

Potential funding sources for exploitation and commercialisation of researchⁱ



Table of Contents

Section A: Early Stage funding sources	2
Early stage VC for Universities	2
Angel Finance Networks	3
University Technology Commercialisation Companies.....	4
Section B: Foundations of potential interest to NERC	5
Section C: Illustrative crowdfunding platforms	23

Section A: Early-stage funding sources

Early Stage VC for Universities

Firm	Offices	UK Funds	Focus Areas	Stages	Investment	University Links
Spark Ventures		£175m	TMT; Healthcare, Life Sciences	Seed; Series A, B	£0.5 – 2m	Oxford College Fund (£20.7m)
MTI Ventures	St Albans, Manchester, Boston	£32m	Cleantech & Materials; Med Tech	PoC; Seed; Series A, B	£250-750k initially; Up to £2-3m over time	UMIP Premier Fund (£32m) – Manchester
Mercia Fund Management	W Midlands					Mercia Fund 1 (£9.5m) and 2 (£5m) - Warwick, Birmingham, Coventry, Aston, Staffordshire, Birmingham City
Midven	Birmingham, Nottingham	£61m	Software; Telecoms; Med Tech;	Seed; Series A, B	£250k initially	Advantage Growth Fund (£17.5m) – Warwick, Birmingham, Coventry, Aston Rainbow Seed Fund (£14m)
Oxford Capital Partners	Oxford; Geneva; Hong Kong	n/a	Unrestricted	n/a	n/a	Oxford University (informal links)
Oxford Technology	Oxford	n/a	Technology	Early stage	£100k – 2m	Oxford University (informal links)
Braveheart	Perth, Leeds, London, Manchester	£121m	Unrestricted	Seed; Series A, B	£25-250k (Lachesis, SIF) £0.5-10m (Braveheart)	Lachesis Fund (£10m) – Nottingham, Leicester, Loughborough, De Montfort. Strathclyde Innovation Fund (£10m) – Strathclyde
Cambridge Innovation Capital	Cambridge	£50m	Unrestricted	n/a	n/a	Cambridge University

Angel Finance Networks (selected examples)

Network	Base	Investment	Focus	Comments
Oxford Investment Opportunities Network (OION)	Oxford	£200k-2m	OION has a particular interest in companies with a strong barrier to entry, often patented; but will consider any company with a strong vision for growth	Charges £450 presentation fee and 5% of funds raised
Thames Valley Investment Network (TVIN)	Reading	£150-750k	Companies with a 'first mover advantage' and technology including FMCG, web, digital media, green-technology	Part of OION network
Oxford Early Investments (OXEI)	Oxford	£50-250k	Companies seek smaller sums, often where more than just investment is being sought: match SMART Grants,	Part of OION network
Great Eastern Investment Forum	Cambridge		Very broad range of sectors including software, food & drink, biotech, media, telecoms, leisure and manufacturing.	A separate £5m fund, GEIF Ventures, is available to co-invest alongside business angels www.geifventures.co.uk
London Business Angels	London	£100k-2m	Any sector except property and film/events; particular focus on technology	Matching funding available from the Angel CoFund www.angelcofund.co.uk
Advantage Business Angels	Birmingham	£50k-500k	All sectors, all stages	
Northwest Business Angels	Manchester	£20k-500k	All sectors, all stages	
Archangel Informal Investment	Edinburgh	£50k-2m (Preferred range is £250-500k)	Companies with high growth potential and global application; all stages from POC through growth capital; wide variety of business sectors.	Invest £10m/year in early stage Scottish companies. Additional funds available from Scottish Enterprise Co-Investment Fund and other sources

University Technology Commercialisation Companies

Company	Mkt Cap	University Links	Focus Areas	Spin-outs	License	Investment Partners
IP Group	£630m	KCL; QMUL; Bath; Bristol; Glasgow; Leeds; Manchester; Oxford; Southampton; Surrey; York	Unrestricted (Energy & Renewables; IT & Comms; Chemicals & Materials; Pharma Biotech; Medical)	60+	No	Top Technology Ventures: IP Venture Fund I (£31m) IP Venture Fund II (£30m) NE Technology Fund (£25m)
Fusion IP	£77m	Sheffield, Swansea, Nottingham, Cardiff,	Unrestricted (Medicine, Energy, Environment, Electrical, Engineering, Software)	21	Yes	Finance Wales (£34m seed fund) Arthurian Life Sciences (£100m) IP Group
Imperial Innovations	£400m	Imperial; Oxford, Cambridge, UCL	Unrestricted	>70	Yes	In-house funds (>£80m available)
Frontier IP	£4m	Dundee, Plymouth, Robert Gordon	Unrestricted	12	No	RGU Ventures (£2.2m) Dundee Venture Fund (£1.5m)

Section B: Foundations of potential interest to NERC

The organisations listed below are examples of foundations whose environmental interests complement NERC’s expertise and that we believe are worthy of further investigation by NERC as potential collaboration partners. There are many other foundations whose interests and activities may prove to be more closely aligned to NERC’s capabilities, but investigation of whom fell beyond the scope and budget of this study.

