

Section A: Official Development Assistance (ODA) and GCRF strategy

The strategy

Aston University is about to launch a new University strategy focussed on making a difference to our key beneficiaries: students, business & the professions, and region & society. Making a difference to our beneficiaries and the communities we work with locally and internationally is at the heart of our new international strategy. Aston is building on our strengths as a regional growth engine, providing exciting mobility opportunities for our staff and students and contributing to Aston's reputation and financial health by focused partnerships and outcomes-focused research collaborations. Aston has previously used its local and global engagement to expand its research agenda and generate global impact by focusing on priority countries such as India, China & Hong Kong, and Europe. We have bid for, and been successful in winning, a wide-ranging series of international projects. These projects are located across all Schools. The development of these projects feeds into our new international strategy which focuses on fewer, but deeper, partnerships in Europe and Asia in particular across research, education and knowledge exchange, and on continued access to student mobility.

Aston has been very successful in bidding for and strengthening funding in a variety of fields that map directly onto GCRF strategic aims and strategic areas. We can demonstrate that we have tackled big and small problems across eight of the UK Challenges. Through Engineering and the British Council and other partners we have run projects looking at Green Technology in Brazil, Global Bioenergy and sustainable green fuel projects (affordable, reliable, sustainable energy). This entailed working closely with partners in Brazil, China and Vietnam, and taking an inter-disciplinary approach across Engineering and Operations Management disciplines. We have invested in sustainable health and well-being in Egypt, Kazakhstan and Vietnam through workshops and Research Links programmes. We also have many projects on Sustainable production and consumption of materials and other resources that include thermochemical conversion of Biomass in India, 3D printing uptake in Kenya, user-centred cookstove design in Malawi, and bio-oil technology in Kuwait. Finally, we have current projects in secure and resilient food systems, such as desalination energy in India, fibre optic sensor for food applications in Indonesia and non-engineering catalysts for Malaysian palm fruit bunch waste. See below for full list:

First Funder Name	Funder Programme	Project Title	Country 1
BBSRC	Global Challenges Research Fund	Cascade processes for integrated bio-refining of agricultural waste in India and Vietnam	Vietnam
Innovate UK - Technology Strategy	Newton UK-China agri-tech challenge 2	Antimicrobial coatings produced by physical and chemical vapour deposition for application in aerospace (ANCOP)	China
Royal Academy of Engineering	Newton Research Collaboration Program	Robust and efficient desalination powered by sustainable thermal energy	India
Royal Academy of Engineering	Newton Research Collaboration Program	Analysis of efficiencies and productivity evolution in manufacturing industries with CO2 emissions in China	China
Royal Academy of Engineering	GCRF - Frontiers of Engineering for Development	Building 3D printing capacity in Kenya: Utilising a co-design approach to create products and components for essential products	Kenya
Royal Academy of Engineering	GCRF - Frontiers of Engineering for Development	User-centred cookstove design for Mozambique and Malawi	Malawi
Royal Academy of Engineering	Distinguished Visiting Fellowship Award	Multiple-component Binder System Design for 100% Recycling of Reclaimed Asphalt Pavement	USA
Royal Academy of Engineering	Distinguished Visiting Fellowship Award	Diffusion Multiscale Modelling for Superior Recycled Asphalt Pavement	USA
The British Academy	Global Challenges Research Fund Network	Pyrolysis of Municipal Organic Waste for Renewable Road Construction Materials	China
The British Academy	Newton Mobility Grants	Remembering in Organisations: The Strategic Role of Historical Archives in Commercial Banks	Brazil
The British Council	Global Innovation Initiative 2014	Global Bioenergy, Biofuels and Biorefining Network: GB3-Net	USA
The British Council	Institutional Links UK-Israel-MENA (STR)	Off-grid desalination for irrigation in the Jordan Valley	Israel
The British Council	Newton PhD Scholarships 911	The relation between learning styles, cognitive styles and achievement motivation in higher education: studies in the U.K and Vietnam – the development for The Transnational Education (TNE) from the U.K to Vietnam	Vietnam
The British Council	Researcher Links Workshop Grants	Data Analytics for Future Cities Research	Vietnam
The British Council	Newton PhD Scholarships 911	Corporate Social Responsibility in Retailing: an investigation from Vietnam	Vietnam
The British Council	Newton PhD Scholarships 911	Thermochemical conversion of biomass via intermediate pyrolysis and cultivation of microalgae in Tubular photobioreactor (700L)	India
The British Council	UK-Gulf Institutional Links	Solar powered fast pyrolysis for producing bio-oils from municipal solid waste in the State of Kuwait	Kuwait
The British Council	Newton Institutional Links	Technology for offshore cultivation of tropical seaweeds for the production of aviation fuel	Malaysia
The British Council	Newton PhD Scholarships 911	Newton Fund PhD Placement Grant	China
The British Council	Newton Res Links Workshop	Newton workshop grants - Enhancing Relevance and Impact in Brazil for Research in Green Technology Management & Product-Service Systems	Brazil
The British Council	Newton Institutional Links	Sustainable green fuel and hydrocarbon production from non-food and waste Vietnamese Oil Seed Crops	Vietnam
The British Council	Newton Institutional Links	Paradigm shift in faecal sludge management in Kenya for environmental management and food security	Kenya
The British Council	UKIERI - DST Thematic Partnership	Desalination powered by sustainable energy for water and food	India
The British Council	Newton Institutional Links	Fibre optic sensor for food safety applications	Indonesia
The British Council	Newton Res Links Workshop	Tackling metabolism in obesity - an interdisciplinary approach to affordable healthcare	Egypt
The British Council	Newton Res Links Workshop	Kazakhstan-UK Eye and Vision event = British Council Newton-Al-Farabi Researcher Links workshop attendance	Kazakhstan
The British Council	Researcher Links	Initial Investigation Of The Involvement Of IL-33 In Chronic Inflammation During Rheumatoid Arthritis	Vietnam
The British Council	Newton Researcher Links Travel Grant	Stable Hyperbranched Glyconanomaterials Based on Assembled Multilayers for Reusable Colorimetric Biosensing Applications	Egypt
The Royal Society	Newton International Fellowship Scheme	Metal grafted mesoporous materials for the catalytic conversion of biomass into fuels and chemicals	
The Royal Society	Kan Tong Po Visiting Fellowships Program	Feasibility Study of Producing Renewable Bitumen from Waste Tyre Rubber and Waste Plastic through Pyrolysis	China
The Royal Society	Newton International Fellowship Scheme	Development of Graphene Supported Metal Oxide Catalyst for Environmental Remediation (Newton Fellowship: Karthikeyan Sekar)	India
The Royal Society	Newton Advanced Fellowship	Nanoengineering catalysts for biorefining of Malaysian empty palm fruit bunch waste	Malaysia
The Royal Society	Newton Advanced Fellowship	Random Distributed Erbium-doped Fibre Laser	Malaysia

From these projects (in excess of £1.6 million in awards), we have an interdisciplinary, multi-country set of new projects to go forward for 2018/19 as part of our international research strategy plan.

As evidenced in Annex 2, we propose building on and expanding our portfolio of international projects and countries beyond our current project portfolio. Aston's key strength lies in its flexibility, agility and bottom-up approach to projects, both

home and overseas. The overarching strategic aim is to support and develop key research teams within Aston and their international partners who are providing world-leading impactful projects that have real benefit to local communities and address broader international challenges. Our aim is to support seed-corn projects that can develop into larger scale projects to turn our ideas into impactful activities in line with ODA expectations.

We have approached the QR Strategic funding based on the 12 UK Challenges and with projects that stretch over the 3 years. We would expect immediate impact in year one, and as part of the monitoring process, we will be collating any evidence of these wins by the end of 2018/19 across the institution.

1) Affordable, reliable, sustainable energy

Aston takes an inter-disciplinary approach to achieve affordable, reliable and sustainable energy for all. Two proposals are going forward under this challenge that address sustainable energy from a bio-fuel perspective, particularly investigating local sources (as distant fuels carry an economic and non-sustainable burden) and also bio-energy sustainability. This is a major priority in Aston's strategy and aligns with our European Bioenergy Research Institute (EBRI).

