

E4 DTP Handbook

For E4 DTP students and
their supervisors

2020/2021



Welcome to the E4 DTP

Dear E4 Students,

I am delighted that you have chosen to pursue your PhD with the E4 DTP. Our students already have outstanding academic and professional records before they join us, and I know that you will have had many options. We aim to make the DTP an exciting and rewarding environment, but it is our students who make E4 a success.

Our funder, the Natural Environment Research Council (NERC), requires DTPs to be multidisciplinary, and we have worked very hard to offer a diverse range of topics. Our DTP spans all of NERC's remit, from the early origins of life, to mantle geochemistry, ocean and atmospheric circulations, environmental conservation, sea level rise, ecology, and many other topics. You will be interacting with people from a wide range of disciplines and gaining exposure to different approaches from which totally new discoveries can emerge.

We have designed our training to suit the many backgrounds of our students, from traditional geosciences and ecology to chemistry, mathematics, informatics and physics. We have cohort building activities that you will take with all of your DTP peers, regardless of their PhD topics, to enhance your transferrable skills. You will also have access to world-class disciplinary training tailored to your PhD research.

We also aim to make the DTP a friendly and welcoming place. We want you to enjoy your PhD time. A sensible work-life balance will make you more productive, and Edinburgh and its surroundings are consistently ranked among the best places to live in the UK. You will be joining a vibrant community of more than 20 students in each year cohort who we hope will be your professional network, your collaborators, and your friends for years to come.

We will be starting the 2020-2021 academic year in unprecedented circumstances, and our cohort building and training activities will have to be adapted accordingly. Some of you will be starting your work remotely or deferring your start, and some distancing measures will still be in place for those of us in Edinburgh from September. We will be trying new ways to get everyone engaged in our training and cohort building activities, and we are always open to suggestions from you on how to improve our DTP activities.

I look forward to meeting you,

Richard Essery,
E4 DTP Director

The University Firlbush Outdoor
Activity Centre, Loch Tay, where
DTP students have their first
residential training workshop.

©SR



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The E4 DTP Partners

The E4 DTP brings together 33 partners that have a track record of world-leading research, end-user engagement and PhD training. Our partnership spans the NERC remit to bring together university partners, independent research organisations, government and non-government agencies and industry.

Academic Partners

The School of GeoSciences

The School of GeoSciences has over 500 academics, researchers and research students, and is the largest and most successful interdisciplinary grouping of geoscientists and geographers in the UK. The School explores the factors and forces that shape our world, and aims to understand the world through fundamental curiosity-driven research and to support prescient decision-making at individual to global scales.



THE UNIVERSITY of EDINBURGH
School of GeoSciences

www.ed.ac.uk/geosciences

The School of Biological Sciences

The School of Biological Sciences is one of the largest centres of biological science in the UK and is consistently highly ranked for its research quality (e.g. 3rd in the 2014 UK research excellence assessment). We place a particularly strong emphasis on interdisciplinary research, studying how populations are responding to environmental change, how this might impact at all biological levels from the cellular to the ecological level, and finding solutions to address the impact this may have with colleagues across the medical, veterinary and physical sciences.



THE UNIVERSITY of EDINBURGH
School of Biological Sciences

www.ed.ac.uk/biology

The School of Chemistry

The School of Chemistry at the University of Edinburgh is one of the largest in the UK, with external research assessment metrics to match (e.g. EaStCHEM ranks second in the "Power Table" (out of 35). The School's research and facilities relevant to E4 DTP science include: environmental and atmospheric chemistry; sustainable chemistry (cleaner syntheses and chemical recovery); photovoltaic and energy-storage materials; and chemical analysis including state-of-the-art mass spectrometry and NMR.



THE UNIVERSITY of EDINBURGH
School of Chemistry

www.chem.ed.ac.uk

The School of Physics and Astronomy

The School of Physics is involved in the E4 DTP through its Astrobiology research theme. This group investigates life in extreme environments, how life adapts to single and multiple extremes, how life adapts to conditions in the planetary crust and we investigate the habitability of other planetary bodies. The group's work involves field, laboratory and theoretical approaches.



THE UNIVERSITY of EDINBURGH
School of Physics
& Astronomy

www.ph.ed.ac.uk



Researchers working on water and wastewater treatment processes in the Environmental Engineering Laboratory in the School of Engineering.
©University of Edinburgh

The School of Engineering

The School of Engineering's research activities are directed through seven institutes, of which the Institute of Infrastructure and Environment (IIE) carries out research contributing to efficient, sustainable and resilient infrastructure in the built and natural environments. The School has particular expertise relevant to the E4 DTP in eco-hydraulics, flood modelling, water and wastewater treatment, and water and sediment science.



THE UNIVERSITY of EDINBURGH
School of Engineering

www.eng.ed.ac.uk

The School of Informatics

The School of Informatics provides a fertile environment for a wide range of studies focussed on understanding computation in both artificial and natural systems. With over 450 academic and research staff and over 850 students, the School of Informatics at the University of Edinburgh is the largest in the UK and one of the largest in Europe.



THE UNIVERSITY of EDINBURGH
informatics

www.ed.ac.uk/informatics

The School of Mathematics

The School of Mathematics is one of the UK's top-ranked mathematics departments, with expertise in mathematical, statistical and computational modelling applied to the natural environment. Research themes include ocean dynamics, inverse problems, uncertainty quantification, spatio-temporal modelling, and energy systems. The School's involvement in the Alan Turing Institute and the ICMS provides valuable links.



THE UNIVERSITY of EDINBURGH
School of Mathematics

www.maths.ed.ac.uk

The Royal (Dick) School of Veterinary Studies

The Roslin Institute and the Global Academy of Agriculture and Food Security within the R(D)SVS undertake multidisciplinary research in collaboration with a wide range of national and international partners. We bring world-leading expertise and facilities in animal, plant and soil systems; environmental security and change; climate smart agriculture; resource economics; data science and mathematical modelling; sustainable rural development; land rights and the science-policy interface.



THE UNIVERSITY of EDINBURGH
Royal (Dick) School of Veterinary Studies

www.ed.ac.uk/vet

The Scotland's Rural College (SRUC)

SRUC is an innovative, land-based Higher Education Institution, which specialises in applied and interdisciplinary research to support the sustainable development of land-based industries and communities. SRUC works in partnership to deliver research degree programmes focussed on practical problem-solving in the animal, plant, environmental and social sciences.



www.sruc.ac.uk

The Scottish Association for Marine Science (SAMS)

The Scottish Association for Marine Science is Scotland's largest and oldest independent marine science organisation, delivering marine science for a productive and sustainably managed marine environment through innovative research, education and engagement with society. Based near Oban, SAMS has diverse and multidisciplinary research and teaching portfolios including fundamental processes of ocean systems, changes in our coastal environments and the growing blue economy.



www.sams.ac.uk

Centres of Excellence

Our Centres of Excellence bring together a breadth of cross-disciplinary partners to tackle environmental challenges and will serve as major catalysts to provide engagement with end users and in formulating projects meeting their needs.

The Edinburgh Centre for Carbon Innovation (ECCI)

The Edinburgh Centre for Carbon Innovation (ECCI) is the leading low carbon hub for Scotland and beyond, driving cross-sector collaboration and effective action for a zero carbon world. They join forces with leading national and international organisations to deliver ambitious projects and grow low carbon businesses.



<https://edinburghcentre.org>

Aerial images
of the Scottish
Association for
Marine Science
near Oban, based
on a peninsula
neighbouring
13th century
Dunstaffnage
Castle
© SAMS



The Edinburgh Parallel Computing Centre (EPCC)

The EPCC has been an International centre for excellence in high-performance computing for over 25 years. In addition to providing world-class systems, data storage and support services for industry and science, the EPCC holds a global reputation for innovative and leading-edge high-performance computing research and delivers expert-led training in high-performance computing for engineers and scientists.



www.epcc.ed.ac.uk

The Scottish Universities Environmental Research Centre (SUERC)

The Scottish Universities Environmental Research Centre provides access to high-end analytical equipment and specialist expertise for research in Earth and environmental sciences. We maintain the UK's most comprehensive suite of techniques for dating and tracing terrestrial processes, and our researchers apply them to problems in Earth history, environment reconstruction and ecology.



www.gla.ac.uk/research/az/suerc

Global Academy of Agriculture and Food Security (GAAFS)

GAAFS is an interdisciplinary hub of research within the University of Edinburgh, teaching and consulting expertise, to support decision making to transform agri-food systems and food security. Feeding the world's growing population well, while protecting the natural systems on which we all depend, is one of the greatest challenges facing humanity. Agriculture, core to achieving food security, is both a key driver of environmental degradation, and extremely vulnerable to environmental change.

www.ed.ac.uk/global-agriculture-food-security

The Bayes Centre

The Bayes Centre is the University of Edinburgh's Data-Driven Innovation Hub hosted by the College of Science and Engineering. Through activities across education, research, and innovation, the Centre works to power the interaction of people, data and systems, harnessing world-leading data science and AI research for the benefits of the economy and society. The Centre will host up to 600 researchers, students and partner organisations from a variety of sectors, from healthcare to robotics.



www.ed.ac.uk/bayes

National Capability

E4 brings together key partners across the UK that provide National Capability.

