

Faraday Institution Community Guide

January 2023

Welcome to the Faraday Institution

You join the Faraday Institution at an exciting time, and at a pivotal moment in the global transition to a sustainable future and the UK's drive towards meeting Net Zero commitments. Countries and companies all over the world are racing towards the prizes associated with electrification of transport and other sectors. Over the next few years, the UK's position in this race may be decided and UK plc is looking to the Faraday Institution and other parts of the Faraday Battery Challenge to deliver.

At the Faraday Institution, we are leading the charge to break down the fundamental scientific barriers that hinder the commercial realisation of future battery technologies. For us, incremental improvements in scientific understanding, while welcome, are not enough. It is our organisation's mission to accelerate scientific breakthroughs to benefit the UK in the global race to electrification. In doing so we will contribute to economic prosperity, the lowering of carbon emissions, improvements in air quality, the creation of new industries and the securing of high-quality jobs for the UK.

To achieve our ambitious goals, the Faraday Institution is fundamentally changing the model of how basic research is carried out. We bring together academics—scientists and engineers from fields as wide-ranging as electrochemistry, physics, maths, computer science, biology, law, robotics and engineering—to collaborate with one another and our industrial partners. These actively managed, co-ordinated, multidisciplinary research teams work quickly and at scale. By drawing on the UK's strong scientific research base, infrastructure and national facilities, we aim to make use of every capability available to the UK.

We ask a lot of our researchers, and we offer a lot in return. You will be part of our vibrant researcher community and as such will have access to a huge pool of talented scientists with a broad and deep set of competencies across the UK who could help with problems your research might be facing. We give our researchers every opportunity to network, build collaborations, develop professionally and advance their careers. Through being part of the Faraday Institution, you will have access to training courses and opportunities to advance your knowledge and reputation and accelerate your research.

I encourage you to make the most of the opportunities being part of the Faraday Institution entails.

Please take a look through this community guide to familiarise yourself with our initiatives and systems. Please refer to it throughout your work as part of the Faraday Institution community. If you have any questions please don't hesitate to contact one of the team.

The Faraday Institution team

Contents

1. Our Mission, Vision and Values	5
1.1 Introducing the Faraday Institution	5
1.2 Our Vision and Mission	5
1.3 Our Values.....	5
2. Faraday Institution Scientific Initiatives and Programmes	5
2.1 Faraday Institution’s Research Portfolio.....	5
2.2 Optimising Performance of Lithium-ion Technologies	7
2.2.1 Battery Degradation (launched 2018)	7
2.2.2 Multi-scale Modelling (launched 2018)	7
2.2.3 Recycling and Reuse – ReLiB (Launched 2018).....	7
2.2.4 Next Generation Electrode Manufacturing–Nextrode (launched 2019).....	8
2.2.5 Next Generation Lithium-ion Cathode Materials –FutureCat (launched 2019)	8
2.2.6 Next Generation Lithium-ion Cathode Materials –CATMAT (launched 2019)	8
2.2.7 The Science of Battery Safety –SafeBatt (formed April 2021).....	9
2.3 Making Step Changes in Battery Performance Beyond Lithium Ion	9
2.3.1 Next Generation Solid-state Batteries - SOLBAT	9
2.3.2 Next Generation Sodium Ion Batteries–NEXGENNA	10
2.3.3 Alternative Cell Chemistry Beyond Lithium Ion–LiSTAR, Lithium-Sulfur Technology Accelerator.....	10
2.4 Expert Panel	10
2.5 Monthly Project Review Meetings.....	11
2.6 Faraday Institution Conference	11
2.7 Industry Sprints	11
2.8 Seed Projects.....	11
3. The Faraday Institution Community	12
3.1 Equality, Diversity and Inclusion	12
3.2 The Faraday Institution Code of Conduct	12
3.3 Slack – Our Online Collaboration Platform.....	13
3.4 Faraday Institution Community Newsletter	13
3.5 Representing the Faraday Institution Community	13
3.5.1 Dual Affiliations.....	14
3.5.2 Representing the Faraday Institution in Scientific Publications.....	14
3.5.3 LinkedIn and Other Social Media Platforms	14
3.5.4 Project logos, presentations and posters	14

3.5.5 Media Spokespeople.....	15
3.5.6 Images and Photos.....	15
3.5.7 Scientific Conferences.....	15
3.5.8 Faraday Institution Branded Items	15
3.5.9 Success Stories	15
3.5.10 Thank You.....	16
4. Building Capabilities.....	16
4.1 The Faraday Community Life Cycle.....	16
4.2 Capability Building	16
4.3 Attract	16
4.3.1 STEM Outreach	16
4.3.2 Undergraduate Attraction	17
4.4 Recruit.....	18
4.4.1 Job Vacancies	18
4.5 Induct	18
4.6 Engage.....	18
4.7 Develop	18
4.7.1 PhD Training Programmes	18
4.7.2 Early Career Researcher Development.....	19
4.8 Other Opportunities.....	22
4.8.1 Entrepreneurial Fellowships	22
4.8.2 Industry Fellowships	23
5. Faraday Institution Funding and Finance System.....	23
6. Commercialisation of Faraday Institution Research.....	24
7. Reports and Insights	24
8. Useful Contacts at FIHQ	26
9. Handbook Updates	26
10. Actions Checklist	26

1. Our Mission, Vision and Values

1.1 Introducing the Faraday Institution

The Faraday Institution is the UK's independent institute for electrochemical energy storage research, skills development, market analysis, and early-stage commercialisation. Bringing together expertise from universities and industry, the Faraday Institution endeavours to make the UK the go-to place for the research and development of new electrical storage technologies for both the automotive and wider relevant sectors. Headquartered at the Harwell Science and Innovation Campus, the Faraday Institution is a registered charity with an independent board of trustees.

1.2 Our Vision and Mission

Our vision is... a future in which energy storage technologies have transformed the world's economic and environmental prospects.

Our mission is... to accelerate breakthroughs in energy storage technologies to benefit the UK in the global race to electrification.

1.3 Our Values

Given that our aspirations are bold, we are fostering a culture that values the behaviours that will help us achieve them. Our values are:

We collaborate

We actively collaborate to achieve shared and focused objectives.

We build connections; within and between project teams, and externally with industry, government and other influencers. We foster a sense of belonging. We work together to develop a diverse pool of talent.

We are pioneering

We are pioneering, visionary and resilient.

To make game-changing breakthroughs our aspirations are bold. We challenge conventional thinking. We strive to work in new and smarter ways. Our operating model is progressive and agile, and we adapt quickly to research results.

We make a difference

We are driven to leave a legacy.

Our research is cutting edge and mission driven. We are energetic, tenacious and creative in the way we make discoveries that turn research into reality. We feel a strong sense of urgency to improve the world's economic and environmental future.

We would encourage you to discuss these values with your colleagues and decide what actions you, your department or your project team can take to live these values in a way that is appropriate for each individual role.

2. Faraday Institution Scientific Initiatives and Programmes

2.1 Faraday Institution's Research Portfolio

In the near term, accelerating the drive towards electric vehicles (EVs) requires the optimisation of lithium-ion battery technology. While there is still room for improvements to Li-ion, there are fundamental limits to the performance improvements that can be expected from its deployment.

