

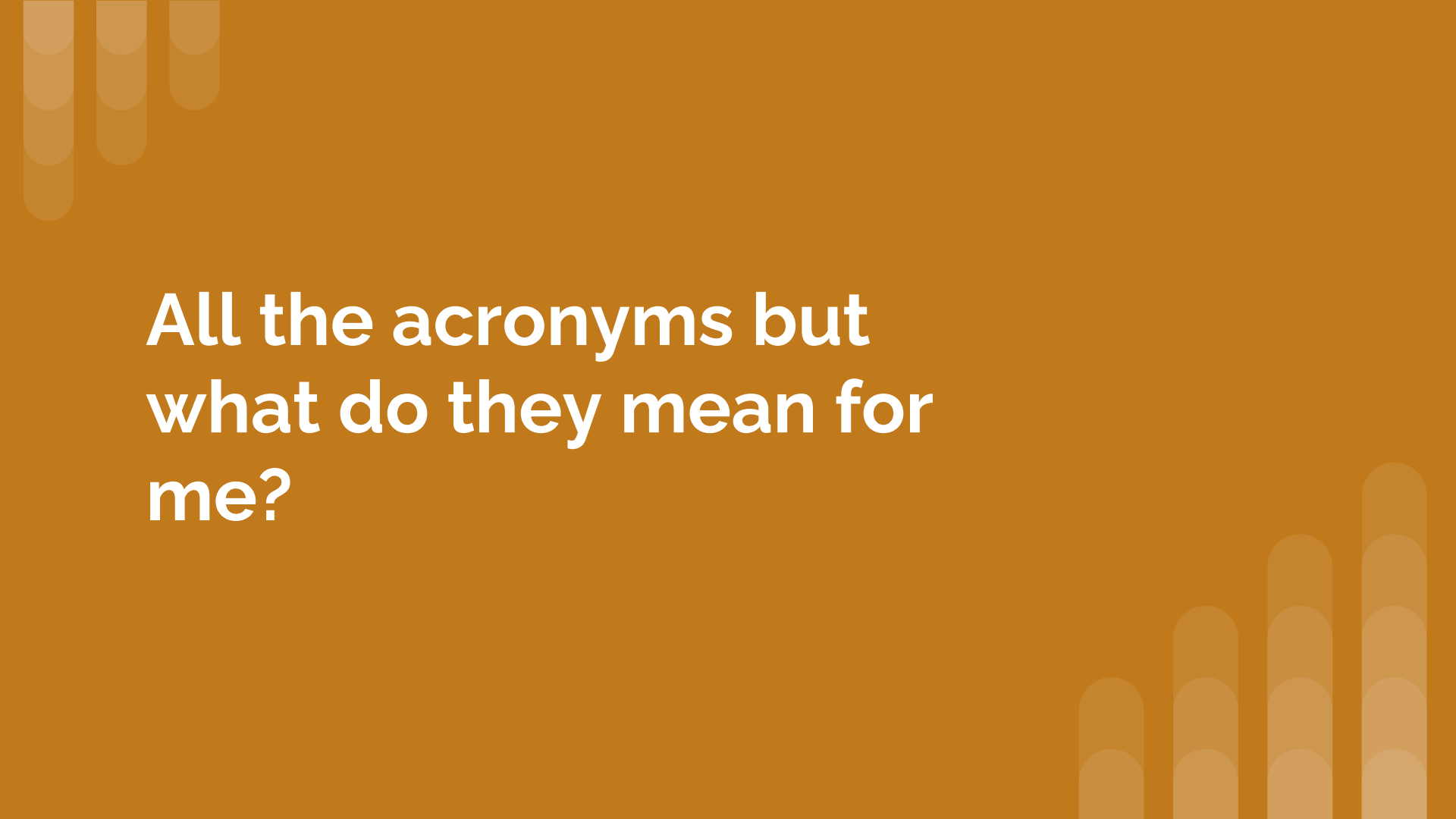
Digital Research Landscape - Projects, Skills and Resources Session





Overview

- Intro talk - Samantha Ahern
- DIRECT - Dave/Aleks
- The Carpentries - Toby Hodges
- CAKE - Eleanor Broadway
- DisCouRSE - Adrian Harwood
- CHARTED - Weronika Filingier
- STEP-UP & SCALE-UP - Jeremy Cohen
- ACIT Hub - Twin Karmakharm
- SHAREing - Eva Fernandes Amez
- NFCS - Jonathan Hays
- Netdrive - Lorna Smith

The background is a solid orange color. In the top-left corner, there are three vertical bars of varying heights, each composed of several overlapping semi-transparent circles. In the bottom-right corner, there are four vertical bars of increasing height from left to right, also composed of overlapping semi-transparent circles.

**All the acronyms but
what do they mean for
me?**



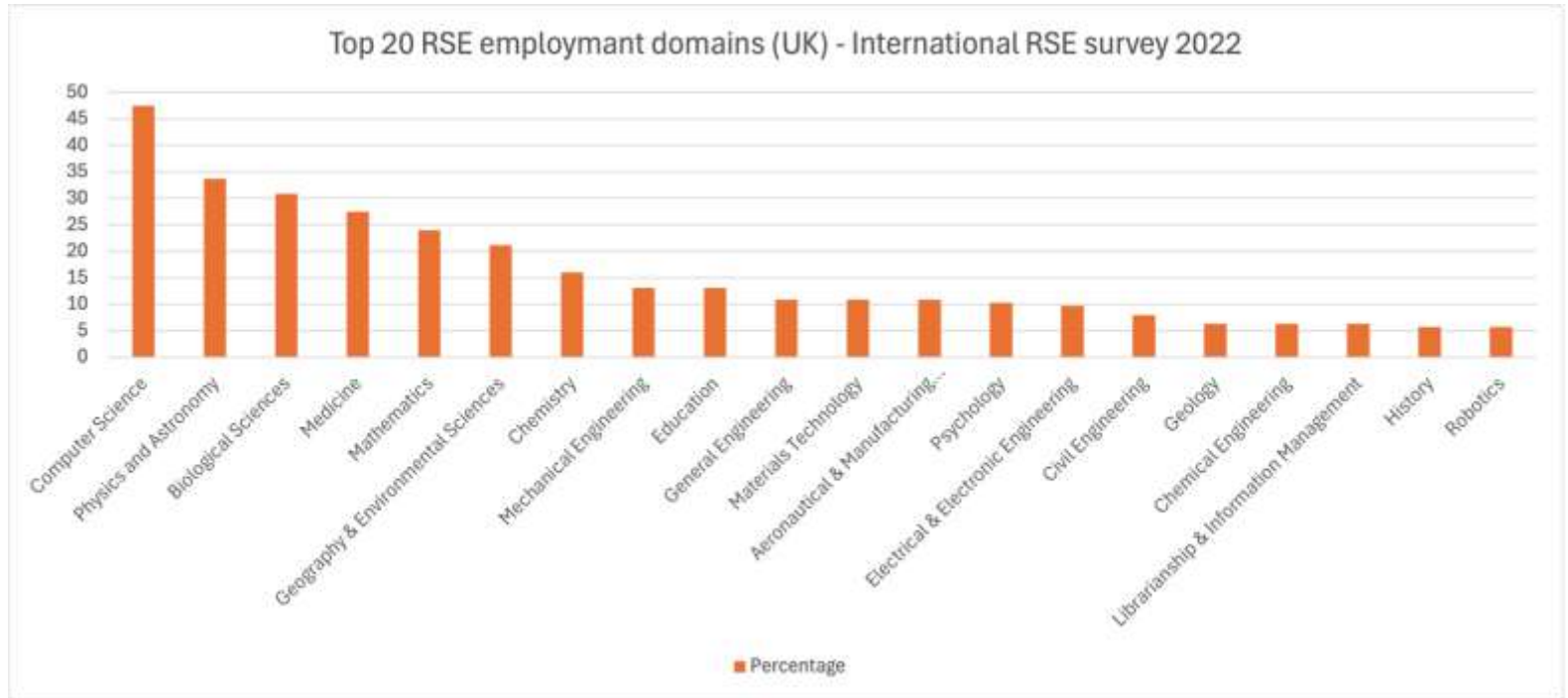
So what is a RSE?

Research relies on software. In 2012 the term “Research Software engineer” was coined to recognise this contribution.

A Research Software Engineer (RSE) combines professional software engineering expertise with an intimate understanding of research.



RSE Domains





DRI? DRTP? More acronyms, why?

A decorative pattern at the bottom of the slide consisting of a series of overlapping, semi-transparent circles in various shades of teal and light blue, arranged in a rhythmic, slightly irregular sequence.



Who or what is a Digital Research Technology Professional (DRTP?)

The UCL context

Our Vision

To ensure that UCL is recognised globally as a leader in the application of data, software and compute intensive methods for research and innovation

Our Capabilities

(most involve more than one product team)

Digital Research Platforms

Collaborations & Community

Digital Research Professionals

Research Data Management

ARC Research & Impact

Digital Research Education

Our Objectives

- Providing world class computing platforms for UCL and beyond
- Promoting digital research best practice and innovation
- Enabling cutting edge digital research capabilities in staff and students
- Building a broad and engaged digital research community

Excellent Tools & Systems

- Easy to use & reliable
- Scalable & flexible
- Self service & co-design
- Sensitive data provision
- Artificial Intelligence / Machine Learning capability

Excellent Practices & Resources

- FAIR (Findable, Accessible, Interoperable and Reusable) data & software
- Information Governance framework
- Digital Research Skills Development
- ARC-led teaching curriculum
- Connected curriculum

Excellent Partnerships

- World leading multi-disciplinary Staff-Scientist community
- Doctoral Training Programme
- Strategic external collaborations
- Digital research career pathways
- 'Hub and spoke', profession & PRISM roles



DRI: Digital Research Infrastructure

The UKRI programme aims to develop a state-of-the-art national digital research infrastructure. It connects researchers and innovators to the computers, data, tools, techniques and skills that underpin the most ambitious and creative research.