Centre for Ecology and Hydrology (CEH)

CEH is the UK's Centre of Excellence for research in land and freshwater environmental sciences. CEH's supervisors specialise in a wide range of disciplines, working in multi-skilled teams offering a unique breadth of experience and knowledge. Student's benefit from diverse laboratory facilities, field sites and datasets to support their research.



www.ceh.ac.uk

British Geological Survey (BGS)

The British Geological Survey is a world-leading geological survey. It focuses on public-good science for government, and research to understand Earth and environmental processes. It is the UK's premier provider of objective and authoritative geoscientific data, information and knowledge. The BGS provides expert research services in all areas of geoscience.



www.bgs.ac.uk

National Centre for Atmospheric Science (NCAS)

The National Centre for Atmospheric Science is a world-leading research centre dedicated to the advancement of atmospheric science, funded by the Natural Environment Research Council (NERC). It carries out research in air pollution, climate and high-impact weather, and long-term global changes in atmospheric composition and climate, and provides the UK community with state-of-the-art technologies for observing and modelling the atmosphere.



www.ncas.ac.uk

National Centre for Earth Observation (NCEO)

The NCEO is a NERC research centre with more than 80 scientists distributed across leading UK universities and research organisations. It provides the UK with core expertise in Earth Observation science, data sets and merging techniques, and model evaluation to underpin Earth System research and the UK's international contribution to environmental science.



www.nceo.ac.uk

NERC Biomolecular Analysis Facility (NBAF)

The NERC Biomolecular Analysis Facility provides access to high-level genomics, metabolomics and bioinformatics provision through its four nodes. NBAF offers the very latest, class-leading technologies, including next-generation sequencing (Illumina and Pacific Biosciences), SNP genotyping, and high resolution MS and NMR metabolomic platforms. NBAF also supports metabolomics, medium-scale genotyping, bioinformatics and advanced data analysis techniques (genome and transcriptome assembly and annotation, expression analysis, etc.).



nbaf.nerc.ac.uk

Royal Botanic Garden Edinburgh (RBGE)

RBGE brings expertise in biodiversity and distribution of plants and fungi, taxonomy, floristics, biogeography, population biology, conservation genetics, species distribution modelling. It has 5% of the world plant species (13.5K species) in cultivation and 3 million preserved herbarium specimens.



Royal
Botanic Garden
Edinburgh

www.rbge.org.uk

Biomathematics and Statistics Scotland (BioSS)

BioSS specialises in the development and application of the quantitative (computational, statistical and mathematical) methods and is recognised internationally for its work at the interface between the mathematically-based sciences and a wide span of applied sciences covering agriculture and the rural economy, the environment, food and health.



www.bioss.ac.uk



Researchers doing assessments and taking measurements on finger millet and beans at CEH's solar dome Facility, Abergwyngregyn near Bangor.
© Daniel Hauck - CEH



Policy, Industry and Society

Our policy, industry and society partners ensure research excellence is aimed at delivering key policy objectives for the UK.

The Met Office

The Met Office is recognised as one of the world's most accurate forecasters, using more than 10 million weather observations a day, an advanced atmospheric model and a high performance supercomputer to create 3,000 tailored forecasts and briefings a day. These are delivered to a huge range of customers from the Government, to businesses, the general public, armed forces, and other organisations.



www.metoffice.gov.uk

The Scottish Environmental Protection Agency (SEPA)

The Scottish Environmental Protection Agency is Scotland's principal environmental regulator, protecting and improving Scotland's environment. As an organisation with a strong science base, SEPA constantly assess the quality of the environment by monitoring the air, land and water and use our findings to advise government, industry and the public on environmental best practice. They help business and industry to understand and comply with their environmental responsibilities and legislation.



www.sepa.org.uk

Carbomap

Carbomap are 3D mapping specialists. They have an international reputation in remote sensing methodologies; LiDAR forest mapping, satellite radar mapping, flood risk mapping; as well as managing airborne and UAV surveys. They are leading this emerging market, having worked with government agencies, NGO's and research institutes.



www.carbomap.xyz

Forest Research (FR)

Forest Research is Great Britain's principal organisation for forestry and tree related research and is internationally renowned for the provision of evidence and scientific services in support of sustainable forestry.



www.forestresearch.gov.uk

Space Intelligence

Space Intelligence provides maps of forests, deforestation and forest degradation. Based on a foundation of world-class science, the company was formed in response to the growing number of requests for satellite data analysis in the private and public sectors. They have research and consultancy experience across the tropics, with projects undertaken in Africa, Asia and the Americas. They also undertake work closer to home, having conducted landscape analysis for the UK Government's Department of Energy and Industrial Strategy, and more recently with the Forestry Commission here in Scotland.



www.space-intelligence.com

National Physical Laboratory (NPL)

The National Physical Laboratory delivers world-leading measurement solutions that are critical to research and development, and support business and academic success across the UK and the globe. Support for this DTP will come via the Post Graduate Institute for Measurement science (PGI). The PGI was developed through a strategic partnership between the National Physical Laboratory (NPL) and the universities of Strathclyde and Surrey. The PGI connects industry and academia to the UK's national measurement capability and expertise, offering models of engagement, training and connection to DTP students.



www.npl.co.uk

National Trust for Scotland (NTS)

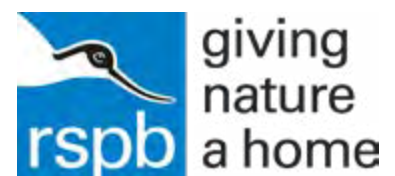
NTS is the largest member organisation in Scotland. As a conservation charity, they are supported by more than 380,000 members and are funded largely by donations. Since 1931 their love for Scotland has fuelled the desire to protect the things that make it special. By championing Scotland's natural, built and cultural heritage they inspire those around us. From coastlines to castles, art to architecture, wildlife to wilderness, they encourage people to connect with the things that make Scotland unique while protecting them for future generations.



www.nts.org.uk

Royal Society for the Protection of Birds (RSPB)

The RSPB is now the largest nature conservation charity in the country, consistently delivering successful conservation, forging powerful new partnerships with other organisations and inspiring others to stand up and give nature the home it deserves.



www.rspb.org.uk

SEPA Officers on
a flooded site
© SEPA



British Trust for Ornithology (BTO)

The British Trust for Ornithology is an independent charitable research institute combining professional and citizen science aimed at using evidence of change in wildlife populations, particularly birds, to inform the public, opinion-formers and environmental policy- and decision-makers.



www.bto.org

National Museums Scotland (NMS)

With over 10 million specimens, National Museums Scotland holds the second largest natural science collection in the UK. These provide a basis for a wide spectrum of research programs in the geological and biological sciences. NMS has broad curatorial expertise and a range of basic analytical equipment such as XRD, XRF and SEM with EDS.



www.nms.ac.uk

Scottish Wildlife Trust (SWT)

For the past 50 years, the Trust has been successfully championing the cause of wildlife through policy and campaigning work, demonstrates best practice through practical conservation and innovative partnerships, and inspires people to take positive action in pursuit of its vision of healthy, resilient ecosystems across Scotland's land and seas through its education and engagement activities. It also manages a network of 120 wildlife reserves across Scotland and is a member of the UK-wide Wildlife Trusts movement.



www.scottishwildlifetrust.org.uk

Scottish Natural Heritage (SNH)

Scottish Natural Heritage promotes, cares for and improves Scotland's natural heritage. We enable a greater awareness of nature and help people to enjoy nature responsibly. Looking to the future, we promote the sustainable use of natural assets now.



www.nature.scot

Confor

Confor is a not-for-profit organisation that works and lobbies on behalf of the private forestry and wood sector. It represents the whole forestry and wood 'supply chain' and focus on the strategic issues that are vital to the success and sustainable future of the sector. These include helping build the market for wood and forest products, creating a supportive policy environment, and helping members to become more competitive and successful.



www.confor.org.uk

RSKW

RSKW provide management and technical consultancy solutions to the utilities, energy, rail and industrial sectors. They believe it is essential to deliver our niche services using specialists with a serious depth of experience and innovative skills. Their services include specialist advice, project management, project delivery, field services, research and development and business improvement consultancy.



www.rskw.co.uk

Funding and Studentship Details

What does the DTP studentship cover?

STIPEND

Our basic PhD funding is for 42 months. During this time, if students are eligible for a full stipend, they will receive a tax-free stipend, paid monthly into their personal bank account.

The National Minimum Doctoral Stipend for 2020/21 is £15,285 (FTE).