Therefore, in the medium to long term, step changes in EV cost, range and safety will have to rely on the commercialisation of new battery chemistries such as solid-state batteries, sodium ion and lithium-sulfur.

Because of the current level of commercialisation of different technologies, and the UK's need to deliver improvements in EVs over a range of timescales, the Faraday Institution is pursuing a portfolio of projects. Six research areas focus on optimising current generation lithium-ion based batteries, where there are still considerable gains to be made, and where research breakthroughs could start to be realised in commercial batteries (delivering benefits to EV owners) within 3-4 years. The three other projects are higher risk, higher reward projects, that could facilitate the longer-term wide-scale production of next-generation battery technologies, but these still require considerable research in the areas of materials discovery and optimisation.

The Faraday Institution's portfolio of projects was selected after consultation with academic and industrial stakeholders across the country, with due consideration of the potential impact they could make to the UK. The institution's four initial projects were launched in 2018. A further five projects were launched in September 2019 and the SafeBatt project was assembled from work packages of other projects and began in April 2021. Many other smaller projects and fellowships have joined the community over the last few years. In total, over 450 researchers from over 20 universities, together with their 50+ industry partners are involved in our dynamic research community.

Research areas are as follows:

Optimising performance of lithium-ion technologies:

- Extending battery life
- Multi-scale modelling
- Battery recycling and reuse
- Electrode manufacturing
- Next generation lithium-ion cathode materials
- Science of battery safety

Making step changes in battery performance beyond lithium ion:

- Next generation solid state batteries
- Next generation sodium ion batteries
- Next generation lithium-sulfur batteries

The biggest performance gains in the near-term optimisation of lithium-ion batteries are likely to arise from changing the chemistry of the cathode. There are significant scientific and commercial challenges to achieving better cathode design, discovering new materials and developing a deeper understanding of the scientific field. There are multiple ways in which research into this field could be approached. If commercialised, the improvements in battery lifetime, range and cost would be significant to EV owners and could potentially accelerate the rate of uptake. The speed of discovery in this area is particularly important – researchers around the globe are racing towards breakthroughs that could be commercialised by their country's industrial base. The potential research scope and the prizes for success are so large and the need to make breakthroughs is so acute, the Faraday Institution is funding two project consortia in the area of next-generation Li-ion cathode materials.

2.2 Optimising Performance of Lithium-ion Technologies

2.2.1 Battery Degradation (launched 2018)

Led by the University of Cambridge with eight other university and eight industry partners, this project is examining how environmental and internal battery stresses (such as high temperatures, charging and discharging rates) damage electric vehicle (EV) batteries over time. Results will include the optimisation of battery materials and cells to extend battery life (and hence EV range), reduce battery costs, and enhance battery safety. With Cambridge, university partners include University of Birmingham, University College London, Imperial College London, University of Oxford, University of Sheffield, University of Southampton, University of Liverpool and University of Warwick.

Principal Investigator: Prof Clare Grey, University of Cambridge

Project Leaders: Dr Rhodri Jervis, University College London, Dr David Hall, University of Cambridge

Project Manager: Dr Alex Kersting, University of Cambridge

Training Champion: Dr Alex Kersting, University of Cambridge

EDI Champion: Dr Alex Kersting, University of Cambridge

[More details](#)

[Project website](#)

2.2.2 Multi-scale Modelling (launched 2018)

Imperial College London (ICL) is leading a consortium of eight other university and 14 industry partners to equip industry and academia with new software tools to understand and predict battery performance, by connecting understanding of battery materials at the atomic level all the way up to an assembled battery pack. The goal is to create accurate models for use by the automotive industry to extend lifetime and performance, especially at low temperatures. With ICL, university partners include University of Southampton, University of Warwick, University of Oxford, Lancaster University, University of Bath, and University College London.

Principal Investigator: Prof Gregory Offer, Imperial College London

Project Leader: Dr Jacqueline Edge, Imperial College London

Project Manager: Silvia Gigli, Imperial College London

Project Administrator: Saira Naeem, Imperial College London

Training Champion: Dr Ferran Brosa Planella, University of Warwick

EDI Champion: Dr Jacqueline Edge, Imperial College London

[More details](#)

[Project website](#)

2.2.3 Recycling and Reuse – ReLiB (Launched 2018)

A project led by the University of Birmingham, including four other academic institutions and 15 industrial partners, is determining the ways in which spent lithium batteries can be recycled. With the aim to recycle 100% of the battery, the project is looking how to reuse the batteries and their materials, to make better use of global resources, and ultimately increase the impact of batteries in improving air quality and decarbonisation. With Birmingham, university partners include the University of Leicester, Newcastle University, University of Edinburgh, and University College London.

Principal Investigator: Prof Paul Anderson, University of Birmingham

Project Leader: Dr Daniel Reed, University of Birmingham

Project Manager: Paul Cornick, University of Birmingham

Project Administrator: Daljit Kaur, University of Birmingham
Training Champion: Dr Daniel Reed, University of Birmingham
EDI Champion: Dr Jennifer Hartley, University of Leicester

[More details](#)

[Project website](#)

2.2.4 Next Generation Electrode Manufacturing–Nextrode (launched 2019)

The University of Oxford will lead a consortium of five other university and 12 industry partners to revolutionise the way electrodes for Li-ion batteries are manufactured. By understanding how materials assemble as electrodes are cast, and developing new manufacturing tools, the consortium aims to usher in a new generation of smart, high performance, electrodes, which could enable EVs with longer range and with batteries that are more durable. With the University of Oxford, university partners are University of Birmingham, University College London, University of Sheffield, University of Southampton and University of Warwick.

Principal Investigator: Professor Patrick Grant, University of Oxford
Project Leader: Dr Denis Cumming, University of Sheffield
Project Manager: Dr Leigh Mapledoram, University of Oxford
Training Champion: Dr Rachel Smith, University of Sheffield
EDI Champion: Dr Mona Faraji-Niri

[More details](#)

2.2.5 Next Generation Lithium-ion Cathode Materials –FutureCat (launched 2019)

This project is led by the University of Sheffield with five other university and eight industry partners. It has a coordinated approach to cathode chemistry design, development and discovery (including tailored protective coatings and designer interfaces) to deliver cathodes that hold more charge, that are better suited to withstand prolonged cycling and promote ion mobility (increasing battery durability and range and acceleration of the EV) while reducing cell manufacturers dependency on cobalt. With the University of Sheffield, university partners are University of Cambridge, University College London, Lancaster University, University of Oxford, and the Science and Technology Facilities Council.