It funds and develops:

- new infrastructure
- major upgrades or transformative developments
- scoping studies
- design studies and pilots

Their work includes:

- data infrastructure and services
- large-scale compute
- software
- foundational tools, techniques and services for interoperability, security and sustainability
- professional skills and career pathways in digital research infrastructure

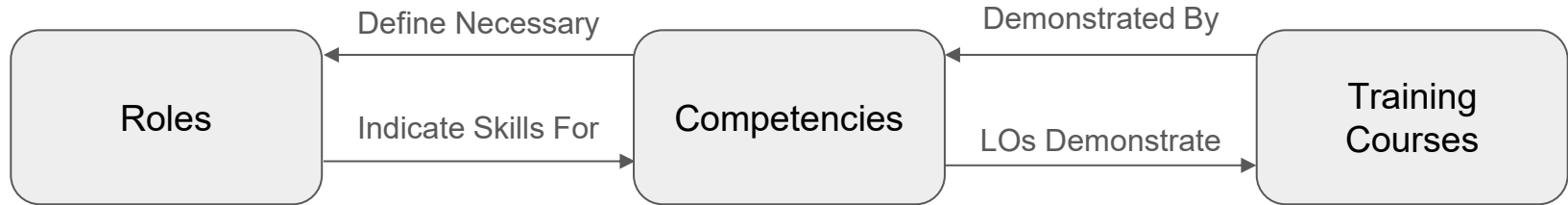


Complex Landscape of skills & roles

- Computational research is becoming prevalent across more disciplines and the community is growing and diversifying
- Technology keeps advancing and the landscape of 'required skills' keeps shifting
- No clear entry points into many roles and often training happens on the job and is very task-driven
- More training resources are being created but finding the 'right' one can be difficult or time consuming

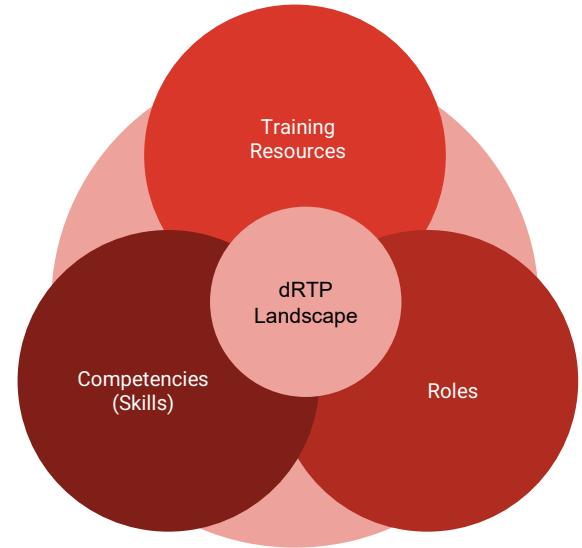
What have we done so far?

- We have started to identify roles, competency frameworks and training opportunities; and how these interlink.
- Data has been collected across multiple projects and events.



What are we trying to do?

- Develop and maintain a database describing roles, skills, and training resources related to digital Research Technical Professionals (*“the dRTP landscape”*) to serve as a dynamic, living reference resource for the whole dRTP community.
- **Connect the projects working in this space.**





Training Landscape Survey

The [Teaching and Training Special Interest Group](#) within the Society of Research Software Engineering is calling **dRTP group or team leads** to contribute to the [dRTP Training Landscape Survey 2026](#) by sharing insights on their current **training activities, barriers to development, and interests in cross-institutional partnerships**.

The primary objective is to map out the current educational landscape for digital research professionals by gathering data from team leaders. The survey seeks to identify the specific types of training currently being offered, the funding models supporting these initiatives, and the demographics of the learners involved. Furthermore, the questionnaire investigates the use of external learning resources versus those developed in-house and seeks to uncover existing barriers that prevent teams from expanding their teaching portfolios.



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**Lots of projects, which
you will now learn more
about**



DIRECT

Skills & Competencies
Framework for Digital
Research Professionals

*Helping dRTPs identify, visualise & develop
the skills they need to succeed*

Aleks Nenadic, Dave Horsfall
dRTP advisory group kick off meeting
20 March 2026, Edinburgh

THE PROBLEM

- ⇒ Many entry paths
- ⇒ Huge role diversity
- ⇒ No map or learning pathway

WHAT IS DIRECT?

A framework to help digital research professionals identify, visualise, and develop competencies to support careers, collaboration, and sustainable research

ORGANISED INTO

Competency domains → competencies → skills (technical & non-technical)

SKILL LEVELS

1–4: Awareness → Working knowledge → Competent → Expert (self-assessed)

WEBAPP

Personal profiles, role/job templates, gap identification, recruitment aid

OPEN & COMMUNITY-LED

Started at SSI CW23; recognised by SocRSE; openly licensed; v2.0 coming soon

AHEAD

- ⇒ Version 2.0 release
- ⇒ Voice for more communities & domains
- ⇒ Collaborate with similar frameworks globally
- ⇒ Career pathway & line-manager tooling

GET INVOLVED

- ⇒ Explore: directframework.com
- ⇒ Self-assess: build your personal skill profile (competency wheel)
- ⇒ Contribute & connect: workshops, feedback, community project meetings, Slack

DIRECT Team





A community-led organisation teaching essential software and data skills for open, reproducible research.