The minimum stipend generally increases every year in September, in line with the GDP deflator.

DTP students can supplement this stipend with tutoring and demonstrating opportunities: the University of Edinburgh partner schools have large undergraduate populations and there are many opportunities to develop teaching skills.

+

FEES

The DTP covers PhD tuition fees for 4 years, as per the Research Councils UK Indicative Fee Level (for 2020/21, it is £4,407).

+

RESEARCH COSTS

The PhD comes with a standard **Research Training Support Grant (RTSG)** of £3,450 and may include some **Additional Research Costs (ARC)**.

The RTSG can be used to purchase analyses, software, computing, travel, conferences, and other incidental costs of the PhD work. The amount of ARC depends on the nature of the PhD project. PhD supervisors request these funds when they propose PhD projects, and they will be able to answer questions about how these will be used to support the project.

This research money is held in a school account for students to access according to the local school procedures. This funding must be managed by students, although large expenditures will require the approval of the PhD supervisor. **The money can be used to cover expenses occurring up to the end of the funded period only (i.e. not after the stipend is over).**

CASE MONEY

CASE studentships will get additional research money provided by their CASE partner. This money is kept on a research grant account, separately from the RTSG.



DTP Stipend Extension Schemes

There are 2 opportunities of extending the E4 DTP stipend for fully funded students:

The Professional Internship Programme (PIP)

We offer a 3-month Professional Internship Programme (PIP) that pays stipend while the student is embedded in an organisation outside of their host partner. This can be an academic institution if the work is clearly different from the PhD, but the main goal of this programme is to help students gain experience in non-academic environments so we encourage placements in government, businesses and the third sector.

Normally DTP students will approach a host directly according to their own interests, network or plans and will then submit their internship proposition to the DTP management team for approval. However, we can help students to find an internship if they don't have clear ideas or struggle to find a willing host.

The PIP is flexible and can be done at any time of the PhD although it is recommended in years 2 and 3. It can also be split up in monthly blocks.

Examples and testimonials of PIPs can be found on the [E4 DTP website](#).

See the PIP Application Form and FAQs document in Appendices.

"I gained many more skills than I would have done just with my PhD and had a fantastic insight into the workings of a volcano observatory."

Eleri was hosted for a 3-month PIP by GNS Science, in New Zealand, in Autumn 2018.

The Professional Development Scheme (PDS)

The Professional Development Scheme provides a 2-month stipend extension for DTP students who would have submitted a minimum of 2 publications as first author by the half of their 4th year.

See the PDS Application Form in Appendices.

Both PIP and PDS are optional and provide extra stipend but NO extra time. You are expected to submit your thesis for examination by 48 months at the maximum.



A few examples of past PIP hosts

Additional Funding Schemes

The Overseas Research Visit and Conference Funds (ORVCF)

The E4 DTP holds a fund which can support travel to international conferences and research visits abroad (or PIPs when they are abroad). There are 2 calls for applications per year which are open to all DTP students in year 1 to 3.5. This fund is to support extra opportunities which were not anticipated and cannot be funded from your RTSG. Activities supported by this fund must happen before the end of the funding period (period covered by stipend). Examples and testimonials of activities supported by the ORVCF can be found on the [E4 DTP website](#).

See the ORVCF Application guidance in Appendices.

“Working directly with international and world-leading researchers across the full spectrum of relevant disciplines offered an outstanding opportunity to develop new and further existing collaborations and opportunities.”

Thanks to the ORVCF, Ribanna spent 3 months in Spring 2018 on the US GO-SHIP, collecting data for international CO₂ and climate variability programmes.

Additional Funding for Training

If you require specific training not available through the E4 DTP or through NERC that was not anticipated in your budget by your supervisor, the DTP management team will consider ad-hoc requests.



Policies, Regulations and Administrative Processes

UKRI Terms and Conditions of Training Grant

The Doctoral Training Partnership studentships are regulated by the **UKRI Terms and Conditions of Training Grant** to be read in association with the **RCUK Training Grant Guide**.

The E4 DTP is also subject to some **DTP2 Specific Terms and Conditions** to be read in conjunction with the **DTP2 Guidance and FAQs**.

Please refer to the section '(D) Use of Funds' of the UKRI Terms and Conditions of Training Grant and to the following items of the Training Guide for matters such as sick leave (n.42-44), maternity/paternity/adoption leave (n.45-54), suspensions of award (n.55-59) and annual leave (n.67).

It is always good to contact the DTP Manager to double-check the interpretation of those regulations if there are any doubts.

These documents can be found on the NERC website and links to them are on the E4 DTP website too.

nerc.ukri.org

University of Edinburgh Academic Policies and Regulations

The PhD degree of the E4 DTP students will be awarded by the University of Edinburgh and as such, their PhD studies will be regulated by the University of Edinburgh Academic Policies and Regulations. Students and supervisors will find guidance on postgraduate research assessment, thesis submission and information relevant during the period of study on the Academic Services for Research Students website:

<https://www.ed.ac.uk/academic-services/policies-regulations/research-students>

This includes three important documents which should be read ahead of the PhD start and referred to as much as needed during the study period:

- The **Code of Practise for Supervisors and Research Students** which describes their roles and responsibilities.
<https://www.ed.ac.uk/files/atoms/files/copsupervisorsresearchstudents.pdf>
- The **Degree Regulations and Programmes of Study** sets out the regulatory framework by which PhDs are governed
www.drps.ed.ac.uk/19-20/regulations/PGDRPS2019-20.pdf
- The **Postgraduate Assessment Regulations for Research Degrees** which regulates the PhD assessment (thesis examination).
https://www.ed.ac.uk/files/atoms/files/pgr_assessmentregulations.pdf

College of Science and Engineering Procedures

The College of Science and Engineering oversees all requests for changes in the PhD studies and is responsible for the assessment and award of the PhD after the first submission of the thesis.

Students and supervisors will find all information related to progression, concessions, submission and assessment procedures on the **College SharePoint** (requires a Microsoft Office 365 identification).

<https://uo.e.sharepoint.com/sites/CSCE/AcademicAffairs/SitePages/Home.aspx>

DTP Processes

There is an **administration section on the E4 DTP website** for both DTP students and supervisors, which can be accessed using EASE identification codes.

This section contains extensive information on the DTP recruitment, processes and organisation. In particular application forms and guidance to the DTP stipend extension schemes (PIP and PDS) and Overseas Research Visit and Conference Funds (ORVCF) can be downloaded. The most up-to-date DTP training schedules and contents are also available on those pages.

<https://www.ed.ac.uk/e4-dtp/e4dtp-administration>

School Policies

DTP students are registered in one of the DTP partner schools (see the list in the above Academic Partners section) and will have to refer to and follow their local processes for matters related to their day-to-day PhD activities such as:

- **PhD induction events and PhD generic training**
- How to **access and use Research Money** (RTSG + ARC)
- PhD progression and stepping stones (confirmation process, Annual Reviews, PGR Conferences etc.)
- **Supervision matters**
- **Desk, IT and use of facilities/labs**
- **Stipend**

All Schools usually have a PGR handbook or an intranet where you can find essential information. PGR School contacts and link to those resources can be found below, in the Contacts section of this handbook.

*Students leaving
the Ashworth
Laboratories,
School of
Biological
Sciences, on the
King's Buildings
Campus
© Paul Dodds
- University of
Edinburgh,*



Training Programme

We have designed the E4 training programme to provide transferable skills, advanced research training, opportunities for multidisciplinary cohort building and links between students, partners and stakeholder sectors. The training plan is built on four pillars that are balanced throughout the DTP:

- **Research support, ongoing Training Needs Analysis (TNA) and opportunities for PhD students to engage with potential end users of their research**
- **Core professional skills training** which prepares our students for careers in any sector
- **Advanced training in discipline-specific research skills**
- **Student-led peer activities and professional network building**

Flexibility is built into the programme via a modular training design; each student must acquire a minimum of 50 days of training over the course of their PhD, comprising 25 days of core training (compulsory) and 25 days of modular training to be chosen from a wide range of options.

Students are required to record their training attendance in a Training and Outreach Log (see template in the Appendices) which is to be returned to the DTP Manager annually in August for NERC reporting purposes.

DTP Core Training: Professional and Transferable Skills (25 days)

All training in transferable and professional skills is done as a cohort, as are our network building events. We take advantage of our geographical focus to run training events within Edinburgh throughout the year. Our DTP training also includes a residential course during each year of the PhD.

This DTP Core Training is compulsory and attendance will be monitored via the DTP Training and Outreach Log (see also below, the Expectations section).

PhD Generic Training (5 days) - in years 1 to 4

Students take part in **induction events and generic PhD skills training** provided by their host Schools to ensure integration within their discipline and school-based PhD student cohorts. These events include topics such as research planning, data management, fieldwork preparation, health and safety, research ethics, unconscious bias training, and tutoring and demonstrating.