Organisation	Base	Comments
Adessium Foundation	Netherlands	<p>Focusing on multi-year support with partner organisations, it has two themes to its “People & Nature” funding stream:</p> <p><i>Responsible use of the earth</i> - Protecting important natural areas and combating the exhaustion and pollution of the planet. Emphasis is placed on promoting responsible use and management.</p> <p><i>Protecting the oceans</i> - Promoting responsible ocean use and management by stimulating marine protected areas and combating overfishing.</p> <p>Is funding the Pew Environment Group, based at Somerville College, to form the Global Oceans Commission to investigate key risks to global oceans policy.</p>
Aga Khan Foundation	Various	<p>Primary focus on Africa and Asia. “The Aga Khan Development Network works in 30 countries around the world. It employs approximately 80,000 people, the majority of whom are based in developing countries. The AKDN’s annual budget for non-profit development activities in 2010 was approximately US\$ 625 million. The project companies of the Aga Khan Fund for Economic Development generated revenues of US\$ 2.3 billion in 2010 (all surpluses are reinvested in further development activities).”</p> <p>Its environmental fund is The Prince Sadruddin Aga Khan Fund for the Environment. Funds currently fully committed. “The Fund’s activities include natural resource management and security against natural risks such as landslides, rural development in fragile natural environments and related programmers in the fields of health, housing and the built environment, education and the strengthening of civil society. The Fund’s activities highlight the linkages between poverty and the penury of natural resources. It promotes the management and development of sustainable natural resources through education, area development and related research that addresses existing issues in the developing world.</p>

		The intention is to assist populations that are most threatened by their natural surroundings, while working to protect fragile ecosystems that are vulnerable to the effects of poorly planned human activity. Another goal of the Fund will be to enhance natural environments that can be made more productive.”
Arcadia Fund	UK	<p>Arcadia is a grant-making fund established in 2001 focused on endangered culture and endangered species. Lisbet Rausing (Tetra Pak family) and Peter Baldwin form the Donor Board. Peter Baldwin is Chair of the Donor Board. The fund was formerly the Lisbet Rausing Charitable Fund. By February 2014, Arcadia had awarded grants of more than \$319 million. Arcadia's key mission is to protect endangered culture and nature.</p> <p>While the Fund has a strong interest in academic research, it provides significant funding (inc. core operational funding) for a range of environmental bodies and lobbying organisations. Probably worth considering as a route for funding the uptake of a discrete package of NERC research outputs via an existing charity. Only fund charities, so difficult to see how it may be relevant to FoF outputs.</p> <p>Member, Environmental Funders Group (EFG)</p>
Bertarelli Foundation	Switzerland	<p>Established by the founders of Serono, the “Bertarelli Foundation's aim is to show global leadership in promoting marine conservation. Its belief is that if we are to use the seas as a source of food and recreation then it is also our responsibility to ensure their future is safeguarded.</p> <p>The Foundation, working with the British Government, helped to create the largest Marine Protected Area (MPA) in the world, in the Indian Ocean. The Foundation, working with the Blue Marine Foundation and the Belizean Government, has also helped to create a second reserve centred on the Turneffe Atoll, the Caribbean’s largest and most biologically diverse atoll.</p> <p>The Foundation is also working with leading marine scientists from across the world to better understand the protection afforded by MPAs and the wider health of our oceans. This research will be critical in driving forward the debate and in securing further action.”</p>
BNP Paribas Foundation	France	<p>In 2011 launched the “Climate Initiative” programme, five three-year projects:</p> <ul style="list-style-type: none"> ○ AAA: access to the climate archives at Fontainebleau (France) ○ eFOCE: long-term effects of ocean acidification, experiments conducted in the

		<p>Mediterranean Sea</p> <ul style="list-style-type: none"> ○ PRECLIDE: climate forecast for the next 30years ○ Global Carbon Atlas: making current CO2 emission data available to all ○ Subglaciator: a sonde that accelerates ice drilling, thus making the studies of old ice easier to understand climate change. <p>Selected by a scientific committee comprising Philippe Gillet, vice-president of the Ecole Polytechnique Fédérale of Lausanne, Joanna Haigh (Imperial College London), Jean-Pascal Van Ypersele (Institute of Astronomy and Astrophysics, the Catholic University of Louvain), Thomas Stocker (Physics Institute of the University of Berne) and Riccardo Valentini (University de Tuscia, Viterbo).</p>
Calouste Gulbenkian Foundation	<p>UK & Portugal</p>	<p>“The Calouste Gulbenkian Foundation has been developing a new strand of work, Valuing Oceans: The Gulbenkian Oceans Initiative (GOI). Over the next five years, we’ll work towards conservation and good management of the oceans for the benefit of people now and in the future. The Initiative will be run across the Foundation, with our London and Lisbon branches taking distinct but complementary approaches.</p> <p>The GOI in Portugal is already underway, and is centrally focused on an economic evaluation of marine ecosystem services. Quantifying the value of the oceans lends weight to the conservation lobby, and has the potential to influence a wide range of decision makers.</p> <p>Over the past year, we at the UK branch conducted scoping research to gain a better understanding of what work is already being done to address marine issues, and see where we might be best placed to act. We hosted two events with the Environmental Funders’ Network Marine Funders’ Group, and found a keen appetite for future meetings and collaboration. Our Marine Funders Survey of funders in the UK and EU revealed striking diversity in the issues and geographical regions funded. We commissioned the non-profit Forum for the Future to map the ‘system change dynamics’ for marine issues in Europe. Two key areas for action emerged: improving knowledge flows, so that good evidence is communicated successfully; and creating platforms for collaboration, helping environmental organisations to work together and across sectors for greater impact.”</p>