2) Clean air, water and sanitation

A related priority is currently investigating the cooling, power and de-salinization from bio-fuels that will have sustainable and transferable impact across arid, and flood areas that are at risk from extreme conditions. This project will combine the needs of rural communities utilising their local commodities and enhancing the safety and sustainability of clean, salt-free water.

3) Inclusive and equitable quality education

Aston's international programmes and global initiatives including ERMASUS+, exchange and distant learning programmes cut across the academic stages from primary to HEI-level learning. We propose three projects that will look at local languages learning (new practices in local and non-local languages in rural schools) to new ways of learning at HEI level. A third project will co-produce learning across engineering subjects at HEI-level. The aim is to test, apply and sustain high quality, innovative training practices across the spectrum. These will have a significant impact on curriculum development from the grass-roots upwards.

4) Reduce conflict and promote peace, justice and humanitarian action

Aston has a track record for influencing policy on conflict resolution, justice and humanitarian actions. We are currently pursuing projects on detainees and fair trials, abortion rights and migration crises. We are now proposing to prioritise ODA projects abroad in conflict countries that look at the educational side of peaceful development and future-looking co-existence. We bring to the Belgian Congo, and southern-African states two different priority projects. The first of these examines the ability of critical concepts of fraternity to promote inter-faith understanding and cooperation in a post-conflict state; the latter will bring together scholars across the region critically to examine historical practices of internment and to inform governance and practice and work closely with each other across government and educational lines.

5) Sustainable cities and communities

Here, we bring together two major projects that look at firstly Supply Chain Management and secondly, housing stock management. Both are taking a wide view but delivering knowledge exchange and practice to DAC countries as outlined in Annex 2. Aston's reputation for Supply Chain Management is well known internationally, and leading workshops and development with the DAC countries will offer a unique gathering of DAC countries tackling the problems of local supply management and its necessity for sustainability on a local level. The second programme will look at the inherent problems of development of new stock in terms of sustainability, supply chain and corruption limitations. A mapping and associated technology is one part of the outputs, but the overarching programme will be to co-create the problems and advantages of urban development that is beneficial for its residents. We will also look at bio-mass waste for construction materials, which, as an additional resource output of the supply chain of waste to fuel process, is something that needs to be explored. Sustainable building resources from waste is a major initiatives we are investing in these projects.

6) Sustainable health and well being

This priority has the most projects in the proposal for GCRF, as it maps neatly onto existing projects and demonstrates the scope and variety of research undertaken at Aston. As such, it is a key priority and strongly reflective of our strengths and track record in this area. We will look at microbial tissue resistance practices and devices to prevent disease spread or introduction. We will also explore novel antimicrobial dressing for burn wound treatment derived from lignocellulosic biomass waste. This work will utilise local resources and practices for maximum benefits. We will also look at bacteria prevention initiatives tackling tuberculosis in DAC countries. We also have inter-disciplinary work on dementia analyses (funded by NIHR for example) and also look at the social, political and ethical implications of dementia in Latin America DAC countries. We would also explore the prevalence and taboo subject of mental illness in DAC countries and to trial

technology where mental health provision is limited, inaccessible or absent. This transferable project has major benefits across all DAC countries, particularly rural communities and will work with several of Aston's researchers and other practitioners across many DAC countries. Finally, we will investigate reproductive health in Africa (Nigeria) to develop better ways to promote good sexual health and disease avoidance. Again, this project is transferable across DAC countries that face potentially disastrous STD rates.

7) Sustainable livelihoods supported by strong foundations for inclusive economic growth and innovation

We propose two priority topics here that cut across energy and technology development and education that will lead to an inclusive economic growth strategy from a much wider perspective. The need to incorporate technology in a manageable, future-looking and sustainable way is key to a developing economy. The introduction of Industry 4.0 and digital manufacturing are key areas in building up the economic environment for DAC countries economic development. Equally, projects that look at bio-refineries from both an economic and technological development approach will add to a country's strategic approach to bio-refinery development.