Partner Schools or research institutes also have annual conferences at which students are expected to present a poster and/or give a talk.

In year 4, a **"Final Road to PhD Submission and Award"** DTP training workshop provides support and information on the final stage of the PhD.

The UoE Institute for Academic Development (IAD) also provides complementary workshops to help with PhD studies, including PhD management, academic writing, communication and presentation skills, "Viva Survivor" and many others.

<https://www.ed.ac.uk/institute-academic-development/postgraduate/doctoral>

Excellence in NERC-remit research (2 days) - Year 1 Residential Workshop

Our Year 1 residential course at the University of Edinburgh Firlush Outdoor Activity Centre (Loch Tay) aims to **develop an understanding of grand environmental science challenges**, outlines the role of NERC and funding models for addressing these challenges, and helps with cohort building.

Numeracy, Modelling and Data Management (3 days) - in years 1 to 3

This course develops **essential skills for effective and reproducible research** through hands-on sessions led by experts from across the Partnership. Topics include open software and data management following NERC policies, data analysis and visualization in Python and R, and spatial data analysis with QGIS. Students who already have expertise in a particular topic can progress directly to advanced courses or assist as demonstrators, gaining valuable teaching experience and integrating the concept of peer support. Students from later years can use the sessions as drop-in refresher classes.

Frontiers in Environmental Sciences (3 days) - in years 1 to 3

A series of **six seminars on priority environmental science research topics presented by leading scientists from across the Partnership**, including at least two non-HEI partners. Students may be sent background reading in advance for familiarisation with a topic and they lead the post-talk discussion. Each year features a different programme of speakers to cover the full NERC remit, and students from all years are encouraged to attend.

Career Pathways (2.5 days) - in years 1 to 4

1. Introduction to Career Pathways (1 day). Year 1

First-year students are **introduced to different career pathways by alumni and professionals**, and given information and space to think about how to develop a career plan alongside their PhD studies.

2. Advanced Career Pathways (1 day). Years 3 to 4

This training offers **flexible options for students to attend career events and fairs, CV and interview workshops** and personal career advice sessions with the University of Edinburgh Careers Service, according to their own needs and plans.

<https://www.ed.ac.uk/careers/postgrad/phd>

Writing Skills (1 day) - in years 2 to 4

The morning focuses on the **submission, reviewing and editing processes in scientific publishing**. In the afternoon, short presentations are interspersed with exercises aimed at **writing with clarity and making yourself easy to publish**.

Engagement and Impact (2 days). Year 2 Residential Workshop

ECCI leads a residential course, with non-HEI instructors, at Newbattle Abbey College, south of Edinburgh. Topics covered include **effective use of social media for researchers**, how to **build networks**, engaging with **schools and the public, industry and policy makers**, and the relevance of **research innovation and impact** with respect to funding.

Media and Outreach (2 days). Year 3 Residential Workshop

Residential course at Dryburgh in the Scottish Borders. The chair of a Royal Society of Edinburgh inquiry into climate adaptation and the Science Director at Our Dynamic Earth discuss communication across the **interfaces between science, the media and policy makers**. A science communication expert explores how science is explained and why the public may or may not be convinced by scientific arguments depending on their biases,

and what to do about **communication challenges**. UoE communication staff show students how they can reach different audiences for their research outputs through different types of social media. Staff and students go head-to-head in a **3-minute thesis competition**, with feedback.

ECCI Consultancy Innovation Programme (3.5 days) - in years 1 to 4

Students can choose which year they take part in this ECCI-led programme, which highlights pathways to impact in non-HEI environments and serves as a mechanism to match students with businesses for our internship programme (see the above DTP Stipend Extension Schemes section).

- An introductory session highlights the value of innovation knowledge, skills and awareness by introducing the programme aims and the work of ECCI. The **10-day Consultancy Innovation Placement scheme** is introduced.
- **"Making Your Research Matter"**, delivered by ClimateXChange, focusses on the connection between research and policy, and in particular how research is used to both support and inform the decisions of Scottish Government, and how to communicate your research effectively to influence policy makers. This is particularly useful for anyone who thinks their research is driven by or can influence the development and implementation of national environmental or sustainability related policies.
- **"Business, Project Management and Consultancy Skills"** introduces some of the core business skills you will need both for research projects with business partners and in your future. Key principles of negotiating and agreeing a scope and brief for work, defining outputs and deliverables, managing expectations, and how to present the results for maximum impact are covered.
- **"Innovation Challenges and Opportunities"** will help the students to learn from others who have turned their research into innovation and responded to real world challenges around climate and resources. It will examine key opportunities and challenges for innovation in the context of global climate change, and will help the students to understand how they can connect these with their research.

Science and Society Symposium (1 day) - in years 1 to 4

Students should attend at least one cross-disciplinary conference of their choice to get the opportunity of communicating their research to non-specialised audiences and to build networks and collaboration across disciplines. Example of cross-disciplinary conferences are the Scottish Alliance for Geoscience, Environment and Society conference, the Scottish Ecology Environment and Conservation conference and student-led conferences (e.g. the GeoSciences Gradschool Conference).



DTP students
attending
training
at the ECCI
©SR

DTP Advanced Training (25 days)

In addition to gaining core skills, students can tailor their training to their individual needs through our modular Advanced Training programme. The programme is flexible as it responds to feedback from end users and individual Training Needs Analysis (TNA) meetings each year (with the DTP Deputy Director for Training in year 1 and with supervisory teams thereafter).

Advanced training courses are available from a wide variety of sources:

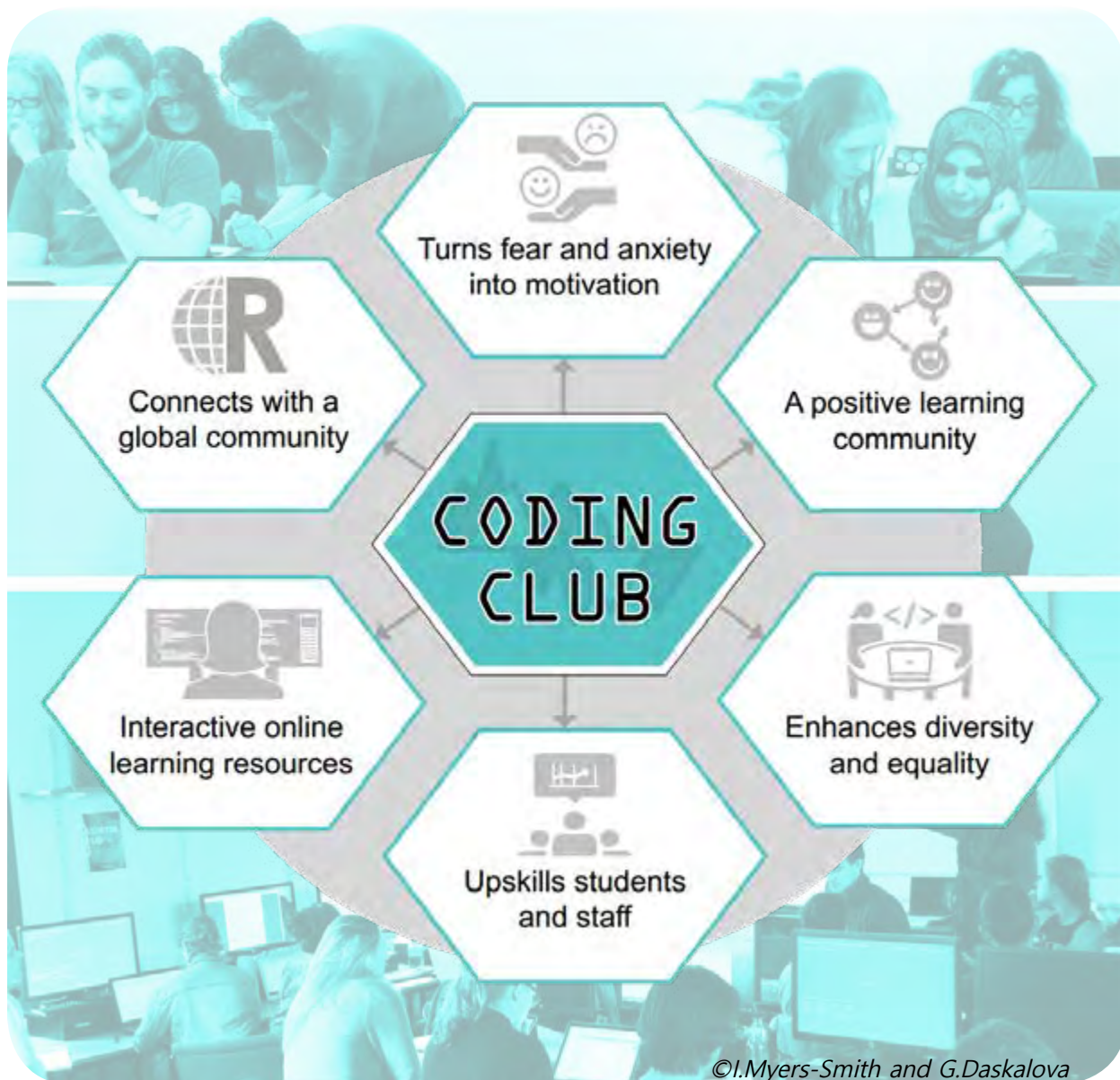
NERC advanced short courses covering a broad range of skills at no cost to DTP students are announced annually.

