GW4 BUILDING COMMUNITIES FUND GUIDANCE
1. BACKGROUND

The GW4 Alliance brings together four of the most research-intensive and innovative universities in the UK: Bath, Bristol, Cardiff and Exeter. Its vision is to develop pioneering, collaborative endeavours to drive innovation and economic growth across the Great West region.

The GW4 Building Communities Programme aims to build research communities of scale and capability that will deliver a step change in world-class research that could not be achieved by one of the institutions alone. GW4 seeks to work across all areas of academic activity, opening up new opportunities for collaborative research; to develop shared research infrastructure, equipment and other resources; to seek joint capital investment; postgraduate training partnerships; joint appointments; and staff leadership and development initiatives.

The Building Communities Programme supports both new and existing GW4 research communities to collaborate and develop new lines of academic enquiry.

These communities can be in any area of academic endeavour with the purpose of addressing a major research or societal challenge and should look to engage both academic and external partners. The Building Communities Programme has a limited amount of resources and is highly competitive. Awards will only be offered to outstanding projects that meet all the assessment criteria. For information on previously successful projects please see our website [here](#).

**PLEASE NOTE:**

- This is the second call for the Building Communities Generator Fund. Generator Awards have replaced the previous Initiator and Accelerator Awards.

- Generator Awards aim to support both the creation of new GW4 communities and the development of the strongest ideas emerging from our existing communities.

- The call is open to communities in any area of research and applications from Early Career Research (ECR) communities are particularly welcome.

- In response to current government initiatives, the panel also wishes to encourage applications with a focus on the following funding opportunities:
  - The Global Challenges Research Fund (GCRF) with efforts centred on Official Development Assistance (ODA) compliant activity; please refer to the additional guidance in [Annex One](#).
  - The Industrial Challenge Strategy Fund (ISCF); please refer to the additional guidance in [Annex Two](#).
  - Net Zero, please refer to the additional guidance in [Annex Three](#).

- This round of funding is not limited to addressing these initiatives.

- For general application pitfalls and top tips please refer to [Annex Four](#).
2. THE AIMS OF THE GW4 BUILDING COMMUNITIES PROGRAMME

- To support enabling activities that bring together communities of academic staff with excellent and complementary expertise and capability.
- To address research questions with potential for high impact that could not be carried out by any single institution.
- To facilitate exploration of novel research concepts to a point at which significant external funding can be sought.
- To promote and facilitate ground-breaking interdisciplinary research.
- To demonstrate clearly the added value of the GW4 collaboration.

3. GUIDELINES

Currently the GW4 Building Communities Programme offers only one funding stream; the Generator Fund (GF), to which this guidance applies.

Research communities may apply to the Generator Fund from any area of academic endeavour, including the arts, humanities, social science, experimental and theoretical science, engineering and medicine. Interdisciplinary research is explicitly encouraged. In addition, we particularly welcome applications from ECR communities as well as those with a focus on the Global Challenges Research Fund (GCRF), the Industrial Challenge Strategy Fund (ISCF) and, new for this round, those with a Net Zero Focus.