8) Understand and respond effectively to forced displacement and multiple refugee crises

We will look at the current public emergencies in urban refugee settlements that cross-cut with other Challenges above, particularly at the health and water crisis. This project will produce a 'toolkit' for local practitioners (government, NGOs and others) working in these difficult environments. It will have immediate impact on the refugees who face dangers in terms of health, clean water, trafficking and intimidation on a daily basis.

Key activities that map onto GCRF strategy. We will tackle eight of the Challenges across all Schools at Aston through the activities as outlined above. Our approach maps directly onto the UK strategy for the GCRF and all the projects are designed to develop existing networks in the ODA countries. We also intend to further develop our networks either within those countries or expanding the reach into other ODA countries. This work will be managed and coordinated through collaboration between the International and Research teams under the leadership of the Management Group to ensure alignment with University strategy. All projects are designed to create impact at a regional level and co-production of knowledge is key to a successful initiative, this being an important part of the GCRF strategy.

Enablers and disablers. As described in the project management section we will put in place a Management Group across Aston to approve each project before commencement and will monitor activities for project duration. We will identify key barriers before a project starts and any problems that occur along the way. The Management Group will therefore monitor staff changes, network membership, access to key resources or demographics overseas and the identification of impact. These major potential inhibitors will be addressed at each stage of the three years through regular reports and dissemination activities. We will also look for opportunities to include further networking partners, co-creators and potential translational work that may develop as the project progresses. We will share good practice and explore efficiencies of learning from each project. We will expect the PIs to report on activities and enhanced practices that have arisen that could be further explored. We will be proactive in monitoring the impact on beneficiaries and also the institutions involved in the projects and will expect bid-writing to external funders and internal funds to support these plans.

We will complete the activities with a variety of actions that will ensure that the projects objectives will meet ODA compliance, create impact and continue across the three years and beyond. Activities have been developed to fit each of the challenges:

Affordable, reliable and sustainable energy

For the first challenge (energy), a series of activities are planned including workshops, seminars and talks with the overseas partners to co-create the ideas going forward. We will deliver talks to particular participants to deliver impact. These activities, such as workshops or seminars, will allow key messages to be delivered to an audience that benefits. The ability to network with key partners in the ODA countries is crucial to developing the relationships to build the systems for sustainable energy use.

Clean air, water and sanitation

The second project is an inter-disciplinary research collaboration in energy and desalination activities and these activities will be expanded through knowledge exchange (seminars, staff/students exchange) in further countries.

Inclusive and equitable quality education

The third challenge will work with partners on two week summer programs, work with multidisciplinary teams with students from Civil, Electrical, Electronics, Mechanical and Chemical Engineering backgrounds for multiple outputs and collaborations. The second project here on Virtual Learning will use traditional methods for data gathering, but with the project partners. The final project will develop materials for impactful use across the ODA countries involved.

Reduce conflict and promote peace, justice and humanitarian action

Challenge four will concentrate on building capacity across the Southern African states and aims to generate impact from the research findings. The second project will work

directly with the partners co-creating ideas in traditional forums and outputs and leading to an exchange with RDC scholars, religious leaders and practitioners.

Sustainable cities and communities

The fifth Challenge will be data-gathering and bringing together a community to share information and to network for educational and policy purposes. The second project will map resources and gather case studies in areas not visited before. The final project will build capacity between the DAC countries (India, China and Brazil), via knowledge transfer activities including academic workshops, staff exchange and inter-sectoral seminars. There will also be collaborative and interdisciplinary research via joint laboratory and field studies, courses and seminars.

Sustainable health and wellbeing

Challenge six has the largest body of projects. The first will, utilise mono- and interdisciplinary collaborative research with capacity and capability building and community engagement. It will pump-prime to establish networks exploring sustainable strategies for future activities and to generate preliminary data for future extension and application in two related projects. Project two will seek to upskill the local sector through knowledge transfer activities. The third project on Nigerian reproductive health will look at inter-disciplinary methods and activities with all stakeholders in the sector. The fourth project will look at developing an App to be used by local communities, which links together the local services and communities. The fifth project will begin pump priming research collaboration that will allow further collaborations to begin. The final project on burns will focus on capacity and capability building where previous seed-corn funding elicited positive results. This research will actively work with local communities to take this research forward.

