Help us help you!
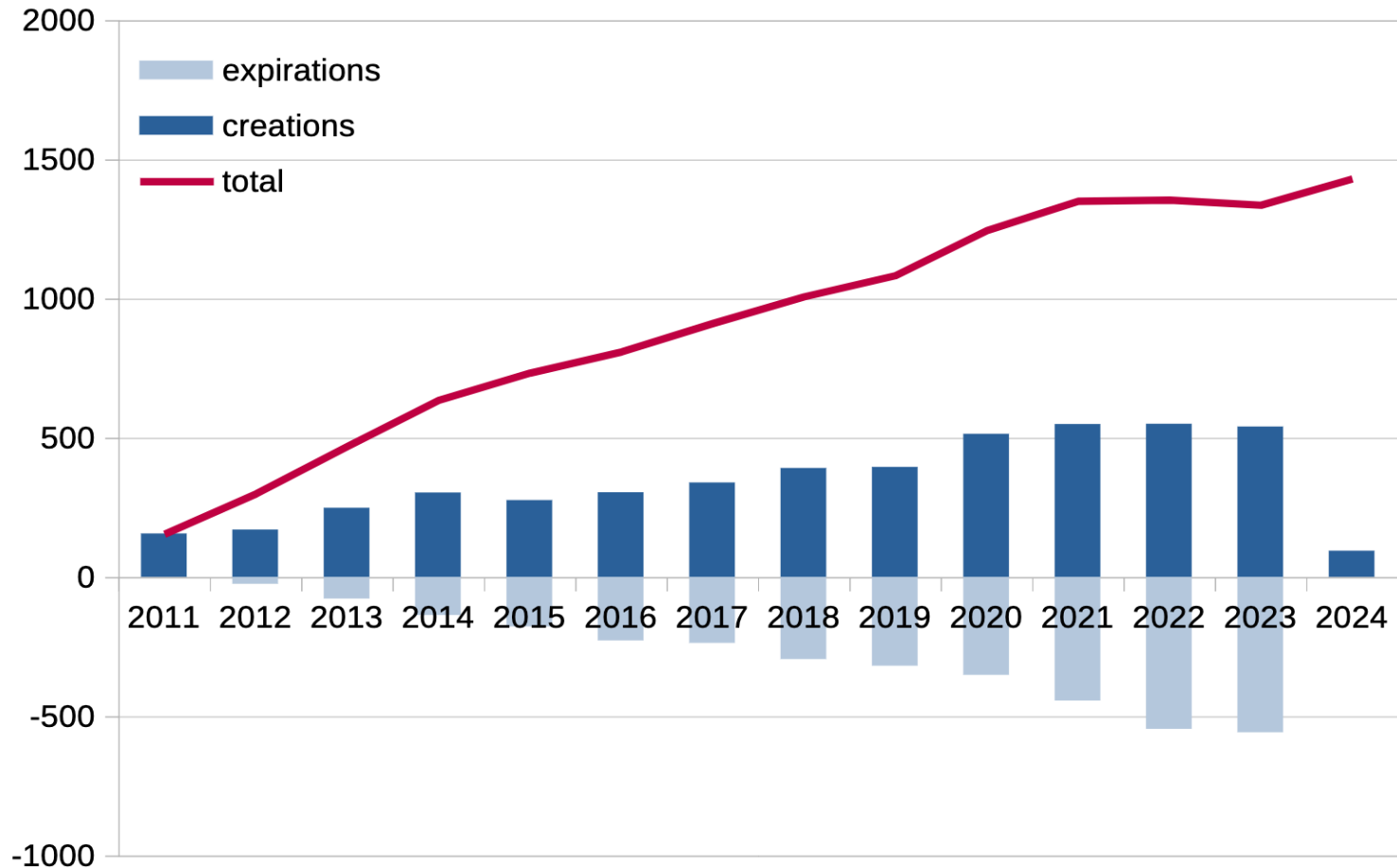
The CÉCI sysadmins

CÉCI day 2024

Help "you": the CÉCI users 🔬

4900+ Accounts created since 2011

Help "us": the CÉCI sysadmins 💻

```
UCLouvain: CISM (4.4)
ULiège: nicadm   (1)
UNamur: PTCI     (1.5)
UMons: CMN        (1)
ULB: HPC team     (2)
CÉCI:  Logisticien  (1.5)
                 ----
                ~11.5
```