3.1 GW4 GENERATOR FUND

- This funding is for community building activities that enable:
  a) new, or previously informal, communities to come together to scope and refine research ideas and identify potential collaborators.
  b) existing GW4 communities to explore an identified opportunity that could be a new area of inquiry, and/or preparation for a specific funding stream.
- Generator funding is available for workshops, sandpits or other community building activities that enable communities to scope and refine research ideas and identify and engage potential collaborators.
- Generator funding is also available for pump priming activities with the potential for sustainable, step-change collaborations and research that engage both academic and external partners.
- Generator funding can be used as a stand-alone award or in conjunction with other sources of funding.
- The expectation is for most communities to use the Generator Fund as a step towards applying for external funding.
- Applications up to a maximum £20k are invited.
- Eligible costs are travel and subsistence, consumables, meeting costs, research assistant support, external speakers or facilitators, equipment (small purchases only, justifiable in line with project deliverables) venue and catering costs, and administration support (up to a maximum of 10% of the award value and only where fully justifiable within the context of the proposal).
- Ineligible costs include academic salaries, studentship fees, internal research facilities costs and other indirect costs.
- We encourage budget to be entirely held at the Lead (PI’s) Institution. We will allow budget to be split across institutions if required, but budget allocated to Col Institutions should only be for workshop expenses, staff salary expenditure etc – i.e. only things that cannot be claimed as an external expense. Therefore, budget for staff expenses (such as travel, accommodation, etc) should all be held at the Lead Institution andCols should claim as an external or the Lead Institution should book and pay for these.
- The Lead Applicant will be responsible for all arrangements for any events, activities and participation.
- All funded applications will be promoted via the GW4 website and GW4 portal.
All Generator funded activities are expected to be completed in a six-month period, starting 1st June 2021. Variations from this will be considered but only where this is fully justified within the context of the project.

Leads should discuss their application with their University’s research support team. In addition, applicants are welcome to contact their institutional GW4 Programme Manager\(^1\) to discuss potential applications and are encouraged to talk to the BC Project Manager with specific queries.

3.2 ALL APPLICATIONS MUST:

I. Articulate which global challenge area/areas the community will most closely address. This will be used for tracking, rather than assessment purposes. GW4 recognises research contributes to the following global research challenges (as acknowledged by the ERC and other major funders):

**Global Research Challenges**

1) Health, demographic change and wellbeing.

2) Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the bioeconomy.

3) Secure, clean and efficient energy.

4) Smart, green and integrated transport.

5) Climate action, environment, resource efficiency and raw materials.

6) Inclusive, innovative and reflective societies.

7) Secure societies - protecting freedom and security of nations, society and citizens.

8) Living in a digital world.

9) Advanced materials.

10) Social justice and inequality, local and global.

II. Involve at least three GW4 institutions, with communities involving all four partners preferred. Where fewer than four are involved this will need to be fully justified. Each GW4 institution has a GW4 Programme Manager\(^1\) who can help put you in touch with appropriate partners.

III. Articulate and evidence the added value of working across GW4. This may be in terms of capacity and capability building, complementarity or synergy of expertise, new interdisciplinary groupings, academic endeavours and the ability to attract external funding.

IV. Previous successful applications, from former funding schemes (Initiator, Accelerator, and Generator) may be reviewed by contacting your GW4 Programme Manager\(^1\). Please note Initiator and Accelerator applications are not directly translatable. For information on previously funded GW4 projects please see our website here.

4. ADDITIONAL GUIDANCE

For further guidance on how to complete your application form, refer to Section Ten and **Annex Four**.

GW4 is committed to supporting Early Career Research (ECR) communities that are building capacity and capability for leadership. If yours is an ECR collaboration (i.e. any of the team are ECRs), please indicate this, as directed, on the application form.

GW4 is committed to supporting all research disciplines equally. To aid the assessment process, please ensure your application clearly justifies the scope of your proposed activities, outputs and

\(^1\) GW4 Programme Managers:

BATH Richard Hocking [R.J.Hocking@bath.ac.uk](mailto:R.J.Hocking@bath.ac.uk)

BRISTOL Valerie Aspin [valerie.aspin@bristol.ac.uk](mailto:valerie.aspin@bristol.ac.uk) & Sam Lambshead [sam.lambshead@bristol.ac.uk](mailto:sam.lambshead@bristol.ac.uk)

CARDIFF Kate Pattern [PattenK1@cardiff.ac.uk](mailto:PattenK1@cardiff.ac.uk)

EXETER Charlie Lane [C.Lane@exeter.ac.uk](mailto:C.Lane@exeter.ac.uk)
outcomes within the context of your discipline norms.
If your application has a focus on the GCRF (ODA compliance), ISCF or Net Zero research please refer to the additional guidance in Annexes One, Two and Three and discuss this on the application form, as directed. Otherwise, please disregard this section of the application form.

