financing the future

THE LONDON PRINCIPLES

The role of UK financial services in sustainable development

CORPORATION OF LONDON






financing the future

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Contents

Produced for the World Summit on Sustainable Development by the Corporation of London on behalf of the UK's Department for Environment, Food and Rural Affairs (DEFRA). The Corporation would like to thank Forum for the Future's Centre for Sustainable Investment for carrying out this project and writing this report. Thanks are also due to the many financial institutions that provided information and analysis.

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Forum for the Future

DEFRA
Department for
Environment,
Food & **Rural Affairs**

1 Executive Summary

Introduction

This project examines the role of the UK financial services sector in promoting sustainable development. It was commissioned by the Corporation on behalf of DEFRA, as one of the sector initiatives that the Prime Minister would take to the World Summit, and carried out by Forum for the Future's Centre for Sustainable Investment (CSI).

The aim of this project is threefold –

- to identify financial product, process and market innovations that address sustainable development risks and opportunities
- to draw out of this experience lessons for future innovation by both financial institutions and government
- to put in place mechanisms to ensure continuing progress in the financing of sustainable development by UK-based financial institutions.

One of these mechanisms is the set of seven London Principles of Sustainable Finance which propose conditions under which financial market mechanisms can best promote the financing of sustainable development. The Principles are intended as a framework to allow financing institutions and policy-makers to identify where future innovation is needed, in order to improve the way the financial system as a whole finances sustainable development.

global role

Almost 50 financial institutions were interviewed in detail about their own innovations and their thoughts for future opportunities. This was supplemented by a Chatham House workshop for a further 80 participants and written submissions. These interviewees and participants are listed in the appendices.

The responsibility for accuracy, the way in which innovations and ideas have been reported, and the design of the The London Principles lie entirely with the CSI. The financial institutions endorsing this project support its aims, case studies of their own innovations, and the Principles themselves. Their endorsement does not imply commitment

to the products or ideas advanced in the report, which are intended to raise awareness and discussion on the rich selection of options facing financial institutions wishing to play a part in the financing of sustainable development.

Analysis of the role of financial services in sustainable development

The financial services sector plays a very different role to other industry sectors. The biggest impact of banks, investors and insurers on sustainable development is not their own environmental footprint but their pivotal role in allocating financial capital between different economic activities, both at home and abroad. Since investment in fixed assets, particularly long-lived network assets such as transport and communications infrastructure, will constrain the development path for many years to come it is important to get the allocation of financial capital right. This role as an intermediary implies that the financial sector is a critical channel through which price signals, regulation and civil society pressure can direct financial capital to more or less sustainable economic activity.

Some argue that financial institutions are a barrier to persuading companies to adopt more sustainable business practices, seeing these practices as an unwarranted cost. However, there has been much recent progress in identifying viable opportunities for ‘financing sustainability’. Innovations in London, and other UK markets, are particularly important given the leading role in world financial markets. This rich selection of innovations is one key aspect of this report.

global reach

For these innovations to make any material impact on sustainable development the challenge is not so much to encourage the creation of more niche products like ‘green investment funds’, important though they are, but for mainstream investors, lenders and insurers to integrate sustainability into their decisions. For this reason we analyse the financial sector in terms of its functions. There are three key functions provided by markets in financial services.

- Pricing assets and exercising ownership
- Providing new finance
- Risk management

It is through these channels of influence that the market mechanisms of the financial services sector affect the decisions of business to engage in more or less sustainable activities. For the market to work efficiently, to reflect the increase in environmental and corporate governance legislation and the impact of these issues on branding and reputation, then these functions must take into account their influence on sustainable development. These points are set out in Table 1. Asset prices need to reflect sustainability performance; ownership needs to be exercised to promote sustainable asset use; access to commercial finance is required for technology developers and entrepreneurs in developing countries; due diligence should account for sustainability risks, and risk management products are in demand to insure against these emerging risks.

Case studies in innovation today

The study identified a wide range of financial innovations, located in UK financial markets over the past decade, which will support sustainable development. These include process innovations (such as environmental credit risk management tools), product innovations (such as socially responsible investment funds), and market innovations (such as the UK's carbon market, the UK Emissions Trading Scheme). Taken as a whole these innovative financial products are starting to play a significant role in the financing of sustainable development.

The main report examines a selection of these innovations in detail for lessons that could be applied elsewhere, and by other institutions, in support of sustainable development. All are initiatives seeking commercial returns or the commercialisation of the business they are financing. All are ways of making the market work for sustainable development. Table 2 indicates the variety of innovations that have taken place in the UK.

Many recent innovations have started to improve the signals capital markets give to business on the sustainability of their activities. New markets to trade in carbon and other waste streams are sending out an increasingly transparent price signal that reducing carbon emissions has commercial value. The surge of activity with SRI has the potential to impact on equity and debt prices, as it moves into mainstream investment processes, but to date the greater potential capital market impact on corporate sustainability is through investor engagement. Commercial banks have improved the allocation of credit through environmental risk assessment processes, while venture capital has increasingly been used to increase access to market finance for environmental technologies and entrepreneurs in underdeveloped communities and developing economies. There have also been many innovations in the insurance and derivative markets. Time and space has not allowed many of these to be covered but the key role insurance can provide in enabling the financing of new energy technologies is examined.

global responsibility

Practitioners' ideas for innovation tomorrow

The discussions with practitioners raised a number of ideas about how the role of financial services in sustainable development could be improved through innovation by financial institutions, or regulatory innovation by government.

The explicit focus is on how the financial market mechanisms could be used to generate sustainable development benefits. In particular there is an emphasis on eliminating market imperfections of information or transaction costs that hinder the financing of sustainable development. See table 3.

Table 1 How financial services are responding to sustainable development challenges

Functions	*Business area*	*Sustainability problems*	*Solutions*	*UK innovations*
Pricing assets and exercising ownership	Asset management –stock selection –corporate governance Investment banking –research –trading	Equity/debt prices not reflecting sustainability performance Ownership not being exercised to promote sustainable asset use	Measurement of corporate performance and impact on business value/risk Shareholder engagement on sustainability performance Create market in unpriced environmental asset/ service	Pensions Act Regulations Corporate reporting on sustainability performance SRI asset management techniques (both stock selection and corporate governance) Emissions/ waste trading
Providing new finance	Commercial banking –credit –leasing Investment banking –project finance –new issues –private equity	Sustainability risks not integrated into credit risk assessment/due diligence Access to finance difficulties for new technologies/ processes Access to finance difficulties for the poor	Assess and integrate sustainability risks into credit risk assessment/ due diligence Include sustainability impacts (to project viability and bank's reputation) in project finance cost-benefit analysis Easier listing requirements for small sustainable venture IPOs Set up private equity/VC funds to invest in environmental technologies/ sustainable new businesses	Specialist banks in credit, micro-credit and leasing for sustainable businesses Commercial bank environmental credit risk assessment Investment bank due diligence IPO capacity Private equity/VC funds (biggest in EU, 2nd only to the US)
Risk management	Insurance –reinsurance –non-life Investment banking –derivatives	Lack of experience of risks and therefore insurance cover for key new environmental technologies Threat to reinsurers and lack of insurance cover for business and households as a result of climate change Contaminated-land brownfield redevelopment hindered by risks of unforeseen liabilities and clean-up cost overruns	Specialist underwriting capacity for environmental technologies Transfer weather risk to capital markets through new weather hedging instruments Encourage mitigation and adaptation by the companies Cost-cap, liability and other insurance instruments to mitigate risks and facilitate brownfield redevelopment transactions	Underwriting capacity for environmental technologies and carbon markets Environmental liability insurance Lobbying on planning regulations and education programmes to mitigate climate risks, especially flooding LIFFE and derivatives capacity

