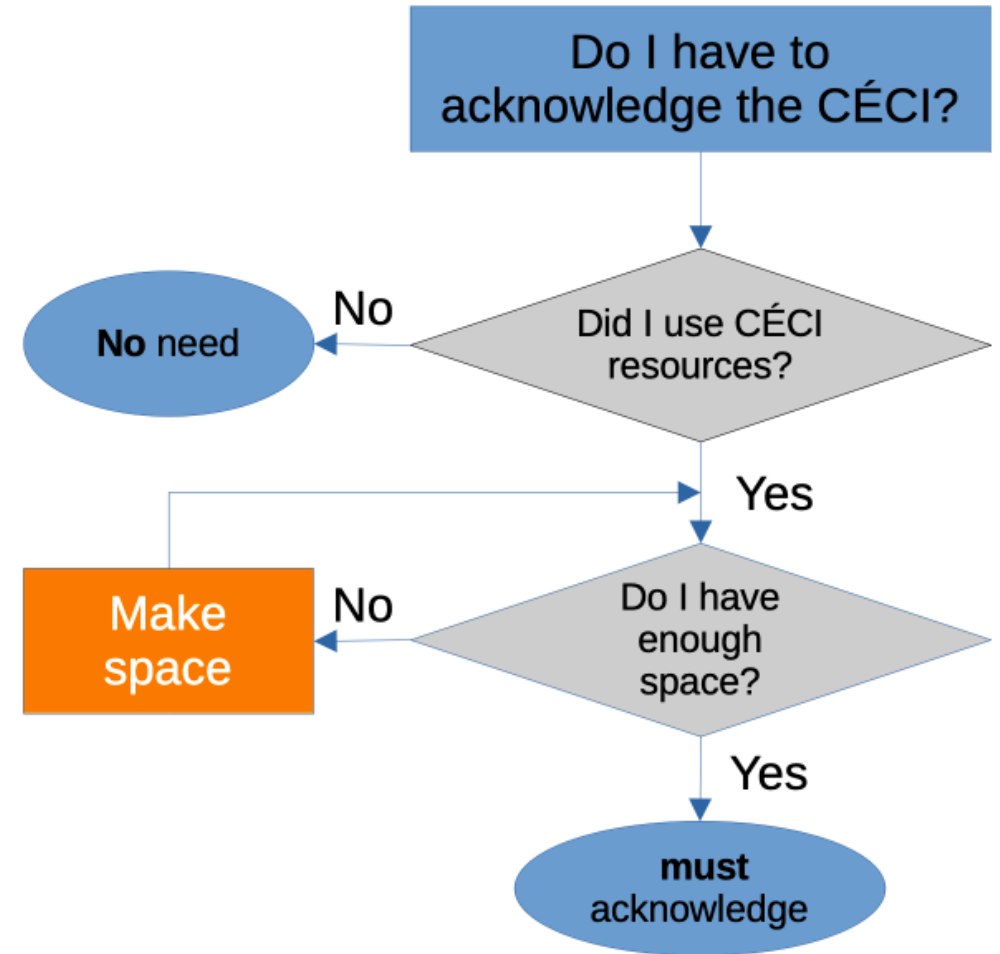
- read the **emails**
- do not ignore the **MOTD**
- consult the **status page** ->



The screenshot shows a web browser window displaying the CÉCI status page. The browser's address bar shows the URL 'ceci-hpc.be'. The page has a blue header with the CÉCI logo and navigation links: 'Getting started', 'Infrastructure', 'News', 'Help', 'Documentation', and 'About'. A 'Create/Manage Account' button is also present. The main content area is titled 'Status' and features a row of colored buttons for different components: 'Common storage' (green), 'Dragon2' (green), 'Hercules2' (green), 'Lemaitre4' (green), 'Login management' (green), 'Lyra' (green), and 'NIC5' (green). Below this is a legend: 'Available' (green dot), 'Degraded' (yellow dot), 'Unavailable' (red dot), and 'Maintenance' (blue dot). The 'Current issues' section states 'None. If you notice something wrong, please [notify us](#).' The 'Future events' section also states 'None.' The 'Past events' section lists two events: '2026-05-02 - Lemaitre4 and nic5' with the note 'The Lemaitre4 and NIC5 clusters are now back online.' and '2026-04-30 - Lemaitre4 and nic5' with the note 'Access to Lemaitre4, NIC5 and owceci.cism.ucl.ac.be is temporarily prevented because of a required emergency.'









