

Greenius Award

SUMMARY

Greenius – or Green Genius – is a new national competition launched by the Deputy Prime Minister to drive forwards the UK’s green growth agenda.

This competition is jointly funded by Department of Energy and Climate Change (DECC), Department for Environment, Food and Rural Affairs (Defra) and Department for Business, Innovation and Skills (BIS).

The competition process is being run by Technology Strategy Board of behalf of these Departments.

The contest is seeking innovative solutions to questions of **food, water** and **energy** sustainability such as “How to keep bills down for consumers and businesses? How to better manage our energy, food and water resources? Successful applications will propose solutions that address at least two and preferably all three of these themes.

Organisations are invited to compete for a share of a total £3million fund for the further development and commercialisation of innovative, near-market technologies.

BACKGROUND

The problems of food, water and energy sustainability are among the most urgent that the UK faces. Current projections indicate that, by 2030 the world will need at least 50% more food, 45% more energy, and 30% more water, and this will need to be produced without further damaging the environment.

- UK businesses, engineers and scientists have a global reputation for technological innovation.
- The aim is to encourage the very best of Britain’s “green talent” to set their minds to some of the toughest challenges facing the country today and;
- Help to ensure that we manage our food, water and energy supplies more sustainably, and
- Save money for consumers and businesses and create jobs.

The opportunities are significant. Green industries are booming in the UK and there is enormous potential for growth. The environmental goods and services sector is worth an estimated £3.3 trillion globally and is growing. And there are opportunities for every business: with an estimated £23 billion of savings open to UK businesses every year from using resources more efficiently.

Competition Scope

Food, water and energy are the themes of this challenge. This competition is seeking solutions and ideas that will link 2 or preferably all 3 of these themes. Solutions must be efficient and sustainable. Solutions must be capable of rapid commercialisation, providing significant benefits for consumers and / or businesses.

For example applications that:

- Aim to drive down the cost of a technology
- Make large scale technologies work at smaller (factory or community) scale
- Promote closed loop processes
- Allow consumers better control of the resources that they consume

Proposals for solutions relating a single one of the three themes are out of scope for this competition. Proposals that relate solely to the deployment of established technologies are also out of scope. Proposals that offer significant innovation by demonstrating and validating performance of established technology in use are in scope.

Greenius is building on, but not duplicating, other TSB-led competitions to promote innovation in food and water, such as the Sustainable Agriculture and Food Innovation Platform.

There follows a list of potential areas that could be addressed. This is designed to stimulate discussion. It is not exhaustive or prescriptive or a statement of preferences. Proposals will be considered and assessed on the basis of their ability to deliver the overall completion objectives.

Applicants should indicate as clearly as possible the significant benefits that their proposal will deliver for consumers and /or businesses in terms of reducing bills, making better use of resources and ensuring security of supply.

The competition will consist of two phases. In the first phase contracts will be awarded for feasibility studies of up to 13 weeks duration. Up to 25 feasibility study contracts will be awarded. In the second phase the solutions from phase 1 will be assessed for their suitability to progress to a second contract for the development of a prototype or demonstrator for the proposed technology. Up to six phase 2 contracts will be awarded and the duration of this phase will be up to 12 months.

Farming and Food

- Urban farming, an integrated approach including vertical production systems, more efficient use of rainwater harvesting and low energy, efficient lighting.
- Irrigation efficiency in broad acre crops

Water – Energy

- Energy recovery hot/waste water and storage (there is a lot of waste heat in wastewaters/sewers, which could be usefully captured and utilised)
- Capture of Water potential energy (exploiting water flows or pressure differentials in supply pipes etc)
- Novel pumps (much of the energy use of the water industry is due to pumping, so more energy efficient pumps, or pumps that can double up as energy turbines.)

Food – Water

- Food manufacturing and processing (improving the water efficiency of food manufacturing and processing, expanding upon the recent competition call related to this)
- Water efficient agriculture (new crop types, management techniques, hydroponics)

Energy – Food

- water efficient Anaerobic Digestion (AD)
- Farm scale virtual power plants integrating with food production
- Community scale AD and integration with the grid. Community bioenergy and biofuels.
- Wave powered fish farming.
- Farm scale bioenergy generation and distributed small scale domestic bioenergy generation.
- Waterless cooking (beyond the microwave)
- Food processing (energy efficiency gains)

General

- Low energy water pumping systems
- Enabling technologies for closed loop systems in for example food production systems that save energy and water

An Introduction to SBRI

SBRI is a mechanism which enables public sector bodies to connect with innovative ideas from technology businesses that have the potential to provide innovative solutions to specific public sector challenges and unmet needs.

The public sector is able to find innovative solutions by reaching out to organisations from different sectors including small and emerging businesses. New technical solutions are created through accelerated technology development, whilst risk is reduced through a phased development programme. SBRI also provides applicants with a transparent competitive and a reliable source of early-stage funding.

SBRI competitions are open to all organisations that can demonstrate a route to market for their solution. The SBRI scheme is particularly suited to small and medium-sized business, as the contracts are of relatively small value and operate on short timescales. Developments are 100% funded and focus on specific identified needs, increasing the chance of exploitation. Suppliers for each project will be selected by an open competition process and retain the intellectual property generated from the project, with certain rights of use retained by the contracting Authorities.

Application process

To apply for this competition you must first register with us. You can do this by going to the web page for this competition at <http://www.innovateuk.org/content/competition/greenius-award.ashx>. When you register you will get access to all the supporting information you need, including the Guidance for Applicants and the application form.

This competition opens on 24 September 2012 and closes at noon on 5 November 2012. The deadline for registration is noon on 29th October 2012.

Further information

For more information about this and other competitions please see the competitions section of our website at <http://www.innovateuk.org/competitions>

For more information about SBRI see www.innovateuk.org/sbri

Competition helpline: 0300 321 4357

Email: competitions@innovateuk.org

Key Dates

Competition Opens 24 September 2012

Deadline for Registration Noon 29 October 2012

Deadline for receipt of applications Noon 5 November 2012

Applicants informed 3 December 2012

Feedback to applicants 10 December 2012

Projects Commence 31 January 2013

Projects completed 13 May 2013