

PLANET DFA

Paul Stevenson



Lancaster
University



UNIVERSITY
of York



THE UNIVERSITY
of EDINBURGH



UNIVERSITY OF
SURREY

PLANET ambition

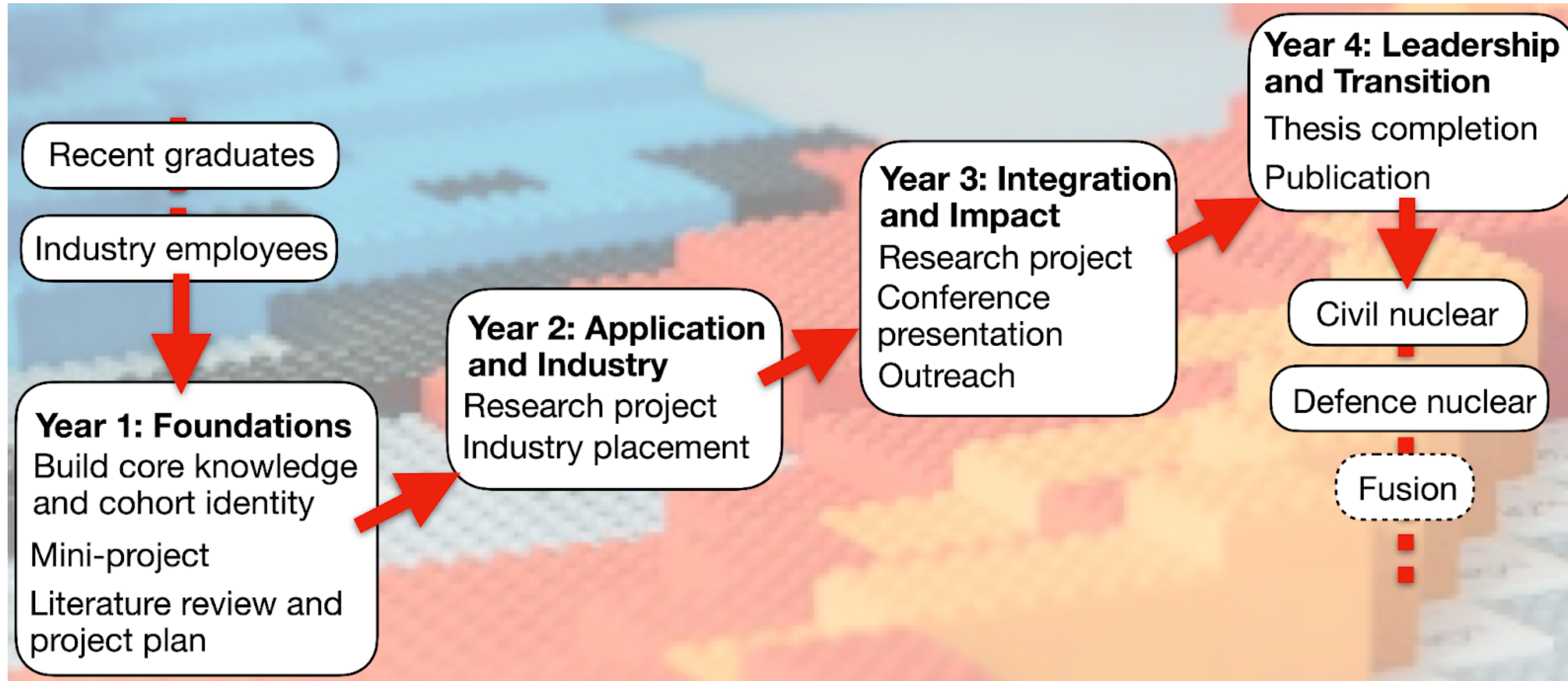
80+ PhD students working in applied nuclear physics over 4 cohorts.

First cohort starting September 2026!!