		<p>“The UK Branch of the Foundation supports only not-for-profit organisations based in the UK and Republic of Ireland. We support projects outside London in preference to those based in the capital. Although we establish partnerships at national, regional and local levels, we want to ensure that we support projects that have a benefit beyond the locality in which they are situated, and which have potential for future international application.”</p> <p>Awards seem to be in £15k-£150k range. NB University of Plymouth received £44,650 to “document the current status of the analysis of the social and economic value of ocean based ecosystems in Portugal and internationally and to make recommendations to the Foundation on the scope and objectives of a five-year Programa Ambiente focused upon the economics of ocean biodiversity and ecosystem services”. EFG member.</p>
Childrens Investment Fund Foundation	UK	<p>Main interest is in alleviation of child poverty and malnutrition; also climate change focus, with interest in renewables; high-risk appetite if intervention is likely to have a step-change level of impact. Christopher Cooper -Hohn is hedge-fund manager, though Foundation is run by his wife, Jamie. The Foundation applies hedge fund-style performance targets to projects.</p>
Cool Earth	UK	<p>Founded by Johan Eliasch, CEO of Head, the sports goods manufacturer.</p> <p>Focus on rainforest preservation, by supporting indigenous population against logging. Linkage to NERC science not immediately obvious, but query whether Eliasch may be interested in complementary, applied NERC activity.</p> <p>“We don’t create reserves or put up fences. We don’t buy land. Instead, we put indigenous people back in control of the world’s most endangered rainforest.</p> <p>These people have lived in the forest for countless generations. Their homes are now on the frontline of deforestation. They have the most to lose from deforestation.</p> <p>By building better incomes, better schools and better clinics, we give our partner villages the resources they need to keep their forest intact.</p> <p>Cool Earth is now working alongside 65 rainforest villages throughout the world.</p> <p>These partner villages are protecting over 350,000 acres of forest that lie directly in the path of chainsaws and bulldozers.</p> <p>The clever part is that this forest is forming a shield to make the neighbouring forest inaccessible to loggers – saving millions of acres of further forest.”</p> <p>NB solicit donations from general public.</p>

David and Lucile Packard Foundation	US	<p>“For more than 50 years, the David and Lucile Packard Foundation has worked with partners around the world to improve the lives of children, families, and communities—and to restore and protect our planet.”</p> <p>Its programmes include Conservation & science; population & reproductive health; children, families & communities.</p> <p>Within Conservation & Science, grant making is focused on four areas:</p> <ul style="list-style-type: none"> • Climate change mitigation: focuses on reduction of emissions and the inter-relationship between climate change and land use • Land: the Packard Foundation has long been committed to land conservation in the North American West • Oceans: in particular marine oceans and birds, with some geographic focus on the Gulf of California and the Western Pacific • Scientific research: The Packard Foundation supports creative, timely research to spark fresh thinking and produce effective, innovative solutions. It also has a longstanding commitment to supporting institutions that use the power of science to generate new knowledge about our Earth’s natural systems and communicate that knowledge to the public.”
Esmee Fairbairn Foundation	UK	<p>Endowment of £806m, making awards across a range of sectors and strands. 2012 expenditure £37m.</p> <p>“The Foundation has a long history of supporting the environment sector through a wide range of work including nature conservation and work that addresses sustainability and wider environmental issues.</p> <p>Over the last five years, we have made £22.5 million of grants to environment projects and in 2012; our environmental grant making totalled £2.8 million. Our Biodiversity Strand of funding contributed £3 million in grants and, although this strand is now closed, we continue to award grants for nature conservation and biodiversity through the Foundation's Main Fund. In addition, the Foundation’s Food Strand has spent just under £5.0 million at the end of 2012.</p> <p>Our environment interests are:</p> <p>Activities that connect individuals and communities, particularly those in more urban areas,</p>

		<p>with the environment or environmental issues, and that encourage people to become involved and to take practical action.</p> <p>Work that takes place at a landscape scale, benefiting multiple species and habitats and encouraging closer collaboration between: environment organisations; environment organisations and communities; environment organisations and those outside the environment sector but with potential to influence decision-making, policy and practice.</p> <p>Conservation of the marine environment, including through: collaborative work with coastal communities to influence practice at a local level; strengthening wider interest in protecting the marine environment through awareness raising and education activities; strategic advocacy work to influence policy and practice.</p> <p>Activities that develop and nurture talent and leadership within the environment sector.</p> <p>Projects that can blend environment with our other areas of interest - for instance an environment message delivered through an arts medium; creative projects that connect people with their environment and all the value that it can bring.</p> <p>Work that encourages the development of an entrepreneurial spirit within the environment sector.</p> <p>We continue to retain our long-held principle to look to the less charismatic and harder to fund and to support work on emerging environmental issues where quick and decisive action is needed.</p> <p>Through our environment work we are happy to consider proposals for both project work and core costs."</p>
<p>European Climate Foundation</p>	<p>Brussels /London</p>	<p>NERC already works with ECF via the UK Energy Research Centre, but query whether there may be opportunities for closer ties.</p> <p>"The European Climate Foundation (ECF) was established in early 2008 as a major philanthropic initiative to promote climate and energy policies that greatly reduce Europe's greenhouse gas (GHG) emissions and to help Europe play an even stronger international leadership role to mitigate climate change.</p> <p>The group of philanthropists who founded the ECF were deeply concerned over the lack of political action and the lack of general public awareness around the devastating future consequences implied by climate change. They formed the ECF – a 'foundation of</p>

