**APPLICATION GUIDELINE**

**SCGC-FIRST**

**SCGC** **F**und for **I**nnovation and **R**esearch in **S**ustainability and **T**echnology

2025-2026

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# Details of Award and Application Process

## Overview of Award

The MPLS Division, in collaboration with SCG Chemicals Public Company Limited (SCGC), announces the third round of the SCGC Fund for Innovation and Research in Sustainability and Technology (SCGC-FIRST). This University-administered fund is established to support visionary, ground-breaking and transformative research that addresses the critical challenges and emerging opportunities of the 21st century. The fund is intended to enable pioneering research with the potential to deliver real-world impact.

As ASEAN's leading innovation company in chemicals, SCGC embraces its responsibility to drive the transition towards a sustainable future. This means tackling climate change, advancing the energy transition, and reducing plastic waste — while also harnessing the power of transformative technologies such as AI to reimagine materials, processes, and industries. SCGC is committed to building a low-carbon and environmentally friendly society by 2030, with clear targets: a 75% waste disposal reduction by 2025 (base year 2021), a 20% GHG emission reduction by 2030 (base year 2021), the production of 1 million tons of Green Polymer™ by 2030 and achieving Carbon Neutrality by 2050. To advance this mission, SCGC has invested £1 million to establish the SCGC-FIRST University Fund, a four-year program supporting projects across the University, with successful outcomes eligible for substantial follow-on funding directly from SCGC. Now entering the 3rd round, the initiative has already supported 7 projects across the Engineering, Chemistry, and Materials departments.

The creation of SCGC-FIRST builds on [a decade-long and highly productive strategic partnership](https://oxford.shorthandstories.com/scg-oxford-partnership/index.html) between the Department of Chemistry and SCGC, which resulted in the establishment of [the SCG-Oxford Centre of Excellence](https://scgcoe.mpls.ox.ac.uk/people). However, the magnitude of the current challenges requires a broader collaboration among a range of relevant disciplines within the University, including cutting-edge manufacturing technology and machinery, digital systems to control manufacturing processes, and a low environmental footprint approach to reduce greenhouse gas emissions with clean and renewable energy sources.

**SCGC-FIRST** is seeking to support innovative projects that demonstrate distinct advantages in cost and environmental footprint over competing approaches which are already available in the marketplace or opportunities for those to be adapted to the SCGC context below. Projects should be outcomes-driven, leading toward potential solutions or inventions.

**Broad areas and** **topics of interest to SCGC include,** **but are not limited to:**

**Future of plastics:**

The future of plastics technologies is poised to transform how we produce, use, and recycle plastic materials, addressing critical environmental challenges and advancing sustainability. Proposed solutions include, but are not limited to

* Circular economy of plastics: up-cycling of polymer materials and the creation of markets.
* Novel processes for cost-effective (and better quality) generation of hydrocarbon feedstocks from polymeric materials, plastic waste treatment
* New materials for sustainable outcomes
* Client and consumer behaviour and novel interventions to influence change
* Mono material: Pathway for multi-layer materials recycling, or cost-effective way for high barrier mono-materials.

**Decarbonising thermal processes:**

Heat generation is a critical component of numerous industrial processes that produce chemicals, metals, minerals, paper, and food. Generating heat has typically relied on fossil fuels because of the high temperatures required, thereby making electrification challenging. Proposed solutions include but are not limited to

* Alternative heating technologies and fuels
* Waste heat management
* Combined heat and power systems
* Low or no heat technologies
* Energy loss prevention/ energy insulation

**Energy and carbon reduction:**

Key areas include the development and implementation of advanced carbon capture, utilisation, and storage (CCUS) technologies, electrification of processes using renewable energy sources, and the advancement of green chemistry technologies. These green chemistry technologies encompass the use of alternative, non-fossil-based feedstocks, the development of energy-efficient catalytic processes, the implementation of bio-based production methods, and the utilisation of safer, environmentally benign solvents and reagents. Additionally, enhancing energy efficiency through the adoption of state-of-the-art process intensification and more efficient operations are critical. Proposed solutions include but are not limited to

* Carbon neutrality through reduction of GHG emissions, carbon capture, storage and utilisation, and emissions monitoring
* Reducing the cost of carbon capture and storage
* Electrification of processes using renewable energy sources
* Low cost, low carbon footprint hydrogen production
* Sustainable supply chains and logistics
* Novel approaches to utilisation of energy sources
* Sustainable finance and carbon accounting tools for decision-making

**Environmental impacts, next generation sustainability assessments for carbon, water, and biodiversity:**

Acounting methods are nascent for carbon and water or non-existent for biodiversity. Robust approaches for sustainability assessments are critical to measuring progress towards corporate and societal targets, as well as regulated and voluntary markets. There is a need for

* Carbon accounting methods that consider the complexities of implementing mitigation mechanisms across markets
* Water accounting methods that encompass scarcity and security
* Water and energy reduction, recovery, and reuse,
* Wastewater and effluent treatment prior to discharge
* Quantitative biodiversity metrics for flora and fauna, and improved allocation approaches for setting corporate science-based targets in line with global climate targets