Sustainable Livelihoods supported by strong foundations for inclusive economic growth and innovation

The seventh challenge has two projects that will, firstly, carry out knowledge transfer activities that will lead to the digital skills to be used locally and secondly, impart knowledge of the digital-economic sectors locally.

Understand and respond effectively to forced displacement and multiple refugee crises

The final challenge will bring stakeholders together to work towards a safer environment for displaced peoples through collaborative work across many disciplines. The second project will work with stakeholders on 'rogue' states through necessary dialogue.

Country list per challenge:

1	Nigeria, Mexico, Thailand, and China.
---	---------------------------------------

2	India and Egypt then further development in Japan, UK and Croatia
3	Indonesia, Malaysia, Nigeria, Kenya, Uganda, Mozambique, Malawi, Turkey, Peru, Cote d'Ivoire and Morocco,
4	Democratic Republic of Congo, Tanzania, South Africa, Namibia, Zimbabwe, India and Jamaica
5	Kenya, Malawi, Nigeria, Uganda, Argentina, Brazil, Mexico, India, Indonesia, Malaysia, Philippines, Thailand, China and Vietnam and Brazil
6	Cuba, Colombia, Mexico, Thailand, Nigeria, Zambia, Egypt, South Africa, Iran, India, China, Indonesia, Bangladesh, Ethiopia, Pakistan, and the Democratic Republic of the Congo, India and Nepal
7	Thailand, Malaysia, Indonesia, China and Mexico.
8	Jordan, Serbia, Turkey, DPRK, Iran, Iraq, Cuba, Syria, Libya, Myanmar

Provide details of the main intended **outcomes and impacts** of your strategy.

The founding principles of the Birmingham Municipal Technical School in 1895 were to meet the new knowledge and skills needs of business and commerce in the growing city. Since becoming a university in 1966, these principles continue to inform Aston's approach to research and are especially relevant to the GCRF challenges. This opportunity will enable Aston to consolidate and extend existing activities in DAC countries by applying focused effort in translating knowledge and expertise on the GCRF challenges that map to its research strengths.

In developing the final list of projects it was considered important to enable researchers, research groups and Departments to put forward the research they considered would most meet the GCRF needs and would best enable a beneficiary and impact focus, in alignment with the Aston University Strategy. A total of 21 projects will deliver outcomes and impacts in 41 countries across eight of the challenges. There is a significant cluster of effort around the sustainable health and wellbeing challenge and smaller clusters of work to address challenges in:

- sustainable cities and communities
- inclusive and equitable education
- affordable, reliable, sustainable energy
- reducing conflict
- sustainable livelihoods
- forced displacement and multiple refugee crises.

The projects draw upon research expertise across sociology, politics and international relations, the life and health sciences, education, languages and engineering and the applied sciences.

The outcomes vary across the range of projects that we are undertaking over the three years. The elements of dissemination, engagement, collaboration/co-production and translation are common across the proposed projects.

Key practical outcomes include:

- improvements to energy, water and sanitation infrastructure
- learning and strategies to navigate issues of religion and class in order to achieve greater gender equality and social inclusion
- toolkits to address issues of forced migration and refugee crises
- support to establish sustainable livelihoods
- development of appropriate energy generation technologies to mitigate global climate change
- improved access to, and delivery of, education
- learning more about 'rogue states' in order to assess whether international aid is an appropriate route to re-engagement with the global community

Expected main impacts include:

- better access to healthcare; improved mental and physical health outcomes
- better access to electricity, sustainable transport and sanitation facilities
- improved gender balance in engineering
- establishment of sustainable livelihoods
- new economic activity re-processing solid waste into high-value construction materials
- economic growth, improved economic efficiency
- resilient infrastructure
- better access to education, in particular engineering education
- improved delivery of education using local languages
- new approaches for deployment of international aid
- extended and strengthened research capacity in DAC countries

The projects seek to establish deeper, sustained collaborations with DAC partners to empower and develop the research, innovation and policy base in-country. This will have the longer-term impact of enabling greater autonomy to devise and implement the improvements that the GCRF support has instigated. We would therefore expect our researchers at Aston to will continue to pursue opportunities to extend and build upon this work with new collaborations with DAC country partners.