Be cooperative

- participate in the ceci **user days**
- take the **surveys**
- **acknowledge** the CÉCI and other providers in your publications that use their infrastructure











In doubt, remove the first paragraph of the second section (See Shiely F, Gallagher K, Millar SR (2024) How, and why, science and health researchers read scientific (IMRAD) papers. PLoS ONE 19(1): e0297034)

Be thoughtful of others

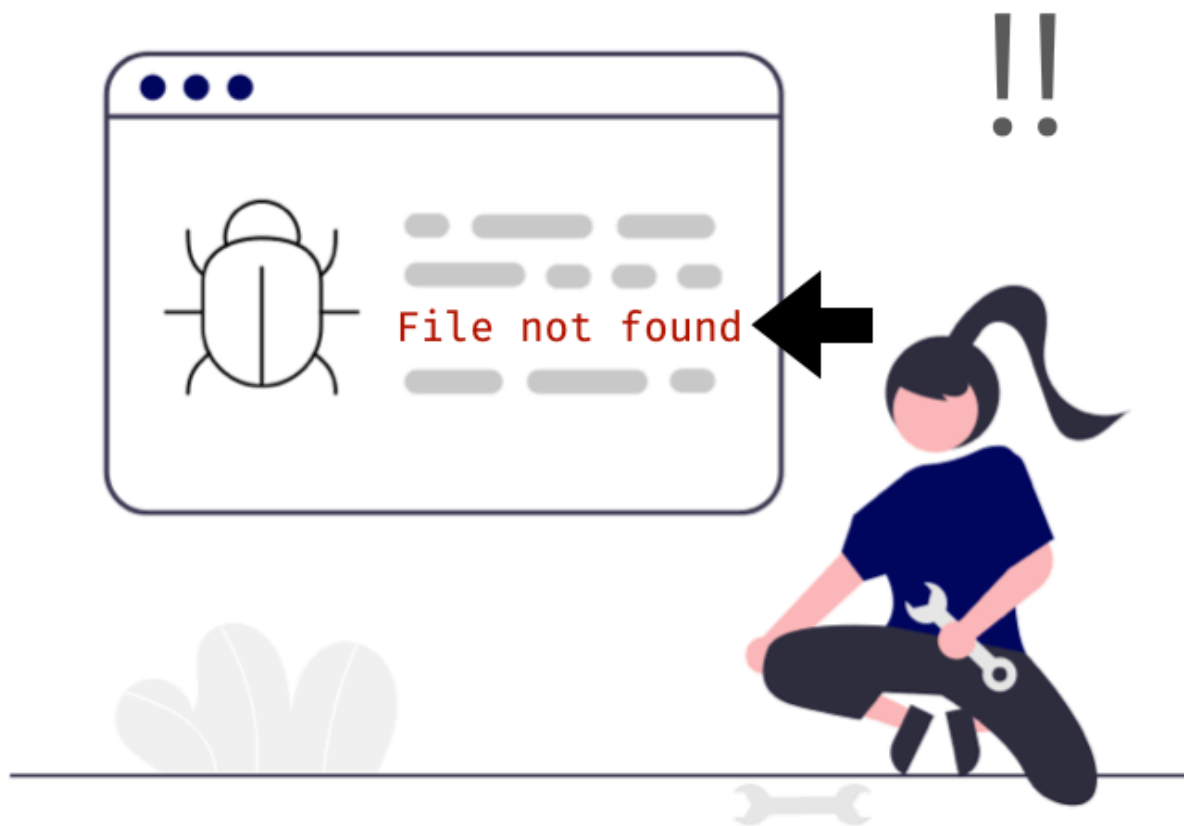
-  Running anything CPU-intensive on the head node: 1 
-  Issuing many requests per unit of time to the scheduler: 1 
-  Submitting large amounts of jobs without testing: 1 
-  Performing excessive I/O on a global filesystem rather than on a local filesystem: 3 

Be thoughtful of others

-  Storing huge numbers of small files (ZOT): 3 
-  Leaving data on the scratch for ever: 1 
-  Leaving typos in the email #SBATCH parameter: 5 
-  Wasting resources because of misconfiguration, bad scaling, or other problem: 5 

2. Tell them: prepare your interactions with us

🤔 1. Start with your due diligence.