		<p>foundations’ – to collaborate in ensuring the necessary transformation from a high-carbon to a low-carbon economy.</p> <p>The ECF has an annual budget of roughly €25 million. The majority of our funds are re-granted to NGOs and think tanks engaged in bringing about meaningful policy change. Our programme staff collaborate with grantees and experts from the field and funders to design and fund strategies based on a thorough understanding of decision-makers, decision-making processes, and political context. In 2012, we made 181 grants to 102 organisations.</p> <p>Across all of our work, our emphasis is on four types of activities:</p> <p><i>Providing thought leadership that leads to new narratives. We seek to bring a ‘systems thinking’ approach to the climate debate</i>, rising above partisan positions and illuminating the best data and best practices from around the world.</p> <p><i>Creating a robust evidence base to underpin the case for change.</i> This includes commissioning economic and technical research, monitoring progress towards policy implementation, and polling to understand current attitudes and compliance levels.</p> <p><i>Convening the right players.</i> Often, the first step towards building consensus about the way forward is to assemble the right mix of people around the table. Where necessary, we address governance gaps by facilitating the process and helping to align stakeholders working in the same space.</p> <p><i>Creating awareness of the facts and the need for action.</i> This includes shining a spotlight on roadblocks and countering the flood of misinformation put out by climate change deniers and business-as-usual proponents.</p> <p>We do not consider applications for activities outside the scope of EU climate strategy and, more specifically, our own areas of activity. Likewise, we do not support local projects unless they have been consciously designed for replication or have broad European regional or national implications.</p>
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		The ECF is allied with a global network that includes the San Francisco-based ClimateWorks Foundation, which works to stimulate climate-related policy work worldwide. Through this network, the ECF works alongside other regionally based foundations including the Energy Foundation in North America, the Shakti Sustainable Energy Foundation in India, the Energy Foundation China Programme, and the Latin America Regional Climate Initiative, established in 2013.”
Fondation Charles Leopold Mayer	Switzerland	SwFr10m of awards per annum, across a range of activities (see Fondation Charles Leopold Mayer programmes), with those dealing with the development of governance systems for water, land and natural resources probably being most relevant to NERC, although not to FoF projects. An outlier funding source.
Inter-American Development Bank	US	<p>“Established in 1959, we are the leading source of development financing for Latin America and the Caribbean, with a strong commitment to achieve measurable results, increased integrity, transparency and accountability. We have an evolving reform agenda that seeks to increase our development impact in the region.</p> <p>While we are a regular bank in many ways, we are also unique in some key respects. Besides loans, we also provide grants, technical assistance and do research. Our shareholders are 48 member countries, including 26 Latin American and Caribbean borrowing members, who have a majority ownership of the IDB.”</p> <p>Based in Washington, it made \$14billion of loans and grants in 2013. Has a wide range of programmes, with those in the Environment class being most relevant to NERC activities:</p> <p>“Latin America and the Caribbean, home to some of the world’s most pristine and diverse ecosystems, depend heavily on natural resources to generate economic growth.</p> <p>The challenge for this region is to reconcile the demands of growth with the need to protect and manage its habitats and resources in order to achieve sustainable development, while facing global environmental threats such as climate change.</p> <p>The IDB helps member countries address these challenges by financing activities to improve the management of protected areas, generate income opportunities for communities that depend on ecosystem services, manage coastal and marine resources, and support climate</p>

		change and disaster risk management initiatives in critical watersheds.” See More about The Inter-American Development Bank for types of projects that have been funded.
John D. and Catherine T. MacArthur Foundation	US	<p>The MacArthur Foundation is one of the largest independent foundations in the US. Its international funding programmes support projects in Human Rights; Conservation & Sustainable Development; Peace & Security; Education; Migration; Population & Reproductive Health.</p> <p>In 2011, the Foundation launched a new Conservation strategy that focuses on one of the most compelling environmental challenges of the 21st century: the conservation of ecosystems.</p> <p>“Ecosystems and their biodiversity underpin human wellbeing. They provide food and water; regulate floods, drought, and disease; and support soil formation and pollination. They also have intangible value as places of spiritual significance. All these are vital “services,” essential to economies and nation states.</p> <p>“But ecosystems are undergoing acute and accelerating damage. Sixty percent of ecosystem services have been degraded over the last 50 years, with direct, measurable economic repercussions. Pressure on resources is likely to spark conflicts within and between nations. Our objective is to slow this degradation of ecosystems and, eventually, to reverse it.”</p> <p>Grants are awarded to projects that aim to:</p> <ul style="list-style-type: none"> • Understand the environmental pressures from development and climate change, and how best to respond; • Create and expand incentives to conserve ecosystems; • Assist the rural poor in managing natural resources; • Build capacity to respond to of the causes of ecosystem decline worldwide. <p>The geographical focus will be on three regions: the Great Lakes of East Central Africa, the Greater Mekong and its headwaters, and the watersheds of the Andes. The Foundation will also continue to build on the success of its Locally Managed Marine Area (LMMA) initiative through a coastal marine program in the Caribbean, Madagascar, and Melanesia.</p>