Studentships to be supported (in aggregate) 40:40:20 between funder (EPSRC Doctoral Focal Award - DFA), industry and universities

Funder is supporting significant staff buy out and funding manager/admin/finance/business support roles

Students are funded for 4 years with initial stipend of £26k/year which is ~20% above standard UKRI rates





first light



THE UNIVERSITY
of EDINBURGH



UNIVERSITY OF
SURREY



UNIVERSITY
OF OSLO



Westinghouse



PLANET research themes

- ▶ Radiation Detection and Measurement
- ▶ Nuclear Data and Nuclear Reactions
- ▶ Reactor Physics and Advanced Nuclear Systems
- ▶ AI, Machine Learning & Computational Modelling
- ▶ Medical Isotope Production
- ▶ Waste, Decommissioning & Environmental Monitoring
- ▶ Nuclear Security and Nuclear Forensics
- ▶ Nuclear Theory and Quantum Computing
- ▶ Nuclear Fusion

PhD project details

Each project will have two academic supervisors within the university consortium and one industrial supervisor

Supervisors could be within our core nuclear physics/nuclear engineering areas of expertise but, in many cases, we will want to bring in expertise from adjacent fields

Our academic network can lever access to world-leading laboratories in the UK and abroad e.g. nToF and ISOLDE facilities at CERN

Initial website: planet-dfa.ac.uk

[Home](#)

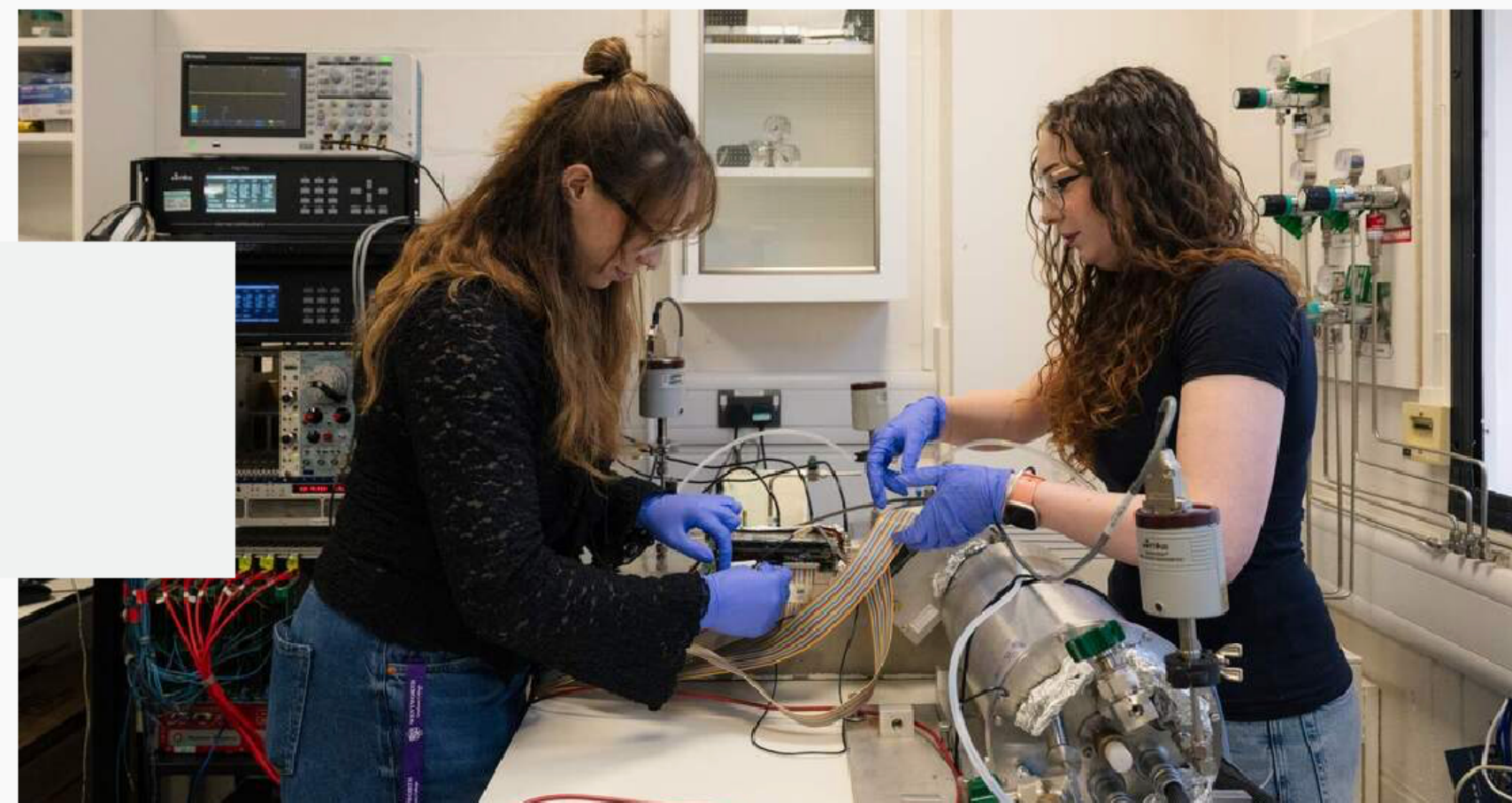
[About PLANET](#)