 datacarpentry



 hpc-carpentry*



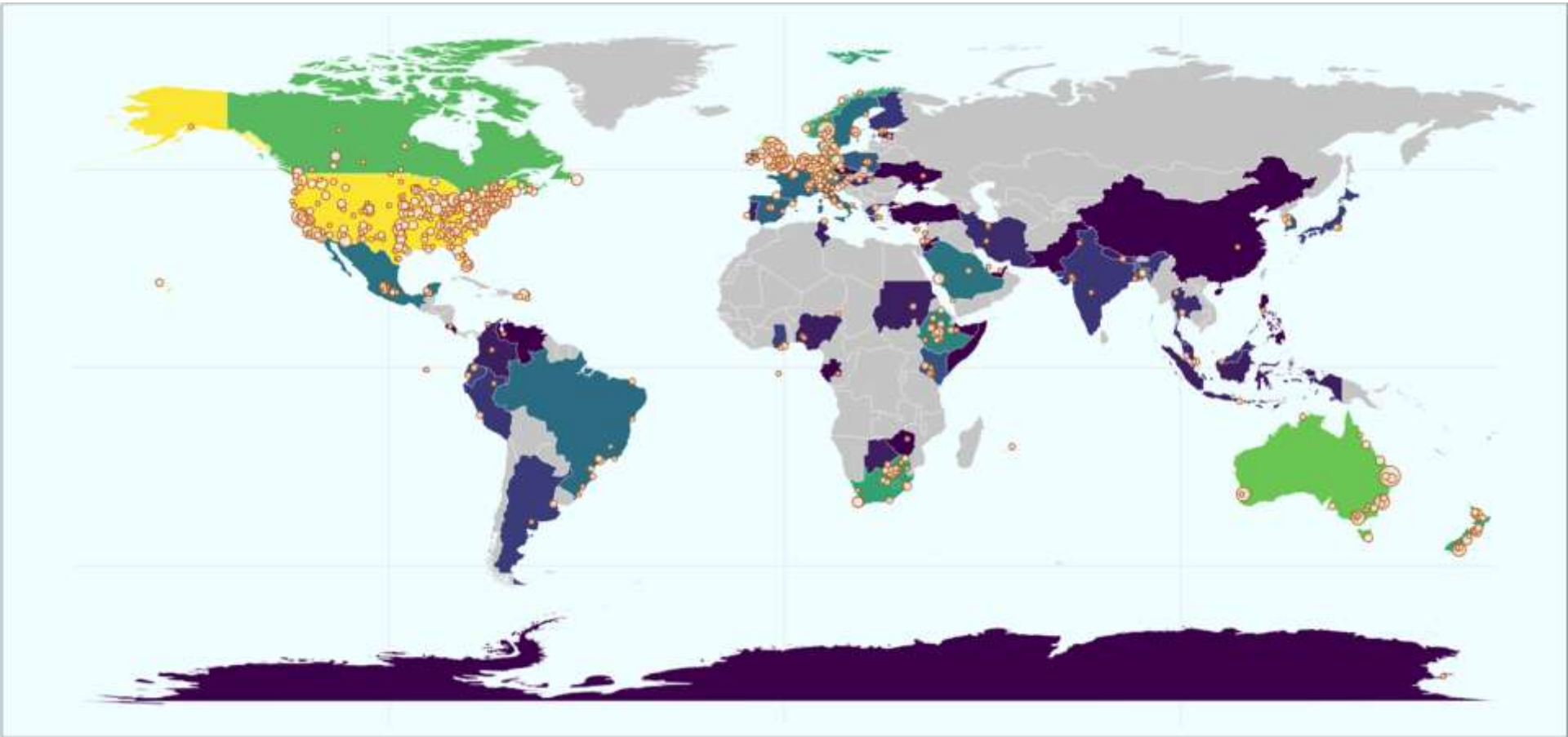
 librarycarpentry

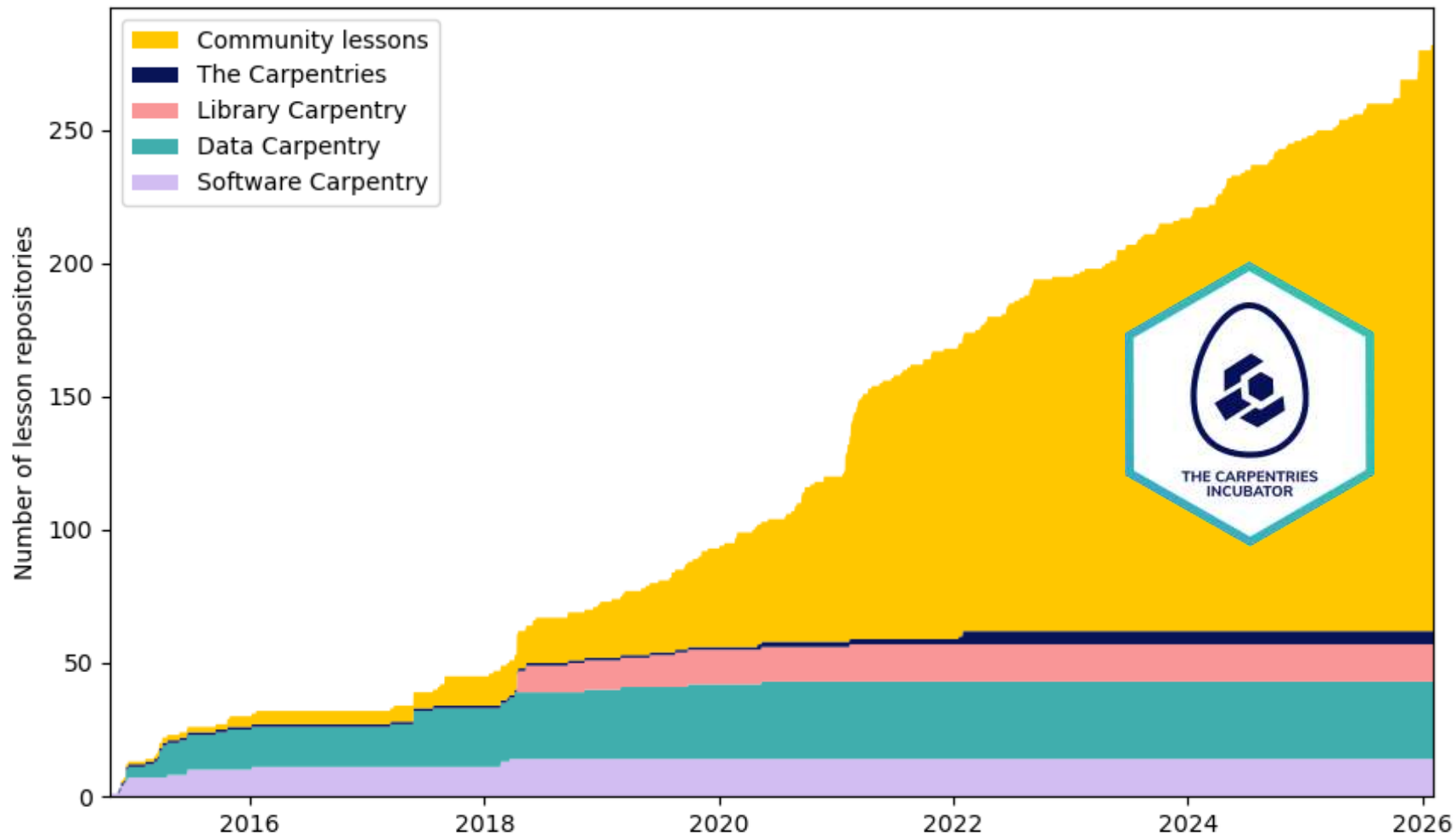


 swcarpentry



<https://carpentries.org/>





The Carpentries Workbench

- Open source, MIT licensed
- Accessible: WCAG AA+
- Automated a11y testing
- Simple local setup
- Embeds Bioschemas TrainingMaterial metadata

Interested in building/mapping learning pathways between materials+programs

The screenshot displays the 'Creating Histograms' page in the Carpentries Workbench. The page title is 'Creating Histograms' with a subtitle 'Last updated on 2023-09-18 | Edit this page'. There is a link to 'Expand All Solutions'. The page is divided into sections: 'OVERVIEW', 'Questions', and 'Objectives'. The 'Questions' section contains a bullet point: 'How can we create grayscale and colour histograms to understand the distribution of colour values in an image?'. The 'Objectives' section contains three bullet points: 'Explain what a histogram is.', 'Load an image in grayscale format.', and 'Create and display grayscale and colour histograms for entire images.' Below these sections, there is a section titled 'First, import the packages' with a code block containing the following Python code:

```
import imageio.v3 as iio
import numpy
import matplotlib.pyplot as plt
import skimage as ski
from matplotlib.widgets
```

The screenshot also shows a detailed view of a section titled 'HISTOGRAMS IN MATPLOTLIB'. This section explains that Matplotlib provides a dedicated function to compute and display histograms: `plt.hist()`. It notes that while `plt.hist()` is used in the lesson, it is better to use `plt.hist(image.flatten(), bins=256, range=(0, 1))` instead of `plt.hist(image)` and `plt.plot(image.flatten())`. It also mentions that `flatten()` is a NumPy function that converts a two-dimensional image into a one-dimensional array.

Another section titled 'USING A MASK FOR A HISTOGRAM (15 MIN)' is visible. It discusses how to focus on a specific part of an image, such as the leaf of a seedling, by creating a mask. It explains that a large number of very dark pixels (indicated by a spike in the histogram at grayscale value 0.12) is due to the mostly black background. To focus on the leaf, a bounding box is determined around the leaf, and a mask is created with a white rectangle covering that bounding box. The text concludes by stating that after creating the mask, it should be applied to the input image before passing it to the `plt.hist()` function.

At the bottom of the detailed view, there is a yellow button labeled 'Show me the solution!'.

<https://carpentries.github.io/workbench/>



CAKE

COMPUTATIONAL ABILITIES
KNOWLEDGE EXCHANGE

Eleanor Broadway
Architect, EPCC
(e.broadway@epcc.ed.ac.uk)

ARCHER2 Celebration of Science, 13th March 2026

The DRI Landscape is no piece of cake...



The UK Digital Research Infrastructure (DRI) landscape is large and complex!

Across the ecosystem you'll find:

- Centres and Institutes
- Systems
- Development of RSEs
- New approaches to skills and software
- RTP skills, hubs and platforms
- Research Communities
- ... and many more!

:) So many **opportunities!**

But hard to navigate and...

- Find the **right** collaborators
- Discover what's **already happening**
- **Identify** opportunities to engage

This is where CAKE comes in:



CAKE connects the DRI community to make collaboration simpler, faster, and stronger.

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What's needed:

- Visibility
- Connections
- Funding
- Shared knowledge
- Open community



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- Open community

The method:

Remove the barriers to make collaboration easy

- 1 **Who & what**
- 2 **How**
- 3 **Get started!**



This is where CAKE comes in:

CAKE connects the DRI community to make collaboration simpler, faster, and stronger.



What's needed:

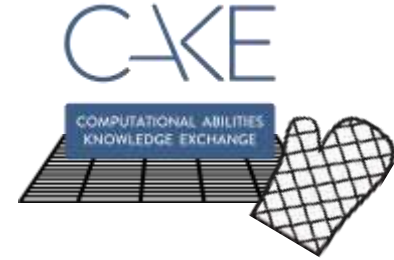
- Visibility
- Connections
- Funding
- Shared knowledge
- Open community



The method:

Remove the barriers to make collaboration easy

- 1 **Who & what**
- 2 **How**
- 3 **Get started!**



The result:

A well-connected DRI community

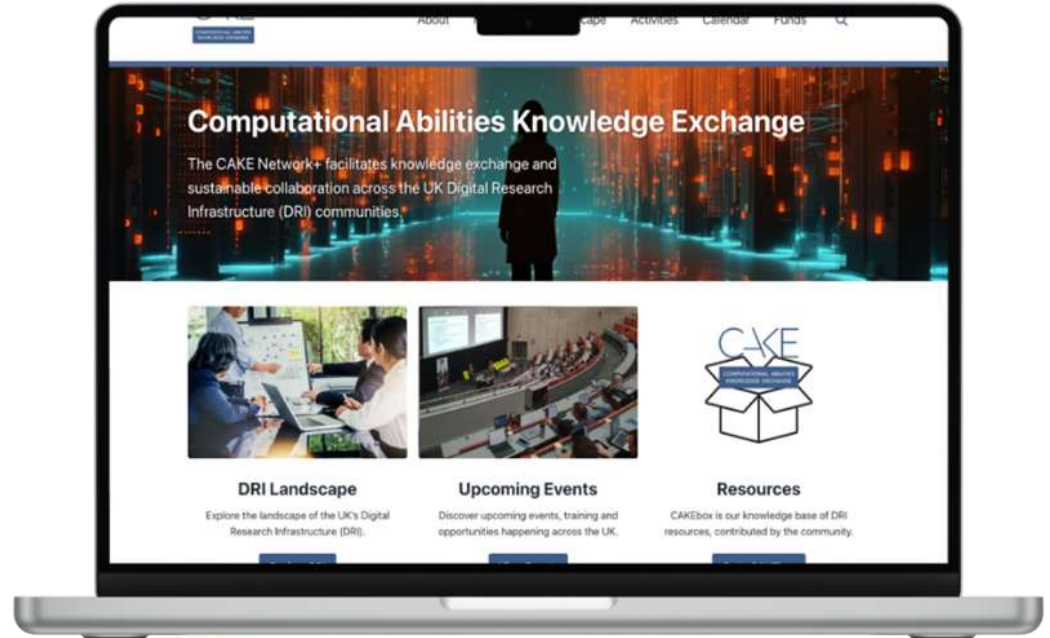
Our Central Hub



One-stop to discover **who** is doing **what** across the community.