Table 2 Case studies in innovation today

	Process innovations	Product innovations	Market innovations
Pricing assets and exercising ownership	1 ABI guidelines on SRI 2 IIGCC climate engagement coalition 3 Carbon Disclosure Project 4 HSBC sell-side research 5 Schroders investment process	6 ML New Energy Technology plc investment trust 7 Henderson Asia-Pacific Fund 8 FI&S Engagement product 9 Morley Sustainable Futures Funds 10 Jupiter Ecology Fund 11 SGAM Engagement based on Local Agenda 21 12 Storebrand	13 UK Emissions Trading Scheme
Providing new finance	14 The big-4 commercial banks' environmental credit risk assessment	15 Deutsche Bank UK Micro-credit Development Fund 16 CDC risk capital in low income countries 17 Impax Asset Management/IFC PV investment fund in developing countries 18 HBOS Community Banking Agreement 19 Bridges Community Venture Fund	
Risk management		20 R&SA underwriting of wind energy	

Table 3 Practitioners' ideas for future innovation

	Process innovation	Product innovation	Market innovation	Regulatory innovation
Pricing assets and exercising ownership	1 Sell-side research 2 Buy-side disclosure 3 Risk management 4 Investor collaboration 5 Globalisation	6 Indexed funds 7 High-impact asset classes 8 Specialist technology funds 9 Training	10 New commodity markets 11 Carbon trading	12 Disclosure regulations 13 Stock exchange listing requirements 14 Tax incentives
Providing new finance	15 Corporate finance advice 16 Public-private partnerships	17 Exit opportunities 18 Finance for small-scale intermediaries		19 Emerging markets task force 20 Loan/ equity guarantees 21 Enabling environment 22 Tax incentives
Risk management		23 Agricultural yield guarantee 24 Discount rate reduction 25 Premium linkage to risk		

The discussion is also set within the context that governments are the democratic agents through which society's preferences are set. Financial institutions, while quite rightly seeking profitable opportunities, must operate within this framework as well as within a generally accepted set of business ethics. Government needs to play its part. First, through appropriate regulation and taxation of environmental and social impacts, in other words help to create the business case where necessary for the financing of sustainable development. Second, by ensuring a predictable, fair and efficient regulatory environment for finance and, in some cases, providing the conditions to enable the flow of private finance where high risk is preventing the capture of potential high social returns.

The London Principles of Sustainable Finance

Out of this experience we have drawn up a set of seven Principles that propose conditions for a financial system, and the role of financial institutions within that system, that will enhance the financing of sustainable development. The idea is to provide a framework for private financial institutions and policy-makers to focus on where innovations are required to further improve the role of the financial system in financing sustainable development.

Whereas many guidelines focus on environmental performance, or perhaps environmental and social impacts, these principles focus on the financial sector's primary role in promoting economic prosperity as well as its influence on environmental protection and social development. Within each of these three sustainability categories the Principles describe the role of financial services in providing access to capital, pricing risk, promoting high standards of corporate governance and a number of other features.

Financing economic prosperity

Principle 1 Allocating finance from savers to companies and individuals investing and innovating is the primary wealth creation role of the financial services sector. Trading in financial assets is an essential part of this role, to the extent that it enables market prices to be established and to exert market control for the efficient running of the underlying companies and projects.

Principle 2 Given the experience of recent months with ENRON and others the need for financial market mechanisms to promote high standards of corporate governance needs little explanation.

Table 4 The London Principles

Signatories agree, where relevant to the product and geographical scope of their business, to

Economic Prosperity	
Principle 1	**Provide access to finance and risk management products for investment, innovation and the most efficient use of existing assets**
Principle 2	**Promote transparency and high standards of corporate governance in themselves and in the activities being financed**
Environmental protection	
Principle 3	**Reflect the cost of environmental and social risks in the pricing of financial and risk management products**
Principle 4	**Exercise equity ownership to promote efficient and sustainable asset use and risk management**
Principle 5	**Provide access to finance for the development of environmentally beneficial technologies**
Social development	
Principle 6	**Exercise equity ownership to promote high standards of corporate social responsibility by the activities being financed**
Principle 7	**Provide access to market finance and risk management products to businesses in disadvantaged communities and developing economies**

Protecting the environment

Principle 3 The primary market mechanism is the signal provided by prices. In order for financial markets to promote environmental protection it is necessary for debt and equity prices to reflect environmental risks. There is evidence that material impacts on long-term corporate financial performance from environmental risks are not already 'in the market', but should be. The same goes for social risks. However, some impacts will remain unpriced unless addressed outside the financial sector through regulation or reputation effects.

Principle 4 Equity investors have ownership rights over the companies in which they are invested, and a responsibility to exercise them in the long-term interests of the shareholders. Direct investor engagement with companies can be an effective market mechanism by which corporate environmental risk management and performance is improved.

Principle 5 Providing access to commercial finance for the developers of the key new technologies in energy, water, waste and other areas is perhaps the most vital role of the financial system. Reducing the environmental damage from existing technologies and businesses is important, but the transition to a sustainable economy will only come about through innovation and the financing of clean technologies.

Promoting social development

Principle 6 Business risks from supply chain employment conditions, local community impacts and other 'social development' issues have increased in recent years. One of the roles of equity investors, as owners, is to protect investment returns by ensuring these risks are managed through high standards of corporate social responsibility.

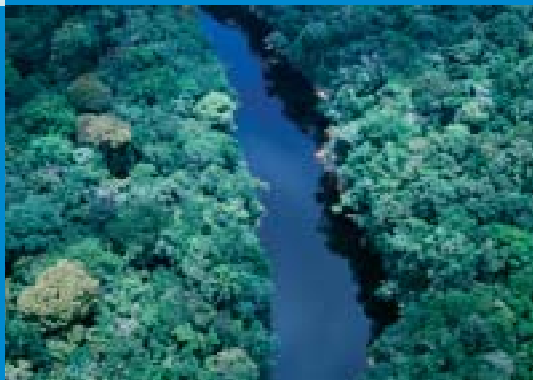
Principle 7 Post September 11 it has become even more important for the market mechanisms of the financial services sector to provide access to commercial finance for both developing economies and business in disadvantaged communities in the OECD. This is partly in order to manage the risks arising from development disparities, but also a source of commercial benefit from untapped entrepreneurship in these areas.

Conclusion

There has been an impressive number of financial innovations in support of sustainable development in recent years in the UK, but there is great scope for further innovation.

