

IRIS User and User Community Carbon Concerns

- What user **decisions** are impacted by carbon concerns?
- What carbon **reports** could inform those decisions?
- What **measurements/data** are needed to generate those reports?





IRIS User decisions impacted by and impacting on **Carbon Emissions**

Deciding to run as fast as possible (minimise time to science) **Deciding to run as energy efficiently as possible Deciding to run as carbon efficiently as possible** Deciding how, when and where to submit jobs for carbon efficiency **Deciding how to optimise codebase for Scope 2 Deciding how to optimise codebase for Scope 2 + Scope 3 Deciding how to allocate carbon between collaborators in a project**

- Deciding to exert peer pressure on collaborators with high carbon costs



IRIS User Carbon Reports to inform decisions

Per Payload Scope 2 and Scope 3 report Per Payload IDLE Scope 2 and Scope 3 report Daily/Monthly per Provider/Service Scope2 and Scope3 report for aggregate user payloads. Daily/Monthly Project Scope 2 and Scope 3 report by user Daily/Monthly Project IDLE Scope 2 and Scope 3 report by user Daily/Monthly Project Scope 2 and Scope 3 report by payload "codebase" - is this possible

- Daily/Monthly per payload "codebase" Scope2 and Scope3 report for aggregate user payloads.
- Daily/Monthly Project IDLE Scope 2 and Scope 3 report by payload "codebase" is this possible





IRIS User - Discussion

Should Users See Provider Carbon Costs? More Decisions? More Reports? Data needed?

Deciding to run as fast as possible (minimise time to science) **Deciding to run as energy efficiently as possible**

- **Deciding to run as carbon efficiently as possible**
- Deciding how, when and where to submit jobs for carbon efficiency
- Daily/Monthly Project Scope 2 and Scope 3 report by user Daily/Monthly Project IDLE Scope 2 and Scope 3 report by user Daily/Monthly Project Scope 2 and Scope 3 report by payload "codebase" - is this possible Daily/Monthly Project IDLE Scope 2 and Scope 3 report by payload "codebase" - is this possible
- **Deciding how to optimise codebase for Scope 2 Deciding how to optimise codebase for Scope 2 + Scope 3** Deciding how to allocate carbon between collaborators in a project Deciding to exert peer pressure on collaborators with high
- carbon costs

- Per Payload Scope 2 and Scope 3 report
- Per Payload IDLE Scope 2 and Scope 3 report
- Daily/Monthly per Provider/Service Scope2 and Scope3 report for aggregate user payloads.
- Daily/Monthly per payload "codebase" Scope2 and Scope3 report for aggregate user payloads.