**Applications and implications of machine learning (ML) and artificial intelligence (AI) to materials discovery for environmental sustainability, product advancement, circularity enhancement and sustainability in the chemical industry:**

Solutions in the circularity space encompass material, design, and system dimensions. Approaches to evaluate material and product circularity are particularly of interest, particularly those that incorporate first principles and simulation-based tools. Systems-level initiatives that cut across industries or lead to reduced carbon emissions are also relevant. Proposed solutions include but are not limited to

* Novel computational and experimental approaches to accelerated materials discovery.
* Leveraging AI/ML to mitigate the chemical industry's environmental impact, streamline processes, boost energy efficiency, and minimise waste.
* Promise for tackling climate and sustainability challenges in the chemical industry.
* Devising strategies to lessen the ecological footprint of AI/ML technologies themselves.

Any topic of innovation relevant to SCGC but not covered in the topics listed above.

## **Introduction to SCG Chemicals Public Company Limited (SCGC)**

SCGC, a wholly-owned subsidiary of the [Siam Cement Public Company Limited (SCG)](https://www.scg.com/en/about-scg/business-purpose) located in Thailand, is one of the largest integrated chemical companies in Asia and a key industry leader. As such, it strives to become a “*Chemicals Business for Sustainability*”, responsibly addressing the impact of its business on the environment and society while adhering to a commitment of transparent and fair governance of its operations.

SCGC recognises the importance of [the circular economy](https://www.scgchemicals.com/en/sustainability/environment/circular-economy) as one of the keys to delivering on its [ESG targets](https://www.scgchemicals.com/en/sustainability/sustainability-approach/esg-target), with the concept having been introduced to its business operations to increase global competitiveness and [long-term sustainable growth](https://www.scgchemicals.com/en/articles/stories/1687243418).

## **Support** **Scheme**

SCGC-FIRST is looking to sponsor projects which may run for up to 12 months. There is no fixed budget cap per project; funding will be considered on a case-by-case basis, depending on the scope, ambition, and potential impact of the proposed research. However, the expectation is that awards will be in the range of £90-100K. Applicants are encouraged to discuss their ideas with the SCG–Oxford University Centre of Excellence [Alliance Manager](mailto:gulcin.avul@chem.ox.ac.uk) during the preparation stage.

## Dates for SCGC-FIRST Call

**Call Open:** Wednesday, September 17, 2025

**Application Deadline:** Friday, October 31, 2025

# **Funding Terms & Conditions**

## Eligibility:

## You will need to meet the following criteria to apply:

* PIs must be Oxford University academic staff holding a contract of employment extending to at least the end of the proposed project and be hosted by a department of the University.
* Applications from Early Career Researchers who hold independent externally funded fellowships must have their fellowship funding extending to at least the end of the proposed project.
* Applicants seeking to establish independent research careers are encouraged.

## You are not eligible to apply if you are:

* Researchers holding honorary, visiting positions, and PDRAs.

## Additional notes on eligibility:

Applicants should clarify their eligibility with departments, and departmental approvers are required to check the eligibility of their applicants before advancing any applications.

## Application Review Process:

All proposals will be subject to confidential peer review. The SCGC-FIRST Prioritisation Panel will be chaired by the Director of the SCG-Oxford Centre of Excellence (CoE), [Prof Dermot O'Hare](https://scgcoe.mpls.ox.ac.uk/people). The review panel will include the MPLS Head of Division, relevant Heads of Department, a representative from Oxford University Innovation, and the Chief Technology Officer (or nominee) of SCG Chemicals. The Panel reserves the right to seek additional expert opinion on a confidential basis if required. Oxford researchers supported by the SCGC-FIRST will be invited to meet SCGC staff when they visit Oxford to outline and discuss their projects.

## Assessment Criteria:

Awards will be assessed against the following criteria:

* Excellence and intrinsic merit of the innovative idea or concept
* Potential for realisable outcomes and long-term impact to SCGC and society
* A clear science-based, time-bound plan to achieve the project aims

## IP Rights

The University will own any IP that arises as a result of support from the SCGC-FIRST. SCGC will have rights of first refusal to take an exclusive option of the arising IP generated by the SCGC-FIRST and to support further research under their pre-existing Framework Collaboration Agreement (FCA2.0) within six months of the completion of the project. This additional support would be a separate collaboration agreement between Oxford University and SCGC.

## National Security and Investment Act (NSIA)

SCGC acknowledges that the Arising Intellectual Property from each Project and any licence granted further to the Arising Intellectual Property may be a qualifying acquisition within scope of the National Securities and Investments Act 2021 (the “NSIA”), under which the UK Government could exercise its powers to make an order to void and invalidate any licence granted. As the acquirer of such an asset, SCGC will comply with the NSIA and consider all steps necessary to mitigate the risk of an acquisition being called in, including where appropriate by making a notification to the Investment Security Unit of the UK Government ahead of any licence being concluded.