[How to apply](#)

[How to become a partner](#)

PLANET

A doctoral training centre in applied nuclear physics



What is PLANET?

Hosting industrial placements

Our ambition is for all PLANET students to have a placement in a third industry/organisation

Each placements should be up to three months in duration

Each studentship has a £5k budget to support this

Placements will be in year 2 of the PhD so first placements in practice will be in 2028

Industry

Paul Stevenson (Surrey)

Paul Cosgrove (Camb.)*

Adam Featherstone (York)

Taught programme

Daniel Doherty (Surrey)

Valeria Raffuzzi (Camb.)*

Paul Davies (York)

Pankaj Joshi (York)

Research

Malcolm Joyce (Lanc.)

Esra Yüksel (Surrey)

Core Team

Director: David Jenkins (York)

Deputy Director: Alison Laird (York)

Co-lead Cambridge: Geoff Parks

Co-lead Edin: Claudia Led.-Woods

Co-lead Lancaster: Malcolm Joyce

Co-lead Surrey: Esra Yüksel

Project Manager

Admissions/outreach officer

Finance coordinator

EDI

Kate Arnold (York)

Christian Diget (York)

Professional skills and Careers

James Cubiss (Edin)

Jack Henderson (Surrey)*

Outreach

Christian Diget (York)

RRI

Alison Laird (York)

Claudia Led.-Woods (Edin)

Finis

Our Ethos

PLANET has a clear ethos which underpins all its activities and to which we expect all to subscribe:

- ▶ We value diversity and inclusion. Only by being open to all the talents will we be able to meet the UK's ambitions to expand the nuclear workforce for critical needs in civil nuclear and defence.
- ▶ We will recruit PGRs at various career stages. Reskilling and upskilling existing members of the nuclear workforce will be essential in developing subject-matter experts.
- ▶ We will provide excellent PGR support since a PhD is intrinsically challenging. We need to take account of practical barriers to full participation such as caring responsibilities both in programme design and in the support packages we put in place.
- ▶ We will listen to our PhD students so that we can provide the training that matches their needs and career focus.
- ▶ We undertake to listen to industry as they are the experts on what is needed, not us. Their feedback will be essential to continuous improvement of our programme.
- ▶ We will adhere to the highest standards of responsible research and innovation (RRI) as befitting work within the UK nuclear industry.

In line with our ethos, we have co-created the plan for our PhD programme with key external partners. Blending the needs of industry with existing best practice on doctoral training within our own institutions makes us confident that we can offer a high quality student experience.

Baseline training (M1/2)

Data-driven
nuclear structure

Hands-on
theory

Nuclear
models

Measurement
and metrology

Instrumentation (M3/4)

Instrumentation

Radiation
detector theory

AMS

Hands-on
detector
work

Environmental
research

Simulation and Modelling (M3/4)

Reactor
physics

Neutron
transport

LUNar
simulator

GEANT4

High-performance
computing

Nuclear data pipeline (M4/5)

Nuclear Data

FISPACT

TALYS

ANSWERS

Statistics

Data
science

Nuclear
forensics

Consolidation (M6)

Neutron beam
experiment (NPL)

TRIGA reactor
experiment



UKRI AI Centre for Doctoral Training in Safe Artificial Intelligence Systems (SAINTS)

SAINTS is the UK's first multidisciplinary PhD programme focused solely on the safety of artificial intelligence (AI). Our vision is to train future leaders with the research expertise and skills to ensure that the benefits of AI systems are realised without introducing harm as the systems and their environments evolve.

About Us



Reskilling and upskilling

A significant number of PLANET students will be reselling or upskilling

This is highly cost-effective for industrial partners since they would pay the extra costs only i.e. fees/training costs

De-risks the process and leads to highly-skilled and motivated staff