- Advanced training courses offered by **NERC research centres**, including E4 Partners **CEH** and **BGS**.
- Advanced training from E4 partners such as the **National Physical Laboratory**, the **Met Office**, **NCAS**, **SAMS** and **NCEO**.
- The enormous range of **undergraduate and taught postgraduate courses** offered by UoE. Possibilities will be discussed in TNA meetings and can fill specific gaps, particularly for students from non-standard backgrounds (e.g. transitioning from maths/physics to geoscience/biology) as a foundation for more specialised training.
- **Themed statistics workshops or individual consultation** on projects with needs identified at drop in sessions run by **Biomathematics & Statistics Scotland**.
- Training in **statistics, bioinformatics, programming and software engineering** offered by leaders in the field at SoBS, Edinburgh Genomics and the SoG Coding Club.
- **Programming in Python, R, Stan, JavaScript, and other scripting languages and data science skills** through the SoG Coding Club (see below), SoBS, Sol and in collaboration with partners.
- **Modules in spatial data analysis and remote sensing** from the SoG MSc in Geographical Information Science, the Coding Club and NCEO partners.
- Advanced course in **modelling Earth surface processes** (SoG Climate, Cryosphere and Landscape Dynamics groups; run already for the SUBITOP EU ITN network).
- **Software and high performance computing courses provided by EPCC** in kind, and courses from the **Data and Software Carpentry Foundations** (EPCC is a member) at cost.
- Funds to access **specialised training offered in other NERC-funded DTPs and European Networks**. Exchanges with the ENVISION and IAPETUS DTPs are in place.

Coding Club

Coding Club is a student-led peer-to-peer learning programme coordinated by DTP students who organise weekly workshops and develop online resources. Its current focus is programming in R and Python, spatial analysis and remote sensing quantitative skills. This unique programme, combining peer training and expert guidance from DTP partners, allows students to develop workshops in specific programming skills that they deliver to their peers.

<https://ourcodingclub.github.io/>



Training Needs Analyses (TNA)

Identification of training needs and reflection on training outcomes are essential components of PhD training. Students will use a **Training Needs Analyses (TNA) tool provided by the Institute for Academic Development** (see template in Appendices) to identify their current skill sets and gaps at the start of year 1.

Individual TNA meetings will be held each year, with the DTP Deputy Director for Training in year 1 and with supervisory teams thereafter.

The TNA process is guided by:

- **discussion between the student and their supervisory team** to identify skills needs and potential career pathways;
- **end user input collated by the Training Management Board (TMB)** on key skills required for employment;
- the **Vitae Researcher Development Framework (RDF)**.

<https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework>

Training needs and courses or resources already identified are to be entered on a TNA form in advance of the meeting and updated thereafter.

Advice on Learning and Development

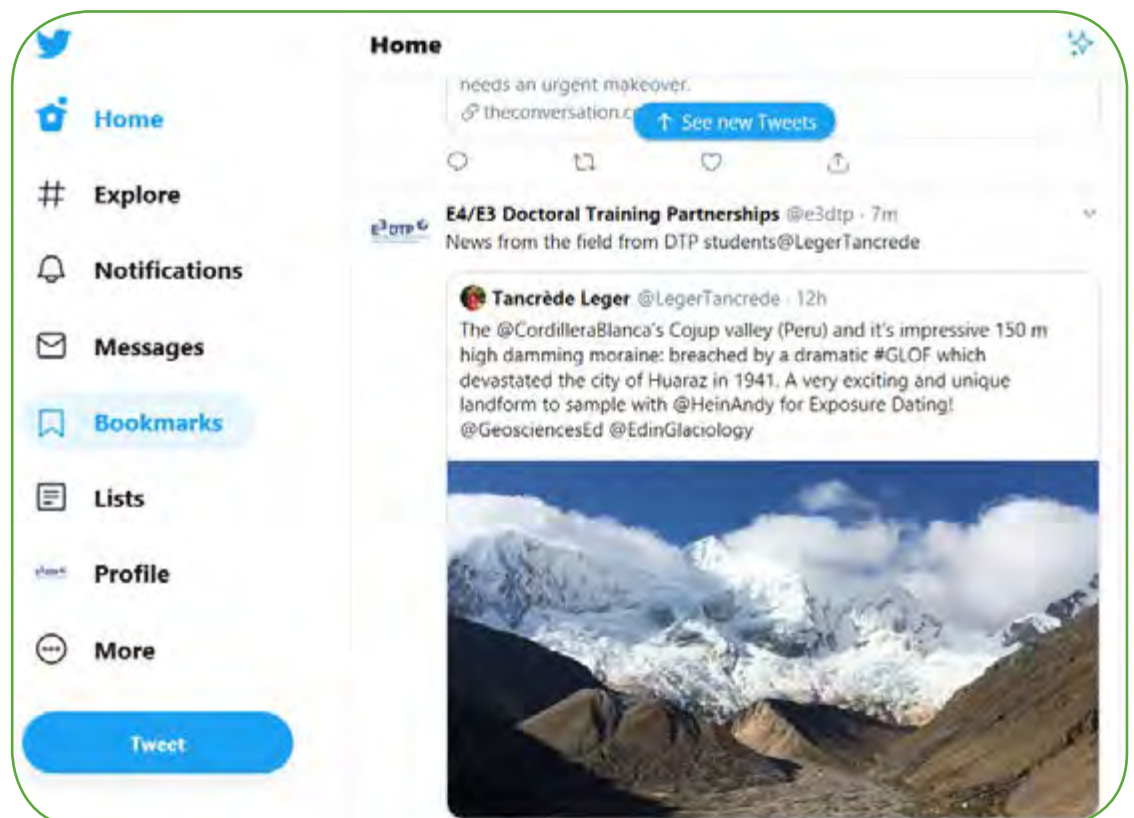
Everybody learns in a different way, and not everybody learns best in a formal training course! These online tests will help students to identify the type/style of learning that is right for them:

- Visual-Audio-Kinesthetic learning preference
<http://www.educationplanner.org/students/self-assessments/learning-styles-quiz.shtml>
- Activist, Reflector-Theorist, Pragmatist learning style
<http://resources.eln.io/honey-mumford-learner-types-1986-questionnaire-online/>

When considering "training" and how it can be relevant to a PhD, it is useful to think about all forms of Learning and Development (i.e. not just training courses!), e.g.:

- * workshops
- * seminars
- * 1:1 coaching/mentoring
- * reading in one's own time
- * watching online videos
- * poster sessions
- * conferences
- * online courses
- * training through research – working in a different lab or institute
- * networking with other students in related disciplines
- * work placements/shadowing/internships
- * volunteering
- * tutoring and demonstrating

The [E3/E4 DTP Twitter account](#) exists to help you share and promote your PhD successes and experiences. Follow and tag @e3dtp



Expectations

The E4 DTP has been fortunate to have been awarded 18 studentships per year until 2023. This represents a significant investment from the Natural Environment Research Council to ensure that our DTP is successfully training students for careers in a wide variety of fields. **Therefore it is only natural that NERC expects us to report closely on the good use of that money:** in particular we have promised to deliver a training environment for our students and NERC will use reporting to ensure we live up to our promises. We aim to deliver an outstanding training environment but in exchange for a valuable PhD (approximately £90k per student) we do expect both students and supervisors to meet some expectations outlined below.

From Students

We are delighted that you have chosen to do a PhD within the E4 DTP. Our DTP does not simply involve working on your PhD project. NERC also expects you to engage in training to ensure you have a broad range of both transferable and project-specific skills at the end of your PhD. We expect you to:

1. **Engage with your PhD and meet with your supervisor regularly.** Comply with the UoE Code of Practice for Supervisors and Research Students (see the above University of Edinburgh Academic Policies and Regulations section)
2. **Tell us about any issues** which might hinder your progress as soon as they arise so we can work out a solution together.
3. **Complete your 50 days of training** (including attending the core training courses).
4. **Record immediately and accurately all your training and outreach activities** on the Training and Outreach Log (see Appendices): this includes conferences, public engagement events, publications, awards and prizes etc. This information is fed back to NERC and is an essential component of our reporting to our funder.
5. **Report your publications, awards and other successes immediately** to the DTP Manager so we can celebrate and promote on our website/social media channels.
6. **Complete and submit your reporting on time.** This includes:
 - Annual TNA (Training Needs Analyses - see above and in Appendices)
 - Annual Training and Outreach Log (see Appendices)
 - Researchfish (NERC online reporting system on research content and publications)
 - If you receive funding from our PIP, ORCVF or other DTP discretionary fund
7. **Read and respond to PGR and DTP emails** during your PhD and after you graduate (in particular to provide post-graduation and destination data required by NERC)
8. **Manage your research money** (RTSG and ARC) and not go over budget. Keep separate track of additional money you might be awarded out with the DTP (e.g. CASE money or SAGES).
9. **If you publish a paper, make sure you acknowledge the NERC grant number:** "Funding for this research was provided by NERC through an E4 DTP studentship (NE/S007407/1)."
10. **We expect the highest standards of research integrity.** Please read: <https://www.ed.ac.uk/science-engineering/research/research-ethics/research-misconduct>

We encourage students to **contribute to the management of DTP** by sitting on the Student Advisory Board and providing feedback on training.