This project has limited itself to considering the use of financial market mechanisms to promote sustainable development and would not claim that everything that could be done is being done to finance sustainable development. But by raising awareness of the opportunities and the achievements of many banks, investors and insurers, the project aims to encourage the adoption of these innovations by other financial institutions, at home and abroad.

There has been considerable thought by practitioners about how this can be further developed. All this experience has helped the design of The London Principles of Sustainable Finance, which provide a mechanism to encourage the adoption of existing innovations and help to frame thinking about where further innovations can get the financial markets behind sustainable development.



2 Introduction

This project examines the role of the UK financial services sector in promoting sustainable development. It was commissioned by the Corporation on behalf of DEFRA, as one of the sector initiatives that the Prime Minister would take to the World Summit. This project was carried out by Brian Pearce and Patrick Roche at Forum for the Future's Centre for Sustainable Investment (CSI).

The aim of this project is threefold

- Firstly we wish to identify best practice in financial products, processes and market innovations that address sustainable development risks and opportunities
- Secondly we wish to draw out of this experience lessons for future innovation by both financial institutions and government
- Finally we wish to put in place mechanisms to ensure continuing enhancements, post-Johannesburg, in the financing of sustainable development by UK-based financial institutions.

One of these mechanisms is the set of seven London Principles of Sustainable Finance, which propose conditions under which financial market mechanisms would best promote the financing of sustainable development. This is intended as a framework to allow financing institutions and policy-makers to identify where future innovation is needed, in order to improve the way the financial system as a whole finances sustainable development.

Almost 50 financial institutions were interviewed in detail about their own innovations and their thoughts for future opportunities. This was supplemented by a Chatham House workshop, for a further 80 participants, and written submissions. These interviewees and participants are listed in the appendices however the responsibility for accuracy, the way in which innovations and ideas have been reported, and the design of the London Principles lies entirely with the CSI. The financial institutions endorsing this project support its aims, case studies of their own innovations, and the London Principles themselves. Their endorsement does not imply any commitment to the particular products or ideas advanced in the report, which are intended to raise awareness and discussion on the rich collection of options facing financial institutions wishing to play a part in the financing of sustainable development.

3 Analysis of the role of financial services in sustainable development

The financial services sector plays a very different role to other industry sectors. The biggest impact of banks, investors and insurers on sustainable development is not their own environmental footprint but through their pivotal role in allocating financial capital between different economic activities, both at home and abroad. Since investment in fixed assets, particularly long-lived network assets such as transport and communications infrastructure, will constrain the development path for many years to come it is important to get the allocation of financial capital right. This role as an intermediary implies that the financial sector is a critical channel through which price signals, regulation and civil society pressure can direct financial capital to more or less sustainable economic activity. Some argue that financial institutions are a barrier to persuading companies to adopt more sustainable business practices, seeing these practices as an unwarranted cost. However, there has been much recent progress in identifying viable opportunities for financing sustainability. Innovations in London, and other UK markets, are particularly important given its leading role in world financial markets. This rich collection of innovations is one key aspect of what we would like to draw attention to in this report.

For these innovations to make any material impact on sustainable development the challenge is not so much to encourage the creation of more niche products like ‘green investment funds’, important though they are, but for mainstream investors, lenders and insurers to integrate sustainability into their decisions. For this reason we analyse the financial sector in terms of its functions, as in the table below. There are three key functions provided by markets in financial services

- Pricing assets and exercising ownership
- Providing new finance
- Risk management.

It is through these functions or channels of influence that the market mechanisms of the financial services sector affect the decisions of business to engage in more or less sustainable activities. In order for the market to work efficiently, to reflect the increase in environmental and corporate governance legislation and the impact of these issues on branding and reputation, then these functions must take into account their influence on sustainable development. Asset prices need to reflect sustainability

Table 1 How financial services are responding to sustainable development challenges

Functions	*Business area*	*Sustainability problems*	*Solutions*	*UK innovations*
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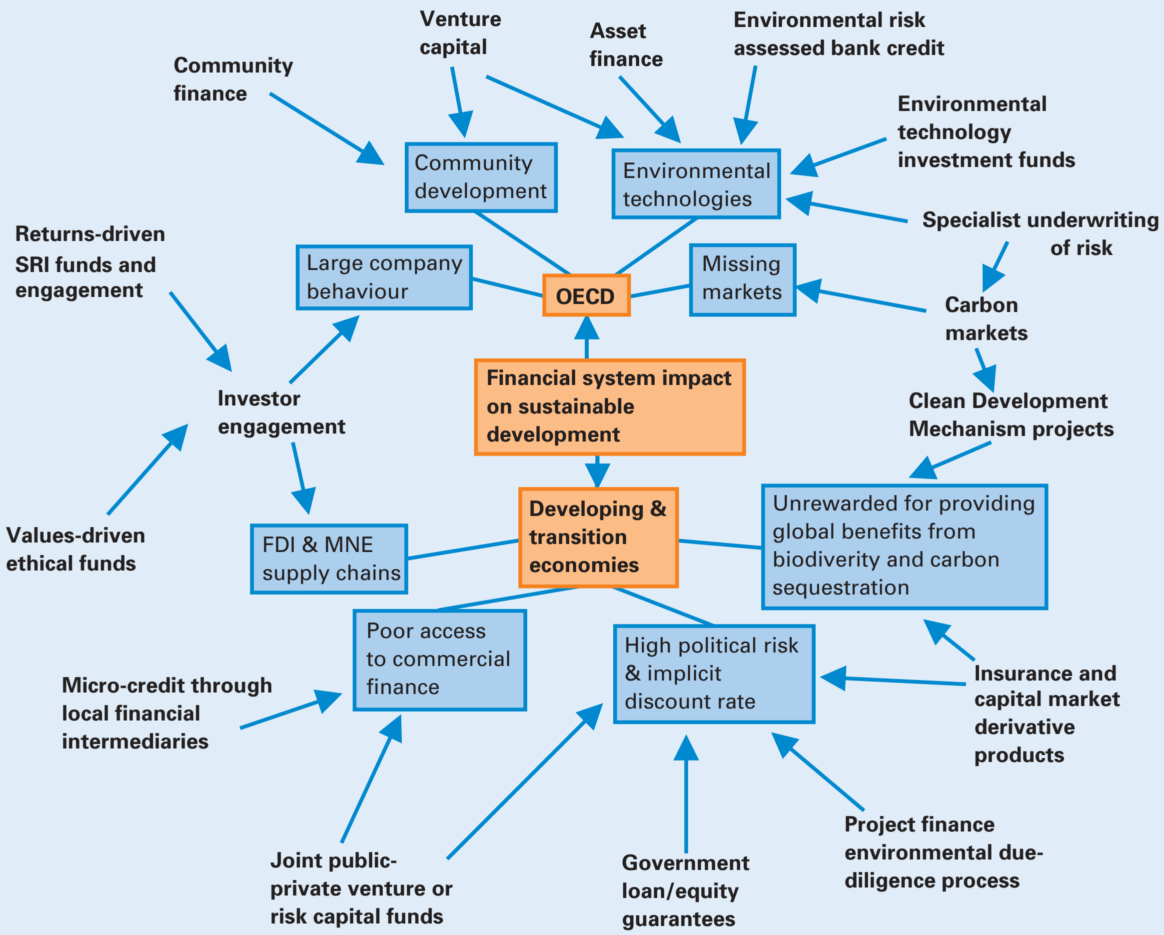
Chart 1 Different financial innovations tackle different sustainable development issues



OECD: Organisation for Economic Co-operation and Development
FDI: Foreign Direct Investment
MNE: Multi-National Enterprises

performance; ownership needs to be exercised to promote sustainable asset use; access to commercial finance is required for technology developers and entrepreneurs in developing countries; due diligence should account for sustainability risks; and risk management products are in demand to insure against these emerging risks.