5. REPORTING
Following the end of an award, communities are expected to complete a Community Tracking Form and End of Award Report on the GW4 portal. Full portal access and training will be provided. Communities will also be expected to participate in evaluations and updates, and promotional and communication events, as appropriate, during their funding and following the end of their award.

6. APPLICATION PROCESS
All Lead applicants are expected to speak to their University research support team in advance of applying, with particular reference to providing accurate costings.
Applicants are to complete the Generator Application Form and submit to communities@gw4.ac.uk by 8th February 2021.

7. MONITORING AND EVALUATION OF GW4 BUILDING COMMUNITIES PROCESSES
 Assessment
Applications will be assessed and considered by the GW4 Building Communities Panel and taken to the GW4 Board for formal approval. Applicants will be notified of their outcome in early April 2021.
The Building Communities Panel consists of academics selected equally from across the four GW4 institutions, balanced across discipline area and career stage and supported by processes that ensure assessment is undertaken independently and objectively against fund criteria. The Panel is chaired by GW4 Board Chair, Professor Jonathan Knight.

Equality, Diversity and Inclusion (EDI)
GW4 is committed to supporting a positive and inclusive culture and embedding best practice. The Building Communities Programme provides equality of opportunity and actively encourages applications from academics across all career stages (including ECR) and backgrounds. Our review processes are monitored to ensure fairness, and wherever possible, diversity. We collect and analyse our applications to monitor the balance between STEMM and HASS discipline areas and gender (data available on request) and EDI data will be collected from round 2 of the Generator Fund (please note that providing this information is optional, see the Generator Application Form for further information).

Integrity, Ethics, Open Access
GW4 institutions are committed to research of the highest quality, with ethics and integrity at its core. Our research is governed by our institutional policies for research ethics, and supported the principles of open access for research publications and data. The Building Communities Programme processes are subjected to an ongoing programme of review and strengthening to ensure they remain robust and transparent.

8. PREPARATION
Applicants should ensure that activities are planned and scheduled so that in the event of an award, activities can be undertaken rapidly. We expect projects to be completed within a 6-month timescale, starting two months after award notice to allow for project preparation and for budgets and paperwork to be in place. Note that should COVID-19 restrictions still be in place, activities should still run in a digital environment – extension requests due to COVID-19 will require full justification to the GW4 board and are unlikely to be granted.
Extended project timelines may be considered by the Building Communities Panel but only where they are fully justified and proportionate to the scope of the project.
9. FEEDBACK AND RESUBMISSIONS
Please note that feedback on applications is limited and resubmission is by invitation only.
## 10. **ASSESSMENT CRITERIA FOR GENERATOR FUNDS**

This guidance has been drawn up to assist applicants when completing their Generator application forms. The purpose is to explain the type of information and evidence required to satisfy the assessment criteria.

