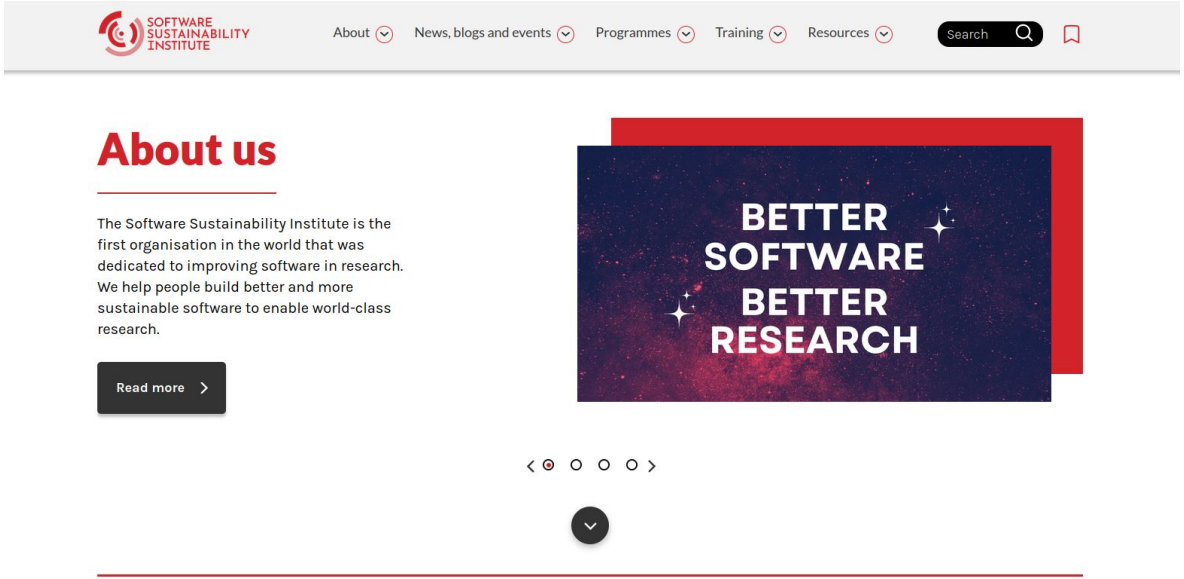
Green DiSC certification

Genomics of Gene Expression Lab

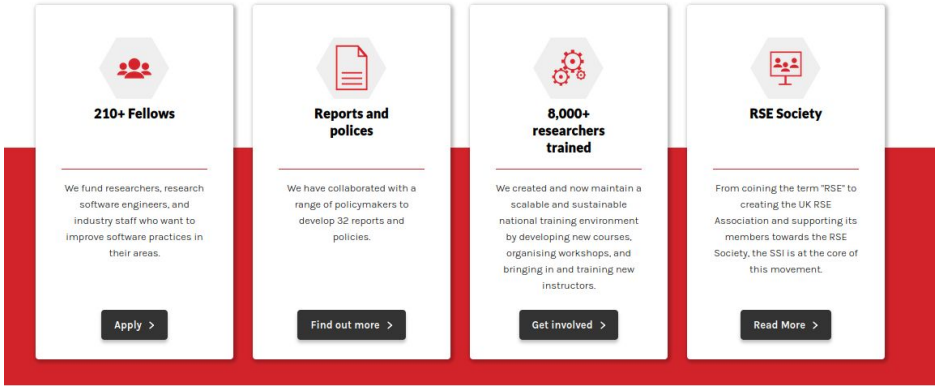
Software Sustainability Institute