Help "us": the CÉCI sysadmins 💻

https://www.ceci-hpc.be

Help "us": the CÉCI sysadmins 💻

```
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                    ----
              ~11.5
```

🎯 Our goals

🚥 provide as much uptime as possible

⚖️ accommodate a wide spectrum of jobs

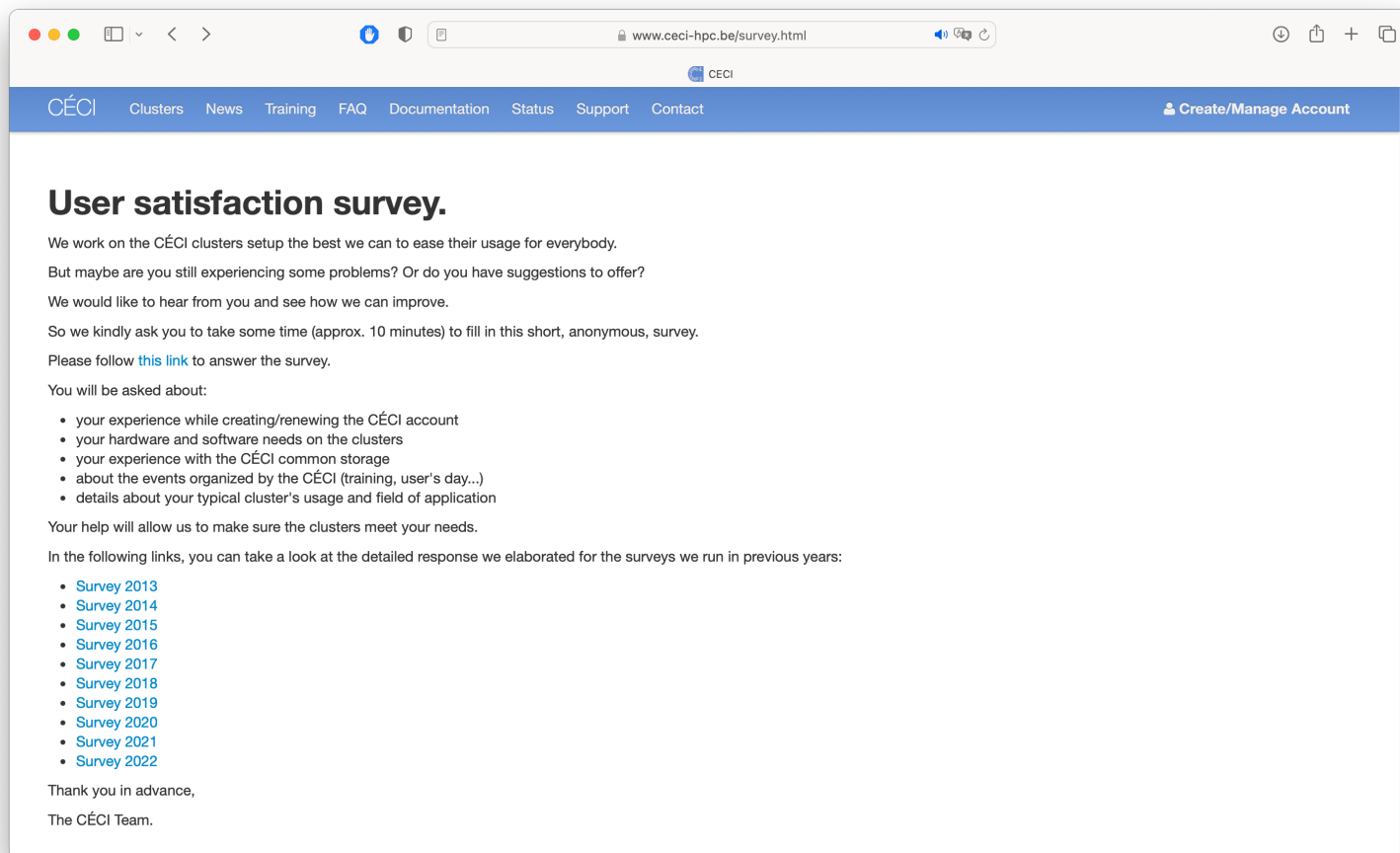📊 maximize resource utilization

🕐 minimize turnaround for your jobs

📣 Our messages today

- we can only act on your problems if you report them

- how you request help really impacts the possible time to response

- there are certain tasks you can do by yourself

- wasting resources has an impact on the planet and on other's research

- certain workflows can lead to problems on HPC clusters

We can only act on your problems if you report them

- Via the annual satisfaction survey https://www.ceci-hpc.be/survey.html

We can only act on your problems if you report them

- Via the Support Wizard https://support.ceci-hpc.be/cecihelp/

How you request help impacts the possible time to response

1. Start with **Due Diligence**

   - Read the error message, try to find words you understand

   - Check http://www.ceci-hpc.be/status.html

2. Use the **Correct Channel**: (support wizard unless stated otherwize)

3. State the **General Goal**; explain your intentions

4. Provide **Important Information**

   - *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** message you are facing