Management of GCRF

1. How will your HEI **monitor** and **evaluate** its progress and compliance in ODA and GCRF activity, including assessing geographical distribution of activity, outputs, outcomes and economic and social impacts?

Please describe the policies, procedures and approach you have in place to measure progress, evaluate outcomes, identify lessons learned, and ensure ODA compliance.

Maximum 1,500 words

Aston's Research and Knowledge Exchange (RKE) office will lead on the management of the GCRF projects over the next three years.

A Management Group will be set up at the beginning of academic year 2018/19. The group will be led by the Pro-VC for Research and Knowledge Exchange, Professor Paul Maropoulos, together with the Pro-VC (International), Professor Saskia Hansen and Executive Dean for Engineering and Applied Sciences, Professor Sarah Hainsworth, the Associate Deans for Research from each School, who will form the decision making executive and the Strategic Funding Managers for each school tasked with overseeing actions. Throughout the academic year more detailed applications will be requested from the Principle Investigator for each project proposed in this application. Prior to submission, all projects will go through existing internal rigorous peer review processes and sign-off at School level. In addition, these projects will be assessed for ODA compliance, DAC country, ethics, timeliness, financial feasibility and expected impacts. Any projects that do not meet the criteria will be asked to re-work the application to meet them. Projects will only be initiated once they have exceeded the threshold for each element. All projects will go to their School Ethics Committee for final approval prior to commencement. The ethics decision will be passed back to the management committee for recording and any relevant ethical issues will be monitored during the project lifetime.

The QR funding will be ring-fenced centrally and allocated a specific project code with each individual project allocated a sub-code. The project code will then split by income lines according to the approved project application. Each PI will be informed of the budget allocated to their project.

Monitoring:

The Management Group will meet quarterly. The representative for each School will report to the meeting on a project's activities, spend and any issues that have arisen and need to be resolved. Outputs, including impact, will be reported at the quarterly Board meetings and will consequently feed into the main annual report for HEFCE.

To ensure project compliance and to leverage best practice from the projects, we will require the production of reflective diaries from the project teams. This practice will inform future projects in terms of dissemination of best practice and the information will form part of the annual report. In the case of staff loss during the lifetime of a project, we will work closely with the out-going staff member to continue the project at Aston to completion with another PI or team member. In the circumstance that a project cannot be continued, a report will be made detailing accrued spend and likely future impacts. Finally, to ensure visibility of Aston's overall engagement in the GCRF and the difference the projects have made to our key beneficiaries and local communities in the DAC regions, the outputs and impacts for each project will be monitored beyond the project's official end date for up to three years and report to the quarterly Executive Action Group (EAG).

A dedicated GCRF web portal will be built where the projects will be highly visible and include various interactive elements to promote co-production of the projects between the

Aston researchers and their overseas partners. The portal will include a blog, Twitter feed, seminar recordings etc. There will also be an opportunity to showcase outputs, examples of impacts and additional projects that will develop across the three years. The web presence will continue to exist and be uploaded far beyond the 3 year funding timescale. We would also create an annual partner conference to showcase the project's activities.

Section B: Use of QR GCRF 2018-19 allocation and future QR GCRF priorities

2. Please complete the table in Annex A2 detailing the expected spending and activities for QR GCRF in the academic year 2018-19. Note that the total QR GCRF spending must equal the indicative allocation (available in Annex C), and all activities must be ODA-compliant for strategies to be assessed as ODA-compliant overall.
3. Please add here any explanatory notes on how you have completed the table in Annex A2 that will help inform assessment of ODA compliance.

Annex A2 was completed through an open call to all Schools to make expressions of interests for projects they would like to be considered for GCRF QR funding. The proposals have been evaluated based on fit with Aston's broader research agenda, QR Fund criteria and our assessment of opportunities for impact. Schools were asked for project ideas, costs, the type of activity planned, the ODA country and the likely impact that the project will have that aligns with GCRF's aims. The collated replies were then assessed in each School for compliance, fit to the GCRF remit and ability to complete the project. All projects are to begin in 2018/19 and continue across the three years. The costs per year are shown in Annex 2 for guidance.