Principal Investigator: Professor Serena Corr, University of Sheffield
Project Leader: Dr Alisyn Nedoma, and Dr Sam Booth, University of Sheffield
Project Manager: Anita Blakeston, University of Sheffield
Project Administrator: Elinor Noble, University of Sheffield
Training Champion: Dr John Griffin, Lancaster University
EDI Champion: Dr Eddie Cussen, University of Sheffield

[More details](#)

[Project website](#)

2.2.6 Next Generation Lithium-ion Cathode Materials –CATMAT (launched 2019)

Led by the University of Oxford with six other university and 15 industry partners, this project will place considerable emphasis on understanding the fundamental mechanisms at work within novel cathodes that currently prevent the use of nickel-rich cathodes (with low or no cobalt) and plans to exploit this new knowledge to inform the discovery of novel cathode materials with enhanced properties. It will scale up the synthesis of the most promising new materials and assimilate them

into fully battery cells to demonstrate performance. With the University of Oxford, university partners are University of Bath, University of Birmingham, University of Cambridge, University of Liverpool, University College London and Diamond Light Source.

Principal Investigator: Professor Saiful Islam, University of Oxford
Project Leader: Dr Benjamin Morgan, University of Bath
Project Manager: Dr Adrian Pugh, University of Bath
Project Administrator: Joanna Lopusinska, University of Oxford
Training Champion: Dr Phoebe Allan, University of Birmingham (Dr Pezhman Zarabadi-Poor, University of Oxford while Dr Allan is on maternity leave)
EDI Champion: Dorota Matras, Diamond Light Source

[More details](#)

[Project website](#)

2.2.7 The Science of Battery Safety –SafeBatt (formed April 2021)

Led by UCL with five other university and 2 industry partners, this project is taking an integrated approach to understanding the “science of battery safety” at multiple scales, from materials development and cell degradation to a battery systems level, integrating safety considerations through the lifetime of the battery. The team will improve the fundamental understanding of the root causes of cell failure and the underlying physics governing failure propagation that can lead to fires. It will also investigate the environmental consequences of fires involving lithium-ion batteries, inform the further development of fire sensing and protection systems for warehouse storage and battery energy storage systems and help develop a consensus around the optimal method of fighting lithium-ion battery fires. With UCL, university partners are University of Cambridge, Imperial College London, University of Warwick, University of Sheffield and Newcastle University.

Principal Investigator: Prof Paul Shearing, UCL
Project Leader: Dr Julia Weaving, UCL
Training Champion: Dr Julia Weaving, UCL
EDI Champion: Prof Melanie Loveridge, WMG

[More details](#)

[Website](#)

2.3 Making Step Changes in Battery Performance Beyond Lithium Ion

2.3.1 Next Generation Solid-state Batteries - SOLBAT

The University of Oxford is leading a project with four other university partners and three industrial partners to break down the barriers that are preventing the progression to market of solid-state batteries, that should be lighter and safer, meaning cost savings and less reliance on cooling systems. The ambition of this project is to understand the key chemical and fabrication challenges that would be inherent in the integration of batteries with a chemistry beyond Li-ion. With Oxford, university partners include the University of Liverpool, University College London, University of Sheffield and the University of Warwick.

Principal Investigator: Prof Peter Bruce, University of Oxford
Project Leader: Prof Mauro Pasta, University of Oxford
Project Manager: Neil Cadman, University of Oxford
Training Champion: Dr Ed Darnbrough, University of Oxford
EDI Champion: Neil Cadman, University of Oxford

[More details](#)

[Project website](#)

2.3.2 Next Generation Sodium Ion Batteries–NEXGENNA

This project, led by the University of St Andrews, will include four other UK partner laboratories, three industrial partners and collaborations with Diamond Light Source and five leading overseas research institutes. It will accelerate the development of sodium ion battery technology by taking a multi-disciplinary approach incorporating fundamental chemistry right through to considerations for scale-up and cell manufacturing. Its aim is to put on the path to commercialisation a safe sodium ion battery with high performance, low cost and a long cycle life. The relatively low cost of sodium ion batteries makes them an attractive next generation technology, particularly for static energy storage applications and low-cost vehicles. Collaboration partners also include Lancaster University, University of Cambridge, University College London, University of Sheffield and the Science and Technology Facilities Council.

Principal Investigator: Professor John Irvine of the University of St Andrews

Project Leaders: Dr Nuria Tapia-Ruiz, Lancaster University, and Dr Rob Armstrong, University of St Andrews

Project Manager: Dr Scott Lilley, University of St Andrews

Training Champion: Dr John Griffin, Lancaster University

EDI Champion: Dr Rebecca Boston, University of Sheffield

[More details](#)

[Website](#)

2.3.3 Alternative Cell Chemistry Beyond Lithium Ion–LiSTAR, Lithium-Sulfur Technology Accelerator

University College London will lead an effort with six other university partners and four industrial partners to enable rapid improvements in Li-S technologies by generating new knowledge, materials and engineering solutions, thanks to its dual focus on fundamental research at material and cell level, and an improved approach to system engineering. If the potential of Li-S is realised it would take batteries for automotive and other applications beyond the inherent limitations of Li-ion chemistry: Li-S is one of the most promising and mature alternative technologies available. With UCL, university partners are the Imperial College London, University of Cambridge, University of Nottingham, University of Oxford, University of Southampton, University of Surrey.

Principal Investigator: Professor Paul Shearing, University College London

Project Leader: Dr James Robinson, University College London

Project Manager, John Hooper, University College London

Training Champion: Dr Darren Walsh, University of Nottingham

EDI Champion: Dr Darren Walsh, University of Nottingham

[More details](#)

[Project website](#)

2.4 Expert Panel

Led by the Faraday Institution Chief Scientist, Peter Bruce, the Expert Panel brings the UK's leading battery experts together across academia and industry in one organisation. Details of the members

of the Expert Panel can be found [here](#). The Expert Panel acts in an advisory role to the Faraday Institution CEO and Board to:

- scope future calls for research projects;
- contribute to peer reviews;
- refine the research plans with the Principal Investigators of the research projects;
- review progress of projects and advise the director on redeployment of resources between projects.

Twice a year, the Faraday Institution's Expert Panel meets with the Principal Investigators and Project Leads of our research projects. These Expert Panel review meetings take different formats, depending on the stage of the projects. They have included closed-door meetings with open discussion about IP sensitive matters, a "deep dive" into the science and also enable teams to leverage the Expert Panel's wealth of experience to collectively aid the projects going forward.

More details about the Expert Panel process can be found in the [Project Management Plan](#).

2.5 Monthly Project Review Meetings

Project teams provide regular project updates to the Faraday Institution through monthly meetings that involve the:

- Faraday Institution project management team
- Expert Panel member assigned to the project
- Project PI
- Project PM
- Relevant subject matter experts delivering the science update.

The meetings take the general format of a 1-1.5hr scientific progress update, topic and length to be agreed, followed by a standard project management review, typically 30 mins. Some teams choose to present the scientific update as a "deep dive" focusing on one or two work packages at a time, whilst others present a broader overview of work packages.

See the [Project Management Plan](#) for more details.

2.6 Faraday Institution Conference

Periodically, we organise a Faraday Institution conference, which we encourage all Faraday Institution researchers to attend. The main conference is also open to speakers from around the wider UK battery academic and industry ecosystem. Registrations will be open in January 2023 for the conference to be held 11-13 September 2023. [Conference website](#).