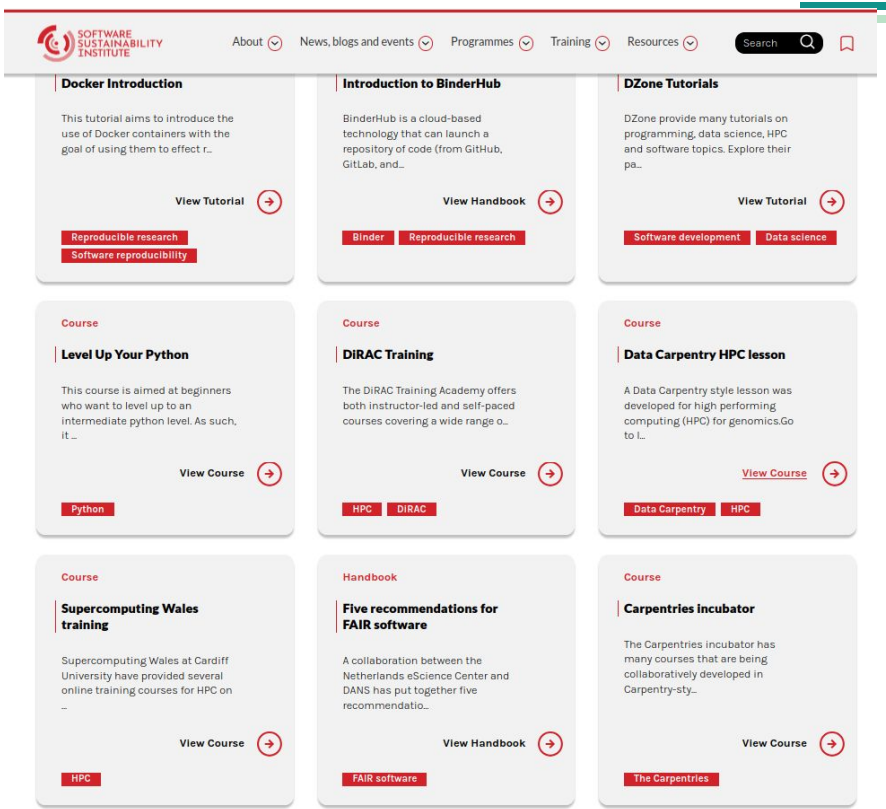


Settled in Edinburg

https://www.software.ac.uk

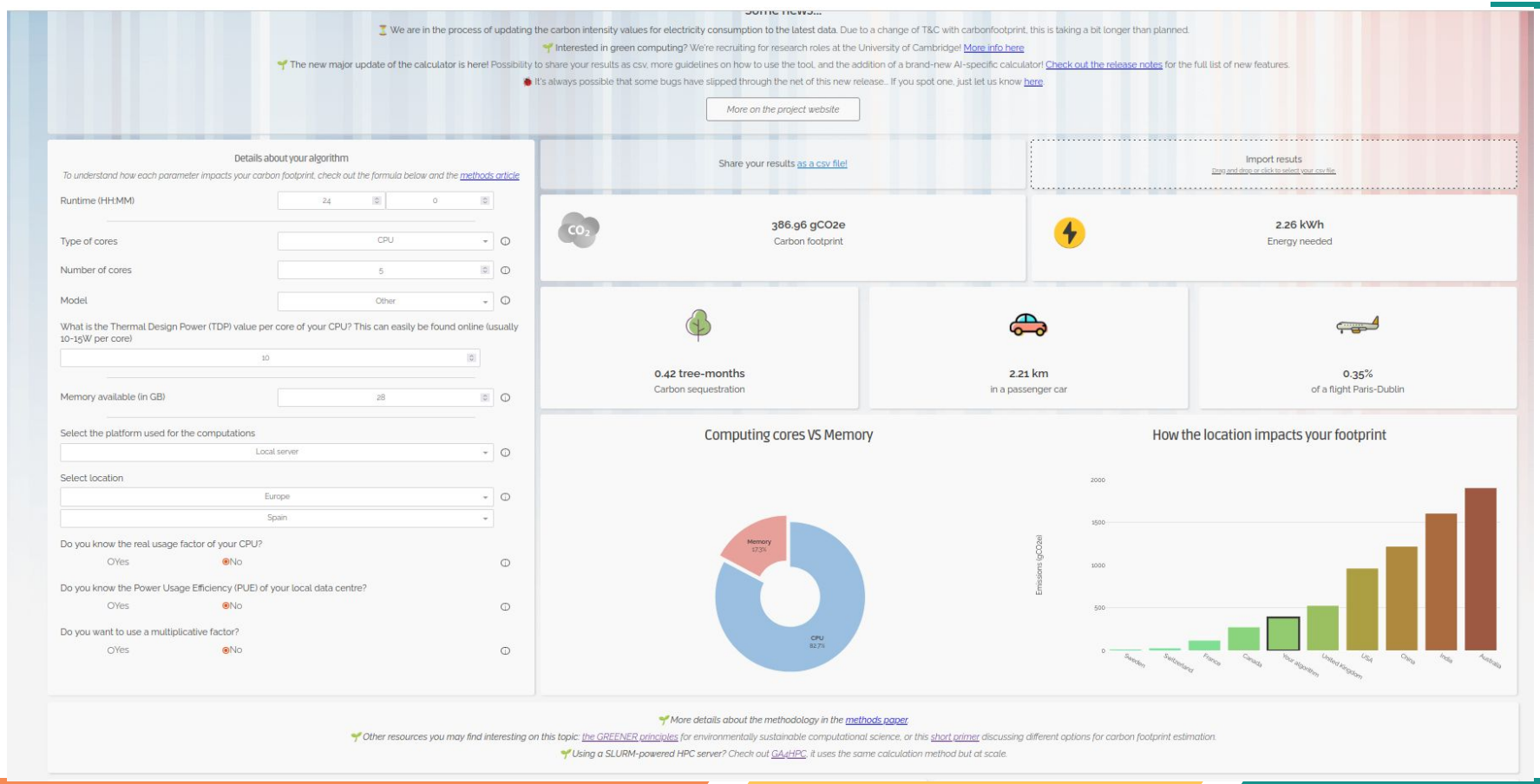
Lots of resources for scientific computing and training offered in UK