Table 1 on page 11 addresses how these issues might arise in each of the key financial system functions, which bias the flow of financing towards unsustainable rather than sustainable economic activities. Solutions to these problems are suggested and key areas of UK innovation in support of these solutions are listed.

The role of the many financial innovations in processes, products and markets are shown in Chart 1. This maps out the link between financial innovation and sustainable development, and shows how different innovations tackle different sustainable development issues.

For example, the development of key new technologies in energy, water and waste in OECD economies has been helped by innovations in venture capital, asset finance, environmental risk assessed bank credit and specialist environmental funds, all of which provided access to capital. Specialist underwriting of risk by insurers has also been essential to enable this access to capital.

Risk underwriting has also been an important element in the market innovation for trading carbon and carbon equivalent emission allowances. This is one financial innovation with the potential for benefits to the developing and transition economies through providing transparent markets in which to cash-in carbon credits from Clean Development Mechanism projects. Insurance innovations in the forestry sector and weather derivatives have also the potential to deliver important economic and environmental benefits to these economies.

One of the key issues for the development of sustainable livelihoods in developing and transition economies is often claimed to be the difficulty of access to commercial finance, rather than aid or concessionary finance. Promising innovations directly tackling this issue include the financing of local micro-credit intermediaries and the use of venture or risk capital in joint initiatives between private equity firms and a number of international financial institutions.

Socially responsible investment has been the innovation to attract most attention in OECD economies in recent years. Much of this investment is in secondary capital markets in the OECD and as such has little impact on the South. However, the active engagement with companies carried out by these investors will have an impact on sustainable development in developing and transition economies through the FDI and supply chains of Multi-National Enterprises.

4 Case studies in innovation today

We take a look in this section at what innovations in financial process, product or market have taken place in the UK. These examples and more detailed case studies that follow cover financial institutions that, more often than not, are now multinational in location and in the provision of their services. The common thread is that they chose to establish the particular innovation in the UK, often in the London markets. The other defining characteristic of these innovations is that they are examples of using the market to benefit sustainable development. In other words these are commercial innovations, or at least they are aimed at the commercialisation of technologies or businesses, and are not primarily philanthropic.

There are two parts to the analysis that follows

- We take an overview of a series of process, product and market innovations and the role they are playing in sustainable development
- Then a more detailed set of case studies looking at a selection of the more important of these innovations.

4.1 Overview

Following the analysis above this overview is organised around the process, product and market innovations that have helped to improve

- Pricing assets and exercising ownership
- Providing new finance
- Risk management.

4.1.1 Pricing assets and exercising ownership

Process innovation – Investors have started to recognise sustainability as a factor in business success by identifying key environmental and social risks to short and long-term business value, and take account of this in the investment and corporate governance processes.

– The ABI guidelines and associated research make an explicit link between corporate environmental and social performance and risks to business success, and call for companies to identify these risks and manage them effectively. This is an initiative by mainstream returns-driven investors. The risks will vary between sector and company and over time, but they are relevant for every investor.

Process innovation – Investors have collaborated nationally and internationally in order to engage on specific issues with companies and policy-makers.

- The SRI Forum of major UK investors and asset managers collaborated in putting together a set of business risk-related SRI engagement guidelines, which were the model on which the ABI guidelines have been based.
- The Universities' Superannuation Scheme Climate Change Project has commissioned a report and set up several collaborations with other UK investors to engage with companies, policy-makers and also property managers. Engagement with policy-makers is explicitly not to lobby on behalf of specific companies or sectors, but recognises that overall economic and social performance of the economy is vital for pension funds as 'universal investors'.
- The Carbon Disclosure Project is a UK-led collaboration with major institutional investors in Europe, America and Asia to bring a substantial weight of funds behind pressure on Fortune 500 companies to disclose their carbon emissions. This project aims to make engagement successful with MNEs, to remove the need for lots of questionnaires and to focus on the risk to business success by providing a carbon analysis from Innovest.

Process innovation – Fund managers have started to make their engagement process transparent by disclosing details of dialogue with companies and voting policies, and provided evidence of its effectiveness.

- There is a concern that some claims of investor engagement on environmental and social issues are little more than 'greenwash'. Even when significant resources are devoted to engagement there is a need to assess whether anything is being achieved. Causality is impossible to prove but it should be possible to demonstrate that the investors were part of the process that brought about change.
- The Central Finance Board of the Methodist Church have a transparent process of disclosure on their engagement with companies.
- Morley Fund Management require FTSE100 companies to publish an environmental report to avoid a vote against them at the company's AGM.

Process innovation – Investment bank sell-side analysts have integrated corporate environmental and social performance into their financial analysis of companies, and provided such research for their asset manager and institutional investor clients.

– Since brokers' analysts are the main interface between investor and company, their acknowledgement of the importance of environmental and social performance as a factor in business success would dramatically increase the effectiveness of SRI. HSBC has recently set up a service to provide research on corporate sustainability performance for mainstream analysts and SRI clients.

Process innovation – Values-based institutional investors with a fiduciary duty to maximise financial returns within an ethical or sustainable development framework, such as churches, charities and public sector pension funds, have done this by using risk management techniques to offset the impact of screening on active risk exposures, or through their corporate governance process.

– The Central Finance Board of the Methodist Church has been a 'modern SRI' investor for many years, and has an excellent investment returns performance. One factor behind this success has been to ensure that the SRI fund has a similar beta to the market, by replacing excluded stocks with those having a similar correlation with market movements; tobacco with food retailing for example.

– An alternative approach has been taken by both USS and the Co-Operative Insurance Society, who follow a standard investment process but have put significant resources behind an SRI team to engage on environmental and social performance with their major investments.

Product innovation – Index-tracking or quasi-index-tracking investment funds have extended their corporate governance activities to include engagement on environmental and social performance.

– Engagement by equity investors with investee companies on environmental, social and other corporate governance issues is necessary to exercise responsible ownership. Many funds are under pressure to match benchmark index performance and have become in effect quasi index tracking funds to add to the growing proportion of explicit index funds. As a result many investors have become permanent owners of the top 20-30 or so companies in the benchmark index, and so do not have the option of disinvestment if the company underperforms on environmental or social criteria. Engagement to improve performance as an overlay to the index-tracking investment process is the only option. Friends, Ivory & Sime have just recently entered into a collaboration with State Street Global Advisers to offer index-tracking funds with an engagement overlay.