2.7 Industry Sprints

The Faraday Institution builds closer industry relationships where specific short-term research needs have been identified, which lie within the broad scope of our research projects and which are of wider interest to industry. [Current Sprint Projects](#). We would like to grow the number of such projects in our portfolio. If, in dialogue with industry partners, you identify a research area that could be developed into an industry sprint please discuss it with your Project Leader or Principal Investigator. [Application process and timetable](#).

2.8 Seed Projects

In June 2022, the Faraday Institution initiated 16 small, fast-paced, focused projects in areas not covered within its existing battery research portfolio. In doing so it widened its research scope, and

set of university partners, in an initiative that will inform future priorities for its research programme beyond March 2022.

The new seed projects, in the areas of anodes, electrolytes, cathodes, next generation technologies, applications and data management, and flow batteries, aim to deliver transformative results that may lead to a second stage of collaborative research beyond the initial exploratory work. [Further details](#).

3. The Faraday Institution Community

3.1 Equality, Diversity and Inclusion

The Faraday Institution is committed to promoting equality, diversity and inclusion (EDI) within its researcher community to ensure that everyone feels valued and is able to contribute and benefit, without exception. We celebrate individuality and know that combining the skills and talents of a dynamic and diverse community brings great strength and the best research results.

This is essential for the success of our community: we are a diverse group joined by a common goal, working collaboratively together across multiple disciplines and institutions. We are also working in areas (science, research) where certain demographic groups are not well represented currently. We need to understand why that is, look at ways to improve this and to identify and address where this impacts inclusion within our community. In addition, we need to expand the community and to do this we must attract and retain the best people from a wide range of backgrounds.

Led by Susan Robertson, CFO of the Faraday Institution, the EDI working group helps to develop, lead and monitor EDI strategy across our community. The organisation has launched several positive action initiatives, complementing those already set up within its member universities, to address the gender imbalance and other inclusivity issues. EMPOWER is a positive action career development training programme giving women the tools for career success. [Read more](#). THRIVE is a similar programme for Black, Asian and minority ethnic individuals in the UK battery community.

Please familiarise yourself with the Faraday Institution [EDI Charter](#) that outlines the EDI responsibilities we all share as members of our community.

If you would like to suggest a topic for consideration by the working group, please contact [Susan Robertson](#).

3.2 The Faraday Institution Code of Conduct

The Faraday Institution wants all researchers involved in our research projects to feel that they work in a safe and positive environment at all times. We are committed to developing the Faraday community as one that is built on collaboration, respect for others, recognising achievement, and where members proactively offer a helping hand to colleagues and strive for equality and inclusion. More diverse teams, where all members feel able to contribute, will ultimately deliver better science and create a stronger community.

To that end, we have developed a [Code of Conduct](#): standards of behaviour that we expect all members of the Faraday community to adhere to while undertaking Faraday Institution research or related work, be it in a lab setting, connecting with group or project members and when interacting with other projects, with members of FIHQ, and externally, in person or in an on-line environment.

We also ask that you also make yourself aware of our [checklist to organise and run inclusive meetings](#).

3.3 Slack – Our Online Collaboration Platform

As part of the Faraday Institution's quest to build a dynamic, collaborative community of battery researchers and innovators in the UK we have developed a Slack workspace as an online collaboration platform for UK-based battery researchers and innovators.

The workspace has over 1700 members. We would encourage you to be an active member of this workspace, communicating your ideas and experiences with other people whilst boosting your researcher identity. It is a place for networking, information sharing, finding collaborators, accessing resources from the Faraday Institution and other organisations.

Register

If you're not signed up yet or have colleagues that you think might be interested, then please access it by [completing the form](#).

The channels

Check out and contribute to the following channels:

- [#a masterclasses](#): news on future Faraday Masterclasses and discussions following zoom webinars.
- [#a opportunities-jobs-events](#): sharing job vacancies, events, funding and other opportunities.
- [#a publications](#): news and comment on recently published papers.
- [#b 7 channels](#) around cross cutting themes common to many projects. Whether you're interested in materials discovery or STEM outreach – check them out.
- [#c early-career-researchers](#): share experiences with other early career academics and tell others of continuing professional development opportunities.
- [#2021 channels](#) where you can access materials and discussion from the Faraday 2021 conference.

Spread the word

We would encourage anyone in the following groups to join the Slack workspace:

- Academics based at a UK university with an interest in battery research,
- Anybody working in industry, government or policy in the UK battery space, and
- Selected overseas industry and academic partners.

3.4 Faraday Institution Community Newsletter

In addition to Slack, we periodically also circulate a newsletter or details of opportunities to our researchers, and wider to project admin and finance staff, expert panel, industry contacts and our Board, every few months. If you have not been receiving this newsletter, please notify [Louise Gould](#) who will add you to the distribution list.

3.5 Representing the Faraday Institution Community

We would like to empower all Faraday Institution researchers to represent our community at every available opportunity (including when presenting, attending conferences and submitting papers).

Please consider the following:

3.5.1 Dual Affiliations

We ask that all members of our community represent themselves by their Faraday Institution role, as well as university role, wherever it is appropriate to do so. This could include:

- when presenting Faraday Institution research at conferences
- in your LinkedIn profile
- in your email signature text

Examples of suggested formats of dual job titles are:

- Faraday Institution Research Fellow at the University of Birmingham
- Faraday Institution PhD Researcher at the University of Oxford
- Professor of Chemical Engineering at University College London and Faraday Institution Co-Investigator
- Reader in Chemistry at Imperial College London and Faraday Institution Principal Investigator

3.5.2 Representing the Faraday Institution in Scientific Publications

See the guide to [representing the Faraday Institution in scientific publications](#), which gives details on:

- Affiliations to the Faraday Institution in the title block of papers
- Open access
- Funding statements
- Notifying the Faraday Institution when papers are in preparation
- What to do once papers are published

3.5.3 LinkedIn and Other Social Media Platforms

We ask that all members of our community update their LinkedIn profiles (and other social media profiles if used) to include their affiliation to the Faraday Institution.

On your LinkedIn profile please also add to your “experience” section to reflect your Faraday Institution role. This will enable the Faraday Institution logo to appear at the top right-hand side of the page alongside your institution.

Please follow the Faraday Institution on [LinkedIn](#) and [Twitter](#). We encourage you to share / retweet Faraday Institution social media posts to your own networks whenever appropriate.

3.5.4 Project logos, presentations and posters

The following can be found in the [researcher resources](#) area of the Faraday Institution website.

- The standard Faraday Institution introductory presentation
- A blank Faraday Institution PowerPoint template
- A consistent set of:
 - project logos
 - project PowerPoint templates
 - templates for scientific posters

Please could all of the Faraday Institution community use these templates at Faraday Institution meetings and elsewhere, where research funded through the FI is presented.

