

STEP-UP : A STRATEGIC TECHNICAL PLATFORM FOR UNIVERSITY TECHNICAL PROFESSIONALS

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01 Introduction

STEP-UP (A Strategic TEchnical Platform for University technical Professionals) is a UKRI-EPSRC-funded Strategic Technical Platform project that is helping to develop communities and opportunities for a new group of “digital Research Technical Professionals” (dRTPs). The regional consortium consists of:

- Imperial College London
- King’s College London
- UCL
- University of Westminster

dRTPs are people in a range of technical roles who provide the specialist skills, in areas such as research software, data and computing infrastructure, to work with researchers to support and undertake modern research.

With data, software and computation forming an ever-larger and more critical part of research processes, it is more important than ever that we provide new and enhanced approaches for supporting our dRTPs. We need to:

- improve career opportunities
- develop recognition and awareness of the importance of these roles
- improve the diversity, inclusivity and accessibility of the growing dRTP community.

02 Community

Over the last 10+ years, we have seen the emergence and development of the Research Software Engineering community. From a group of people undertaking often undervalued and unrecognised work, and lacking opportunities for career progression, to a major force behind the growth of acceptance and recognition of the importance of software in research. We have learnt a huge amount from the research software community and there is much that we can build on in developing similar benefits for the wider community of Research Technical Professionals.

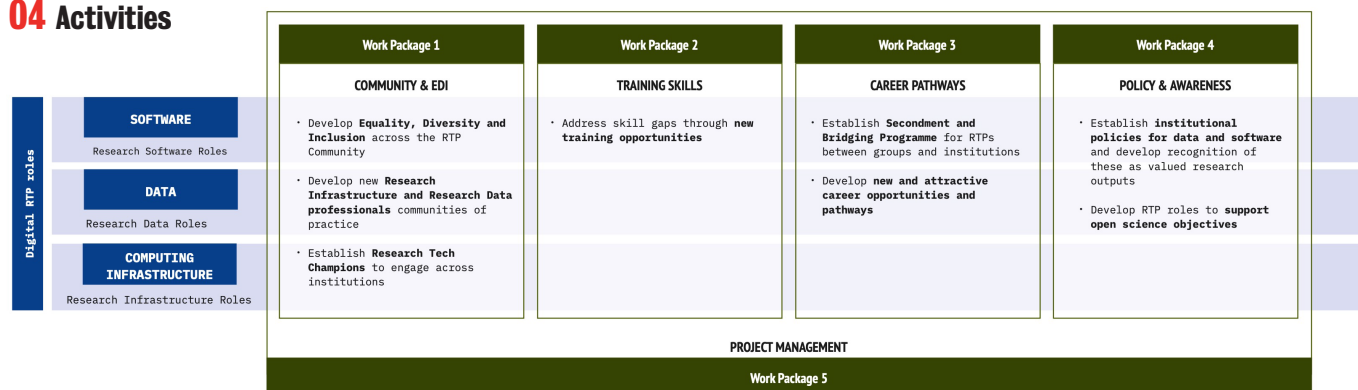
STEP-UP will build on the lessons and successes of the Research Software London (RSLondon) regional research software community to:

- develop new Communities of Practice representing research data and research computing infrastructure professionals
- engaging the wider research community to represent researchers who develop and apply specialist technical skills in these areas.

03 Developing dRTP Opportunities

STEP-UP is developing a wide-ranging programme including skills development, a mentoring scheme and work to enable and fund a set of secondments both within and across institutions. These are part of our programme that will ensure that we can develop greater recognition and support for dRTPs, offer them better career prospects and provide greater sustainability for their roles. The work of STEP-UP is also contributing to ensuring that we have structures in place to maintain the UK’s leading position in terms of research outputs as the research landscape changes and becomes increasingly reliant on digital technologies.

04 Activities



05 Training

Extensive online open source training material covering software development and the use of high-performance computing for researchers already exists. Nonetheless, we are still seeing a major skills shortage in the area of digital research skills. Ad hoc training to upskill members of the research and dRTP communities in specific skills is ongoing at the STEP-UP institutions and will continue. However, we are also aware of the need for the development of training structures and pathways that can offer a more structured route to gaining specialist skills. STEP-UP is exploring:

- competency frameworks and career pathways as well as existing training provision across dRTP roles.
- identification of gaps in provision to enable the development of training pathways and new training materials.

06 Data and Computing Infrastructure

To date, software and the role of the Research Software Engineer have arguably been the most prominent representation of the developing technical professional space within the research community. This has, in part, been due to support from funders and the rapid growth of the research software community. However, there are also many technical professionals working with data and computing infrastructure in a variety of roles to whom we aim to offer improved support. The work of data professionals includes capturing, storing, managing, analysing and reporting on data sets, as well as providing data-related support and advice to researchers. The work of computing infrastructure professionals can include a wide array of systems and infrastructure activities, from managing research desktops and workstations to designing and deploying specialist high performance computing clusters to support large scale simulation, analysis and the training of Machine Learning models. As demand for these specialist roles grows, it is vital that we improve our support for them.