Product innovation – Fund managers have set up specialist environmental technology funds to invest in listed stocks in sustainable energy, water, waste and resource management.

– These funds focus on the long-term growth sectors, generated by the sustainable development agenda. Funds or investment trusts such as the Merrill Lynch New Energy Technology plc, FIS's ISIS EcoTec Environmental Technologies Fund or the Impax Capital Environmental Technologies Fund understand the nuances of the technologies, the regulatory environment and provide an important role for these new technology companies. They perform a stabilising role by buying low-valued sustainable technology stocks when other general technology funds sell them along with other small caps. They also provide an important exit for venture capitalists and so encourage financing at the key start-up stage.

– Environmental technology funds were set up, and failed, in the early 1980s. These new funds now have a more promising future as energy and water markets are being liberalised, environmental regulations are tightening. Moreover whereas the 1980s 'end-of-pipe' technologies offered just a cleaner environment, the new technologies also add shareholder value.

Market innovation – Banks have provided project finance and trading capacity in London to facilitate the development of the UK Emissions Trading Scheme in 2002, which is likely to be the first active market in carbon emission allowances and credits.

– The industry-led UK Emissions Trading Scheme has the potential to be a key stage in the development of a carbon-constrained economy. Individual carbon trades have taken place elsewhere on a case-by-case basis but the UK market could offer the first transparent price for carbon and a place for Annex 1 countries to cash in carbon credits. Arguably, the UK scheme is lent credibility and liquidity by the introduction of the mandatory EU scheme from 2005.

– The UK market could also facilitate the transfer of resources to developing economies by offering, once rules are established, a place for non-Annex 1 countries to cash there CDM carbon credits. Barriers that need to be overcome include the cost of verification and a concern that developing country projects will become skewed to carbon and away from poverty alleviation.

Market innovation – Banks have facilitated the trade in Green Certificates.

– Eco-Securities recently advised on the first trans-Atlantic Green Certificate trade between Holland and a Guatamalan hydro-electricity project.

4.1.2 Providing new finance

Process innovation – Banks have established risk-based screens for mainstream credit and project finance business, and exclusionary loan screens, based on environmental, social and ethical criteria, for value-based depositors.

– UBS Warburg have introduced an environmental risk management system to assess and manage credit risk and risks to reputation and the viability of a loan or project finance. The clearing banks, such as Barclays, RBS, HSBC and LloydsTSB, have similar screens to manage those risks on their commercial loan books.

– Cooperative Bank screens its loans on the basis of an ethical policy based on extensive consultations with its depositors and other stakeholders. They report on the number of loan applications rejected on grounds of harming environmental, social or ethical objectives.

Process innovation – Banks have started to disclose and produce externally-verified reports on indicators showing the delivery of sustainable value to all partners, including shareholders, customers, workforce and local communities.

– Cooperative Bank's sustainability report provides a useful model for external verification and measuring sustainability impact. For each part of their business they report a sustainability cost-benefit analysis. Overall, it is estimated that 15-18% of their profitability can be attributed to sustainability policies.

Product innovation – Investors and banks have provided finance and capacity building support to small-scale financial intermediaries supplying innovative finance, such as micro-credit and private equity to community and environmental ventures.

– Deutsche Bank has launched a micro-credit development fund in the UK, to provide finance and encourage the financial and operational sustainability for micro-credit institutions in the UK and in developing countries.

– Small-scale intermediaries in community micro-credit such as StreetUK and in environmental finance such as Triodos-UK have the cost structure and expertise to successfully deliver innovative finance at the small scale often required by these sustainable ventures.

Product innovation – Investors have demonstrated that venture capital can work in the poorest countries to generate commercial returns on projects that are also providing development, environmental and community benefits.

– CDC Group are transforming themselves from a provider of concessional debt finance to a private equity provider seeking commercial returns on projects in the low-income economies of Sub-Saharan Africa and elsewhere in the world. This has meant their exit from sectors such as agriculture, where returns are below hurdle IRRs, but they are supplying an important and growing demand for access to market finance from emerging market entrepreneurs. The CDC business model uses local knowledge to get deals and assess political risk, private equity skills to increase the chances of success during the life of the project, and a set of Business Principles to ensure a sustainable and ethical approach by the company in which they are invested.

Product innovation – Investors and banks have financed sustainable development in emerging markets through partnership with International Financial Institutions, Development Agencies and local financial intermediaries.

– Impax Asset Management (in their solar energy VC fund, the Photovoltaic Market Transformation Initiative, (PVMTI) and CDC Group have partnered with the IFC to share risk and access to long-term finance. This partnership to share the much higher risk involved in emerging markets is a key to attracting private finance into sustainable development in these economies.

– CDC Group and others have invested in local financial intermediaries as a means of effectively delivering finance in developing economies. The generation of sustainable livelihoods in developing economies generally requires small-scale finance such as micro-credit or mini-enterprise lending. This is most effectively delivered through low-cost, local, financial intermediaries which require access to finance and capacity building from northern financial institutions.

Product innovation – Banks have provided finance instruments, such as asset finance and development bank bond issues, that matches the payback period of sustainable projects.

– One of the difficulties often experienced by preferential loan instruments is that the payback period of many sustainable projects, such as a combined heat and power plant or a wind farm is 5-9 years compared to the typical business loan of 1-3 years.

– Cooperative Bank has a successful asset finance business which provides longer-term finance that matches the payback period of the typical environmental venture. Projects such as a local authority waste to energy district heating scheme will have an even longer payback period of 15 years or more. There are opportunities for local financial institutions, such as the Co-op Bank who can place funds in these sorts of projects , to partner with development banks to get access to their low-cost, long-term bond finance. The other commercial banks will finance some of these businesses through their general asset finance operations.

Product innovation – Banks have provided finance to credit unions and disclose against community lending standards such as the Bank of England's, the extent of lending to the poorest communities as compared with deposit-taking.

– Credit unions have proved very effective financial intermediaries in underdeveloped communities, driving out loan sharks, and increasing financial literacy and incentives to save through linking loans to individual deposits. UK banks are financing a number of these institutions.

Market innovation – Listed equity investors have provided a clear exit opportunity for sustainable venture capital investors through a liquid and mature Socially Responsible Investment market.

– A prerequisite for a strong flow of venture capital finance into sustainable environmental and community ventures is a clear exit several years later by investors who will buy listed equities in these new companies. The UK's maturing SRI market will provide this. This is also an argument for funds and investment trusts such as the Merrill Lynch New Energy Technology plc that invests in small unlisted ventures (up to 25% of total assets) as well as listed equities, providing support and finance for new energy ventures throughout their development life-cycle.

4.1.3 Risk management

Process innovation – Insurers have worked with policy-makers to design appropriate policy and encourage the direct mitigation of sustainability-related risks.