The [researcher resources](#) webpage also includes guidance documents to help materials generated by our community digitally accessible to all. Guidance documents include:

- Digitally accessible scientific posters

- Assistive technology
- Guide to checking digital content accessibility
- Instructions to designers designing documents like the annual report, PhD training guide and Faraday Insights
- Lectures
- Writing word documents for distribution as PDFs
- Digitally accessible procurement questions and guidance
- Social media checklist

3.5.5 Media Spokespeople

To raise our visibility and extend the reach of our successes, we are dependent upon our community's ability to tell compelling stories to key media outlets and stakeholders. At the Faraday Institution, we are further developing our collective skills, to best represent our research successes in the media – be it print, TV, radio, social or blogs. Whether you are media trained and active in working with the media, or looking to develop these skills, we would like to hear from you. Please contact [Louise Gould](#).

3.5.6 Images and Photos

We are always looking for engaging images of battery researchers or research representative of Faraday Institution projects to illustrate web, newsletter and social media posts, and to fulfil requests from journalists. Please send such images to [Louise Gould](#) at any time.

3.5.7 Scientific Conferences

If you are presenting Faraday Institution research at a scientific conference, please let us know in advance via project review meetings or emailing events@faraday.ac.uk. We will aim to raise the visibility of your research, your participation at the event via e.g., our social media channels, and help you give your researcher identity an additional boost.

We ask that to help raise the profile of the Faraday Institution, when presenting your Faraday Institution research at an external conference you include a single introductory slide about the organisation, which can be accessed here www.faraday.ac.uk/researcher-resources.

We invite researchers helping to organise external conferences to discuss with us the assembly of conference sessions on subjects aligned with Faraday Institution research and that could include as speakers or the chair Faraday Institution researchers or members of the HQ team as well as external participants. In 2022-23 we have a budget of £20K to sponsor events where such sessions are planned. For such opportunities we would need to define the objective of the FI sponsorship (e.g., attract applications for PDRAs to new projects) and what branding opportunity it would enable.

Please discuss at a project management meeting or email events@faraday.ac.uk.

3.5.8 Faraday Institution Branded Items

The Faraday Institution has a range of branded items: moleskin notebooks, pens, pin badges, umbrellas, travel mugs, and tote bags for use by our researchers to help to create a sense of belonging to our community. We will be distributing these items at project kick off meetings. If you would like to receive a supply, please contact [Vicki Harper](#).

3.5.9 Success Stories

We live in a funding environment when the Faraday Institution needs to communicate a steady supply of success stories from our projects. We need to demonstrate to government, and other

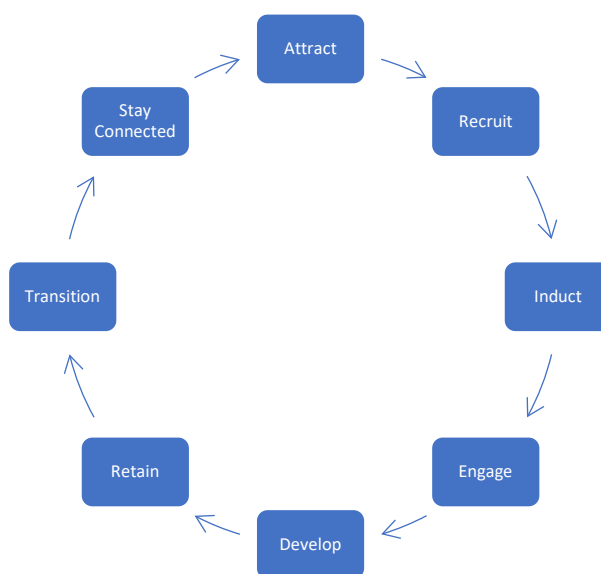
stakeholders that we are delivering value for money. When you know your project has made a significant advance or your research has won an award, please let [Louise Gould](#) know and she will work with you to develop a case study in line with our existing library of stories [available here](#).

3.5.10 Thank You

Thank you in advance for being an ambassador for the Faraday Institution and helping our community and projects gain the visibility they deserve.

4. Building Capabilities

4.1 The Faraday Community Life Cycle



4.2 Capability Building

Capability building, encompassing both skills and physical infrastructure, is fundamental to the goals of the Faraday Institution. We are developing a diverse pool of talent to raise future generations of battery scientists and engineers. To do so, we have programmes at many levels from undergraduate through to PhD researchers and early career academics.

To find pioneering solutions to the challenges facing the battery sector, in the quest for a sustainable future, the UK needs to attract more people from every section of society to relevant roles. Our outreach resources empower our researchers to encourage young people to consider careers in STEM (science, technology, engineering and maths).

4.3 Attract

Our attraction programmes are targeted at undergraduate students studying STEM degrees with initiatives to reach those currently under-represented in STEM professions.

For further details see the [Education and Skills section](#) of the Faraday Institution website.

4.3.1 STEM Outreach

Faraday Institution Cluster PhD researchers are trained as STEM Ambassadors so they can effectively convey their research in a relatable way to inform and inspire younger audiences. As part of this initiative, we have developed the Faraday Institution '[Fully Charged Battery Box](#),' which contains the

resources needed for a class of 30 to take part in curriculum linked, battery activities. If you would like to be involved in outreach and would like to know more, then please contact [Fran Long](#).

Faraday Institution researchers are encouraged to seek opportunities (e.g., at local schools, colleges, career fairs, A Pint of Science etc.) to talk to young people and the general public about their research, and what led them down their career path. Training will be given where applicable to maximise the opportunities of presenting to these audiences.

The Faraday Institution partners with other organisations such as the Society of Chemistry, the Royal Institution and the Smallpeice Trust to run outreach events, webinars and initiatives.

There is a Faraday STEM Network that meets periodically to share best practice, creative ideas, resources and initiatives that can inspire young people about batteries and related careers.

Involved in STEM outreach and want to know more about the resources available to inspire young audiences about batteries and electrification, [check out the webpage](#).

4.3.2 Undergraduate Attraction

Sign-posting opportunities for careers in battery technology is essential for undergraduates. As such we seek to showcase them to undergraduate students through a variety of means including attraction events including the 'Fully Electric Engagement Programme' (FEEP), 'The Faraday Institution Summer Experience' (FUSE) and the 'Faraday Institution Scholars Programme'. [Read more...](#)

On National Battery Day on 18th February, a series of events about battery careers are run to inspire undergraduate students about opportunities in the sector.

4.3.2.1 Summer Internships for Undergraduates

Each summer, the Faraday Institution funds 50+ undergraduates who undertake paid 8-week [summer placements](#) in the battery research field. Recipients are assigned a supervisor who gives one-on-one career mentoring along with access to other research scientists and unique facilities and the opportunity to participate in hands-on research activities. Participants also have the opportunity to create a poster presentation about their work. We would ask that all Faraday Institution researchers that have contact with the interns give them every support to make the experience as positive as possible.

Read more about the success of the FUSE programme [here](#).

4.3.2.2 PhD Researcher Spotlight Videos

As part of our work to raise STEM career aspirations and showcase the work of the Faraday Institution we have created a series of videos focusing on our PhD researchers, which capture their thoughts on what led them into this field, what inspires them in their work, and on the successes of the first cohort as a whole. Take a look at the [individual videos](#) and [cohort video](#). Please share the links with, for example, undergraduates and A-level students who you think may be interested in watching them.