<table>
<thead>
<tr>
<th>Assessment Criteria</th>
<th>Type of Evidence Required</th>
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<tbody>
<tr>
<td><strong>1. Strategic Fit</strong></td>
<td>This criteria draws on the assessment and scores of the following three criteria. This determines the overall fit of the proposal to the aims of the Building Communities Programme.</td>
</tr>
<tr>
<td><strong>1A. Step change</strong></td>
<td>Clear statement about why potential outcomes and impact (e.g. multidisciplinary, capability and capacity, unique and distinct opportunity) from the proposed research is only possible, or significantly enhanced, as a result of it being undertaken by a GW4 community rather by an individual academic or institution. Where appropriate, use baseline data to explain why your proposal represents a step-change in your research area.</td>
</tr>
<tr>
<td><strong>1B. Outcomes: leveraging funding and publications</strong></td>
<td>Anticipated or actual plans for how the community will leverage external funding as a direct result of this award. Where possible:</td>
</tr>
<tr>
<td></td>
<td>(1) provide specific information to evidence the estimated value of bids, how and when they will be written, to whom and when they might be submitted</td>
</tr>
<tr>
<td></td>
<td>(2) make specific reference to high quality publications, conference papers, policy documents/reports or other to be written as a direct result of the award; to whom they might be submitted and by when.</td>
</tr>
<tr>
<td><strong>1C. Creating Impact</strong></td>
<td>Communicates how it is anticipated this award will create impact to benefit each of the GW4 institutions as well as the wider society at a local, national, international level. What is this potential impact (academic and non-academic), when might it be felt and what plans are in place to help achieve this?</td>
</tr>
<tr>
<td><strong>2. Award Delivery</strong></td>
<td>This criteria draws on the assessment and scores of the following three criteria.</td>
</tr>
<tr>
<td><strong>2A. Project team</strong></td>
<td>The application provides clear details about the strength of the research team to mobilise a new, or develop an existing, community to collaborate and effectively deliver award activities and outputs on time and within budget, putting in place plans to sustain the community in the longer term. Note key aspects such as previous experience as well as proposed team structure and breadth - for example, leadership, anticipated roles and responsibilities, ECR elements, multidisciplinary.</td>
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<tr>
<td><strong>2B. Sustainability of the GW4 community</strong></td>
<td>Application outlines mechanisms that enable the GW4 community created through this funding to stay connected and operational in the long term. Communicates how the momentum of bringing together so many interested parties for the purpose of producing quality GW4 research can be sustained in the long term</td>
</tr>
<tr>
<td><strong>2C. Value for money</strong></td>
<td>The application clearly justifies a realistic budget, aligned with the proposed activities and anticipated outcomes, and able to deliver</td>
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significant success towards the aims of the Building Communities Programme.

<table>
<thead>
<tr>
<th>NON SCORING CRITERIA TO CONSIDER</th>
<th>This criteria is encouraged but is not an explicit requirement of this funding call.</th>
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</thead>
<tbody>
<tr>
<td>ECR and GCRF/ISCF/Net Zero fit</td>
<td>If appropriate, indicate if yours is an ECR community and explain why you feel this to be a factor of success and/or how you will use this to develop additional skills such as leadership. What activities, such as mentoring, will support this?</td>
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<tr>
<td></td>
<td>If appropriate to your research:</td>
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<td></td>
<td>- <strong>GCRF</strong>: Clear demonstration of how the proposal meets the requirements of GCRF, specifically on ODA compliance. The project should articulate how it promotes the economic development and welfare of developing countries, specifying outcomes that focus on building capacity, promoting long-term sustainable growth of countries on the DAC list and gender equality. For more guidance see Annex One.</td>
</tr>
<tr>
<td></td>
<td>- <strong>ISCF</strong>: Clear demonstration of how the proposal fits within ISCF Grand Challenges and the published challenges for Wave 1, 2 and 3. The project should articulate how GW4 funding will help the community to deliver a step-change in the UK’s ability to turn research strength into commercialised products. For more guidance see Annex Two.</td>
</tr>
<tr>
<td></td>
<td>- <strong>Net Zero</strong>: Clear demonstration of how your research community will contribute to the global response to tackle the Net Zero challenge. For more guidance see Annex Three.</td>
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Previous successful applications (Initiator, Accelerator and Generator) may be accessed by contacting your GW4 Programme Manager. Please note Initiator and Accelerator applications are not directly translatable.

**GW4 Programme Managers:**
BATH Richard Hocking R.J.Hocking@bath.ac.uk
BRISTOL Valerie Aspin valerie.aspin@bristol.ac.uk & Sam Lambshead sam.lambshead@bristol.ac.uk
CARDIFF Kate Pattern PattenK1@cardiff.ac.uk
EXETER Charlie Lane C.Lane@exeter.ac.uk

**11. TIMELINE—GW4 GENERATOR FUND ROUND TWO**

<table>
<thead>
<tr>
<th>Call Open</th>
<th>30th Nov 2020</th>
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<tbody>
<tr>
<td>Call Close</td>
<td>8th Feb 2021</td>
</tr>
<tr>
<td>Review Panel</td>
<td>Week commencing 8th March 2020</td>
</tr>
<tr>
<td>Notification of Awards</td>
<td>Early April 2021</td>
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<tr>
<td>Project period</td>
<td>1st June 2021 – 30th November 2021 (expected)</td>
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</table>
ANNEX ONE: GCRF Additional Guidance

What is the GCRF?