– Insurers such as Aviva (previously CGNU), Prudential, Storebrand, CIS and NPI and others and a number of individuals from the industry have worked with policy-makers through institutions such as the UNEP Insurance Industry Initiative to, in particular, promote appropriate climate policies. This initiative is sponsoring research on the framework required after the Kyoto Protocol's first commitment period (2008-2012), which is necessary to be understood for infrastructure projects with economic lives of 25 years or more.

– In the UK insurers have also been involved in lobbying the local government planners (and the ABI at a national level) to prevent new development taking place in low-lying areas vulnerable to flooding and other extreme weather events. Similar policy discussions and research have been supported by the industry on, for example, the design of buildings and building codes in the face of increased rates of subsidence.

Product innovation – Underwriters have developed specialist knowledge in emerging environmental technologies in order to be able to understand the risks and properly price premium for insurance cover. The absence of this cover makes these technologies very difficult to finance.

– Royal & SunAlliance (R&SA) have developed specialist knowledge and a substantial business underwriting projects in the wind energy sector. This is likely to have played a significant role in enabling finance to be attracted into these emerging technologies.

Product innovation – Providers of financial derivative products have supplied tools to enable investors and businesses to manage a number of the risks arising from sustainable development issues.

- LIFFE have introduced a number of weather indices to allow investors, agricultural and entertainment businesses and others to hedge against extreme weather events. Since climate change is, arguably, already leading to more unstable weather patterns, these risk management tools are increasingly valuable and allow a higher level of economic activity than otherwise.
- UBS Warburg have introduced a number of derivative products based on the FTSE4Good equity indices, allowing ethical and SRI investors to take on or reduce their risk to this style of investing.

Product innovation – Insurers have provided reinsurance and insurance for low-latitude forests against the risk of fire and storm damage, by requiring the adoption of sustainable forestry management techniques.

- Partner Re have introduced a reinsurance product for a pool of local insurers in Indonesia that requires insured forestry companies to undergo Sustainable Forestry Management (SFM) training and/or certification. It has been found SFM, through simple measures such as fire breaks and good relationships with local communities, can reduce the risk of forest loss by 75% and premiums from 2% to around 0.6%. Daily satellite imaging allows the monitoring of forest risks. This provides a market-based incentive for sustainable forestry.

Table 2 Case studies in innovation today

	Process innovations	*Product innovations*	*Market innovations*
Pricing assets and exercising ownership	1 ABI guidelines on SRI 2 IIGCC climate engagement coalition 3 Carbon Disclosure Project 4 HSBC sell-side research 5 Schroders investment process	6 ML New Energy Technology plc investment trust 7 Henderson Asia-Pacific Fund 8 FI&S Engagement product 9 Morley Sustainable Futures Funds 10 Jupiter Ecology Fund 11 SGAM Engagement based on Local Agenda 21 12 Storebrand	13 UK Emissions Trading Scheme
Providing new finance	14 The big-4 commercial banks' environmental credit risk assessment	15 Deutsche Bank UK Micro-credit Development Fund 16 CDC risk capital in low income countries 17 Impax Asset Management/IFC PV investment fund in developing countries 18 HBOS Community Banking Agreement 19 Bridges Community Venture Fund	
Risk management		20 R&SA underwriting of wind energy	

4.2 Detailed case studies

CASE STUDY 1

Guidelines on Socially Responsible Investment for mainstream institutional investors

ABI

Financial innovation

One of the challenges for getting investment in secondary securities markets to pro-actively generate sustainable development benefits is to involve the mainstream asset managers. The Association of British Insurers (ABI) guidelines aim to do just that.

In 2001 the ABI published guidance to their members on implementing Socially Responsible Investment. Their innovation was to reject the tick-box, standard setting approach in favour of requiring investee companies to disclose how they have identified and managed risks to the short and long-term value of the business from social, environmental and ethical matters. This risk-based approach, making an explicit link between sustainability performance and business success, has created a route for all mainstream institutional investors to integrate corporate environmental and social impacts into their investment and corporate governance processes.

Impact on sustainable development

Together with the pension funds these institutional investors represent a powerful concentration of ownership of UK and overseas companies, and a potentially powerful influence over their environmental and social performance. The ABI guidelines recommend that institutional investors seek to improve corporate environmental and social performance through investor engagement rather than by stock selection, ie direct influence rather than what might be a very weak indirect effect through the company's share price. Given the size of this group of investors they are able to bring about an improvement in the impact of their investee companies on sustainable development in developed economies and, through the supply chains of multinationals, in developing economies.

Key success factors and challenges

One of the critical success factors behind this innovation was the identification of the relevance of sustainable development to the mainstream investment and corporate governance processes. A hindrance to the adoption of sustainable and responsible investment practices by mainstream investors has been the association with the negative screening approach of ethical investment. Recent evidence that environmental and social issues are increasingly creating significant risks and opportunities for firms has strengthened the business case. The challenge is whether the potential for generating sustainable development benefits will be put into practice. This requires first, for these guidelines to be adopted widely and second, for there to be a sufficiently large and robust 'business case' to encourage an improvement in corporate environmental and social performance of sufficient size to justify this approach.

Company profile

The ABI represent institutions whose investment divisions manage assets over £1,000 billion.
It was formed in 1985 through the merger of a number of separate insurance trade associations, and now represents all sections of the insurance industry. See www.abi.org.uk.

CASE STUDY 2

UK investor coalition to improve corporate impacts on climate change

IIGCC

Financial innovation

Another challenge for getting pro-active sustainable development benefits from investment in secondary securities markets, is to accumulate a sufficiently large shareholding to exert effective influence over the investee company's environmental and social policies. The key innovation with this initiative is that it is an investor-led single-issue coalition, with £450 billion of assets behind it. A second innovation is to recognise the importance of markets (the missing market for greenhouse gas reductions) as well as individual companies and the need therefore to engage with policy-makers also. A third is to engage with property as well as listed equity investments. Joint action by investors, to engage with both companies and policy-makers and with a clear focus on reducing greenhouse gas emissions, brings a powerful new approach to the attempts to mitigate climate change.

The Institutional Investors Group on Climate Change (IIGCC) recognises the growing scientific and political consensus that emissions of carbon dioxide and other greenhouse gases are contributing to climate change. The IIGCC further recognises that companies and markets in which its members invest may face significant risks and opportunities associated with climate change, either indirectly through changes in the regulatory environment or directly through changes in the physical environments in which they operate. The IIGCC believes that many institutional investors and companies would benefit from a greater understanding of these risks and opportunities. Specifically, it believes that if companies were more aware of the impacts of climate change, and the implications associated with a shift to a low carbon economy, then this could lead to an increase in the long-term value of its members investments. Therefore the IIGCC's aims are first, to promote a better understanding of the implications of climate change amongst institutional investors and second, to encourage companies and markets to address any material risks and opportunities to their businesses associated with climate change and a shift to a low carbon economy.

Impact on sustainable development

This coalition of UK-based institutional investors represents a significant concentration of ownership and a potentially powerful influence over the climate change policies of their investee companies. The IIGCC has formed four working groups to investigate the most effective means to effect change. First, engagement with companies. Second, engagement with public policy, Third, through the performance of property assets. Fourth, through the fund management process.
It remains to be seen how effective an influence this coalition has over the policy-making process, and whether the coalition concludes that active stock selection on the basis of climate change performance will have sufficient impact to justify this approach over direct engagement with companies. There is certainly significant potential impact on sustainable development through engagement with investee companies and property assets.