4.3.2.3 Public Outreach Events – The Royal Institution

With the Royal Institution, the Faraday Institution has curated a series of thought-provoking events to explore the fast-moving and disruptive area of battery technology and the political, social, economic and philosophical questions raised. The events are open to the general public and held in

the iconic Royal Institution lecture theatre (or online during lockdown). The programme is developed to inspire and share the thoughts and opinions of leading thinkers from business, science and policy who are helping to lead and shape the transition to electric vehicles and bringing new industries to the UK.

The battery engagement programme with the Royal Institution has led to over 270,000 views online and continues to grow. [Royal institution YouTube channel](#). [Latest Royal Institution public engagement lecture by Prof Paul Shearing, UCL](#).

4.4 Recruit

4.4.1 Job Vacancies

4.4.1.1 PhDs

Our PhD opportunities are advertised widely through our website, LinkedIn, Twitter, university websites, www.findaphd.com and partner organisations. We work with our academic institutions in the quest to reach a diverse pool of applicants. Please help us help you attract the best candidates by publicising studentships via our networks as well as those of the home institution and beyond.

4.4.1.2 PDRAs

The Faraday Institution is mission driven and is actively committed to empowering and equipping researchers to work collaboratively in order that they can make a real difference and be pioneering.

To help us help you attract the highest quality candidates to Faraday Institution research positions, please send all job adverts for vacant positions to [Sophia Constantinou](#). She will upload them to the [jobs page](#) of the Faraday Institution website and post them on LinkedIn. Please also publicise any vacancies in [Slack](#).

Please include the following wording in all job adverts:

Join the Faraday Institution at an exciting time as we continue to grow a dynamic and diverse community of pioneering researchers, as we race to discover the next generation of battery technology. Our mission is to accelerate scientific breakthroughs to benefit the UK in the global race to electrification. Faraday Institution Research Fellows have access to multiple networking and collaboration opportunities, quality facilities and training.

4.5 Induct

This community guide has been created to be an informative guide to the Faraday Institution community. This guide should enable new members to feel welcomed and well informed about aspects of being part of this dynamic and pioneering research community.

4.6 Engage

Collaboration is one of the core values of the Faraday Institution. We actively encourage our researchers to utilise all the opportunities they can to network both across projects, institutions, with industry partners and other organisations. No matter how new to the organisation, you really can make a difference.

4.7 Develop

4.7.1 PhD Training Programmes

The Faraday Institution has created an exciting PhD training programme that aims to increase knowledge, skills and aspirations. Included are industry and facility tours, lectures with experts,

networking opportunities and much more. We now have two cohorts of PhD researchers benefiting from the additional training. [To view the 2022-2023 PhD training programme course guide click here. PhD Success Story.](#)

4.7.1.1 PhD Researcher Funding

Faraday Institution funds universities to recruit individuals to become part of the Faraday Institution PhD programme. The Faraday Institution typically funds 14 studentships for an October start, and eligibility for students is as for UKRI studentships. The students receive an enhanced stipend over and above the usual EPSRC offer. This is around £20,000 (plus London weighting where appropriate) plus an additional £7,000 annually to cover training and travel costs. Recipients have access to multiple networking opportunities, industry visits, a mentor, internships as well as quality experiences that will further develop knowledge, skills and aspirations.

In addition, to the Faraday Institution PhD cohort, universities themselves fund PhD researchers to work on Faraday Institution research projects. These students are valued members of our community that we invite to attend review meetings and training events whenever appropriate.

The Faraday Student Committee meets 3-4 times a year.

4.7.2 Early Career Researcher Development

4.7.2.1 Framework

Creating a dynamic and diverse community of world-leading researchers in energy storage and battery technology is at the heart of the Faraday Institution. Key to delivering the scientific breakthroughs we are striving for, is the investment in training and development of our research fellows.

In line with best practice outlined in the [Vitae Researcher Development Framework and Concordat](#) (September 2019), The Faraday Institution invests in the training and development of its researchers as follows:

The Faraday Institution:

1. Ensures each researcher has a minimum of 10 days of professional development pro rata, per year.
2. Funds a minimum of £2,000 per PDRA, affiliated PhD researcher, project manager and FI project staff (for example, research assistant) per financial year*
3. Requires all PDRAs, PhD researchers, project managers and FI project staff to have a regular Career Development Review at least once a year, ideally in April at the start of the financial year.
4. Provides a Career Development Template to aid the Career Development Review
5. Stipulates that all FI research staff keep a training log
6. Expects Project Managers to report on the training activity that has been undertaken by project staff, to FIHQ
7. Actively encourages all FI research staff to develop their researcher identity.
8. Supports opportunities for collaborative working, secondments, and industry placements.
9. Reports to stakeholders on the career development and training opportunities that exist for Faraday researchers and the take-up of these.

To access the latest version of the Faraday Institution Researcher Handbook / Community Guide and Career Development Template, please click [here](#).

**- Speak to your project Training Champion (see Section 2) to confirm your exact allocation.*

- This budget cannot be carried over into a new financial year
- Faraday funded PhD researchers have a separate training budget
- An affiliated PhD is defined as a PhD researcher who is contributing significantly to a Faraday Institution Research project, as agreed by the project PI/PL or PM and is included in a master list of project PhD Researchers (e.g., published on the project website/SharePoint)

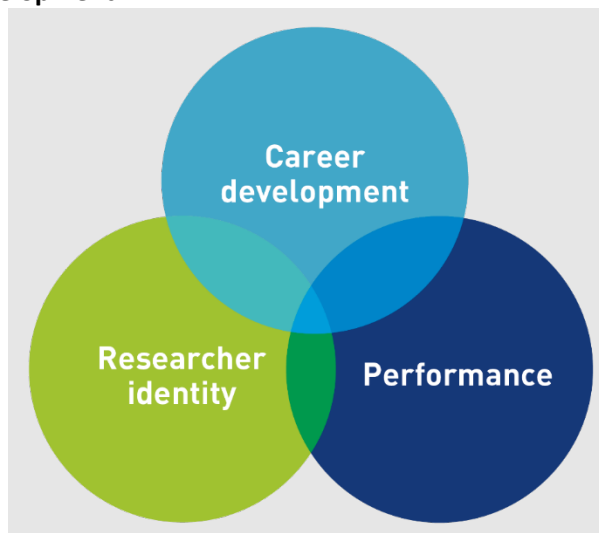
The supervisor:

- Facilitates an individual career development review for their researchers at least annually.
- Supports researchers in exploring and preparing for a diversity of careers, for example, through the use of mentors and careers professionals, training, and secondments.
- Actively supports a minimum of 10 days pro rata, per year, for their researchers to engage with professional development, supporting researchers to balance the delivery of their research and their own professional development.
- Identifies opportunities, and allows time (in addition to the 10 days’ professional development allowance), for their researchers to develop their research identity.
- Engages in leadership and management training to enhance their personal effectiveness, and to promote a positive attitude to professional development.
- Reports on researchers’ training as required by the Faraday Institution.