KL Felicitas Foundation	US	<p>Their associated funds that invest in environmental businesses/projects are listed at: KL Felicitas Foundation’s impact-investing/strategy overview & sustainable investments</p> <p>Do make grant awards, but majority of investment is equity/loan-based.</p> <p>US-based, “the KL Felicitas Foundation’s...mission is to enable social entrepreneurs and enterprises worldwide to develop and grow sustainably, with an emphasis on rural communities and families. The Foundation also actively advocates its Impact Investing strategy.</p> <p>The KL Felicitas’ Foundation’s impact investing strategy works to match the entrepreneurial spirit and business discipline of social enterprise with the significant capital being made available through a growing network of impact investors. Charly and Lisa Kleissner’s personal values, and their conviction of the potential of social enterprises and social entrepreneurs, helps inform how we make investments, and how we identify the most promising innovations for positive social and environmental change in our world.</p> <p>The Foundation does not accept unsolicited grant proposals.</p> <p>Impact investing enables the KL Felicitas Foundation to use a wide range of investment vehicles to support social enterprises, including grants, social loans, loan guarantees and private equity. Impact investing, aside from providing direct social or environmental gains, allows the Foundation to leverage its resources with this diversified set of tools, particularly when these resources are combined with the capital of other impact investors.</p> <p>Grants are provided alongside many of the Foundation’s impact investments in order to help build the capacity and strength of the recipient enterprise. Often, in the early stages of starting a social enterprise, a subsidy is required to help pay the cost of operations until breakeven or profitability is reached. In other instances, these high-potential social enterprises may need some technical assistance, such as more robust accounting systems, to perform to their full potential and attract additional investment. Grants from KL Felicitas can be single events, or may be part of a multi-year strategy to help social enterprises gain scale and increase social impact over time.</p> <p>The KL Felicitas Foundation, through its impact investing strategy, hopes to illustrate that social and environmental gains can be a central, and even profitable component of any</p>
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		private foundation's investments.”
Leverhulme Trust	UK	<p>£60m pa funding for UK academic research across wide range of disciplines, including environmental sciences. Run various research grant schemes:</p> <p>Research Project Grants - up to £500,000 over five years is available to cover salaries for research staff engaged on the project and associated costs directly related to the proposed research.</p> <p>Research Programme Grants offer up to £1.75 million for research on particular research themes, chosen each year by the Trust Board. Recent research themes have included DNA knotting, science and politics, and the impact of diasporas. Intended to allow a research team to explore a theme in depth, through a series of interlinking research projects. Typically, two awards are made in each round.</p> <p>Research Leadership Awards support researchers with an established university career who wish to build a research team to address a distinct research problem. Between £800,000 and £1million over a period of up to five years is available. The award covers salary costs for research assistants and research students working under the leadership of the award holder, and associated costs directly related to the proposed research. The Research Leadership Award scheme normally runs every three years.</p> <p>International Network grants offer up to £125,000 over periods of up to three years to allow a UK-based researcher to lead a collaborative research project on any topic, where the participation of the chosen overseas institutions is critical for the successful realisation of the research objectives. Networks must be newly constituted—established networks or collaborations are not eligible.</p>
Lundin Foundation	Canada	<p>Canadian-based foundation established by entrepreneurial mining family with extensive African interests, its focus is on supporting and enabling African SMEs primarily in the agriculture and energy fields via equity, loan and grant finance. \$12.8m commitments to date. Probably of interest to NERC only as a vehicle for enabling uptake of NERC technology that can be applied at micro-enterprise scale. E.g. technology that might be of value to one of its investee companies, Honeycare Africa, which offers innovative hive management services for rural honey production.</p>
MAVA Foundation	Switzerland	<p>A priority for further investigation. Provide multi-year funding ranging from \$100k-\$millions for supported projects. Many projects that have been supported in the past are</p>

		<p>similar to large-scale research projects in the NERC portfolio. Founded by Luc Hoffmann, founder of the WWF, whose family owned Hoffmann La Roche. Aim is to “engage in strong partnerships to conserve biodiversity for future generations.”</p> <p>“About 65% of the MAVA funds to be allocated in 2013-2015 will be in the form of regional grants aligned to our strategy...to support projects in the Mediterranean, Coastal West Africa and the Alpine Arc including all of Switzerland. Substantial, long-standing commitments in these regions ... gives us a base from which to tackle the many challenges still facing these important ecosystems.</p> <p>Addressing policy frameworks – the “rules of the game” - is also necessary to ensure long lasting impact of the regional projects we support. We have therefore also allocated some funds to our “Sustainable Economy” programme (see List of MAVA projects for Sustainable Economy) to address the impact of the relentless search for economic growth on natural resources and biodiversity.”</p> <p>Will also consider global conservation projects (see List of MAVA projects Global) that:</p> <ul style="list-style-type: none"> “Contributes broadly to conservation Addresses cross-cutting conservation issues Addresses framework conditions for conservation Addresses global policy or international conventions Links research with on-the-ground field work”
Oak Foundation	UK et al	<p>The Oak Foundation– impressive infrastructure and people to support activity in two environmental areas:</p> <p>“<i>Climate change</i>: We have two main goals:</p> <ul style="list-style-type: none"> • that global GHG emissions peak by 2020; and • that greenhouse gas emissions from the power and transportation sectors are reduced by 2030 to levels consistent with the latest scientific recommendations for climate stabilisation.