The Global Challenges Research Fund (GCRF) is a £1.5bn funding stream, created to address critical challenges faced by developing countries. It forms part of the Government’s pledge to allocate 0.7% of Gross National Income to Official Development Assistance (ODA). ODA-funded activity focuses on the long-term sustainable growth of countries on the OECD Development Assistance Committee (DAC) list. The primary aim of proposed activity must be to promote the welfare and economic development of a country or countries on the list, be designed to address a development need and focus on developing country problems. Importantly, GCRF funding will be awarded in a manner that fits with Official ODA guidelines. (See also UKRI GCRF and ODA Guidance).

GCRF Challenge Areas

Central to the GCRF are 3 core global challenge areas, created with reference to the UK Aid Strategy and the UN Sustainable Development Goals (SDGs), which define the fund’s focus for research funding. They are:

**Equitable Access to Sustainable Development**

- Secure and resilient food systems supported by sustainable marine resources and agriculture.
- Sustainable health and wellbeing.
- Inclusive and equitable quality education.
- Clean air, water and sanitation.
- Affordable, reliable and sustainable energy.

**Sustainable Economies and Societies**

- Sustainable livelihoods supported by strong foundations for inclusive economic growth and innovation.
- Resilience and action on short-term environmental shocks and long-term environmental change.
- Sustainable cities and communities.
- Sustainable production and consumption of materials and other resources.

**Human Rights, Good Governance and Social Justice**

- Understand and effectively respond to forced displacement and multiple refugee crises.
- Reduce conflict and promote peace, justice and humanitarian action.
- Reduce poverty and inequality, including gender inequalities.

**How will Generator applications be assessed in relation to the GCRF criteria?**

Generator Awards are limited to £20k and six months’ duration and therefore, the expectation is not that communities will have developed full GCRF proposals in this time period, rather that they will have explored collaborative research ideas in line with GCRF priorities and ODA compliance so as to be strongly positioned to leverage this funding.
**GCRF Contextual Guidance**

In line with the GCRF’s objectives, applications should focus on one or more GCRF challenge areas, demonstrating how development challenges often arise from the intersection of more than one challenge area. The main aim of projects must be to explore joint disciplinary and interdisciplinary research priorities that have the potential for significant direct impact on the welfare and economic development of developing countries. Wherever possible, applications should be clear about the social and economic benefit to a particular country on the DAC list (or more than one country where similar development challenges are experienced). Applications should justify the choice of country/countries of focus by providing sufficient detail about the developing country context and the ongoing development challenges being experienced.

Additionally, applications should articulate consideration for capacity and capability strengthening and partnership building both within the UK and developing countries. Projects which align with GCRF should make clear, wherever possible, the collaboration of activities and expertise with developing country partners. The scale of the project proposed will determine the appropriate level and type of involvement of developing country partners. However, it is expected that developing country partners will have a role to play in the project (for example: development of research questions, research expertise, facilitation of research activity in local context, capacity building activities). For further information on the GCRF, please see [UKRI GCRF](https://www.ukri.org/)

**ODA**

ODA compliance is a critical and implicit part of successful GCRF applications. Simply, to be ODA compliant, proposals need to promote the economic development and welfare of one or more DAC listed developing countries as its main objective. DAC maintains strict criteria on how this should be done, requiring projects to identify critical development needs, encourage sustainable impact, build capacity and capability within the involved countries, and avoid excluded activities (military activity, among others).

Applicants will be expected to have read and understood the ODA guidance and be able to clearly articulate the project’s intention to undertake activities that will explore and identify collaborative research priorities that are ODA compliant. Further information on ODA guidance can be found [here](https://www.gov.uk/). 