4. How would your **priorities and activities** for 2018-19 QR GCRF change if the funding level differs from that outlined in indicative allocations? Please include detail of how priorities will change with increases and decreases to QR GCRF funding, and details of how each priority meets ODA criteria.

As each project will be appropriately costed for each year and, in most cases, for a small sum of money we do not envisage any major disruption to the project objectives as they progress. If funding levels are reduced beyond those expected we will ask our Management Group to prioritise our bids for funding. It is likely that we will focus on sustainable energy, health and education as these align with our particular areas of strength. The management group will monitor all project spend and progression of milestones and outcomes on a quarterly basis. Aston University will continue to bid for GCRF, Newton and Rutherford funding across the various projects identified in Annex 2, and this scenario is likely to continue for 2018/19. Taking into account the lead time for awards to be made, we would not expect any projects funded by other agencies to utilise

this fund. However, we would also look at each project and determine whether the QR funding could be used to enhance or augment the funded project. If this is not feasible or necessary, then the funding will be put towards other identified projects in Annex 2. This then will help to fund the existing projects should there be a short-fall in QR funding. Aston has been very successful in securing external ODA-compliant projects as indicated in Question 1.

We would continue to fund strategic priorities in the strategic areas for 2018/19 as outlined in Annex 2.

We will also work closely with the Midlands Innovation GCRF group, currently prioritising WASH (Water, Sanitation and Health) topics. We would therefore expect to submit bid for large projects under the Midlands Innovation umbrella. We would expect to prioritise de-salinization, management and services in ODA countries and submit large bids to the water-energy-food nexus. We will also continue to explore the bio-waste to energy in EBRI/Aston Business School through large bids to RCUK funds. Midlands Innovation is also the forum to explore any further priorities that GCRF will promote during the next few years. We will seek to address calls on prosperity, poverty, migration, health, energy, and sustainable cities.

5. Based on indicative funding allocations, what are your **priorities** for QR GCRF activity in 2019-20? Please include detail of how priorities will change with increases and decreases to QR GCRF funding, and details of how each priority meets ODA criteria.

Maximum 1,000 words

Our overarching priorities are expected to continue and the projects within those will develop over 2019-20. However, we will look for evidence of progression within our strategic areas and also aim to leverage the QR funding to fit with the 'bigger picture'. As we have a continuous improvement approach to managing the QR allocation over the next three years, there will be a tightening and refocusing of priorities every year informed by on an evaluation of what has worked well and what hasn't in the previous year.

The Management Group will review the priorities 6 months into the funding and assess their fit for the following year. We would stagger the projects to meet the allocation and any 3 year projects would reach into 2020/21 with funding sourced from external sources to meet the years beyond the QR allocation.

We will continue to work with colleagues within the Midlands Innovation group to work up bids to tackle the collective priorities over the period.

6. Based on indicative funding allocations, what are your **priorities** for QR GCRF activity in 2020-21? Please include detail of how priorities will change with increases and decreases to QR GCRF funding, and details of how each priority meets ODA criteria.

Maximum 1,000 words

Our approach to 2020-21 will be as for 2019-20:

Our overarching priorities are expected to continue and the projects within those will develop over 2020-21. However, we will look for evidence of progression within our strategic areas and also aim to leverage the QR funding to fit with the 'bigger picture'. As we have a continuous improvement approach to managing the QR allocation over the next three years, there will be a tightening and refocusing of priorities every year informed by an evaluation of what has worked well and what hasn't in the previous year.

The Management Group will review the priorities 6 months into the funding and assess their fit for the following year. We would stagger the projects to meet the allocation and any longer duration projects would reach into 2020/21 with funding sourced from external sources to meet the years beyond the QR allocation.

In this final year of funding we would also expect to work with more countries, develop deeper relationships with institutions and be more ambitious in scale and scope of new projects. The management group will take a central role in this continued development.

We will continue to work with colleagues within the Midlands Innovation group to work up bids to tackle the collective priorities over the period.