The researcher:

- Takes ownership of their career, identifying opportunities to work towards career goals, including engaging in a minimum of 10 days’ professional development pro rata, per year.
- Explores and prepares for a range of employment options across different sectors, by making use of mentors, careers professionals, training and secondments.
- Maintains an up-to-date professional career development plan and builds a portfolio of evidence that demonstrates their experience and can be used to support job applications.
- Positively engages in career development reviews with their managers.
- Seeks out, and engages with, opportunities to develop their research identity and broader leadership skills.
- Considers opportunities to develop their awareness and experience of the wider research system through, for example, knowledge exchange, policy development, public engagement and commercialisation.

4.7.2.2 Professional Development



There are three strands to effective early career researcher development:

Career development – involves a regular review of a researcher’s career development, typically involving identification of opportunities to improve future career prospects, and related goal setting. Researchers then further develop their professional competencies and gain experience to support their future career. Examples might include attending a training course or workshop, workplace shadowing, participating in a mentoring scheme (as mentor or mentee), committee membership, participating in policy development, public engagement or knowledge exchange activities.

Researcher identity - Activities that increase research identity include teaching, publishing, conference presentations / organisation, grant proposal writing, networking, managing budgets, knowledge exchange and secondments.

Performance - this is monitored through a performance development review at your home institution, which focuses on performance in a current role.

Career Development Plan

At the request of the research community, The Faraday Institution has created a Career Development Plan* template to support the training for early career researchers

- To be completed within 8 weeks of commencement of post
- To include goals and areas of focus for the coming year
- Minimum of annual review
- To include professional development log

* 1. It is a requirement of the terms of the grant that each Faraday Institution Research Fellow has a Career Development Plan in place.

2. The training budget can be used flexibly and might include conference attendance, courses and travel to events but must not be used for non-training items such as consumables.

Universities may also hold an additional training budget for each Research Fellow. Please discuss how to access your training budget with your supervisor or Project Leader. We monitor expenditure against the training budget annually.

The Faraday Early Career Researcher Committee

The ECR Committee meets at least quarterly to champion the voices and careers of early career researchers in our community. New for 2022, was an in-person 2-day event led by this group on the 31st October and 1st November <http://www.faradayecrconference.org.uk>. Questions about the conference or want to raise an idea with the ECR Committee [get in touch](#).

4.7.2.3 Faraday Masterclasses

One Wednesday each month at 2pm, join Faraday Institution colleagues (via Zoom webinar) as the Faraday Institution hosts presentations and Q&As on a variety of topics and harness opportunities to continue to collaborate and knowledge share.

[Register here](#).

Upcoming Masterclasses are advertised in [Slack](#). Recordings of masterclasses held in 2020 can be [accessed here](#). Recordings of masterclasses held from 2021 onwards can be [accessed here](#).

To share ideas for future Masterclass topics or to offer to present or host a webinar in the coming weeks please contact [James Robinson](#), Chair of the Early Career Researcher Committee.

4.7.2.4 Faraday TECH

During the pandemic, the Faraday Institution also held a high-quality, in depth training series on techniques, equipment and facilities run by experts in the field. Partnering with the Henry Royce Institute, Nature, as well as other key organisations and institutions, the aim of the sessions is to further enhance the knowledge, skills and aspirations of battery researchers in the UK as we seek to develop pioneering solutions to the challenges we face with battery technology today.

The initial series of Faraday TECH sessions included:

- Advanced STEM by Professor Nigel Browning
- IP Strategy with Mathys & Squire, UK & European Patent Attorneys
- Faraday's Fast Software for Simulating Battery Operation in your Research (Dandelion and PyBaMM) training led by members of the Multi-scale Modelling project team
- Nature Masterclasses – writing for impact by Editors at Nature
- NMR
- EDI

Recordings of previous Faraday TECH courses can be [accessed here](#) (Username: ECRday Password: FaradayTechVideo!).

If you would like to lead or recommend future Faraday TECH sessions please contact [Fran Long](#).

4.7.2.5 Other Training Opportunities

If you know of courses, events, conferences, internships that could benefit the community then please do share them on [Slack](#) (see Section 3.3) and email a link to [Sophia Constantinou](#), who will publicise it in the Faraday Institution researcher newsletter.

4.8 Other Opportunities

4.8.1 Entrepreneurial Fellowships

Aims

Faraday Institution Entrepreneurial Fellowships are intended to facilitate the creation of new business opportunities that have emerged from Faraday Institution research programmes or other closely related activities. The fellowship will provide seed funding, business support and mentoring to maximise the potential of success and accelerate the spin-out process. The Faraday Institution will work closely with other technology transfer offices and funders throughout the period of the Fellowship.

Funding Available

Entrepreneurial Fellowships are offered with funding in the range of £50,000 to £100,000. Faraday Institution expects to award approximately five Fellowships per year, but this will be reviewed in light of demand.

Timing

Fellowships are available for a period of 3-12 months to reflect the needs of each opportunity.

Eligibility

Applicants must be UK researchers who wish to create or investigate the possibility of creating businesses through spinning out technology from Faraday Institution research projects. We will also consider applications from recent spinouts or research teams from technology related to the Faraday Institution's scope of energy storage and conversion.

Application Process

The current [application process for Entrepreneurial Fellows](#) can be accessed here.

Existing Fellows

Details of our Entrepreneurial Fellows [can be found here](#).

4.8.2 Industry Fellowships

The Industry Fellowship programme fosters relationships between industry and academic researchers. This programme aims to strengthen ties between industry and academic battery researchers in the UK with the aim of establishing or enhancing collaborative research with the potential for near- and longer-term benefit to the UK battery industry.

Faraday Institution Industry Fellowships will enable academics (whether working on Faraday Institution research projects or not) and industrialists to undertake a mutually beneficial and collaborative energy storage research project. University researchers or members of UK industrial organisations are invited to apply for fellowships to advance a defined research project with commercial potential or which solves a critical industrial problem in an area that falls within the Faraday Institution's remit of electrochemical energy storage research.

It is intended that the fellowship will enable a university researcher to work on a collaborative project in an industry setting, or a scientist employed in industry to work on a project within a university department. The personal and corporate links established by the fellow are likely to seed longer-term collaborations between the two sectors in the UK as well as contributing to the fellow's career development.

The award duration can be three months to one year, (or pro rata, i.e., it could be held at 50% part-time for up to 24 months, enabling fellows to maintain links with their employing institution). It covers the salary costs for a researcher.

Further details about the [Industry Fellowship scheme and its application process](#) can be accessed here.

5. Faraday Institution Funding and Finance System

The terms of the Faraday Institution funding allow us to more flexible than other funding bodies you may deal with. We monitor our project progress closely and have the potential to move funds within and between projects to direct effort towards the most promising areas of research. Project monitoring (including financial monitoring) is conducted on a monthly basis so Project Coordinators may ask you for information on financial spend more often than other projects you are involved with that are funded through other organisations.

Faraday Institution funding into research projects follows a hub and spoke model. Grants are awarded to the lead university for a project (for example, the University of Birmingham for ReLiB) who is responsible for collecting financial information on the project on behalf of the other member universities.

Please [reach out to the finance team](#) at FIHQ if you have any difficulties with your Faraday Institution funding, raising invoices or receiving payments. If the team is made aware of issues you

are facing, they can usually find a work-around that will not slow the fast pace of project progress that we are aiming for.

