

Developing a Sustainable Research Computing Environment at UK Universities

Friday 24th July 2026, 170 Queen's Gate, Imperial College London

Welcome

Talks will begin at 10:30

Developing a Sustainable Research Computing Environment at UK Universities

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Event Introduction & Embedding Sustainable Computing Practices into Imperial's Research Culture

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Event Overview

10.30 - 11:35	Welcome, intro and talk session 1
11:35 - 11.50	Break
11:50 - 13:00	Talk session 2
13:00 - 14:00	Lunch
14:00 - 14:50	Talks session 3, including presenting our Digital Research Sustainability course
14:50 - 15:00	Break
15:00 - 16:00	Discussion and wrap-up
16:00 - 17:00	Refreshments and networking

Embedding Sustainable Computing Practices into Imperial's Research Culture

- Funded through Imperial with Research England research culture funding
- Imperial project team plus two external collaborators
 - Depts. of Computing and Chemistry, RSE team, Sustainability (ICT/Property), ECRI
 - Andrew Turner, EPCC, University of Edinburgh / NetDRIVE Champion
 - Rae Goddard, Paraphrase.studio
- Driven by the need to strengthen knowledge and awareness around sustainable computing and by our Green DiSC certification work
- **Develop open training materials targeted at researchers/dRTPs**
- **Grow our community, connecting teams looking to grow their sustainable computing “footprint” and sharing knowledge**
- **Develop a “sustainable research computing culture”**
- **Engage and inspire the community through visual content**

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A Strategic TEchnical Platform for University technical Professionals

- Builds on the Research Software London regional RSE community
- Funded under UKRI-EP SRC's Strategic Technical Platforms call – 4 years: Jan 2024 – Dec 2027 – ~£2m (100% FEC)
- Partner institutions:
 - Imperial (lead)
 - UCL
 - King's College London
 - University of Westminster
- Pioneered “digital Research Technical Professionals” (dRTP) concept
- **Building the Community**
- **Training and Skills**
- **Career Pathways, Secondments and Mentoring**
- **Policy, Strategy, Awareness and Recognition**

STEP-UP is one of 11 Strategic Technical Platform projects [announced by EPSRC](#) in March 2024

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Developing a Sustainable Institutional Research Computing Culture

Sustainable Research Computing

- **We have a community that:**
 - Understands research software, data and HPC
 - That recognises the huge challenges presented by the demand for ever-more compute, AI, LLMs, etc.
- **Universities increasingly focusing on sustainability**
 - But does this include sustainable research computing?
 - Important to have research computing infrastructure that is free at the point of use (but that doesn't always incentivise sustainable use!)
- **Building on our community's skills and expertise**
 - Starting at an institutional level with a view to growing activities to the wider community
- Work on developing a **sustainable institutional research computing culture** through three pillars – **Community, Education, Advocacy**

The 3 pillars of a sustainable research computing culture

Education

- Development of a “**Digital Research Sustainability**” course
 - Initially motivated by our Green DiSC certification activities
 - Development led by Imperial’s RSE team - supported by Research England research culture funding via Imperial
 - Will be made available under an open licence for others to use/adapt
- A combination of general research sustainability background/skills and case studies
 - Help researchers to understand how to estimate different aspects of emissions in a number of scenarios



Illustrations by Rae Goddard, Paraphrase.studio

The 3 pillars of a sustainable research computing culture

Advocacy

Easy wins

- Everyone has a stake in supporting sustainable computing use
 - Researchers: use of large-scale HPC infrastructure
 - Professional services staff: SaaS tools, LLMs, data storage
- Offer straightforward, actionable guidance applicable to all
 - E.g. Imperial's **"7 steps to ICT sustainability"**
- Looking at large-format artwork to inspire / raise awareness