Key success factors and challenges

The success in getting this coalition of SRI specialist and mainstream institutional investors together was, like the ABI guidelines, to make an explicit link between corporate climate change policies and business risk, both for equity and property investments. A key aspect of this was a research paper, commissioned by USS Ltd, 'Climate Change – a Risk Management Challenge for Institutional Investors' which set out the investment case.
The challenges to the success of this approach will be first, the extent to which the coalition can successfully influence its investee companies, and second, the extent to which policy-making can be influenced to reduce greenhouse gas emissions without leading to policies that damage the financial performance of investee companies.

Company profile
The IIGCC was initiated by the pension fund the University Superannuation Scheme (USS Ltd) in 2001. The IIGCC consists of occupational pension fund managers and insurance companies: BP Investment Management Ltd, Central Finance Board of the Methodist Church, Co-operative Insurance Society, Environment Agency Pension Fund, Friends, Ivory & Sime, Hendersons Global Investors, Morley Asset Management, Local Authority Pension Fund Forum, London Pension Fund Authority, Schroders, Storebrand, and USS Ltd. See www.usshq.co.uk/srsi/thematic_engagement/framclim.htm

CASE STUDY 3

International investor coalition to improve corporate disclosure on carbon emissions

CDP

Financial innovation
The Carbon Disclosure Project (CDP) has written, on 31 May 2002, to the 500 largest quoted companies in the world asking them to disclose investment-relevant information about their greenhouse gas emissions. It is innovative in several aspects. The first is that it brings together an international coalition of investors that could exert considerable influence over the companies they invest in. The second is that it has a very clear focus on what it requires of companies, namely to disclose consistent information on greenhouse gas emissions. The CDP will not directly reduce corporate greenhouse gas emissions, but the high quality information it produces is a key step to the effective management of these climate change impacts.

The CDP was started by investors because of the potential business risks and opportunities related to actions stemming from the perception of climate change that have implications for the value of shareholdings in corporations worldwide, and the realisation that shareholders need to better understand climate change risks and opportunities. The data to assess these issues are not always available and sometimes lack comparability or are of poor quality. A joint information request was rightly thought essential to reduce costs for corporations.

Impact on sustainable development
This international coalition of institutional investors represents a powerful concentration of ownership in the world's largest 500 quoted companies, and therefore a potentially powerful influence over their disclosure of high-quality information on greenhouse gas emissions. This coalition is not engaging directly with companies to improve their environmental performance and so there will be little benefit in the short-term to sustainable development. However, if successful in forcing disclosure of high-quality, consistent and comparable data, this may have substantial long-term benefits to reducing corporate climate change impacts.

Key success factors and challenges
A key success factor has been the collaboration of major global investors like Merrill Lynch, Credit Suisse and Allianz Dresdner, pursuing an agenda on corporate greenhouse gas emissions data that is reasonably demanding. Challenges include ensuring that at least 50% of recipients provide comprehensive replies, and ensuring that CDP in year two includes more major European and particularly North American institutional investors such as ABP, CalPERS and CREF. CDP's long-term challenge is to get all public corporations to disclose emissions data and for the project to become a mandatory requirement administered by international regulatory authorities.

Company profile

The CDP was initiated by several individuals from the UK SRI and private equity fields, and is now back by a coalition of international institutional investors managing assets of around $4 trillion. It is constituted as a Special Project of the Philanthropic Collaboration at Rockafeller Philanthropy Advisers, with United States IRS 501–3 charitable status, and has been funded by several US and European foundations. As of 31 May 2002 the institutional investors backing the CDP were: Abbey National, Alecta, Allianz/Dresdner, AP2, AP3, Baillie Gifford & Co., Calvert, Central Finance Board of the Methodist Church, Coalition for Environmentally Responsible Economies (CERES), Clerical Medical Investment Management, Connecticut Retirement Plans and Trust Funds, Cooperative Insurance Society (CIS), Credit Suisse Group, Domini Social Investments LLC, Gartmore, Henderson Global Investors, ING Sustainable Funds, Jupiter, Local Authority Pension Funds Forum, Legal & General, Merrill Lynch Investment Management, Morley Fund Management, Munich Re, Newton Investment Management, Rabobank, Societe Generale Asset Management UK, Storebrand, Swiss Re Asset Management, Threadneedle Investments, UBS Global Asset Management (UK), University Superannuation Scheme, Walden Asset Management.
See www.cdproject.net.

CASE STUDY 4

Providing ‘sell-side’ corporate environmental and social research for investors

HSBC

Financial innovation

The investment bank or ‘sell-side’ company analyst is the main interface between investor and company. However, almost all research into corporate environmental and social performance is carried out by third-party service providers or specialist fund managers. HSBC’s important innovation was to introduce a SRI research service to their pan-European group in the UK, with the potential to reach an extensive international investor and asset management client base. There are two parts to this service. The first is a flow of written research on companies and the key environmental and social issues they face. The second is the facilitation of regular opportunities for fund management clients to question companies and opinion-formers directly. The main objective is to support the research and engagement programmes of clients actively looking at the environmental and social performance of investee companies, and to expand this base by raising investor awareness of the importance of these issues.

The importance of this innovation is in the flow of information that it will provide to fund managers and investors. Many of the existing third-party research providers provide ratings on companies that are opaque, in that they often use complicated metrics to reduce the environmental and social performance of companies to a single rating. This service provides clear information on the distinct strengths and weaknesses of corporate performance and facilitates a more detailed discussion between the company and investors. This should build capacity and raise awareness.

Impact on sustainable development

There is no direct impact of this innovation on sustainable development, but its potential indirect impacts are significant. To date the dissemination of information about companies environmental and social performance has been very limited. The extensive reach and international client base of investment banks such as HSBC implies that this new research service could significantly raise awareness and fill and information gap in most company valuations. If, in addition, the service develops ways in which mainstream analysts could integrate key aspects of corporate environmental and social performance into their valuations of companies, then a powerful pressure for equity prices to reflect corporate sustainability will have been created.

Key success factors and challenges

The understanding of fund management needs has been a key success factor behind the introduction of this innovative service. The focus of institutional investors and their fund managers on implementing SRI through engagement has lent great value to the ability of the investment bank in bringing senior staff from major companies to meetings with investor and fund management clients. A challenge will be to provide sufficient research coverage without a major investment in staff. More fundamentally the challenge is to persuade mainstream company analysts that they should be taking corporate environmental and social performance into account in their valuations and recommendations.

Company profile

HSBC was formed by the merger of the Hong Kong and Shanghai Bank with the Midland Bank in 1992, and is now one of the largest commercial and investment banks. See www.hsbc.com.