My slurm job failed

Auto ▾



Today

My slurm job failed

Copilot

Sorry to hear that—let's figure it out quickly 👍

When a **Slurm job fails**, the most useful clues are in a few standard places. Try these steps:

1. Check job status and reason

Run:

```
1  sacct -j <job_id> --format=JobID,State,ExitCode,Elapsed
2  ``
```

Common states:

- FAILED → runtime error in your code or environment
- OUT_OF_MEMORY → exceeded memory limit
- TIMEOUT → exceeded walltime

- TIMEOUT → exceeded walltime
- CANCELLED → stopped manually or by system



2. Inspect output and error logs

Slurm typically writes:

- `slurm-<job_id>.out`
- or custom files from `#SBATCH -o` and `#SBATCH -e`

Check them:

```
1 cat slurm-<job_id>.out
2 ``
```

   ▾  Shell

Look for:

- Python errors / stack traces
 - Missing modules
 - file not found errors
 - segmentation faults
-

⚠ 3. Use `scontrol` for more details

```
1 scontrol show job <job_id>
```

Look at:

- Reason= (very important)
- ExitCode=
- NodeList=

🧠 Common causes & fixes

✅ Out of memory

Error often mentions "oom" or job killed. Fix:

```
1 #SBATCH --mem=8G # increase memory
```

Timeout

Fix:

```
1 #SBATCH --time=02:00:00
```

Missing modules / environment issues

Fix:

```
1 module load <module_name>
2 source myenv/bin/activate
```

File/path problems

- Double-check absolute vs relative paths

File/path problems

- Double-check absolute vs relative paths
- Ensure files exist on compute nodes

Wrong resource request

- Too many cores / GPUs not available
- Wrong partition

If you want me to pinpoint it

Paste:

- your **job script**
- the **error output**
- the **job ID output from sacct**

...and I'll diagnose exactly what went wrong 

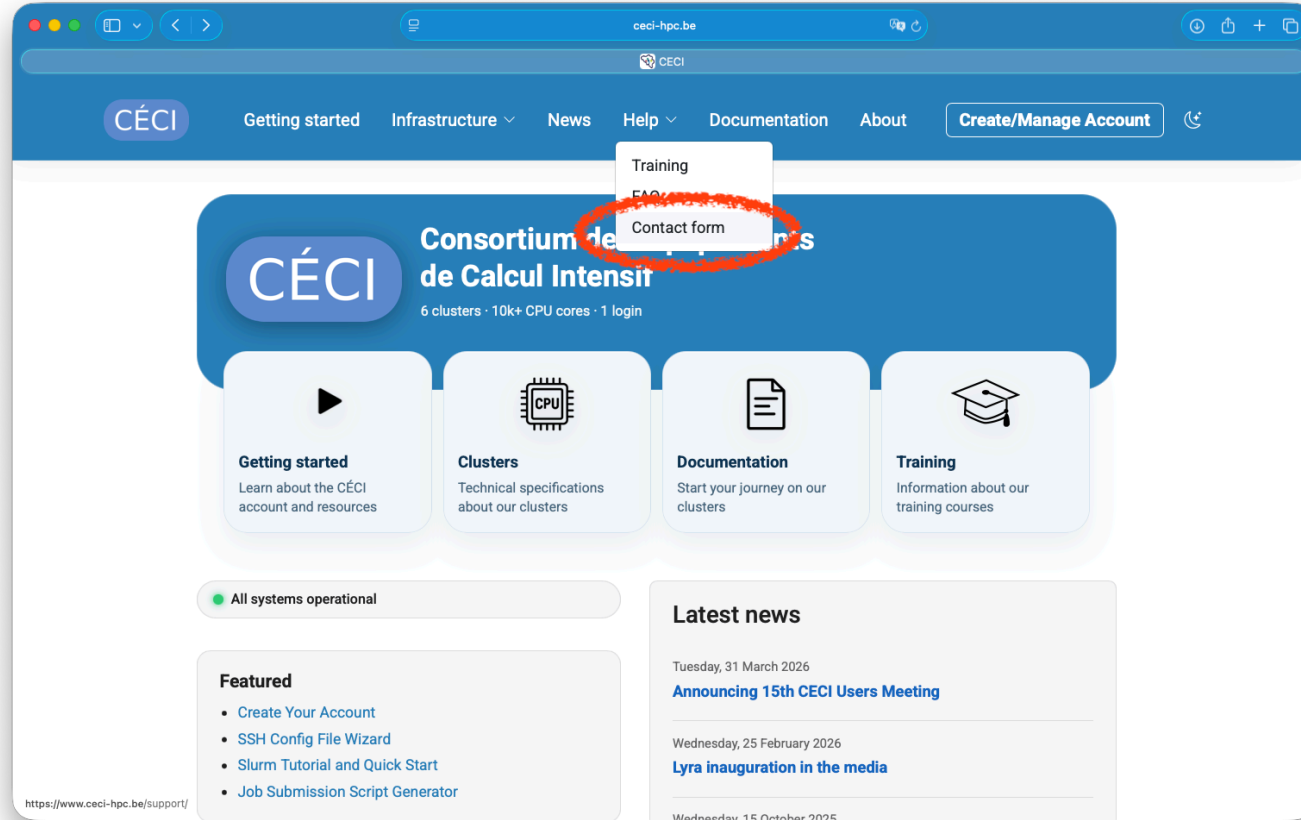
Beware of LLMs hallucinations...

Can I run CPU intensive jobs on the frontend?

 Copilot

Yes—you *can* run CPU-intensive jobs on the frontend, but there are important limits and best practices to be aware of.

2. Use the correct channel



The screenshot shows the CECI website (ceci-hpc.be) with a navigation menu. The 'Help' menu is open, and the 'Contact form' option is circled in red. The main content area features a large blue banner with the CECI logo and the text 'Consortium de Centres de Calcul Intensif' and '6 clusters · 10k+ CPU cores · 1 login'. Below the banner are four cards: 'Getting started', 'Clusters', 'Documentation', and 'Training'. A status bar indicates 'All systems operational'. The 'Latest news' section lists recent updates, including 'Announcing 15th CECI Users Meeting' and 'Lyra inauguration in the media'.

ceci-hpc.be

CECI

Getting started Infrastructure News Help Documentation About Create/Manage Account

Training
FAQ
Contact form

CECI Consortium de Centres de Calcul Intensif
6 clusters · 10k+ CPU cores · 1 login

Getting started
Learn about the CECI account and resources

Clusters
Technical specifications about our clusters

Documentation
Start your journey on our clusters

Training
Information about our training courses

All systems operational

Featured

- Create Your Account
- SSH Config File Wizard
- Slurm Tutorial and Quick Start
- Job Submission Script Generator