**Gender Equality**

It is mandatory for all applications to UKRI GCRF and Newton Fund calls/competitions to provide a Gender Equality statement. This statement must outline how applicants have taken meaningful yet proportionate consideration as to how the project will contribute to reducing gender inequalities, as required under the International Development (Gender Equality) Act. Further information and guidance about Gender Equality in international development can be found [here](https://www.gov.uk/).

**Compliance Table**

This table is a significantly simplified version of the numerous criteria used to assess GCRF compliant proposals and will be used during assessment to help determine the strength of your proposal in line with the GCRF criteria.
GCRF Considerations

1. Is the proposal working for the development of DAC listed countries?
2. Is the application ODA compliant and free from any activity excluded under ODA?
3. Does the project address the economic development and welfare of the country in question as the main objective?
4. Does the application respond to one or more GCRF challenges, and an urgent research need?
5. To what extent does the application recognise and plan for the need to develop capacity building*, both in the UK and the target country/ies?
6. Are proposed activities with developing country partners collaborative; where projects, objectives and expertise are co-created and equitable?

*Capacity building activities are integral to successful GCRF research projects. The expectation is that Generator applications should articulate clear, well thought through plans for capacity building, although it is appreciated that implementation of these plans is not likely to occur during the six-month award period. If you require more help in relation to GCRF please contact your local GW4 Programme Manager who will put you in contact with your local GCRF experts.
ANNEX TWO: ISCF Additional Guidance

What is the Industrial Strategy Challenge Fund (ISCF)?
The ISCF, part of the UK government’s Industrial Strategy, is a major new support initiative for UK businesses and researchers. It is part of the government’s commitment to invest a further £4.7 billion in UK research and development over the next four years.

The fund will invest in science and innovation challenges, to meet the demands and opportunities of UK industry, where the UK has the potential to turn strengths in research into a global industrial and commercial lead. Ten challenge areas were initially identified and six of these have been confirmed for significant investment. In order to ensure all opportunities are explored, GW4 are highlighting all of the ten original challenge areas. A further 250 smaller projects have received funding to a combined value of £100m over the next few years. These were chosen by Innovate UK from a diverse pool of previously submitted proposals that were not initially funded.

Whilst the area is developing, the GW4 Alliance is keen to encourage communities to consider the ISCF as a robust channel for development with partners, in order to position themselves to fully benefit this area of investment in the future.

ISCF has been discussed by regional LEP’s and the Cardiff Capital City Region with a view to encouraging universities within the region to work together on geographically important challenges, building on our collective research and industrial strengths and opportunities, and the Science and Innovation Audit.

How is the ISCF being administered?
The fund is being administered by Innovate UK and Research Councils under the new operational body of UK Research and Innovation (UKRI). It focuses on translational research TRLs 3-6, not all funds are open to Universities but all calls require collaboration with a focus on multidisciplinary approaches. The calls often have short timeframes of approx. 7 weeks.

ISCF Challenge Areas
The ISCF aims to bring business and academia together to undertake research tackling core industrial challenges, to unlock markets and future industries in which the UK can become world-leading. The funding allocations are designed to help deliver a step-change in the UK’s ability to turn research strength into commercialised products. Further information relating to the Wave 1 and Wave 2 Challenges can be found on the UKRI website here. Wave 3 Challenges were announced in July 2019, details of these can be found on the UKRI’s website.

ISCF Wave 1 Challenges
Through work with academics and industry the government identified six key areas for investment over four years, these represented Wave 1 of the ISCF:

1. Clean & flexible energy or the ‘Faraday Challenge’ £246m will be invested to help UK businesses seize opportunities in the transition to a low carbon economy, to ensure the
UK leads in the design, development and manufacture of batteries for the electrification of vehicles.

2. Cutting edge healthcare and medicine £197m will be invested in the development of first-of-a-kind technologies for the manufacture of medicines that will speed up patient access to new drugs and treatments.