6. Commercialisation of Faraday Institution Research

The Faraday Institution needs to ensure that its research is used to the maximum benefit in accordance with its charitable charter as set out in the articles of association to ensure that Intellectual Property (IP) arising from the Faraday Institution programme is:

- Generated, identified and recorded.
- Appropriately protected.
- Exploited to provide the best possible outcomes.

All researchers working on Faraday Institution programmes need to be aware of the IP strategy and ensure that in their day to day work they take advantage of the IP support available at their home institution and know who and how to go to for advice. [Faraday Institution IP strategy](#).

You **must not disclose details of patentable inventions** through talks, papers or discussions. Researchers may be interested in [downloading a set of slides](#) regarding the protection of IP that was presented by patent lawyers, Withers and Rogers, at a Faraday Institution Review Meeting.

Project teams are encouraged to actively pursue links to industrial organisations to help ensure that our research remains application inspired. Please [make Ian Ellerington](#), Technology Transfer Director at the Faraday Institution, aware of any enquiries you receive from industry regarding potential collaborations. It may be possible and desirable to identify potential “Sprint” projects, based on discussions with industrial partners, that accelerate or redirect elements of the research programme towards meeting short-term needs. You should not discuss non-public details of your research with any third parties without having a collaboration or confidentiality agreement in place if these could hinder future protection or exploitation of intellectual property.

If any group working on Faraday Institution workstreams suspects the research they are carrying out has generated, or is likely to generate, patentable IP please [inform Ian](#) as well as your project IP contact and the technology transfer office of your university. If you are unsure who your IP contact is, you should ask the relevant Co-Investigator. It is important that we have a broad overview because adding together inventions from different teams could have far more impact than treating them all individually. Potential Intellectual Property will be discussed with Principal Investigators at regular project reviews. Where we agree that there is valuable IP, an exploitation team will be set up including the research group, the associated Technology Transfer Office, the project IP contact and the Faraday Institution. This group will seek to agree an appropriate exploitation strategy.

If you have any IP related questions, please contact [Ian Ellerington](#).

7. Reports and Insights

As well as undertaking scientific research, the Faraday Institution provides independent, evidence-based understanding of battery economics, societal issues, capabilities and competitive position through commissioned studies. As a result, we inform policy makers and regulatory bodies on the energy transition.

EV economics study

The Faraday Institution study [UK's electric vehicle and battery production potential to 2040](#) answers the question, "What is the maximum opportunity for EV and battery cell production to be based in the UK by 2030 and 2040, and what actions need to be taken now, and by whom, to ensure that this opportunity is captured?"

Faraday Insights

In addition, the Faraday Institution publishes [Faraday Insights](#), which are concise briefings that aim to help bridge knowledge gaps across industry, academia and government. Published every month, the publications are prepared by authors from across the Faraday Institution network and coordinated by Stephen Gifford, Chief Economist. These publications are circulated to Faraday Institution researchers via the community newsletter. Other interested parties can sign up to receive the Insights [here](#).

Annual Report

Each December the Institution publishes an Annual Report documenting its activities of the year. [Annual Report 2020-21](#).

Infrastructure report

In 2018 the Faraday Institution commissioned a study, led by Nigel Browning of the University of Liverpool, to report on the infrastructure currently available to researchers in electrochemical energy storage in the UK. Take a look at their report "[Identifying Infrastructure and Collaborative Expertise for Electrochemical Energy Storage Applications](#)," which may include information of relevance to your group.

The report identifies a significant opportunity. The authors conclude: "A major advancement in the UK's ability to innovate new electrochemical energy storage technologies would be achieved by introducing support mechanisms that both provide access to the best instrumentation and provide training in its use by experts in the characterisation of electrochemical energy storage systems."

As a result of this study (and following feedback received at the recent 8-month review) the Faraday Institution will be collaborating with the report's authors, and key individuals in major user facilities such as Diamond and ISIS, and elsewhere, to work up detailed action plans in the following areas:

1. Improve awareness of and access to materials characterisation equipment in the UK relevant to electrochemical energy storage research.
2. Introduce guidelines and standard test protocols to ensure consistency in analytical methods.
3. Develop high-quality training programmes to build analytical capability to meet the needs of the battery research community.

8. Useful Contacts at FIHQ

Name	Role	Email	Phone
Alison Green	Finance Manager	alison.green@faraday.ac.uk	01235 425122
Andrea Strange	Contracts and Compliance Co-ordinator	andrea.strange@faraday.ac.uk	07786 448058
Ben de Laune	Research Project Manager	ben.delaune@faraday.ac.uk	07770 771446
Dominic Grantley-Smith	Training Manager	Dom.grantley-smith@faraday.ac.uk	07887 297915
Emily Baird	Events Manager	Emily.baird@faraday.ac.uk	07500 491131
Fran Long	Head of Training and Talent Development	fran.long@faraday.ac.uk	07741 853067
Gareth Hartley	Business Intelligence Manager	gareth.hartley@faraday.ac.uk	07741 853069
Ian Ellerington	Technology Transfer Director	ian.ellerington@faraday.ac.uk	07741 853065
James Gaade	Research Programme Director	james.gaade@faraday.ac.uk	07387 790493
JJ Marie	Energy Storage Analyst	John-joseph.marie@faraday.ac.uk	07435 497955
Jon Leong	Business Intelligence Manager	Jonathan.leong@faraday.ac.uk	07389 879516
Louise Gould	Head of Communications	louise.gould@faraday.ac.uk	01235 425127
Matt Howard	Chief Strategy Officer	matt.howard@faraday.ac.uk	07741 853063
Nick Smailes	Commercialisation Director	nick.smailes@faraday.ac.uk	07825 782967
Nicole Tame	Administration Assistant	Nicole.tame@faraday.ac.uk	07919 981286
Sophia Constantinou	Digital and Social Media Co-ordinator	sophia.constantinou@faraday.ac.uk	07384 865412
Stephen Gifford	Chief Economist	stephen.gifford@faraday.ac.uk	07741 853068
Susan Robertson	Chief Operating Officer	susan.robertson@faraday.ac.uk	07741 853063
Sylwia Walus	Research Project Manager	sylwia.walus@faraday.ac.uk	07901 983563
Vicki Harper	Executive Assistant	executive.assistant@faraday.ac.uk	07741 853066
Will Richardson	Research Project Manager	Will.richardson@faraday.ac.uk	07442 564374

9. Handbook Updates

This Faraday Institution Community Guide will be updated from time to time. The current version of the handbook will always be made available on <https://faraday.ac.uk/researcher-resources/>

10. Actions Checklist

- Slack registration <https://www.faradayconference.org.uk/registration/>
- Update LinkedIn experience to reflect new position with the Faraday Institution
- Complete Career Development Plan to identify training needs and set goals
- Schedule a Performance Review
- Order Faraday Institution business cards

- Download your project's Faraday Institution PowerPoint template
- Seek collaboration and networking opportunities
- Register for Faraday Masterclasses and Faraday TECH sessions