How you request help impacts the possible time to response

More info: http://www.ceci-hpc.be/helpushelpyou.html

There are certain tasks you can do by yourself

- installing software (modules included)

- changing permissions back after an error

- sharing files among users

- changing group ownership (not user ownership)

- joining a tier-1 project

- learning Linux

- ...

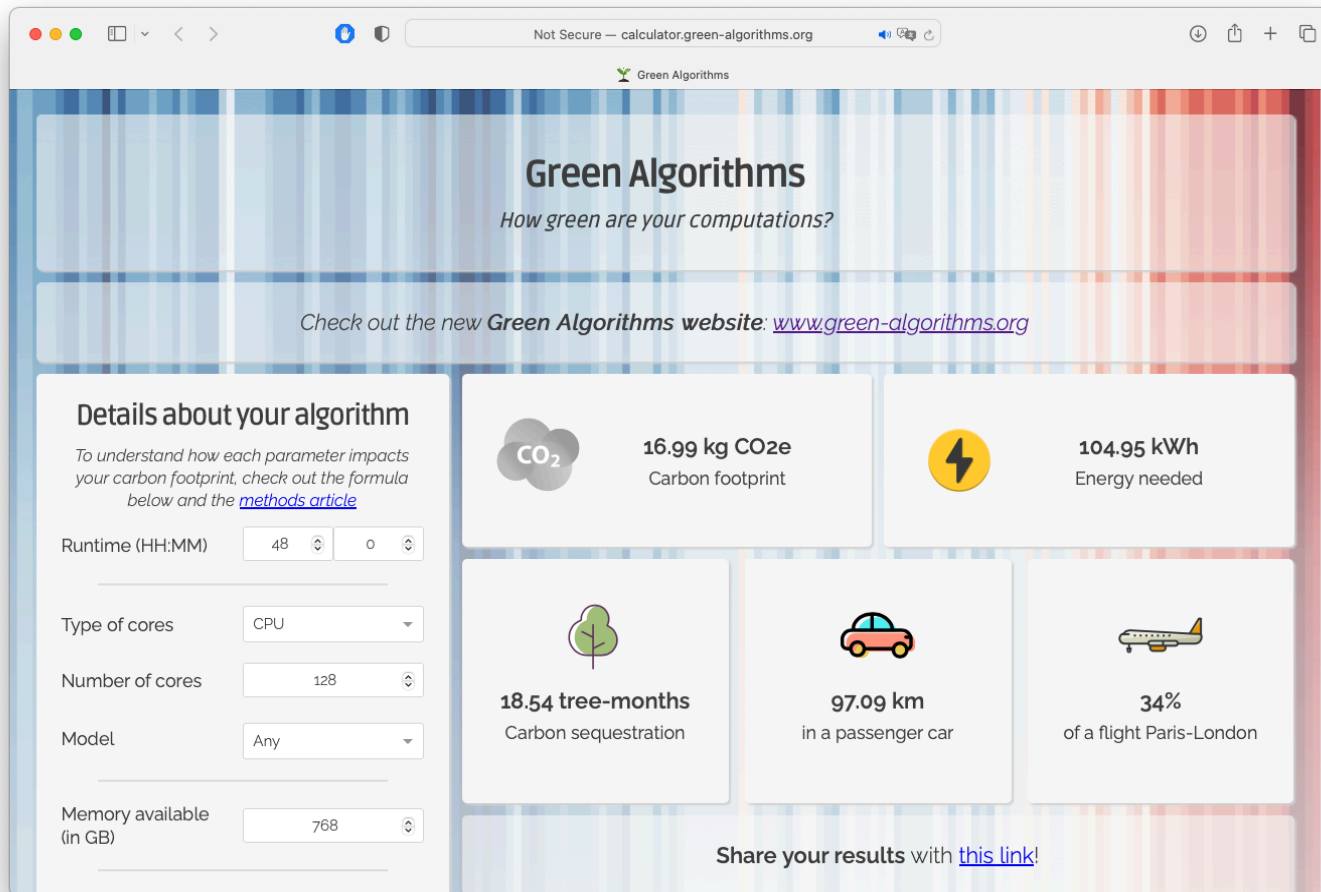Lemaitre3: module load gameshell

There are certain tasks you can do by yourself

https://www.ceci-hpc.be/training.html | https://www.cism.ucl.ac.be/videos
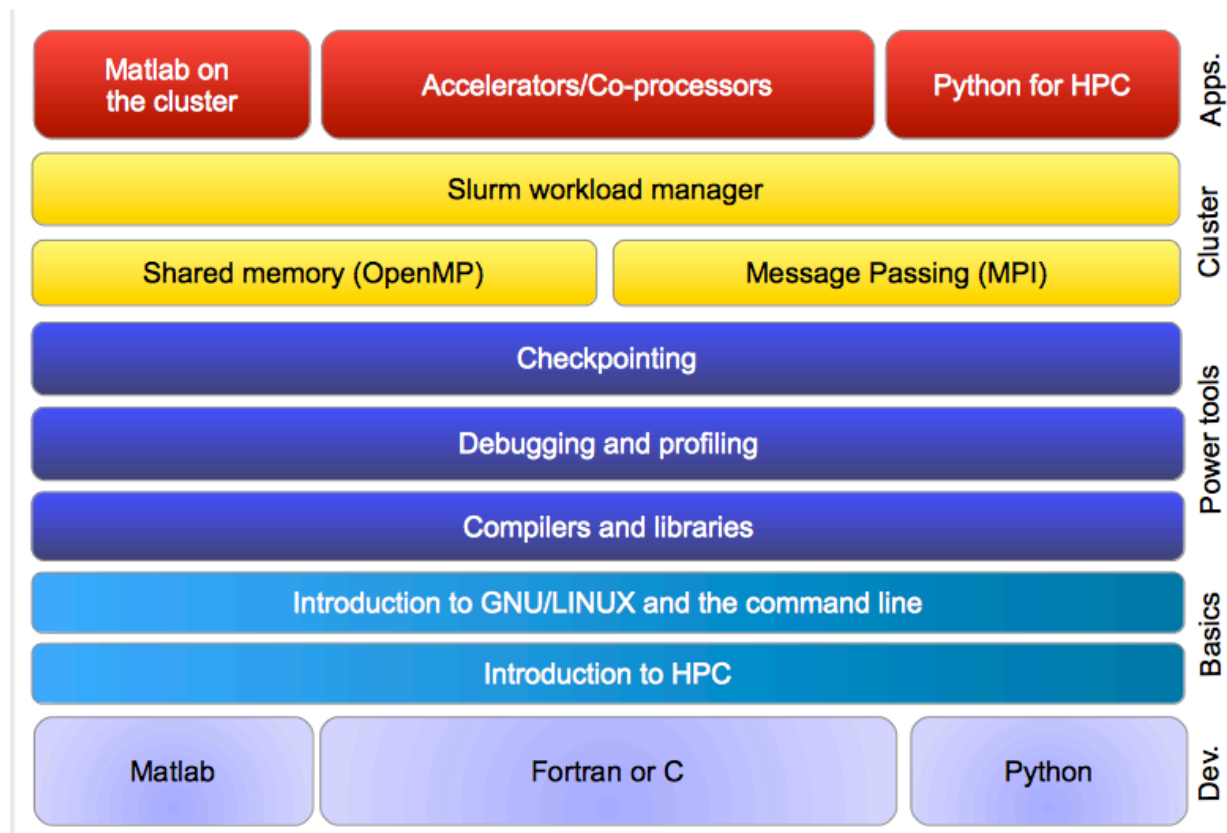
Wasting resources has an impact on the planet