3. Robotics and artificial intelligence (AI) £93m will be invested in the development of AI and robotics systems for deployment into extreme environments (offshore and nuclear energy, space, and deep mining) to make industry and public services more productive.

4. Driverless cars £38m will be invested in new collaborative research and development projects to develop the next generation of AI and control systems required to ensure the UK is well-placed to lead development of driverless care technologies.

5. Manufacturing and future materials £26m will be invested in the UK’s civil aerospace industry to develop the next generation of affordable, light-weight composite materials for aerospace, automotive and other advance manufacturing sectors.

6. Satellites and space technology £99m will be invested in the provision of a facility to support new technologies for satellite launch, manufacture and testing.

ISCF Wave 2 Challenges

In November 2017, the Government released its White Paper on the Industrial Strategy. This contains further details relating to the ISCF and BEIS plans to invest £725m over four years in the following new programmes. These represent Wave 2 of the ISCF.

1. Transforming construction Up to £170 million, matched by £250 million from industry, will be invested to create new construction processes and techniques, such as the development of standardised modular components from which buildings can be manufactured.

2. Data to early diagnosis & precision medicine Up to £210 million will be made available to industry and researchers to improve how we use data to support earlier diagnosis and the development of precision medicine.

3. Transforming food production Up to £90 million of funding is available to help businesses, researchers and industry to transform food production, meet the growing demand and move towards net zero emissions by 2040.

4. Next generation services £20 million of funding has been allocated to projects exploring how new technologies could transform the UK accountancy, insurance and legal services industries.
5. **Energy revolution** The government will invest up to £102.5 million in industry and researchers to develop smart systems that can support the global move to renewable energy.

6. **Healthy aging** Up to £98 million will be invested in research and innovation that supports people as they age, while also helping those that care for them.

7. **Audience of the future** Up to £33 million is being invested in businesses and researchers to develop new products and services that exploit immersive technologies.

8. **Quantum technologies** Government is investing £153 million funding through the Industrial Strategy Challenge Fund (ISCF). This funding will also be supported by £205 million from industry.

**ISCF Wave 3 Challenges**
Details of the most recent list of Challenges under Wave 3 have now been made publicly available, these are as follows:

1. **Manufacturing Made Smarter** UK manufacturers wanting to adopt the latest digital technologies will be able to bid for a new £30 million R&D competition through the government’s modern Industrial Strategy.

2. **Driving the Electric Revolution** This is an £80m investment to help develop the next generation of electric vehicles, investment which could also help develop new hybrid aircraft.

3. **Smart Sustainable Plastic Packaging** Businesses are expected to jointly invest up to £149m, alongside a £60m government investment, to help fight the global battle against single use plastics.

4. **Digital Security by Design** Up to £117m expected private industry investment will be combined with £70m government investment through ISCF to develop new technologies against cyber threats.

5. **Accelerating Detection of Disease** Businesses and charities are expected to jointly invest up to £160m, alongside a £79m government investment, as part of the Accelerating Detection of Disease programme.

6. **Industrial Decarbonisation** £170m will be invested and will help work towards deploying technologies like carbon capture and hydrogen networks in industrial clusters to support our mission to establish the world’s first net zero industrial cluster by 2040.
**Industrial Strategy Grand Challenges**

There are to be four Grand Challenges which underpin the Strategy. These have been identified as where the UK is already an established world leader:

1. AI and data revolution
2. Clean growth
3. The future of mobility
4. Meeting the needs of an ageing society

The diagram below illustrates how the ISCF Waves 1&2 Challenges fit with Industrial Strategy Grand Challenges.
ANNEX THREE: Net Zero Additional Guidance

**What is Net Zero?**

*The Challenge:*

*How can we, as a society, live differently and better to meet the urgent need for rapid and far-reaching emission reductions?*

Even before COVID-19 highlighted the need to ‘build back better’, the climate crisis has been the largest enduring global, anthropogenic threat to humanity. Without successful interventions dedicated to supporting transformations towards net-zero emissions, climate change will have a catastrophic effect on society. The GW4 Generator Fund Round 2 would like to encourage research communities to come together to generate innovative, multifaceted responses to tackle this global challenge.