		<p><i>Marine conservation:</i> restoration and conservation of marine ecosystems in the N Pacific, Arctic, Mesoamerica and Europe.</p> <p>In terms of guiding principles, we are committed to:</p> <ul style="list-style-type: none"> ▶ Addressing root causes ▶ Supporting realistic and solutions-based strategies and objectives ▶ Putting in place the enabling conditions required for an influential and diverse civil society ▶ Working through others, particularly NGOs ▶ Working in partnership with grantees and other foundations ▶ Leveraging resources, taking risks, and catalysing broad-scale change ▶ Taking a longer-term approach”
Prince Albert of Monaco foundation	Monaco	<p>Approx. €4m pa ex’ure on research, technological innovation, & fieldwork by NGOs & academic research institutes with priority given to Mediterranean, Polar regions & Less Developed Countries. (LDCs). Areas of focus: Biodiversity & conservation, Climate change & atmosphere, Coastal & marine ecosystems, Fresh water, Energy</p>
Rockefeller Foundation	US	<p>Two of the Rockefeller Foundation’s current focus areas are relevant to NERC research:</p> <p>Revalue Ecosystems</p> <p>“Environmental degradation and stresses--including resource consumption, habitat destruction, and waste production--affect the entire global community, but disproportionately impact the world's poor or vulnerable. We move beyond preservation or conservation efforts to seek out new approaches to integrate environmental accountability into economic and social systems in order to preserve the fundamental resilience of the planet.” Current work includes:</p> <ul style="list-style-type: none"> • Climate change resilience: Catalyse attention, funding and action to promote resilience to climate change in Asian urban environments, African agriculture, and U.S. policy. • Impact Investing: Accelerate the development of an industry that can efficiently place for-profit impact investments to improve a wide range of social and/or environmental condition. • Smart Power in India: Determine if the rapidly-growing infrastructure of cell phone towers in India and East Africa can be harnessed to provide clean energy and electricity

		<p>access in poor communities.</p> <ul style="list-style-type: none"> • Food Security: Sustainably increase the productivity and profitability of small-scale farms throughout Africa. • Oceans & Fisheries: Create solutions that recognize the full value of marine ecosystems and enhance the socioeconomic, nutritional and environmental benefits derived from small-scale fisheries. <p>Transform Cities</p> <ul style="list-style-type: none"> • Climate change resilience (see above) • Smart Power in India (see above) • Transportation: Push the U.S. over the tipping point toward transportation planning and infrastructure policy that serves the needs of 21st century America. • 100 Resilient Cities Centennial Challenge: \$100 million effort to build urban resilience around the world.
<p>Shell Foundation</p>	<p>UK</p>	<p>Shell Foundation was established by the Shell Group in 2000 as an independent, UK registered charity operating with a global mandate. It had an initial endowment of \$250m, and an additional 10-year commitment from Shell of \$160m. It focuses on global development and environmental challenges linked to the impact of energy and globalisation. It acts like an investor, identifying sustainable solutions that can be taken to scale and replicated globally to achieve impact. It's main geographic focus appears to be developing nations, in particular Africa and India</p> <p>The Foundation is currently developing a series of climate change initiatives to add to the positive impact that several of our existing programs are having. Those that could be of most relevance to the NERC science base include:</p> <p><i>EMBARQ</i>: sustainable solutions to congestion and pollution that is clogging up developing world mega-cities.</p> <p><i>Bioenergy</i>: As part of the Foundation's focus on tackling both the lack of access to electricity experienced by almost two billion people and climate change it is supporting the growth of start-up businesses in India that provide electricity using BioEnergy technologies such as biomass gasification and biogas. The Foundation has also joined the DOEN Foundation in backing a Dutch company exploring sustainable biofuel production from the tropical plant "Jatropha Curcas" in Tanzania. Diligent Energy Systems, based in Eindhoven, is pioneering a</p>

		business model in which small Tanzanian farmers grow the Jatropha plant in hedges around their field, or in rows between food crops.
Stone Family Foundation	UK	<p>“Supporting innovative, sustainable and entrepreneurial approaches to major social problems, in the UK and around the world. Since September 2010, the Foundation’s main focus has been on water, sanitation and hygiene (WASH). Our goal is to find and support lasting and effective ways to promote good sanitation, safe water and good hygiene across the world.</p> <p>The Stone Prize for innovation and entrepreneurship in water was launched in 2012 to complement the Foundation’s existing funding programme. We hoped to find and shine a spotlight on new and exciting initiatives that don’t get the support and the attention they need to achieve their full potential. We also launched the Prize to get people thinking about innovation and entrepreneurship in water, and pioneering ideas and approaches which could have a significant impact in the sector. The Prize was a way for the Foundation to identify innovative, entrepreneurial and potentially scalable initiatives in the water sector, and help take them to the next level of their development. We looked for initiatives based in sub-Saharan Africa and South and South-East Asia that are developing sustainable and effective services to get clean drinking water to people who need it. This could be: marketing and selling low-cost household purification drinking water, or using mobile phone technology to inform consumers about local water delivery.”</p> <p>New Philanthropy Capital (NPC) work with the Stone Family Foundation.”</p>