Latest news

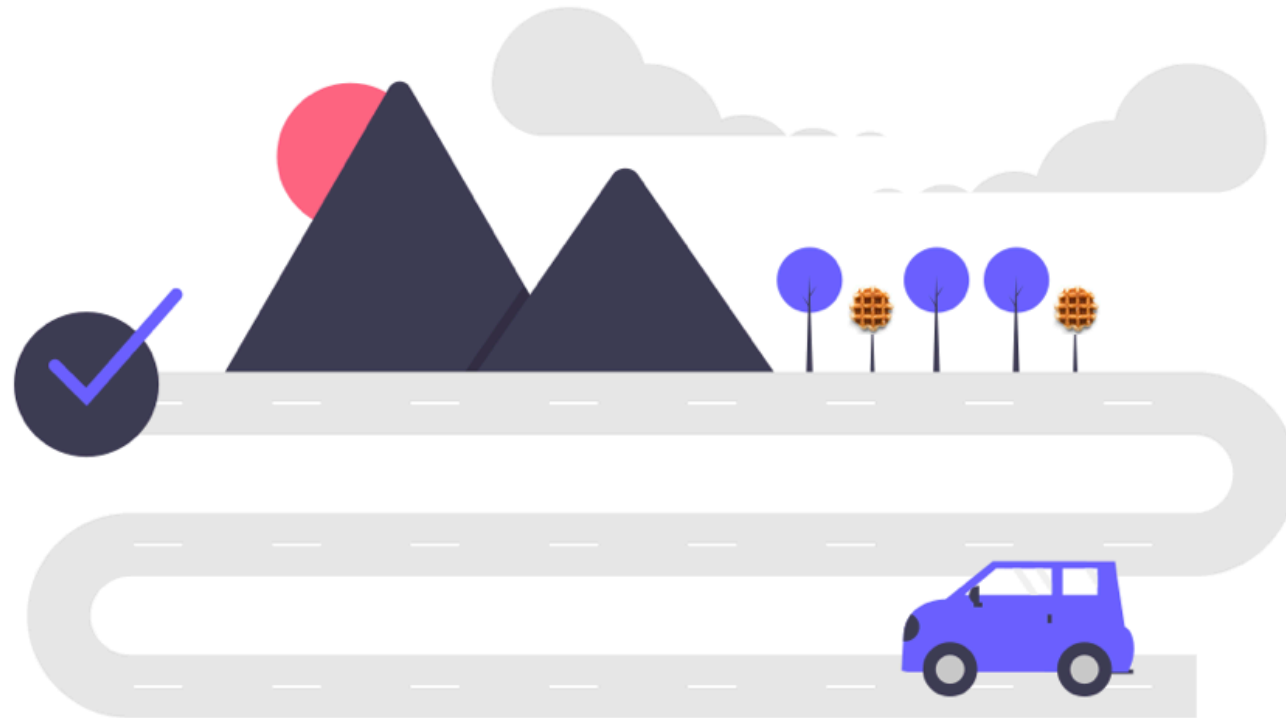
Tuesday, 31 March 2026
[Announcing 15th CECI Users Meeting](#)

Wednesday, 25 February 2026
[Lyra inauguration in the media](#)






Wednesday, 15 October 2025

<https://www.ceci-hpc.be/support/>

 **3. State the general goal**



4. Provide all important information ("five W")

-  **Who:** what is your login?
-  **What:** what job ID, what file, what modules?
-  **When:** on which date, at what time?
-  **Where:** which cluster, which directory?
-  **Why:** what is the problem?

 **5. Give the exact error (copy/paste from terminal)**



Final remarks

- the sooner we hear about a problem the sooner we can work on it
- one problem per request makes it easier to work in parallel
- reporting that a suggested solution does work helps to organise knowledge
- user requests are prioritized based on the **severity** of the problem

3. Tell them: be demanding with yourself

There are certain tasks you can do by yourself

- install software (modules included)
- change permissions back after an error, sharing files among users
- remove a failing `.bashrc`
- change group ownership
- join a Tier-1 project
- fix quota exceedance

Learn the basics before you use the clusters

-  Basics of **Operating systems**

<https://www.linux.com/what-is-linux/>

-  Basics of **Text user interfaces and the Terminal**

<https://frontend.turing.edu/lessons/module-1/getting-around-in-the-terminal.html>

<https://www.makeuseof.com/tag/a-beginners-guide-to-the-windows-command-line/>

-  Basics of **Programming**

<https://www.geeksforgeeks.org/basics-of-computer-programming-for-beginners/>

Training sessions

- Broad overview of the field
- Many are hands on with games
- Meet the team

Help us help you

Organise quizzes about CÉCI rules rather than the usual blind test

At the coffee break, discuss the MOTD not the weather

Maintain a leaderboard of CÉCI-acknowledged publications in the department

Promote intelligent use of LLMs

Organise Gameshell speedruns and Linux book reading clubs

Organise transportation to the training sessions

😊 We thank you in advance! 😊