**What does this mean for your application?**

It is accepted that this will require multidisciplinary investigations – the mapping out systems, behaviours, tipping points and technologies, harnessing the expertise of anthropologists through to zoologists to bring about the transformative change necessary to achieve net zero. Therefore, the Generator Fund Round 2 will support collaborations between GW4 academics across a broad range of disciplines from the natural and political sciences to the arts, humanities, and creative sectors: any community with interest in or expertise applicable to research into achieving net zero should make this clear in their application.
**ANNEX FOUR: Pitfalls and Top Tips for Completing your Generator Application Form**

<table>
<thead>
<tr>
<th>Pitfall 1: Added value of GW4: failing to articulate, and therefore persuade the panel, of the added value of your GW4 partnership.</th>
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<tbody>
<tr>
<td><strong>Top Tip 1:</strong> discuss with your community – what can be achieved as a GW4 collaboration that could not be achieved as a single institution? Your answer needs to be strongly and clearly articulated in the application and evidenced where appropriate.</td>
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<tr>
<th>Pitfall 2: Step-change: failing to envisage and articulate the potential step change that can be achieved through your GW4 community.</th>
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<tbody>
<tr>
<td><strong>Top Tip 2:</strong> this connects to Top Tip 1, linking the added value of your GW4 partnership to the step-change made possible by the unique resources available through the GW4 Alliance i.e. what will you do differently: academics, infrastructure, training, external partners etc.</td>
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</tbody>
</table>

The panel appreciates that there are different working methods and discipline norms between STEMM and HASS discipline areas, so ensure you explain how the activities and anticipated outcomes proposed represent a step-change relative to the norms for your discipline area, and your research team (for example if you are an Early Career Researcher community). |

<table>
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<tr>
<th>Pitfall 3: Leveraging external funding, publications, other outcomes and impact: panel members are often not persuaded on the application’s value for money in relation to this. They are looking for clear anticipated outcomes and impact and realistic, cost-effective plans to achieve them.</th>
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<tbody>
<tr>
<td><strong>Top Tip 3:</strong> where appropriate, include specific details of any potential external funding sources that can be leveraged (anticipated values, submission deadlines and delivery plans). Provide a similar level of detail, where possible, for other anticipated outcomes e.g. high-quality publications, conference papers, policy documents, reports, staff development activities, broadening and strengthening the community.</td>
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<th>Pitfall 4: Sustainability – applications fail to articulate how the momentum and successes achieved during the award will be sustained in the longer term.</th>
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<tr>
<td><strong>Top Tip 4:</strong> outline an anticipated sustainability plan. Provide clear ideas to how you will keep the community active following the end of the award such as further team meetings, relationship building with key external partners, leveraging funding, expanding the network, raising the profile and influence of the community both internally and externally.</td>
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<th>Pitfall 5: Assessment criteria and language – applications can be difficult to assess where they fail to include sufficient clear, concise and relevant information in relation to each of the fund criteria or are written in overly complicated, technical language.</th>
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<tr>
<td><strong>Top Tip 5:</strong> Enhance your application by reading the Guidance and contacting your GW4 Programme Manager for advice and examples of previously successful applications. Check your application can be understood by someone from another discipline or consider consulting a senior colleague.</td>
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<th>Pitfall 6: Fit to GCRF Criteria (for GCRF related applications only – non-scoring criteria) – failing to clearly demonstrate how the project’s main aim is to promote the sustainable growth of countries on the OECD Development Assistance Committee (DAC) list, in line with GCRF priorities.</th>
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<tr>
<td><strong>Top Tip 6:</strong> Specifically identify the DAC listed country/ies and project partners you plan to work with. Ensure that the application clearly articulates research capacity building activities to address specific development issues to promote the welfare and economic development of the defined developing countries. As this may be difficult to implement in the six months, attempt to articulate how the project would be able...</td>
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