Including:

- DRI Landscape Overview
- DRI Funding Opportunities
- DRI Events Calendar

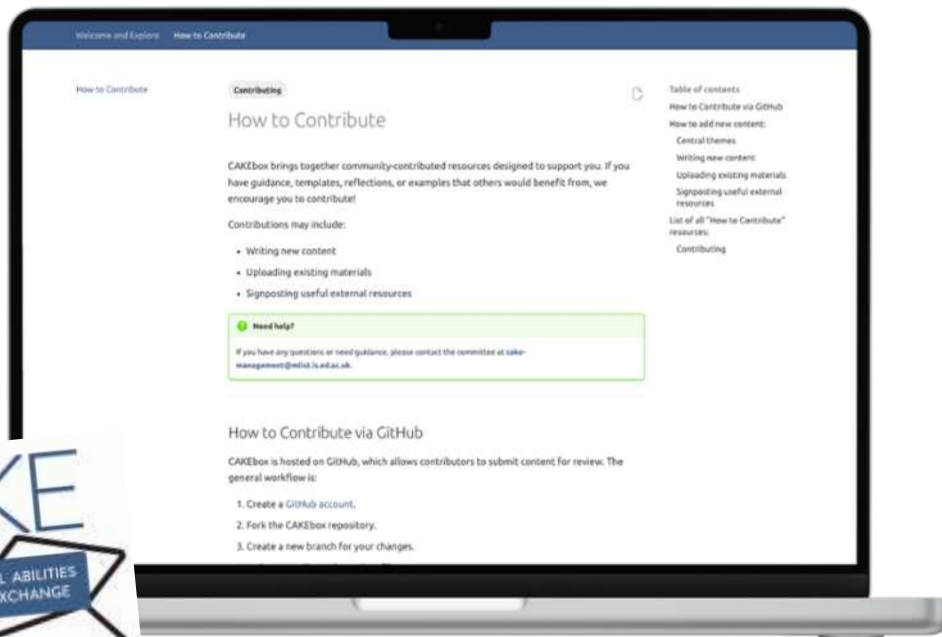


www.cake.ac.uk



CAKE
COMPUTATIONAL ABILITIES
KNOWLEDGE EXCHANGE

CAKEbox: Our Knowledge Hub



One-stop to discover how to collaborate better and easier.

Knowledge, best practices and reusable guides for:

- Collaboration and Community Building
- Communications and Outreach
- Equality, Diversity, Inclusion and Accessibility (EDIA)
- CAKE Fellowship Resources
- Submissions and Reviewing

Funding Opportunities



1 Retreats

2 Fellowships

3 Placements & Visits

Funding Opportunities



1 Retreats

- Community and output-driven knowledge exchange retreats.
- Open later this year!

2 Fellowships

3 Placements & Visits

Funding Opportunities



1 Retreats

- Conduits between communities, passionate about knowledge exchange & driving change and collaboration.
- Call open **later this month!**



Fortran index: Facilitating better knowledge exchange

2 Fellowships



Basic introductions for the DRI community to the benefits and

3 Placements & Visits



CONNECT DRI: Community of Practice for leaders of UKRI

Funding Opportunities



1 Retreats

2 Fellowships

3 Placements & Visits

- Support for **building new or sustaining existing** collaborations
 - Embedded placement in a research group
 - Visit to share knowledge/best practices
 - Engagement to explore a new collaboration
 - Attendance at a workshop/event
- Includes **international** opportunities
- 📅 Rolling call – **applications always open**

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Reviewers Needed!

**Learn more and support our
community**



CAKE

COMPUTATIONAL ABILITIES
KNOWLEDGE EXCHANGE



Eleanor Broadway
Architect, EPCC
(e.broadway@epcc.ed.ac.uk)

DisCouRSE: Developing a community of dRTP leaders

Adrian Harwood

The University of Manchester, Project Co-Lead

Co-Leads: Jonathan Cooper (UCL – Project Lead), Arianna Ciula (KCL), Kirsty Pringle (EPCC), Dave Horsfall (Newcastle)

Network Manager: Gillian Sinclair (UoM).

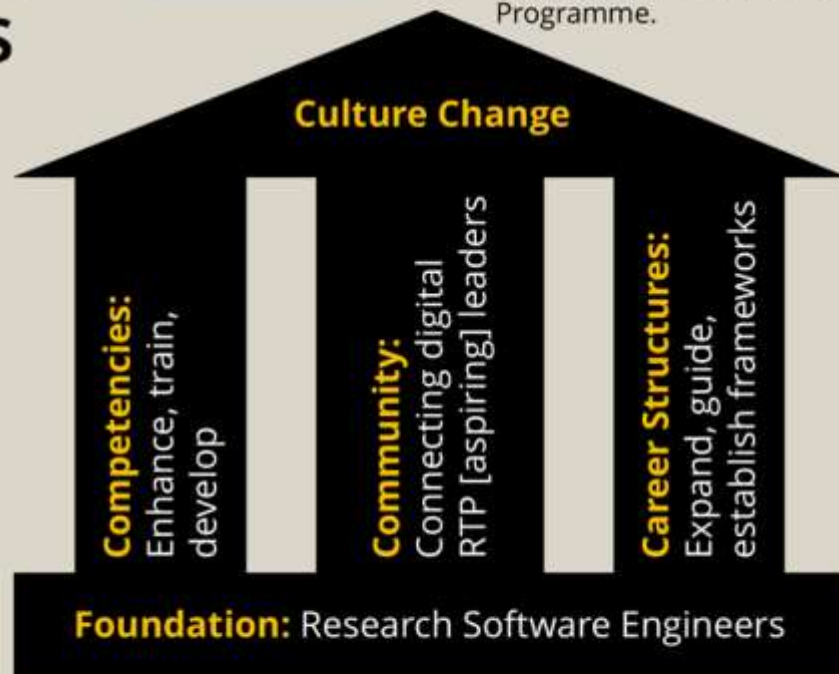
DisCouRSE: Developing a Community of Leaders

- **Cohorts** of digital Research Technical Professional (RTP) **leaders** who will have an amplifying effect.
- Leadership is broad: strategic, community, technical, managerial, ...
- Identify and expand best practices.
- First **flexible fund** round launched.

<https://discourse-network.github.io>



This project has received funding through the UKRI Digital Research Infrastructure Programme.



Community is Central

Kirsty Pringle

- **Stakeholder Mapping:** identifying relevant audiences across digital RTP communities and linked initiatives
- Welcoming and supporting everyone whatever their background etc.
- **Identifying "Conduits":** people who span multiple communities and can connect and influence across different landscapes
- **Working in Partnership:** across projects, professions and institutions
- **Raising Awareness:** producing and sharing high-level materials celebrating the contributions of all digital RTPs

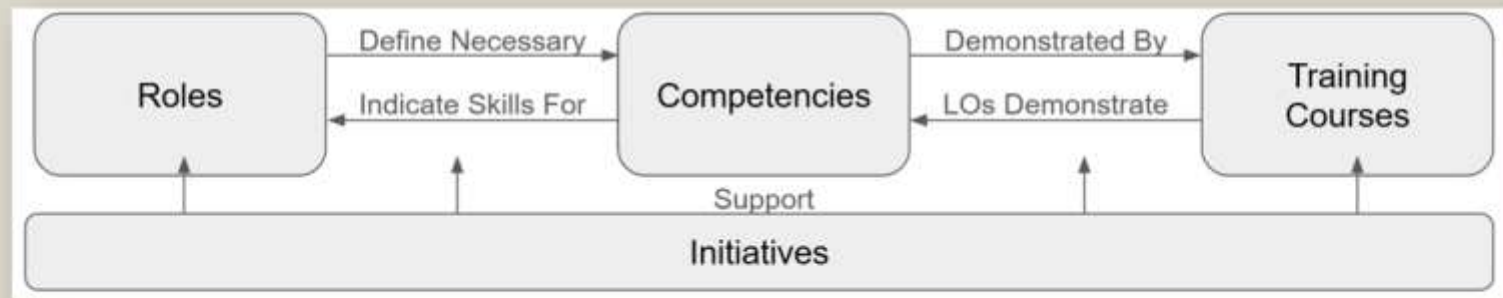
Landscape Mapping

Adrian Harwood

Mapping Training to Competencies to Roles

- Audit the landscape in terms of
 - What roles exist in the dRTP space?
 - What skills and competencies (groups of skills) define those roles?
 - What training is accessible to develop those skills?

We now have a Landscape Mapping Advisory Group to coordinate activity in this space with representatives from a range of networks and groups.