From Supervisors

The E4 DTP recruits truly outstanding students and there are more potential supervisors than studentships. Recruiting a PhD candidate means supervisors agree to several responsibilities:

- 1. You are expected to provide high quality research supervision for the student.** This includes:
 - Meeting students regularly (at least at the minimum frequency expected by your school)
 - Responding to student emails in a timely manner
 - Filling in student reporting forms (e.g., annual reports)
 - Conducting Training Needs Analyses (TNAs) in years 2 and 3
- 2. Training is a core part of an E4 DTP PhD.** If your PhD student systematically fails to attend training then you may be prohibited from recruiting students in future DTP rounds.
- 3. We expect the highest standards of research integrity.** Please read:
<https://www.ed.ac.uk/science-engineering/research/research-ethics/research-misconduct>
- 4. We expect you to read and respond to administrative emails from the PGR Office and the DTP manager.**
- 5. Any publication of a paper including a NERC DTP student as a first or co-author that involved work while the student was supported by the DTP should acknowledge the NERC grant number:** "Funding for this research was provided by NERC through an E4 DTP studentship (NE/S007407/1)."
- 6. Harassment and bullying of PhD students will not be tolerated.** All supervisors must read the UoE Code of Practice for Supervisors and Research Students as well as the UoE Dignity and Respect Policy prior to recruiting a student:
https://www.ed.ac.uk/files/atoms/files/dignity_and_respect_policy.pdf
<https://www.ed.ac.uk/equality-diversity/respect/guidance>
<https://www.ed.ac.uk/files/atoms/files/copsupervisorsresearchstudents.pdf>
- 7. Serve on recruitment panels and assist with training delivery as required.**



E4 DTP Management

Steering Committee (SC)

The Steering Committee provides oversight of the entire DTP. It consists of all hosting partners as well as a rotating panel of 5-8 end users and non-hosting partners (from industry, policy, government, research and 3rd sector). Its aim is to scrutinise and ratify changes to training, recruitment, and other processes recommended by any of the other management boards.

Meeting frequency: once a year

Core Management Board (CMB)

The Core Management Board is composed of the Director, the two Deputy Directors and the Manager. It is responsible for day to day running of the DTP.

Meeting frequency: monthly and on an ad-hoc basis as necessary

Recruitment Management Board (RMB)

The Recruitment Management Board oversees the recruitment process but also manages partner engagement via multidisciplinary projects, project matchmaking events, and monitors the distribution of studentships to a broad range of topics and partners.

The RMB is chaired by the DTP Deputy Director for Recruitment, Partners and End-users.

Meeting frequency: three times a year

Training Management Board (TMB)

The Training Management Board is responsible for monitoring training and implementing changes to training in response to feedback from students, partners, and external panels. The TMB is chaired by the DTP Deputy Director for Training.

Meeting frequency: once a year

Student Advisory Panel (SAP)

The Student Advisory Panel is composed of DTP students and provides student feedback to the DTP management team. It can suggest changes to the DTP training and other components. Any DTP student can join the SAP at any time, on a voluntary basis.

Meeting frequency: once a year

External Advisory Panel (EAP)

The External Advisory Panel is composed of leaders in a variety of academic, business, charity and government organisations and is intended to help the DTP provide training that best enable our students to move into exciting, interesting careers beyond their PhD.

Meeting frequency: once a year

Contacts

E4 DTP Management Team contacts



Richard Essery

NERC E3/E4 DTP Director
Professor in High-resolution
Atmospheric Modelling
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Lecturer in Terrestrial Vegetation Ecology
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Stephanie Robin

NERC E3/E4 DTP Manager
School of GeoSciences
Grant Institute, King's Buildings,
Room 342
stephanie.robin@ed.ac.uk

PGR Office contacts in UoE Schools

UoE School	PGR Office Contacts	Links to School intranet resources for PGR students
School of GeoSciences	pgrsupport.geos@ed.ac.uk Tel. +44 (0)131 650 8556 Room 342, Grant Institute, King's Buildings	The School of GeoSciences has a GeoSciences PGR Student Information Hub on Learn. Connect to Learn via your MyEd (launch Learn from the left hand side bar) and find the GeoSciences PGR Student Information Hub. https://www.myed.ed.ac.uk
School of Biological Sciences	Grad.biol@ed.ac.uk Tel. +44 (0) 131 650 7808 Mary Brück Building, King's Buildings	The School of Biological Sciences has a Graduate School wiki page where the handbook can be found along with other resources and information. https://www.wiki.ed.ac.uk/display/SBSGRAD/Home
School of Chemistry	Chemistry.gradschool@ed.ac.uk Tel: +44 (0)131 650 4724 Room 247, Joseph Black Building, King's Buildings	The School of Chemistry PGR resources are available on the intranet. There is also a PGR induction handbook that is given out to new students. http://www.info.chem.ed.ac.uk/studying/postgraduate-research
School of Engineering	EngGradOffice@ed.ac.uk Tel. +44 (0) 131 6 519023 or 507815 1st Floor Sanderson Building, King's Buildings	The School of Engineering has a School wiki which includes a Graduate School section with a PGR Student Handbook. https://www.wiki.ed.ac.uk/display/EngIntranet/Graduate+School
School of Physics and Astronomy	gradschool@ph.ed.ac.uk Tel: +44 (0)131 650 5812 Room 4209, JCMB, King's Buildings	The School of Physics and Astronomy has a Graduate School wiki. https://www.wiki.ed.ac.uk/display/SOPAGraduateSchool
School of Mathematics	pgresearch@maths.ed.ac.uk Tel. +44 (0) 131 650 5085 Room 5319, JCMB, King's Buildings	The School of Maths has an intranet with a Graduate School section where the PGR handbook can be found. https://info.maths.ed.ac.uk/
School of informatics	IGS@inf.ed.ac.uk Tel: +44 (0) 131 6509989 Room 5.01, Appleton Tower, Central Campus	Link to the Informatics Graduate School Intranet webpages: http://web.inf.ed.ac.uk/infweb/student-services/igs
Royal (Dick) School of Veterinary Studies	RDSVS.PGR.Admin@ed.ac.uk Tel: +44 (0)131 651 9192 or 9194 Roslin Institute, Easter Bush Campus	Link to the vet School Graduate webpages and PGR handbook: https://www.ed.ac.uk/roslin/postgraduate



DTP Partners List and Main Contacts

<i>Institution/Company</i>	<i>Contact 1</i>	<i>Contact 2</i>
UoE / School of GeoSciences	Prof Richard Essery	Prof Kyle Dexter
UoE / School of Biological Sciences / IEB	Dr Emma Cunningham	
UoE / School of Chemistry	Prof Mat Heal	Dr Nicholle Bell
UoE / School of Engineering	Prof Paolo Perona	
UoE / School of Informatics	Prof Malcolm Atkinson	
UoE / School of Mathematics	Prof Jacques Vanneste	Prof Finn Lindgren
UoE / School of Physics & Astronomy	Prof Charles Cockell	Dr Sean McMahon
UoE / Royal (Dick) School of Veterinary Studies / Roslin Institute	Prof Liz Baggs	Prof Colin Farquharson
Edinburgh Parallel Computing Centre (EPCC)	Dr Rosa Filgueira	Dr David Henty
Scottish Association for Marine Science (SAMS)	Dr Jozef Nissimov	Prof Keith Davidson
Edinburgh Centre for Carbon Innovation (ECCL)	Clare Wharmby	Jamie Brogan
NERC British Geological Survey (BGS)	Dr Ciaran Beggan	Dr Jonathan Naden
NERC Centre for Ecology & Hydrology (CEH)	Dr Lindsay F. Banin	Helen Cunnold
National Centre for Atmospheric Science (NCAS)	Dr Louise Whitehouse	
Forest Research (FR)	Dr Mike Perks	Dr Bruce Nicoll
Scottish Universities Environmental Research Centre (SUERC)	Prof Darren Mark	Prof Derek Fabel
National Museum Scotland (NMS)	Dr Nick Fraser	Dr Rachel Walcott