Other tools provided for environmental purposes

Genomics of Gene Expression Lab



GreenDiSC

“Computing is an essential component of modern research, and it comes with significant, but not always well-understood, environmental impacts. The climate crisis is urgent, and it is becoming increasingly apparent to scientists using computing that the resulting environmental effects should be taken into account and mitigated where possible ***- Green DiSC introduction***

One evaluation per step

Who is Green DiSC for?

Groups:

- A **fully computing research group** (e.g. computational biology, astrophysics, statistics, machine learning, engineering, chemistry etc.).
- A research software engineering team.
- A group doing **both wet lab and dry lab** research.

Central teams:

- Organisation's **central sustainability team**.
- Department's sustainability representative.
- **IT team**.

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In Short:

Any **organ or organism** who spends **a significant amount of computer time or computer resources** or **platforms of the institution** that hosts them.

The vision

Evidence-based

Free and open access

Community-based

Iterative

3 levels of certification: Bronze, Silver, Gold

Bronze criteria: General, Offices, Data Storages and compute

General Criteria

For groups	For Central teams
Green DiSK Representative	
Protocol: Computing sustainability procedures for newcomers	
Dissemination of the Green DiSC program	
Shared sustainability and information with other groups	Central institutional repository for sustainability resources

Offices Criteria

For groups	For Central teams
Inventory of office computing hardware	Inventory of Purchasing streams*
Identification of unused computing equipment	-
Electronic waste processing streams	

Data Storage Criteria

For groups	For Central teams
Inventory of main data resources	Inventory of (Large) data resources
Protocol: User data directory cleaning	Protocol: regular centralized cleaning and inform groups about storage used
	Template and training resources for data management available for groups

Bronze criteria: General, Offices, Data Storages and compute

Compute Criteria

For groups	For Central teams
Inventory of remote infrastructure	
Protocol: User data directory cleaning	Protocol: regular centralized cleaning and inform groups about storage used
Training for green computing	Centralized training for green computing

Silver and Gold criteria: Not yet published, but…

About the criteria

Some examples for Silver

Compute

Review of HPC infrastructure
Regular carbon tracking for computing
Official policy on sustainability