DIRECT: Digital Research Competencies Framework

Dave Horsfall

Framework

- Identify the skills and competencies needed for success
- Explore career pathways to guide development
- Access curated training for specific skills

Open-Source Web App

- Generate interactive skill wheels
- Visualise strengths, spot gaps, and plan your journey

<https://github.com/direct-framework>



Training in Leadership

Adrian Harwood

- Focus on a **subset of transferrable competencies**
- Identify **existing training offerings** from across the community with aligned learning outcomes to produce a training catalogue
- Working with partner projects and organisations
- Use **flexible fund to enhance offerings** where needed
- Design and **deliver a programme for cohort-based training** to allow participants to demonstrate the selected competencies
- Establish an **alumni community** who collaborate and support each other

Careers to Lead Within

Jonathan Cooper and Arianna Ciula

- Analysis of digital RTP **group structures**
- Interviews with group leaders
- Report on lessons learned and guidance for groups
- Focus groups comparing **process-based approaches**
- First event ran on **19th January 2026** focused on **Team Culture**
- Future topics based on interviews analysis and community interest
- Development & promotion of **career pathways**
- Bringing organisations together and promoting good practice
- Policy engagement

DisCouRSE Flexible Fund

Funding Round 1 of 5

- **21 projects funded** running throughout 2026.
- All projects can be viewed on our website:
 - <https://discourse-network.github.io/projects/>
- A wide range exploring things from training material to creating communities of practice and peer mentoring schemes.



Funding Round 2 of 5

- **To be announced shortly and likely to open after Easter 2026.**
- Not exclusively for continuation projects from Round 1.
- Will have a number of **focus areas**.
- Value per project is likely to be greater than the first call but with fewer being funded.
- Proposals can therefore be bigger in scope and projects run for longer.
- **If you have an idea, please talk to me about it!**

Acknowledgments

<https://discourse-network.github.io>



This project has received funding through the UKRI Digital Research Infrastructure Programme.

Supporting Organisations



CHARTED: Connecting Hub for advancing RTP talent enabling DRI



University of Edinburgh, Imperial College London, University of Southampton

Project Objectives

Making the Skills and Training Ecosystem easier to navigate:

- Connecting training opportunities with skills, skills with roles, roles with people, and people with people.
- Making training resources more FAIR (Findable, Accessible, Interoperable and Reusable).
- Supporting development of tools and practices for learning and teaching dRTP skills to both professionals and students.
- Exploring novel approaches for professional skill development (e.g. self-directed learning pathways).

Our work so far:

- Exploring the dRTP landscape: skills, roles, initiatives and training resources.
- Engaging with FAIR working groups and other projects
- Creating a tool to assess the FAIRness of training resources (the questionnaire should be available soon).
- Administering the flexible fund - split into 4 :
 - **Fund 1** (not open yet) - *Development and support of FAIR training ecosystem*
 - **Fund 3** (not open yet) - *Development of novel tools and platforms to make the ecosystem easier to navigate*
 - **Fund 2 & 4** are open

Open Funds

Fund 2 - *Community activities that create and support the dRTP communities:*

- up to £5k per event
- **First deadline:** 15th of April, then every 2 months (always on 15th)
- More details at: <https://drtp-skills.ac.uk/funds-community/>

Fund 4 - *Supporting professional skill and career development:*

- up to £5k per individual to attend different activities e.g. conferences, courses
- **Rolling deadline:** 15th of every month
- More details at: <https://drtp-skills.ac.uk/funds-prof-dev/>

Contribute & Stay Informed!

Become a reviewer -

<https://tinyurl.com/CHARTED-reviewers>



Mailing list sign-up -

<https://tinyurl.com/CHARTED-list>



<https://drtp-skills.ac.uk>
charted@drtp-skills.ac.uk

The logo for CHARTED features a stylized 'C' on the left, which contains a white compass rose with a red needle pointing upwards. To the right of the 'C' is the word 'HARTED' in a bold, teal, sans-serif font. The entire logo is centered on a white horizontal band.

STEP-UP & SCALE-UP:

Developing communities, skills and infrastructure to support dRTPs

Jeremy Cohen

Advanced Research Fellow, Department of Computing
Director of Research Software Engineering Strategy

Michael Bearpark

Professor of Computational Chemistry
Academic Director of Research Computing

Imperial College London

Photo by [Scott Webb](#) on [Unsplash](#)

A Strategic TEchnical Platform for University technical Professionals

- Partner institutions:
 - Imperial (lead)
 - UCL
 - King's College London
 - University of Westminster
- Project duration: 4 years - Jan 2024 – Dec 2027
- A London regional platform – ~£2m (100% FEC)
- A group of 6 external project partners contributing in kind – supporting training, EDI, mentoring, etc.

<https://step-up.ac.uk>

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

IMPERIAL



UNIVERSITY OF
WESTMINSTER

Photo by [Scott Webb](#) on [Unsplash](#)

STEP-UP: Activities and progress

- Community and Equity, Diversity and Inclusion
 - Growing Research Software London into a wider dRTP community - annual conference, events, new ByteSized dRTP programme!
 - Research Technical Champions scheme – 25 Champions across 4 institutions
- Training and Skills
 - Cataloguing dRTP training; Undertaking a gap analysis; Developing courses
 - Training delivery: Carpentries, CodeRefinery, containers and more!
- Career Pathways, Placements and Mentoring
 - dRTP mentoring scheme up and running 10+ mentor/mentee pairs matched
 - Placements scheme – extensive work across institutions, pilot underway.
- Policy, Strategy, Awareness and Recognition

Photo by [Scott Webb](#) on [Unsplash](#)

The SCALE-UP Network:

Scaling dRTP support nationally

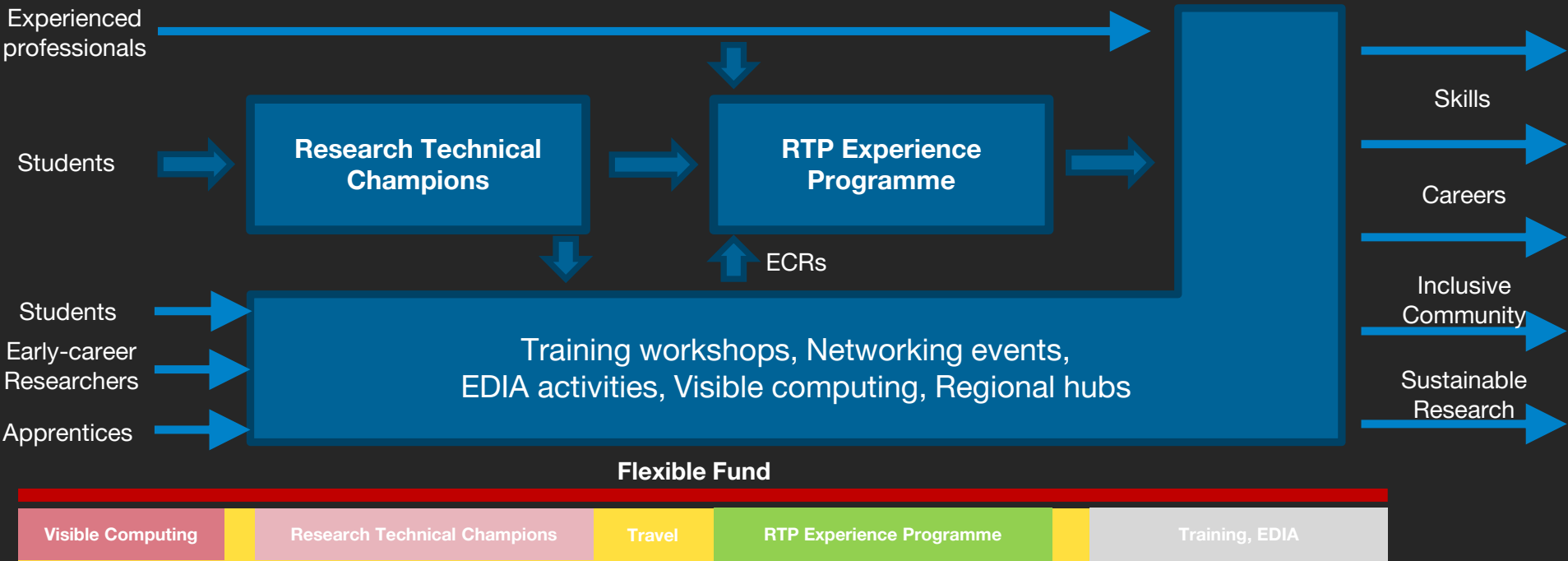
The SCALE-UP Network: A National People and Skills Pipeline

Partner institutions:

- Imperial (lead)
 - University of Glasgow
 - Northumbria University
 - Queen's University Belfast
 - University of Sheffield
-
- Project duration: 4 years to March 2029
 - Growing the activities of STEP-UP to a national audience

 IMPERIAL

The SCALE-UP Pipeline



Thank you

jeremy.cohen@imperial.ac.uk

m.bearpark@imperial.ac.uk

With thanks to UKRI-EPSCRC for support via the STEP-UP project (EP/Y530608/1) and to the UKRI DRI programme / NERC for funding SCALE-UP



ACIT-HUB

ACCELERATED COMPUTE
INFRASTRUCTURE TRAINING HUB

Twin Karmakharm
ACIT Hub Co-I



UK Research
and Innovation



Engineering and
Physical Sciences
Research Council

What is it?

- UKRI DRI Training Hub for RTP's
 - **Research Technology Professionals**
 - £3.9m total
- Aims – Focus on **RIE's**
 - Train & Share best practice
 - Raise profile
 - Improve career paths
 - Foster engagement with DRI funded initiatives (Tier 0/1/2 HPC)

Research Infrastructure Engineer?