Synchronicity Earth	UK	<p>Co-founded by Adam Sweidan, Chief Investment Officer of Aurum Fund Management, and his wife, Jessica. Has an impressive board of advisers, many of whom will be known to NERC, and a clearly highly committed and capable team.</p> <p>Is clear synergy between NERC’s activities and the aims of SE. Not clear how much funding SE has available, but its predecessor, the Synchronicity Foundation, supported 70 plus projects to the tune of \$6million.</p> <p>“Synchronicity Earth was established in November 2009 with an ambitious vision: a sustainable planet that values the interconnectivity and interdependence of all living things.</p> <p>Our mission is to scale up and deepen the impact of environmental philanthropy and to deliver effective solutions to some of the biggest problems of our time.</p> <p>We work to identify global priorities for conservation, gaps in funding, and barriers to action. We then seek out solutions that are innovative, effective, and sustainable, and partner with organisations that can deliver results.</p> <p>Our model is based around holistic thinking and evidence-based action, and we aim to inspire others to become involved. Our model is based around four core areas:</p> <p>RESEARCH AND MAPPING: Through rigorous research, we are creating an overall ‘map’ of conservation priorities for three key ecosystems: forests, freshwater and oceans. We identify the threats; who is addressing them; where the funding priorities lie; where the gaps are; and where we can have the greatest impact. At the same time, we investigate strategies used to identify priority species and push to the forefront important, yet less charismatic species, who receive little conservation attention, as well as those negatively impacted by some of the land use changes we seek to address in our ecosystemportfolios.</p> <p>DUE DILIGENCE: We identify organisations working to address these gaps in innovative and effective ways. We are developing a toolkit for ourselves and other donors, so that better investment decisions can be made. It will allow us to identify those organisations and projects most likely to deliver positive, long-term conservation benefits.</p> <p>FUNDING THROUGH PORTFOLIOS: Based on our research, we work with our team of advisors to build portfolios of effective, evidence-based projects that address global priorities. The</p>
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Villum Foundation	Denmark	<p>Makes around £5-6m pa of environmental research grants of approx. £500k each to Danish and overseas environmental and sustainability research organisations. Grants are made for pioneering research to cover salaries, running costs and the purchase of major equipment of particular importance for the research.</p> <p>Is the primary shareholder in Velux Group.</p>
Virgin Unite	UK	<p>https://www.looktothestars.org/celebrity/richard-branson - Has pledged to commit \$3 billion, all profits from his travel firms over the next ten years, to the reduction of global warming.</p> <p>Virgin Unite supports innovation and entrepreneurs looking to achieve social impact.</p>

Waterloo Foundation	UK	Set up by the founders of Admiral Insurance, Waterloo's environmental programmes focus on: Marine - fish stock decline Climate change – rainforest preservation, in particular through avoidance of deforestation; Fund both local and strategic projects – for example, in latter category, have provided 5year funding for the core scientific work of the Global Canopy Programme and Oceana.
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Section C: Illustrative crowdfunding platforms

There are hundreds of crowdfunding platforms. The list below includes those that have the most overt environmental focus and which appear to have achieved some level of success (there are many that have not), along with a selection of generalist and technology-focussed crowdfunding platforms that may be relevant to FoF projects and, potentially, to the wider NERC research community.

Platforms are split in to two broad categories:

- Rewards-based, where investors receive non-financial perks, rather than a financial interest, in the project which may or may not be commercial in nature; and
- Equity-based, where investors gain a financial interest, be it equity or otherwise, in a commercial venture.

The major generalist crowdfunding platforms, such as Kickstarter and Indiegogo, are not included here. Although they do include environmental businesses/projects, the real challenge on such sites is to stand out from the crowd, given the sheer volume of projects listed on them. The key challenge for NERC in taking advantage of crowdfunding as a source of additional finance for projects would appear to be identifying a platform that offers both a sufficiently tight focus that environmental sciences projects have visibility and one where all projects listed are of a quality similar to those listed by NERC.

Organisation/Base	Focus	Type	Comments
Green Entrepreneurship	Environmental/ sustainability	Rewards-based	<p>A new site that has no projects listed yet. “The Green Crowd exists to fund green and sustainable projects. It is a new crowdfunding site that exclusively supports environmentally-friendly projects. Crowdfunding allows anyone, anywhere in the world, to donate and collect funds for any profit or not-for-profit project. We are unique because we’re only interested in projects that are green and sustainable. We have three main categories Arts, Community or Technology and plenty of room for innovation!</p> <p>All projects on the site go through a review process because we only accept projects that will move us towards a sustainable, ethical future.</p> <p>Who Is The Green Crowd For?</p> <p>Inventors + Designers + Architects + Artists Communities + Businesses + Organisations + Aid Workers Industrial designers + Writers + Film Makers + Environmental + Organisations Environmental Supporters + Design Thinkers + Event Planners Musicians + Journalists + Software Developers + Micro Businesses</p>