Scotland's Rural College (SRUC)	Prof Andrew Barnes	Dr Mark Hocart
Biomathematics and Statistics Scotland (BioSS)	Dr Glenn Marion	Dr Helen Kettle
National Centre for Earth Observation (NCEO)	Prof John Remedios	Jan Fillingham
Royal Botanic Garden Edinburgh (RBGE)	Prof Peter Hollingsworth	Dr Antje Ahrends
Scottish Environmental Protection Agency (SEPA)	Dr Peter Singleton	Lesley White
National Trust for Scotland (NTS)	Dr Richard Luxmoore	Stuart Brooks
Royal Society for the Protection Birds (RSPB)	Dr Graeme Buchanan	Prof Jeremy Wilson
Scottish Natural Heritage (SNH)	Prof Des Thompson	
Scottish Wildlife Trust (SWT)	Nicky Langridge-Smith	Gill Dowse
Carbomap	Prof Iain Woodhouse	
British Trust for Ornithology (BTO)	Dr Rob Robinson	
Met Office (MET)	Katie Norman	Fiona O'Connor
Space Intelligence	Dr Murray Collins	
CONFOR	Andrew Heald	
RSKW	Andrew Gunning	
National Physical Laboratory (NPL)	Dr Tim Arnold	Linden Fradet

Appendices

All documents presented below are available to download on the E4 DTP website.

<https://www.ed.ac.uk/e4-dtp/e4dtp-administration>



Natural
Environment
Research Council

E3/E4 DTP – Professional Internship Programme (PIP) Application

Students within the E3/E4 DTP are encouraged to do a placement at an external organisation for up to three months during their PhD. This placement can be located at a range of institutions including with one of our DTP partners, an additional research organisation or in industry, business, with a policy maker, media, government agency, primary/secondary education organisations or with a charity. The aim is to broaden the skills and experience acquired during the PhD, and help form connections outside the DTP; spending time working in a different sector should add great value to the PhD, maximising the impact of the training, and enhancing opportunities for successful and varied career paths. Students on a placement are eligible for 3 months funding over and above the 3.5 years of funding available via their PhD. That is, the host organisation is not expected to pay the student salary. Please fill in the boxes below and send to the DTP manager (stephanie.robin@ed.ac.uk). The DTP management team will review the case and respond within 2 weeks. Please expand text boxes as necessary, but the entire document should not exceed 2 pages (Arial 11 point font).

In addition, a **letter in pdf form from the host organisation, signed and on letterhead**, should also be sent to the DTP manager. This letter should state the support of the host organisation and state any contributions (i.e., office space, access to data or expertise) the host organisation is willing to make. Applications without a support letter will not be considered.

Name and address of Host Organisation

Intended Activities at Host Organisation (expand as needed):

Benefit of placement to student's overall training (expand as needed):

--

Expected start date of the internship:

Expected end date of the internship:

Signature of Student and date:

--

Signature of Supervisor and date*:

--

*Applications will be accepted if supervisor is unwilling to support the project, the DTP management team will then discuss the project with the supervisor to see if a consensus can be found.

For internal use only.

Approved by:

Date:

PIP Frequently Asked Questions



Natural
Environment
Research Council

E3/E4 DTP - Professional Internship Programme (PIP) - FAQs

When can I do the PIP?

The PIP is intended for students in their 3rd or 4th year but is also possible while in 2nd year if a suitable occasion arises. The PIP must be done within your PhD maximum end date and before you submit your thesis.

Can I split the 3 months?

The 3 months can be split into monthly blocks.

Can I do a PIP in Edinburgh?

Yes, you don't have to necessarily leave Edinburgh or the UK to do a PIP. You can do it with any local company or institution.

Can I get additional financial help to cover travel costs within a PIP?

If your intended internship is abroad and contributes to create new research collaborations, you can apply for the DTP Overseas Research Visit & Conference Funds (ORVCF) together with your PIP to get additional financial help. This fund has 2 application rounds a year (deadlines 1 December and 1 June) and is on a competitive basis. Please see the ORVCF Application guidance document for more details on this fund and how to apply.

Will my maximum end date be amended accordingly to the length of the PIP?

No. Because the PIP is considered part of your PhD, you won't get interrupted and your end date won't be extended. You will just get extra stipend to cover the internship.

I am going to do a 3-month paid placement, can it count as a PIP?

If you undertake an internship or any other projects or placements with stipend paid by the host institution, this will not count as a PIP because the funding comes from outside the DTP. That means you will still have your PIP to use if you wish to, later on.

For such paid internships, an interruption of PhD studies will be required and we will suspend your NERC stipend. Both your funding and maximum end date will be extended accordingly.

Does it have to be totally different from my research?

The PIP is an opportunity to try things you haven't been doing yet and get experience you don't have. This can happen within your research area and it is not a problem if the PIP is related to your PhD subject in some way. You might even get the opportunity to collect useful data you wouldn't have expected and that is fine.

However what we don't want is you continue working on your PhD and own research during a PIP or use that time to write your thesis.

Does a RCUK Policy internship count as a PIP?

For E3 DTP students it does not, as stipend and costs will be refunded to the DTP by NERC.

For E4 DTP Students, NERC will not provide such funding anymore meaning any RCUK Policy internship will have to be taken from your PIP allowance.

Any other questions, please get in touch with the DTP Manager at stephanie.robin@ed.ac.uk



Natural
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Research Council

E4 DTP: Application for a Professional Development Scholarship (PDS)

The E4 DTP Professional Development Scholarship is intended to support DTP students who have been working on papers related to their PhD during their PhD, by providing a 2-month additional stipend. This scheme does not provide any extra time and the submission deadline will remain unchanged.

This fund is open to applications from 4th year DTP students, who are approaching 3.5 years of their funding, and who can prove they have submitted 2 papers for publication, as first author, by their 3.5 year of PhD.

For administrative reasons, the application must be sent at least 2 months before the end of funding (i.e. end of stipend) is reached. However, any publication which is at final preparation stage and intended to be submitted within this 2-month period can be included.

Student Name:

Matriculation No:

Funding end date:

Thesis expected submission date:

Please describe the papers you have submitted/intend to submit below.

PAPER N.1

Submitted: ☐ Yes – Date :

Was the paper accepted for publication? ☐ Yes ☐ No

☐ No – Intended date of submission:

Paper Reference (and URL/DOI if the article is published already)

Paper Abstract

Extend box as needed

PAPER N.2

Submitted: ☐ Yes – Date :

Was the paper accepted for publication? ☐ Yes ☐ No

☐ No – Intended date of submission:

Paper Reference (and URL/DOI if the article is published already)

Paper Abstract

Extend box as needed

Signed Supervisor:

Signed Student:

Date:

Once completed, email the form the E4 DTP manager at stephanie.robin@ed.ac.uk
You will hear from us within 2 to 3 weeks.

For internal use only:

Approved by:

Date:

Updated 03/09/2019



Natural
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E3/E4 DTP Overseas Research Visit & Conference Fund

Overview

The DTP provides an Overseas Research Visit & Conference Fund that enables students to gain experience in an overseas research environment and/or present their work at an international conference. These funds are specifically targeted to stimulate new collaborations and expand network. They are not intended to top up standard RTSG funding.

Eligibility

Both DTP and NPIF PhD students are eligible to apply as long as they have not submitted yet and are still receiving stipend from NERC and **will still be receiving stipend during the whole duration of the visit or conference**. This is because the DTP cannot provide additional funds to students once their stipend is over or once they have submitted their thesis for examination.

Timing

There are two rounds per year with submission deadlines of **June 1st** and **December 1st**. A small panel will be convened to evaluate proposals and notify students of results within 2 to 3 weeks.

Urgency applications, e.g., for international conferences, out with these calls will be considered by the panel when these two fixed deadlines are inappropriate.

Funding level

There is approximately £5,000 in funding to distribute for each call.

Value for money and evidence of match funding will be considered when ranking applications.

International conference travel and accommodation costs support:

- Funding is only available for conferences if the student is presenting (poster or talk).
- Note that research visits will receive priority over conference travel but conference travel will be supported if funds are available.
- European conferences will be funded to a maximum of £500 and conferences on other continents up to £750.

Report

Successful candidates will be required to submit a one-page report within a month following their return trip.

For research visits: the report, which will be placed on the DTP website, should be written in general terms (press release style), include a photo and appropriate logos (E3/E4 DTP and host institution if relevant).

For international conferences: the report will give brief details on the conference with its logo and include the abstract. It can also include a photo.