Who you call when HPC breaks



RIE superheroes



Experts in everything

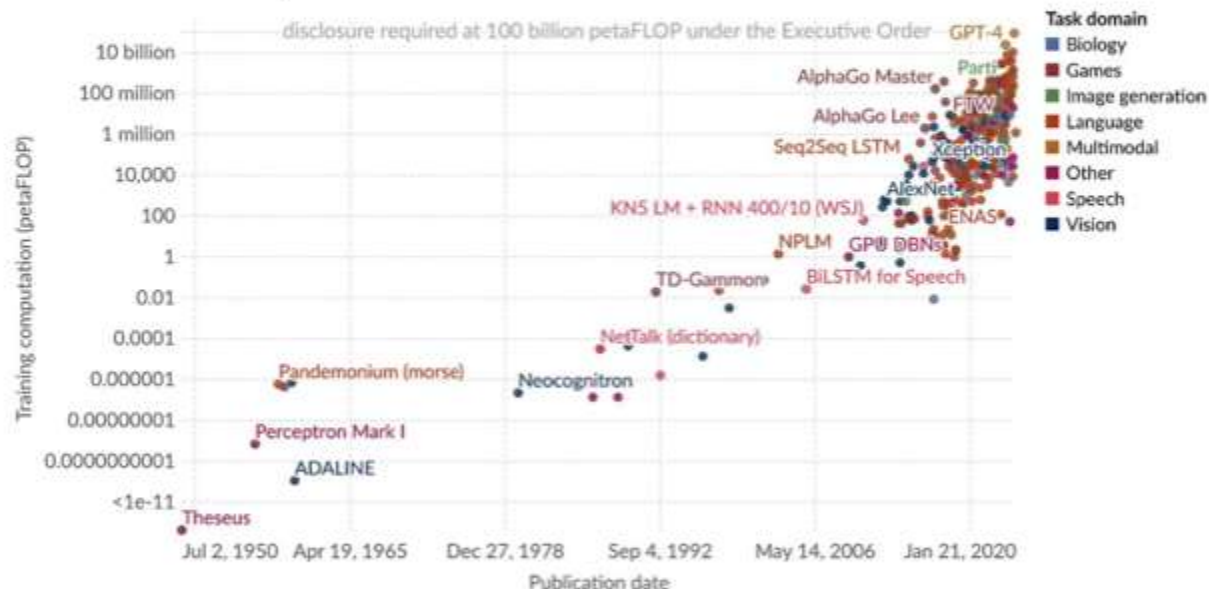
RIE super teams





The AI 'Issue'

Computation used for AI Models



Data source: Epoch (2024)

OurWorldInData.org/artificial-intelligence | CC BY

More Compute - More Models - Different Culture

Vision

**Training
building blocks**



**Skills gap
analysis**



RIE superheroes



Not a "pipeline"



RIE super teams



**Connected
and agile
talent pool**

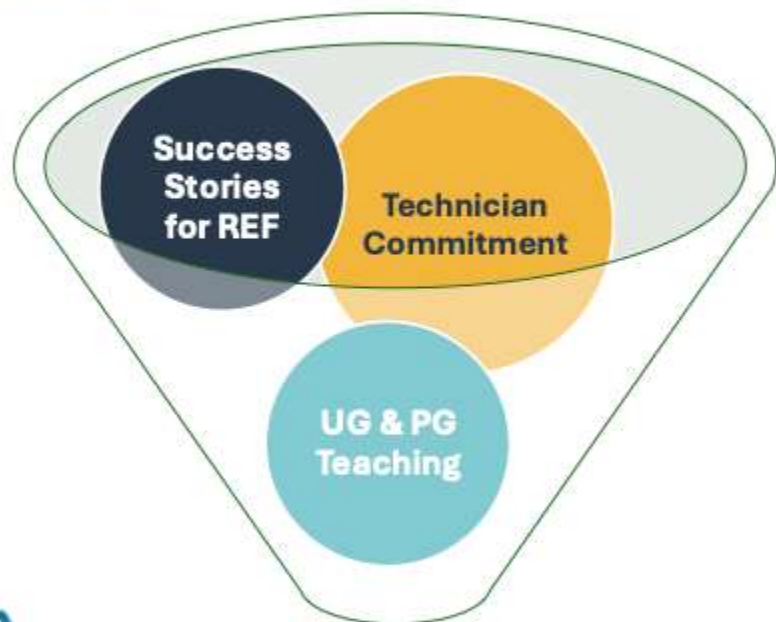


**Value and
recognition**



Approach

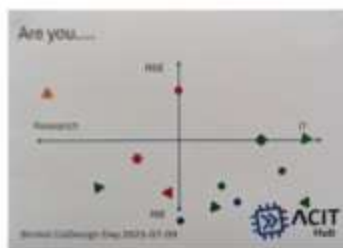
Industry
trusted
training



Academia
Valued Metrics

Progress

- Co-Design Days
 - Sheffield, Bristol, London (June/July 2025)
 - Edinburgh (Summer 2026?)
- Turning results into training content
- Starting with “Intro to....” content
- Developing Webinar schedule
- Mentoring and ~~Secondments~~ Visiting Scheme





Upcoming

Hackathon: GPU Performance Monitoring

10am - 4pm, Guildford, 21st April 2026

- RIE's (e.g SysAdmins), RSE's and users
- Develop GPU monitoring dashboards
- Bring a node (virtually – no vans needed!)

Webinar: Becoming Agile in Research Computing

2:30pm, Online, 20th May 2026

- Agile techniques for research platforms teams
- Taster session
- Full RIE focused Agile training later this year
 - In collab with a DisCouRSE funded project

Links!

- ACIT.surrey.ac.uk



- ACIT@jiscmail.ac.uk



Speaking:
Eva Fernandez Amez,
*Community Manager for
Digital Research
Infrastructure*



SHAREing

faster delivery of
faster science workflows using
faster hardware building blocks

This project has received funding through the UKRI Digital Research Infrastructure Programme [grant number UKRI1801 (SHAREing)].



Lead Institution



Durham University

Consortium members



Cardiff University



Queen Mary University of London



CoSeC



The University of Manchester



University of Sheffield



Swansea University

Pillar 1:
Performance &
Machine
Assessments

Work Package 1

Performance
Assessment

+ Suggest a new task for this WP



Thomas Flynn - Durham
University

WP1.1 - Performance Assessment

Community GPU codes: Castep - Task 019

WP1.2 - Assessment Methodology

Pillar 1:
Performance &
Machine
Assessments

Pillar 2: Training & Skills

Work Package 1
Performance
Assessment

+ Suggest a new task for this WP



Thomas Flynn - Durham
University

WP1.1 - Performance Assessment

Community GPU codes: Castep - Task 019

WP1.2 - Assessment Methodology

Work Package 2
Technical Training

+ Suggest a new task for this WP



Ed Bennett - Swansea
University

WP2.3 - Develop e-learning content that is not covered elsewhere yet essential for accelerate computing

Identify platforms for training that will outlast the project - Task 012

Produce and deploy a questionnaire of community training needs - Task 013

Discussion with AI community on barrier to adopting large shared resources - Task 014

Theoretically-motivated introduction to performance analysis and optimisation - Task...

Work Package 3
Professional Skills
Training

+ Suggest a new task for this WP



Eva Fernandez - Durham
University

WP3.3 - Develop e-learning content that is not covered elsewhere yet essential for accelerate computing

Definition of Professional Skills for Career Progression - Task 015

Review of Existing Professional Skills Training Landscape - Task 016

Stakeholder Mapping for Professional Skills Development - Task 017

Show less

Pillar 1:
Performance &
Machine
Assessments

Pillar 2: Training & Skills

Pillar 3: Ecosystem
& Community

Work Package 1 Performance Assessment

+ Suggest a new task for this WP



Thomas Flynn - Durham
University

WP1.1 - Performance Assessment

Community GPU codes: Castep - Task 019

WP1.2 - Assessment Methodology

Work Package 2 Technical Training

+ Suggest a new task for this WP



Ed Bennett - Swansea
University

WP2.3 - Develop e-learning content that is not covered elsewhere yet essential for accelerate computing

Identify platforms for training that will outlast the project - Task 012

Produce and deploy a questionnaire of community training needs - Task 013

Discussion with AI community on barrier to adopting large shared resources - Task 014

Theoretically-motivated introduction to performance analysis and optimisation - Task...

Work Package 3 Professional Skills Training

+ Suggest a new task for this WP



Eva Fernandez - Durham
University

WP3.3 - Develop e-learning content that is not covered elsewhere yet essential for accelerate computing

Definition of Professional Skills for Career Progression - Task 015

Review of Existing Professional Skills Training Landscape - Task 016

Stakeholder Mapping for Professional Skills Development - Task 017

Show less

Work Package 4 Outreach, stakeholder engagement and capacity building



Chris Howell - Durham
University

WP4.1 - Liaise with compute centres, RTP communities, and lobby groups.

Summer pre-degree internships - Task 033

WP4.2 - Marketing and brand building in collaboration with the

HOW TO GET INVOLVED!

Pillar 1:
Performance &
Machine
Assessments

Pillar 2: Training &
Skills

Pillar 3:
Ecosystem &
Community

Work Package 1

Performance Assessment

[Suggest a new task for this WP](#)



Thomas Flynn - Durham University

WP1.1 - Performance Assessment

Community GPU codes: Cawsep - Task 019

WP1.2 - Assessment Methodology

Review options for providing research software environment in HPC - Task 020

Work Package 2

Technical Training

[Suggest a new task for this WP](#)



Ed Bennett - Swansea University

WP2.1 - Develop a learning content that is not covered elsewhere yet essential for academic computing

Identify platforms for training that will underpin the project - Task 012

Produce and deploy a questionnaire of community training needs - Task 013

Discussion with AI community on barriers to adopting large shared resources - Task 014

Theoretically-motivated introduction to performance analysis and optimisation - Task...