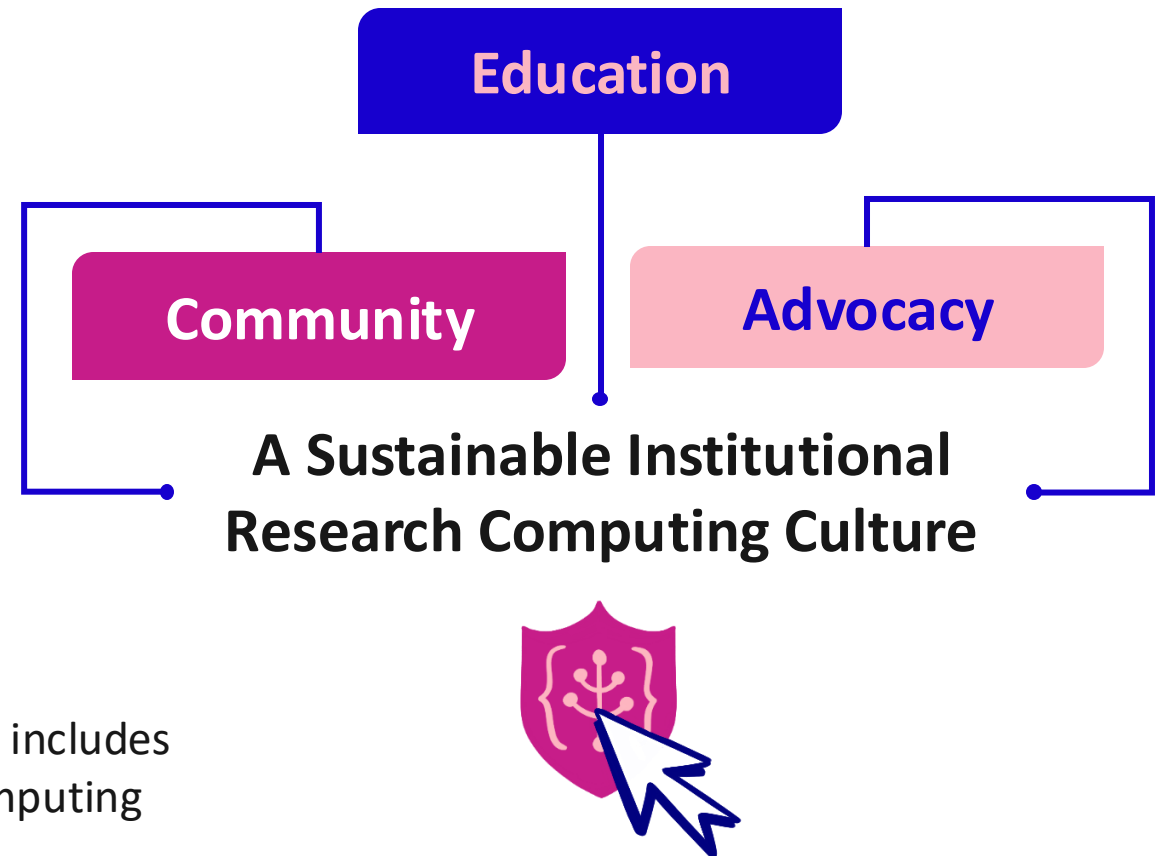
Illustrations by Rae Goddard, Paraphrase.studio

The 3 pillars of a sustainable research computing culture

Bringing it all together

A sustainable institutional research computing culture

- Sustainability is a key element of modern institutional strategies
- Research computing/IT (especially HPC) is a key contributor to an organisation's emissions
- More efficient use isn't possible without the support of staff and students
- Build an environment with an embedded culture that includes thinking about environmental/impact of research computing



Illustrations by Rae Goddard, Paraphrase.studio

STEP-UP Digital Research Technical Champions

- **PhD students providing digital skills knowledge and support**
 - Sustainable computing can be an important element of this
 - Run through the London region STEP-UP project
 - Champions focus on work within their home department – engage with the rest of the cohort through regular catch-ups
 - Paid for their time, flexibility to work on their own ideas to best support their local community



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Thank you

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