FAQs

- *Can money be requested for a visit/conference that has happened already?* No it can't.
- *Can money be used to support a PIP?* Yes it can as long as the PIP is overseas.
- *Is there a limit on how many times we can apply during the whole PhD?* No, but if you have already been successful in getting a visit or conference funded, you will unlikely get another one (except if the fund is undersubscribed).
- *Is it an absolute requirement to present our work at a conference in order to apply for conference travel support?* Yes it is.
- *What kind of expenses can be included in the budget?* You can include travel, accommodation and meal costs as well as small research equipment or conference registration fees as relevant.

Case for support

Please include a case for support to your application that explains what you will do on your overseas visit and how the collaboration extends your PhD work OR describe the conference and the work you are going to present and explain how you will benefit from going.

In both cases, include a budget with a brief justification of resources.

The case for support, budget, justification and any figures or references needs to fit on one side of A4, with 2cm margins and minimum Arial 11pt font (do not use Arial narrow).

How to apply

To apply for this funding, DTP students need to provide:

1. A **case for support** including a budget with justification of resources (see above).
2. For research visits: a **letter from the overseas partner** explaining how the student would be supported in a collaborative project.
For conference travel: a proof that your paper or poster has been accepted (if available).

Please send both documents to the DTP Manager (stephanie.robin@ed.ac.uk) by the **June 1st** or **December 1st** deadlines.

Any other questions, please get in touch with the DTP Manager at
Stephanie.robin@ed.ac.uk

Training and Outreach Log - Tab 1 - Core Training

Name of Student:				
DTP Core Training - Professional and Transferable Skills - Should equal 25 DAYS				0.0
Important instructions to fill in the table: The overall number of training days required for each block must be reached by attending a combination of compulsory training sessions - in red - and flexible training sessions - in black. Entering a date of attendance in the pink cells (column E - only on the format **/**/****) will update the total number of training days attended for each block and overall. For flexible training (in black), please enter a count in days in the blue cells if empty (column D) so that the number can be added to the total. E.g. a 2-hour training session would be considered 0.5 day. Do not put less than 0.5.				
Year	Description of training	Count (in days)	Date attended (**/**/****)	Total
1-4	PhD Generic Training - Should equal 5 DAYS	5.0		0.0
1	DTP Induction Individual meetings with DTP Manager + welcome session	0.5		
1	School PhD Training Provided by Schools (includes induction events and workshops such as Research Planning and Management, Fieldwork preparation, Health and Safety, Research Ethics, Facilities Tour, Unconscious Bias, Tutoring and Demonstrating, Computing, University Services etc.)	2.5		
01-Mar	PGR Conference Annual PGR Conference organised by Schools or Institutes	1		
03-Apr	Final Road to PhD Submission and Award Compulsory DTP Training	0.5		
1-4	JAD Training for PhD students Flexible training - specify count in days in column D			
1	Excellence in NERC-remit Research - Equals 2 DAYS	2.0		0.0
1	Year 1 Residential All Year 1 DTP students at Fribush Outdoor Centre - October	2		
1-3	Numeracy, Modelling and Data Management - Equals 3 DAYS	3.0		0.0
1	Reproducible Research (Coding Club) Session 1/1	0.5		
1-3	Python Session 1/2	0.5		
1-3	Python Session 2/2	0.5		
1-3	R Session 1/2	0.5		
1-3	R Session 2/2	0.5		
1-3	GIS Session 1/2	0.5		
1-3	Frontiers in Environmental Sciences - Equals 3 DAYS	3.0		0.0
1	Seminar 1	0.5		
1-3	Seminar 2 Included in the Fribush Residential Training Workshop 'excellence in NERC remit Research'	0.5		
1-3	Seminar 3	0.5		
1-3	Seminar 4	0.5		
1-3	Seminar 5	0.5		
1-3	Seminar 6	0.5		
1-4	Career Pathways - Should equal 2.5 DAYS	2.5		0.0
1	1. Introduction to Career Pathways - Year 1 - Equals 1 DAY			
1	Introduction to Career Pathways Compulsory Year 1	1		
2-4	2. Advanced Career Pathways - Year 3-4 - Equals 1.5 DAY			
3-4	Non-Academic Career Events and Fairs Provided by Schools or Career Service (PhD Horizons)	1		
2-4	Personal Career Advice 1-to-1 meetings with a Career Service consultant	0.5		
2-4	Business or Academic CV JAD / Career Service	0.5		
3-4	Academic Opportunities (grants, fellowships etc) DTP Training / Schools event	0.5		
3-4	JAD Edinburgh Local GradSchool Flexible training - specify count in days in column D			
2-4	Career Service Events and Trainings Flexible training - specify count in days in column D			
1-4	ECCI Consultancy Innovation Programme- Equals 3.5 DAYS	3.5		0.0
1	Introduction Compulsory introduction to the ECCI Training Programme	0.5		
1-4	Make your Research Matter Workshop run by ClimateXChange on the connection between Research and Policy	1		
1-4	Business, Project Management & Consultancy Skills Introduction to some core business skills	1		
1-4	Innovation Challenges & Opportunities Turning Research into Innovation	1		
1-3	Consultancy Placement Voluntary 10-day placement in business	n/a		
2-4	Writing Skills - Should equal 1 DAY	1		0.0
2	DTP Writing Workshop incl. Reviewing/Publishing and Readable Research aspects	1		
2-4	Writing Day Retreats DTP Writing retreats (offered ~4 days a year)	1		
2	Engagement and Impact - Equals 2 DAYS	2		0.0
2	Year 2 Residential Compulsory Year 2 Residential Training at Newbattle	2		
3	Media and Outreach - Equals 2 DAYS	2		0.0
3	Year 3 Residential Compulsory Year 3 Residential Training at Dryburgh	2		
2-4	Attendance to cross-disciplinary conferences - Equals 1 DAY	1		0.0
02-Apr	Conference attendance Can be any cross-disciplinary conference (give details in the Outreach Activities tab)	1		

Training and Outreach Log - Tab 2 - Advanced Training

[illegible]

Training and Outreach Log - Tab 3 - Outreach Activities

[illegible]



Training Needs Analysis (TNA) based on the Researcher Development Framework (RDF)

This Training Needs Analysis (TNA) is designed as a tool to support you as a postgraduate researcher in identifying and planning for your personal and professional training needs. It is based on the [Vitae Researcher Development Framework \(RDF\)](#). The RDF is a nationally recognised framework for researchers for all levels. It is made up of four main domains:

Domain A: Knowledge and Intellectual Abilities

Domain B: Personal Effectiveness

Domain C: Research Governance and Organisation

Domain D: Engagement, Influence and Impact

These domains are then further categorised into 12 sub-domains.

How to use this form

If you are completing your first TNA, please complete this form by referring to the RDF. It is advisable to download the [full framework](#), which contains all the descriptors. You can log on to the Vitae pages by using your University of Edinburgh login details. You should also refer to other sources of information such as School webpages, and the [IAD brochure](#) (in which all workshops are mapped to the RDF). You may also want to refer to the [IAD online TNA](#). You should then discuss your responses with your supervisor.

Tip: Do not stress if any areas are unclear to you at this stage, discuss and clarify with your supervisor.

You should then repeat this process, completing a new TNA form, on an annual basis. You should arrange a meeting with your supervisor to discuss this and bring along the completed form from the previous year so that you can summarise how you addressed the training needs you identified. You should then discuss and note down if any additional training needs have emerged and set your priorities for the coming year.

Personal Development Plan: Training Needs Analysis (TNA)

Student Name				School/Institute			
Start Year		Current academic Year		Full Time/Part Time		Supervisor Name (s)	

RDF Sub-domains	Experience/ training already undertaken	Areas for development	Action – how will this be addressed?	Priority level (high, intermediate or low)	Review date
Domain A: Knowledge and Intellectual Abilities					
A1 Knowledge Base					
A2 Cognitive Abilities					
A3 Creativity					
Domain B: Personal Effectiveness					
B1 Personal Qualities					
B2 Self-Management					
B3 Professional and Career Development					

RDF Sub-domains	Experience/ training already undertaken	Areas for development	Action – how will this be addressed?	Priority level (high, intermediate or low)	Review date
Domain C: Research Governance and Organisation					
C1 Professional Conduct					
C2 Research Management					
C3 Finance, Funding and Resources					
Domain D: Engagement, Influence and Impact					
D1 Working with others					
D2 Communication and Dissemination					
D3 Engagement and Impact					
ANY OTHER COMMENTS			Student signature	Supervisor signature	Date

An electronic version of this handbook is available online on the E4 DTP website. <https://www.ed.ac.uk/e4-dtp/e4dtp-administration>

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*Image on cover by Romolo Tavani/Getty Images
Image on Table of contents page from Getty Images*



The Edinburgh Earth, Ecology and Environment Doctoral Training Partnership (E4 DTP), led by the School of GeoSciences at the University of Edinburgh, is funded by the British Natural Environment Research Council (NERC) to recruit and train 5 cohorts of PhD students annually between 2019 and 2023.

This handbook is for the DTP students and their supervisors to help them making the most of this research and training programme.