Installation monitoring of accelerated compute - Task 021

Lustre installation documentation - Task 022

Openstack upgrade - Task 024

Work Package 3

Professional Skills Training

[Suggest a new task for this WP](#)



Eva Fernandez - Durham University

WP3.1 - Develop a learning content that is not covered elsewhere yet essential for academic computing

Definition of Professional Skills for Career Progression - Task 015

Review of Existing Professional Skills Training Landscape - Task 016

Stakeholder Mapping for Professional Skills Development - Task 017

Show less

WP3.4 - Organise bootcamps, workshops and hackathons to accompany the virtual training delivery with in-person events

There are no current open tasks for this subpage

Work Package 4

Outreach, stakeholder engagement and capacity building

[Suggest a new task for this WP](#)



Chris Howell - Durham University

WP4.1 - Work with complex centres, JEP communities, and lobby groups

Summer pre-degree internships - Task 023

WP4.2 - Marketing and brand building in collaboration with the Knowledge Exchange IAG grant. Presence of international and UK conferences

There are no current open tasks for this subpage

Pillar 1:
Performance &
Machine
Assessments

Pillar 2: Training &
Skills

Pillar 3:
Ecosystem &
Community

HOW TO GET INVOLVED!


Propose a Solution to an
Open Task

Funding available

Work Package 1

Performance Assessment

Suggest a new task for this WP

 Thomas Flynn - Durham University

WP1.1 - Performance Assessment

Community GPU codes: Casper - Task 019

WP1.2 - Assessment Methodology

Review options for providing research software environment in HPC - Task 020

Work Package 2

Technical Training

Suggest a new task for this WP

 Ed Bennett - Swansea University

WP2.1 - Develop a working system that is not covered elsewhere yet essential for scientific computing

Identify platforms for training that will suit the project - Task 012

Produce and deploy a questionnaire of community training needs - Task 013

Discussion with AI community on barriers to adopting large shared resources - Task 014

Theoretically-motivated introduction to performance analysis and optimisation - Task 015

Installation monitoring of accelerated compute - Task 021

Lustre installation documentation - Task 022

Openstack upgrade - Task 024

Work Package 3

Professional Skills Training

Suggest a new task for this WP

 Eva Fernandez - Durham University

WP3.1 - Develop a working system that is not covered elsewhere yet essential for scientific computing

Definition of Professional Skills for Career Progression - Task 016

Review of Existing Professional Skills Training Landscape - Task 016

Stakeholder Mapping for Professional Skills Development - Task 017

Show task

WP3.2 - Develop a working system that is not covered elsewhere yet essential for scientific computing

There are no current open tasks for this subproject

Work Package 4

Outreach, stakeholder engagement and capacity building

Suggest a new task for this WP

 Chris Howell - Durham University

WP4.1 - Case with ongoing contact, BIP communities, and study groups

Summer pre-degree internships - Task 023

WP4.2 - Building and brand building in collaboration with the knowledge exchange UK grant. Presence of international and UK universities

There are no current open tasks for this subproject

Pillar 1:
Performance &
Machine
Assessments

Pillar 2: Training &
Skills

Pillar 3:
Ecosystem &
Community

HOW TO GET INVOLVED!

Propose a Solution to an
Open Task

Funding available

Work Package 1

Performance Assessment

→ Suggest a new task for this WP

 Thomas Flynn - Durham University

WP1.1 - Performance Assessment

Community GPU codes: Casper - Task 019

WP1.2 - Assessment Methodology

Review options for providing research software environment in HPC - Task 020

Work Package 2

Technical Training

→ Suggest a new task for this WP

 Ed Bennett - Swansea University

WP2.1 - Develop a working system that is not covered elsewhere per successful HPC academic computing

Identify platforms for training that will outline the project - Task 012

Produce and deploy a questionnaire of community training needs - Task 013

Discussion with AI community on barriers to adopting large shared resources - Task 014

Theoretically-motivated introduction to performance analysis and optimisation - Task...

Installation monitoring of accelerated compute - Task 021


Lustre installation documentation - Task 022

Openstack upgrade - Task 023

Work Package 3

Professional Skills Training

→ Suggest a new task for this WP

 Eva Fernandez - Durham University

WP3.1 - Develop a working system that is not covered elsewhere per successful HPC academic computing

Definition of Professional Skills for Career Progression - Task 015

Review of Existing Professional Skills Training Landscape - Task 016

Stakeholder Mapping for Professional Skills Development - Task 017

Show task

WP3.2 - Organise workshops, webinars and hackathons to accompany the virtual training delivery with in-person events

There are no current open tasks for this subproject

Work Package 4

Outreach, stakeholder engagement and capacity building

→ Suggest a new task for this WP

 Chris Howell - Durham University

WP4.1 - Case with ongoing contact, QIP communities, and study groups

Summer pre-degree internships - Task 024

WP4.2 - Supporting and track building in collaboration with the knowledge exchange UK grant. Presence of international and UK institutions

There are no current open tasks for this subproject

Example of Activity
Type

Application
s supported
per call

Maximum award
budget per
application (80%
values)

| | | |
|-------------------------------------------------|-----------------------|---------|
| Workshops & Hackathons | 4-6 | £5,000 |
| Code Assessments | Up to 10 case studies | £15,000 |
| Creation of e-learning material & methodologies | 6-10 | £25,000 |

Current call closes the 23rd of March

Pillar 1:
Performance &
Machine
Assessments

Pillar 2: Training &
Skills

Pillar 3:
Ecosystem &
Community

HOW TO GET INVOLVED!

Suggest a New Task

Work Package 1

Performance Assessment

Suggest a new task for this WP



Thomas Flynn - Durham
University

WP1.1 - Performance Assessment

Community GPU codes - Coding - Task 010

WP1.2 - Assessment Technology

Review options for providing research software
environment as HPC - Task 020

Work Package 2

Outreach/Events

Suggest a new task for this WP



Ed Bennett - Swansea
University

WP2.1 - Develop a security control that is not covered
by standard job essential for academic computing

Identify platforms for training that will reduce the
project - Task 012

Produce and deploy a questionnaire of
community training needs - Task 013

Discussion with AI community on barriers to
adopting large shared resources - Task 014

Theoretically-motivated introduction to
performance analysis and optimisation - Task
015

Offensive monitoring of accelerated compute -
Task 021

Learn from before - documentation - Task 022

OpenStack upgrade - Task 024

Work Package 3

Professional Skills Training

Suggest a new task for this WP



Ess Fernandez - Durham
University

WP3.1 - Develop a security control that is not covered
by standard job essential for academic computing

Definition of Professional Skills for Career
Progression - Task 010

Review of Existing Professional Skills Training
Curricula - Task 016

Stakeholder Mapping for Professional Skills
Development - Task 017

Choose task

WP3.2 - Organise technology, workshops and hackathons to
encourage for virtual training delivery with AI process-centre

There are no current open tasks for this
workpackage

Work Package 4

Outreach, stakeholder engagement and capacity
building

Suggest a new task for this WP



Chris Howell - Durham
University

WP4.1 - Live with security control, HPC communities and
wider groups

Summer pre-degree internships - Task 020

WP4.2 - Mentoring and team building in collaboration with the
knowledge exchange IIS grant. Focus on AI, environmental and
AII communities

There are no current open tasks for this
workpackage

Pillar 1:
Performance &
Machine
Assessments

Pillar 2: Training &
Skills

Pillar 3:
Ecosystem &
Community

HOW TO GET INVOLVED!

Suggest a New Task

Work Package 1

Performance Assessment

Suggest a new task for this WP



Thomas Flynn - Durham University

WP1.1 - Performance Assessment

Community GPU codes - Coding - Task 010

WP1.2 - Assessment Technology

Review options for providing research software environment as HPC - Task 020

Work Package 2

Outreach/Training

Suggest a new task for this WP



Ed Bennett - Swansea University

WP2.1 - Develop a security control that is not covered elsewhere but essential for scientific computing

Identify platforms for training that will reduce the project - Task 012

Produce and deploy a questionnaire of community training needs - Task 013

Discussion with AI community on barriers to adopting large shared resources - Task 014

Theoretically-motivated introduction to performance analysis and optimisation - Task 015

Offensive monitoring of accelerated compute - Task 021

Learn from before - documentation - Task 022

OpenStack upgrade - Task 024

Work Package 3

Professional Skills Training

Suggest a new task for this WP



Ess Fernandez - Durham University

WP3.1 - Develop a security control that is not covered elsewhere but essential for scientific computing

Definition of Professional Skills for Career Progression - Task 016

Review of Existing Professional Skills Training Courses - Task 018

Stakeholder Mapping for Professional Skills Development - Task 017

Choose task

WP3.2 - Organise technology, marketing and hackathons to encourage for virtual training delivery with AI process team

There are no current open tasks for this subpackage

Work Package 4

Outreach, stakeholder engagement and capacity building

Suggest a new task for this WP



Chris Howell - Durham University

WP4.1 - Live with security control, STP communities and wider groups

Summer pre-degree internships - Task 023

WP4.2 - Marketing and team building in collaboration with the knowledge exchange 500 grant. Produce a list of international and UK centres

There are no current open tasks for this subpackage

- Suggest a New Task that fits within one of the Work Packages themes.
- These are reviewed on a rolling basis and discuss in our monthly Open Meetings

Pillar 1:
Performance &
Machine
Assessments

Pillar 2: Training &
Skills

Pillar 3:
Ecosystem &
Community

HOW TO GET INVOLVED!