Data storage

Review of backup strategies
Streamlining of large shared data resources

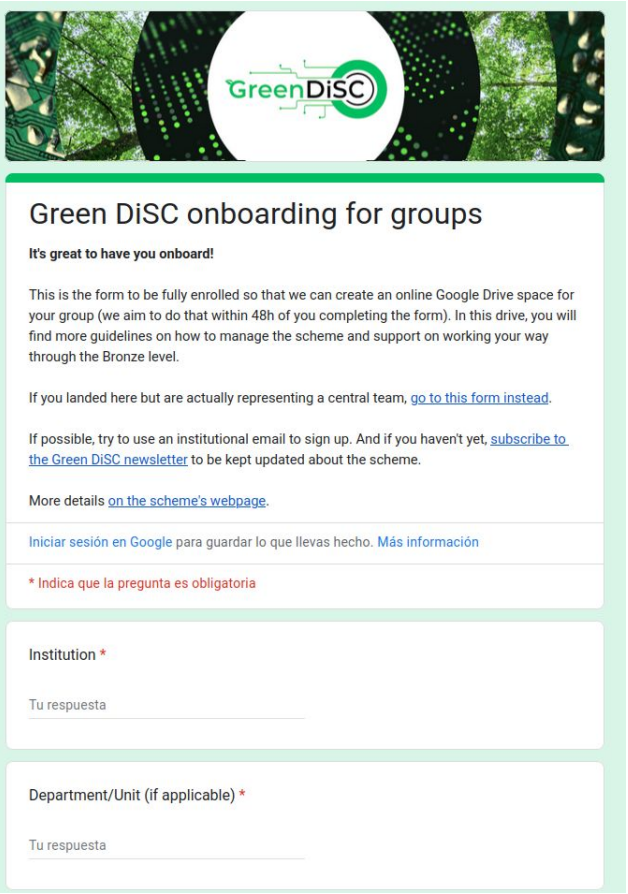
Offices

LCA as part of IT purchase
Robust e-waste processing
Equipment is being repurposed

General

Sustainability becomes part of teaching
Missing resources are identified centrally

Timeline



Form that will give access to more resources and help to achieve the criteria

Next deadline for applying:

- July 31st, 2025

Future deadlines to be announced, estimated every 3-4 months

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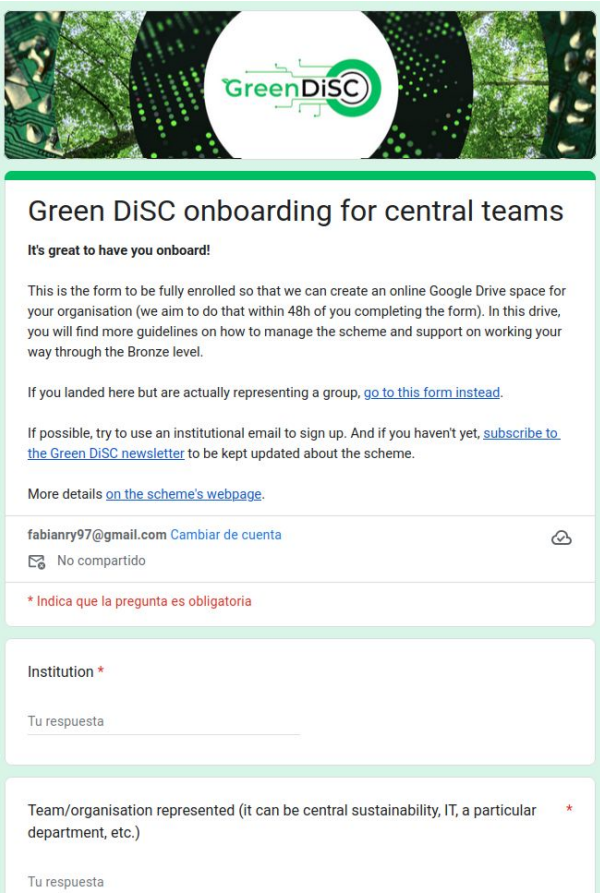

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After submitting the form

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External revisión:

- Reviewered by other candidates
- That means, every group or central team applying will have to review other candidates (only once for Bronze criteria)

Thanks for your attention