			Politicians + Activists + Green Celebrities “
Naturfunding Portugal	Environmental	Rewards-based	<p>“Naturfunding is an environmental crowdfunding initiative resulting from a partnership between Naturlink and Indiegogo (one of the major generalist crowdfunding platforms). Naturlink (http://www.naturlink.pt) is one the environmental websites with highest traffic in Europe and have partnered with Indiegogo to promote environmentally related causes, entrepreneurial initiatives and creative projects, aiming to contribute for nature conservation, wise use of natural resources and a sustainable way of living.”</p> <p>21 campaigns have raised total of \$161k since 2012. Typically £5k-50k local initiatives. Animal conservation, habitat preservation and others.</p>
GreenCrowd Netherlands	Renewable energy	Rewards-based	<p>Crowdfunding of local renewable energy projects. 14 projects have to date raised €400k from 295 crowdfunders. Greencrowd’s business model is based on a 3% fee on the funds raised as well as a fixed administration fee.</p>
GreenFunder USA	Sustainability/ environmental	Rewards-based	<p>“To GreenFunder, green is 'anything with good intentions'. Projects range from simple student field trips to complex green business start-ups. The site is designed to help anyone - entrepreneurs, non-profits, teachers, kids - get the funding they need. Individuals and organizations can test, market, fund, and sell their projects, products, or events - all risk-free, and retain 100% ownership of projects. Investors are rewarded with perks”.</p> <p>GreenFunder charges a 5% fee for fully funded projects and 9% for partially funded projects. On top of this, a 3-5% processing and administration fee applies.</p>
OnePlanetCrowd Netherlands	Sustainability	Rewards-based/ Loan finance	<p>In first year financed € 1 million for 17 successful projects with a focus on sustainability. Mix of hyperlocal projects to circular economy projects, though few environmental per se. Netherlands-focussed.</p> <p>Founder is ex-DOEN Foundation and Start Up Green Capital.</p>
Experiment.com, USA	Academic research	Rewards-based	<p>Site enabling the public to donate towards the costs of research projects posted on the site by US researchers, in return for which they get details of the project outcomes. Listings include an overview of the project, budget breakdown, CVs and endorsements for the project team members. Projects are broken down in to categories, including Ecology and Biology. Most listings are seeking \$2k-\$5k and very</p>

			<p>few, understandably, have a commercial endpoint in mind, given the nature and stage the research is at.</p> <p>Potentially of interest to the NERC user community, but unlikely to be a vehicle for raising follow-through funding at scale for FoF projects. The concept behind</p>
Hubbub, London	Education sector sourced projects	Rewards-based	<p>Hubbub provides rewards-based “crowdfunding for everyone involved in education” and offers “universities, colleges, schools, and their students and staff an accessible, alternative method to obtain social funding for their ideas and projects.”</p> <p>Offers hosted crowdfunding platform sites for individual educational institutions – Uni’s of York & Oxford Brookes signed up thus far. Projects thus far are primarily student society ideas, rather than research/enterprise-oriented. Unsuitable for enterprise fundraising.</p>
Bloom Venture Catalyst, Edinburgh	Generalist	Rewards-based	<p>Reward-based crowdfunding site for eclectic mix of projects/ventures.</p> <p>Run micro-sites for Scottish Enterprise’s Rural Leadership Programme and NESTA. The latter’s showcased projects are primarily film production projects and all are sub £3k in scale.</p>
CrowdCube, Exeter	Generalist	Equity-based	<p>Equity crowdfunding for start-up and development capital for UK businesses across a range of sectors, including Environmental and Oil & Gas. Very professional; serious opportunities only; offer ability for investors to invest in the CrowdCube Venture Fund, whereby their own investment fund manager invests on your behalf, min investment £2500. Of potential interest to FoF projects with serious commercial potential as spin-outs, rather than as licensing opportunities. £20.4m raised to date. FCA regulated.</p>
Sharein, Edinburgh	Technology	Equity-based	<p>Claims to be the UK's first tech-focussed equity crowdfunding platform. Very basic pre-qualification of companies, who must be looking to raise minimum £40k equity. Edinburgh Uni spinout Carbomap was listed as one of ShareIn's launch companies with a listing to develop its LIDAR technology. It did not reach its £80k target before the deadline, despite having an excellent team, inc. the former CEO of MTEM. This was probably due to the fact that it was one of the first companies listed on the un-tested ShareIn platform.</p> <p>Xeroshield, a Roslin Institute biopesticides spinout, is currently looking to raise £100k on the platform.</p>

			A useful platform for sourcing FoF follow-through funding.
Syndicate Room, London	Generalist, with technology bias	Equity-based	An equity crowdfunding platform under which crowd investors co-invest in start-ups with experienced business angels and receive the same economic rights as the lead angel investors. Has links with various respected and well-established fundraising networks, e.g. Midven, Cambridge Capital Group. Projects to date appear to be tech- focussed, though none in the environmental sciences space to date. As one would expect, the level of due diligence before listing is much higher on this platform than for others. Could be of interest to FoF projects that have attracted angel investment (not clear if corporate angels are permitted).

¹Please note: these lists are not comprehensive. If your organisation would like to be added as a source of potential funding to this resource, please contact: keschemes@nerc.ac.uk.