Suggest a New Task

- Suggest a New Task that fits within one of the Work Packages themes.
- These are reviewed on a rolling basis and discuss in our monthly Open Meetings

Propose a Solution to
an Open Task

Funding available

Work Package 1

Performance Assessment

Suggest a new task for this WP



Thomas Flynn - Durham University

WP1.1 - Performance Assessment

Community GPU codes - Task 019

WP1.2 - Accelerated Technology

Review options for providing research software environment as HPC - Task 020

Work Package 2

Outreach, Training

Suggest a new task for this WP



Ed Bennett - Swansea University

WP2.1 - Develop a security control that is not covered elsewhere but essential for economic computing

Identify platforms for training that will reduce the project - Task 012

Produce and deploy a questionnaire of community training needs - Task 013

Discussion with AI community on barrier to adopting large shared resources - Task 014

Theoretically-motivated introduction to performance analysis and optimisation - Task 015

Effective monitoring of accelerated compute - Task 021

Learn from before - documentation - Task 022

OpenStack upgrade - Task 024

Work Package 3

Professional Skills Training

Suggest a new task for this WP



Ess Fernandez - Durham University

WP3.1 - Develop a security control that is not covered elsewhere but essential for economic computing

Definition of Professional Skills for Career Progression - Task 016

Review of Existing Professional Skills Training Curriculum - Task 018

Stakeholder Mapping for Professional Skills Development - Task 017

Choose task

WP3.2 - Organise workshops, meetings and hackathons to encourage for virtual training delivery with AI process expert

There are no current open tasks for this subpackage

Work Package 4

Outreach, stakeholder engagement and capacity building

Suggest a new task for this WP



Chris Howell - Durham University

WP4.1 - Live with security controls, STP communities and wider groups

Summer pre-degree internships - Task 023

WP4.2 - Marketing and team building in collaboration with the knowledge exchange 500 grant. Promotion of international and UK centres

There are no current open tasks for this subpackage

HOW TO GET INVOLVED!

SHAREing's
Website



SHAREing



@shareing.bsky.social



shareing@durham.ac.uk

SHAREing's
Website



SHAREing



@shareing.bsky.social



shareing@durham.ac.uk

HOW TO GET INVOLVED!

Propose a Solution to
an Open Task

Funding
available

SHAREing's
Website



SHAREing



@shareing.bsky.social



shareing@durham.ac.uk

HOW TO GET INVOLVED!

Propose a Solution to
an Open Task

Funding
available

Suggest a New Task

**SHAREing's
Website**



SHAREing



@shareing.bsky.social



shareing@durham.ac.uk

HOW TO GET INVOLVED!

**Propose a Solution to
an Open Task**

**Funding
available**

Suggest a New Task

**Join our monthly Open
Meetings!**



**National Federated
Compute Services**
NetworkPlus

NFCS-NetworkPlus

Archer 2 – Celebration of Science 2026

Digital Research Landscape – Projects, Skills and Resources

20th March 2026



Our vision is a diverse and joined-up ecosystem of National Federated Compute Services, unlocking the UK DRI for all

Our mission is to create an inclusive roadmap to show the way to create a truly sustainable, inclusive and interconnected DRI

Our strategy is to leverage our portfolio of diverse and innovative flexible funding projects to generate the evidence and community needed to achieve our mission

Project Objectives

Create a community of practitioners around federation of compute and data resources

Create a roadmap that shows the way to achieving the ambition of a national R&I computing federation

Organise national events and workshops to bring people together

Coordinate with UKRI-DRI and other Network Plus activities

Support community building and collection of evidence for the roadmap through flexible funding projects

(and do it all in two years!)

Flexible funding Projects

1 Inclusive Futures: User stories and mapping pathways for National Federated Compute Services

2 Federated AI application container platform / registry feasibility study

3 Enhancing HPC adoption through user-centred design

16 Evaluation of Secure Federated Kubernetes Storage for Trusted Research Environments

17 Net-Zero and Circular Economy Federation: Evidence-based Policy Roadmap for Carbon-Aware Compute in the Built Environment

18 Federated data movement

4 Federating Everything, Everywhere, All at once

5 UKRI research data landscape survey

6 Bridging the Gap: Aligning project administration with access to digital research infrastructure

19 DRI Federation Cybersecurity Roadmap development

20 Identifying Barriers for Biology Researchers Using Federated HPC Services

21 Exploring the governance requirements for enabling UK DRIs to adopt MyAccessID

7 Towards a common data infrastructure for laboratory science

8 Federated Edge-HPC architectures for AI workflows in privacy-sensitive and real-time domains

9 UNITED: A Framework for federated computing roadmaps

22 Supercomputers and Superpositions: Making Quantum Accelerators Accessible Within HPC Frameworks

23 Tokenised Authentication for Research Computing Services (TARCS)

24 FAIR-Compute: A Roadmap for Fair and Efficient Allocation of Federated Digital Research Infrastructure

10 Exploring the requirements and technologies for a data centre API

11 Federation of compute and infrastructures in the arts and humanities

12 A federated bespoke AI-assisted helpdesk for DRI facilities

25 ACCoRD (A Community for Contract Regulation for Data)

26 Federated data access across the DRI

13 Surveying accessibility of federated compute for junior researchers

14 Job Orchestration using Constellation on Heterogeneous HPC resources

15 Federated IAM for existing infrastructures



Flexible funding Projects

1 Inclusive Futures: User stories and mapping pathways for National Federated Compute Services

2 Federated AI application container platform / registry feasibility study

3 Enhancing... through...

4 Federating Everything, Everywhere, All at once

5 UKRI research data landscape survey

7 Towards a common data infrastructure for laboratory science

8 Federated Edge architectures for workflows in precision and sensitive domains

10 Exploring the requirements and technologies for a data centre API

11 Federation of... and infrastructure for the arts and humanities

13 Surveying accessibility of federated compute for junior researchers

14 Job Orchestration using Constellation on Heterogeneous HPC resources

17 Net-Zero and Circular Economy Federation: Evidence-based Policy Roadmap for Carbon-Aware Compute in the Built Environment

18 Federated data movement

21 Exploring the governance requirements for enabling UK DRIs to adopt MyAccessID

22 Supercomputing, Superposition, Quantum Accessible Work Frameworks

24 FAIR-Compute: A Roadmap for Fair and Efficient Allocation of Federated Digital Research Infrastructure

25 ACCORD (A Contract for Data)

UKRI Biotechnology and Biological Sciences Research Council

UKRI Engineering and Physical Sciences Research Council

UKRI Economic and Social Research Council

UKRI Medical Research Council

UKRI Natural Environment Research Council

UKRI Arts and Humanities Research Council

UKRI Science and Technology Facilities Council



Roadmap Event

10th – 11th September
Thinktank, Birmingham





Network for Sustainable Digital Research Infrastructure - Vision and Expertise

Five Minute Briefing

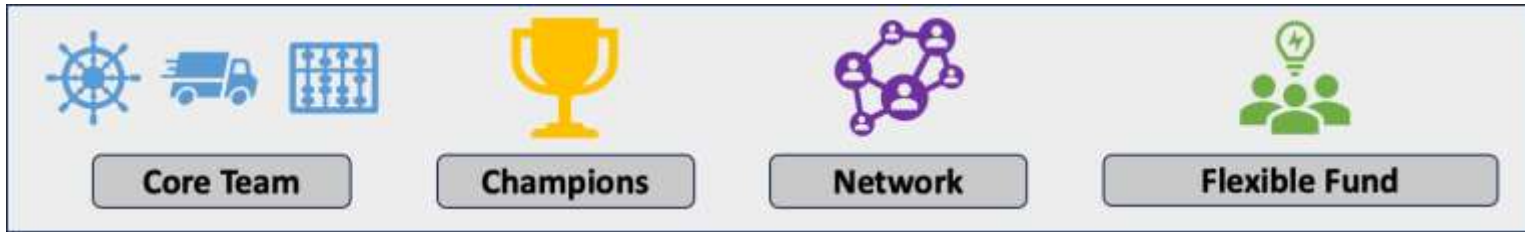
Dr Lorna Smith, EPCC, The University of Edinburgh

Presenting on behalf of - Martin Juckes, Sarah Sparrow, Lucy Li, Graeme Smith

Ambition

- Grant: £3,959,793 (100% FEC)
- January 2025 to March 2028
- Core team at Oxford

- Immediate and tangible progress towards net zero
- National and international thought leadership
- Confidence in our pathway to sustainability



<https://uknetdrive.org/>

Champions



Research



Loïc
Lannelongue



Erinma Ochu



Alex Owen



Kirsty Pringle



Lorna Smith



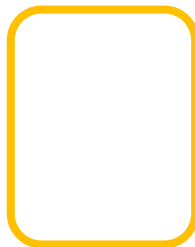
Andy Turner



Michael
Rudgyard



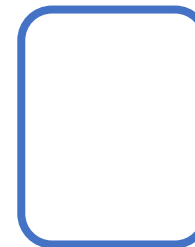
Jessica Huntley



Motivating
Change



Liz Ing-Simmons



Community
Change

Commercial

Early Career



THREE OPEN COMMUNITY MEETINGS: LONDON, OXFORD, DURHAM



9 CHAMPION FUNDED (8 STARTED IN SEPTEMBER 2025; ONE TO START IN 2026)



14 COMMUNITY PROJECTS FUNDS (AROUND £1.25M FUNDS COMMITTED)

2025



THREE WORKING GROUPS INITIATED



EARLY CAREER SANDPIT: 2 ECR PROJECTS, 1 ECR CHAMPION



INTEGRATION LEAD RECRUITED TO CORE TEAM

Community Meetings 2026



Oxford
22nd-23rd April 2026

Creating a New
Reality: A
Sustainable Digital
Transformation



Edinburgh
Summer 2026

Technology:
Challenges and
Opportunities



UWE, Bristol
First Week of
November 2026

Cultural Change
(including annual
meeting)