More info: http://calculator.green-algorithms.org

Wasting resources has an impact on the planet

- jobs whose output is discarded because of misconfiguration

- jobs whose output is unsaved due to file manipulation error

- jobs whose results are lost because of hardware failure

- jobs not using the resources requested because of misconfiguration

- interactive jobs sitting idle

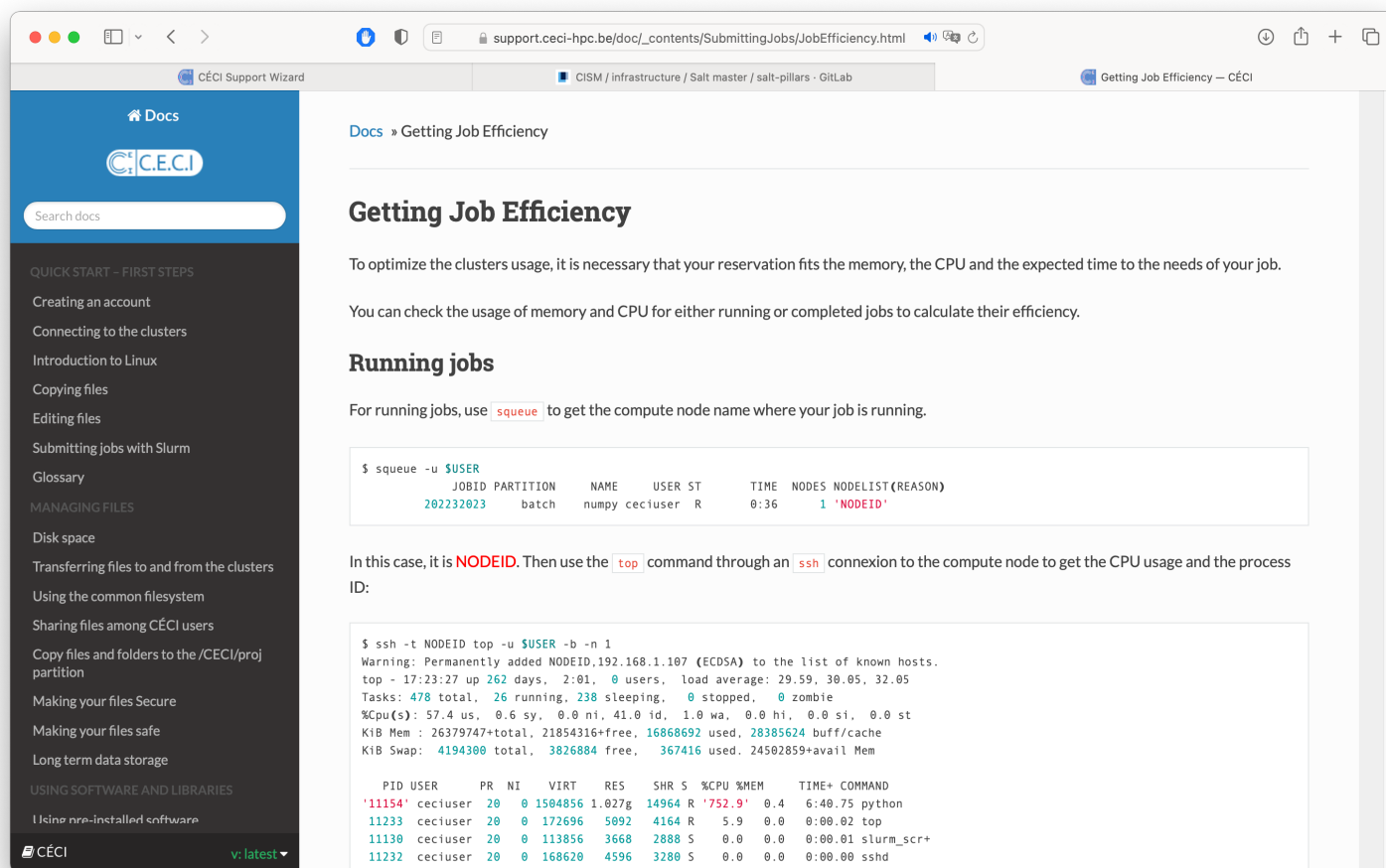- jobs under-using resources due to bad scaling

are negatively impacting the climate and your colleagues' research

$$P(\text{idle}) \approx \frac{1}{2} P(\text{running})$$

Wasting resources has an impact on the planet

So be considerate of the resources you ask for and use them.
https://www.ceci-hpc.be/job_efficiency

Certain workflows create problems on HPC clusters

- Running anything CPU-intensive on the head node

- Issuing too many requests to the scheduler

- Not testing first on a small scale

- Excessive and/or "bad" I/O on a parallel/network filesystem

- Storing a large number of small files

- Not double checking the email options

are example of user behavior that impacts other users' experience

C.E.C.I

So please

Help us help you!