## The project final report and financial statement

At the end of each project, the project team has one (1) month to submit a short account of the outcomes, publications, project highlights, and a financial statement. The project report and financial statement will be submitted to MPLS Division, reviewed by Prof Dermot O’Hare or his nominee, and then forwarded to the Vice President and Chief Innovation Officer, SCGC.

Oxford researchers should acknowledge support from the SCGC-FIRST in any scientific papers, trade articles or presentations that arise directly from the award. Follow-on projects that build upon the project should continue to acknowledge SCGC-FIRST alongside any additional sponsorship.

# **Costing an application**

All proposals must be accompanied by a proposed budget prepared using X5, with the budget details output onto the X5 Admin output (AO). In addition, the MPLS Division requires evidence of departmental approval by the Head of Department for each costing (so this must be obtained for all the departments involved in an internal collaboration).

* All proposed investigator(s) need to seek approval from their respective Head of Department(s) (or nominee(s)).
* A trial costing should be created in X5, using the funder **SCGC-FIRST** (short name SCGC-F) and the **Generic** scheme. The Excel output must be attached. Investigator can be named in both proposal and in the X5 if necessary.

Please contact your department’s finance officer for a proposed budget prepared using X5. See [**Costing Guideline for Finance Officers webpage**](https://www.mpls.ox.ac.uk/research-funding/internal-research-funding/scgc-first/scgc-first-costing-guidelines-for-departments2019-finance-office) for details.

Applicants should compile their Case for Support (Word file) together with the X5 budget form (Excel file) into a single PDF document for submission. The University provides Tungsten (formerly Kofax) Power PDF Advanced, which can be used to combine files into one PDF.

## Costing the Proposal

Awards will be made only for the directly incurred (DI) costs of research and DA Estates: Any unspent balances at the end of the grant period should be returned to the fund.

For clarity, the following costs are allowable:

**Directly Incurred costs (DIC) (staff and non-staff):**

* Salaries of postdoctoral researchers (full- or part-time)
* Consumables
* Minor equipment (equipment with a value of £10,000 or more would require clear justification)

**Directly Allocated costs (DA)**

* Estates costs

***Not Allowed****:*

* Department overheads
* DA infrastructure technicians
* Principal Investigator and Co-Investigator’s time
* Honoraria
* Travel to conferences
* Students stipends

**Do to the short term nature of the scheme and other considerations, this funding cannot be used to support (in part) graduate students.**

*Note: The visa process for employing a PDRA without a current visa (right to work) can take approximately 3-4 months, so please take that into consideration when setting project start dates. To ask advice please get in touch with your department’s HR office or [the University Staff Immigration Service](https://staffimmigration.admin.ox.ac.uk/)*

*Any unspent balances at the end of the grant period should be returned to the fund.*

**6.2 Start date guidance**

PIs may include the name(s) of any researcher(s) they plan to recruit onto the project if successful, along with their visa status. If a new recruitment process is required, our advice is to cost the project on the basis of a start date of 1 April 2026 to allow sufficient time for the HR process and any visa applications. Please discuss this costing with the relevant Finance and HR officers in your department.

# **How to Apply**

Applications for SCGC─FIRST funding should be made through the online [Internal Research Awards Management System (IRAMS)](https://irams.ox.ac.uk/), which can be accessed using your Single Sign-On (SSO) details. Once you are logged in, please choose the correct from the list to start your application. For the correct scheme, search “SCGC-FIRST”. If required, IRAMS guidance in the form of [quick reference guide (QRG) documents for applicants](https://unioxfordnexus.sharepoint.com/sites/ADMN-UASMosaicDocumentHub/Research%20Services/IRAMS_applicant_QRG.pdf?cid=d60c2f23-5e6e-4e75-b313-92e691384396) can be found on the [Research Support](https://researchsupport.admin.ox.ac.uk/applying/howto/irams) pages.

Applications must be reviewed online by departmental approvers and, where approved, submitted for review by the SCGC-FIRST Prioritisation Panel before **on Friday, 31 October 2025**.

# **Enquiries**

Please email [scgcfirst@mpls.ox.ac.uk](mailto:scgcfirst@mpls.ox.ac.uk) and/or Ms Gulcin Avul [gulcin.avul@chem.ox.ac.uk](mailto:Gulcin.avul@chem.ox.ac.uk) with any enquiries.

*If you have a potentially impactful project* *that falls within SCGC’s research areas but does not fit with the SCGC-FIRST, please reach out* [*the SCG-Oxford Centre of Excellence*](mailto:scgcfirst@mpls.ox.ac.uk) *and/or* [*SCGC-Alliance Manager*](mailto:gulcin.avul@chem.ox.ac.uk).

1. **Notification**

The SCGC-FIRST Prioritisation Panel aims to meet in the 1st week of December 2025 to review the proposal. We hope to announce the awardees in late December 2025.