CASE STUDY 5

Integrating sustainability into the mainstream investment process

Schroders

Financial innovation

Schroders focuses on fundamental analysis to identify attractive investment opportunities for clients' portfolios, and has introduced some innovative tools to integrate sustainability into their mainstream investment process. Dedicated sustainability analysts sit within Schroders' financial analyst team to facilitate this integration. As well as in-house research they utilise external resources both from specialist research providers and, increasingly, from sell-side brokers. These resource are used by the analysts to assess the impact on upside and downside risk to long-term shareholder value from corporate environmental and social performance. This is analysed partly through information on company exposure to various sustainability risks and opportunities. However, an important part of the assessment related to the quality of management. Engaging with companies gives a fresh perspective on the quality of management, using the sustainability theme as a proxy to assess how closely management have thought about risks to and opportunities for their businesses. Reports from these meetings and external sustainability research are available to all fund managers and analysts via Schroders global research database. Initially the scope of Schroders' SRI policy has been on the FTSE350, where they have the largest holdings and the closest relationships with management.

Impact on sustainable development

As more investors begin to integrate sustainability factors into the investment process, as Schroders is doing, the stockmarket will differentiate between those companies employing best practice and those not. More directly, engagement by a respected mainstream investor is a powerful supplement to the work speciality SRI funds have been doing, and is already motivating many companies new to sustainability to implement environmental management systems, social reporting and stakeholder dialogue.

Key success factors and challenges

With a few notable exceptions, the scope, quality and comparability of data related to companies' sustainability performance is currently poor. This means that it is difficult to quantitatively assess its impact for individual companies, and benchmark companies' performance against their peers. One of the main thrusts of Schroders' engagement is to improve the quantity and quality of companies' data collection and disclosure which, over time, should enable sustainability factors to be better assessed by the market. Internally the challenge is to raise the profile on sustainability issues such that they are given due consideration in the investment process. Another challenge is working in partnership with companies new to sustainability: raising issues, being a sounding board for management as they develop initiatives, and challenging them on their progress.

Company profile
Schroders is an independent, global asset manager with £110bn under management. In Britain Schroders has almost 200 years of history and is the second largest active manager. Schroders plc is a FTSE100 listed company in which the Schroder family still retains a large holding. See www.schroders.com.

CASE STUDY 6

Investing in clean energy technology companies

Merrill Lynch Investment Managment[1]

Financial innovation
Merrill Lynch Investment Management (MLIM) set up, in 2000, the Merrill Lynch New Energy Technology investment trust to invest up to £200 million in companies working on renewable energy, automotive and on-site generation (fuel cells and micro turbines), energy storage, and enabling energy technologies (including green power marketing and companies involved in emissions trading). Its role is not to provide start-up finance in fledgling companies but to fund expansion in 'pure-play' alternative energy companies, ie avoiding the larger energy companies that have alternative energy subsidiaries. An investable universe of some 300 companies around the world has been identified, out of which a third have stock market listings. The investment trust is mostly invested in listed companies but a key innovation of this fund is that up to 25% of its assets can be placed with unlisted, pre-IPO, companies. In this way the investment trust can provide capital to firms in this sector from early stage, through expansion and listing, and provide liquidity and share price support for the firm's shares traded on the secondary markets.

Impact on sustainable development
The impact on sustainable development from this fund comes from the support it gives to the clean energy technology and associated sectors. The financing of new clean energy technologies is a key element in the sustainable development of all other economic sectors. It is difficult to assess whether the investment trust's investment in listed equities provides an incentive for sustainable development through producing a premium for clean energy stocks. However, the provision of private equity capital to these technology providers does directly contribute to sustainable development. Arguably, the liquidity provided by the investment trust investing in listed equities provides a credible exit and therefore a key building block for the attraction of venture capital into this sector.

Key success factors and challenges
Expertise in the energy sector and a detailed understanding of the new energy technologies have been key factors in the success of setting this fund up. MLIM drew on a strong mainstream energy team for these skills and brought in key external experts on the investment trust's board to fill any gaps. A serious challenge has been the poor performance of the technology sector generally in the past two years, which has led to disappointing investment returns. However, the underlying strength of the investment case remains. A further challenge will be for an investment trust like this, with no explicit sustainable development objective, to provide new finance to unlisted companies for the energy technologies with greatest potential environmental benefit.

Company profile
MLIM is one of the world's largest asset managers with more than US$ 500 billion of assets under management. It has grown through a number of acquisitions over the past 35 years, most recently with Mercury Asset Management, and provides a variety of active, passive, quantitative, hedge fund and private equity funds. See www.mlim.co.uk.

[1] An earlier, expanded, version of this case study appeared in Pearce, B (2001), *Capital Markets, Financial Services and Sustainability*, Cambridge Programme for Industry Business & Environment Programme.

CASE STUDY 7

SRI in the Asia Pacific region

Henderson Global Investors[2]

Financial innovation

In 1998 Henderson increased their wide range of SRI products by launching an investment fund, the NPI Global Care Asia Pacific fund, to invest in companies in the Asia Pacific region that would contribute to, or benefit from, environmentally and socially sustainable economic activity. The key innovation was a fund investing in sustainable and responsible companies in one of the key developing country regions. One serious issue for the financing of sustainable investment is that most recent financial innovation has focused on finance for developed and not developing economies. There is an impact from developed country SRI investment through influencing the supply chains of multinational enterprises but this particular fund is one of the few financial innovations with an explicit focus on a developing country region.

The Asia Pacific fund is also innovative in that it invests in companies where the stock price is believed to undervalue its environmental and social performance, which are believed to be key drivers of future earnings growth. It looks for good value rather than growth potential, which contrasts its style with funds such as the Merrill Lynch New Energy Technologies Fund. There are some exclusions (nuclear, tobacco, arms, pornography and animal testing) and some active engagement with companies in the region, but the investment process is essentially one of positive stock selection driven by the concept of sustainability.

Impact on sustainable development

Mainstream investment evaluation techniques ignore two key drivers of future earnings growth – environmental and social performance – resulting in stock market pricing anomolies. By exploiting these pricing anomolies the Asia Pacific fund should both deliver good investment returns and put pressure on equity prices to better reflect corporate sustainability performance. To the extent that the latter is successful a price signal will be sent to companies, encouraging better environmental and social performance.
The active dialogue and other engagement carried out by the fund with its investee companies may also have a direct influence on corporate sustainability performance in the Asia Pacific region.

Key success factors and challenges

One of the key issues was whether SRI could be applied in a completely new region. Henderson believed they could apply the specialist skills and tools developed in other markets. However, an important success factor was a local presence to assist with stock selection and engagement with companies in the region. One major challenge was one of benchmarking performance in economies with very different cultures and incomes levels. This was dealt with by establishing regional benchmarks with the help of a network of local institutions and NGOs. The other major challenge is the effectiveness of the fund in promoting sustainable development in the region. There are two issues. First, the fund is small relative to the market, which limits its impact on equity prices. Second, it invested in companies quoted on stock markets whereas many of the businesses generating sustainable livelihoods in developing countries are private.

Company profile

Henderson Global Investors are part of the AMP Group, a leading Australian financial institution with total assets under management of over £100 billion. With £500 million in institutional mandates they are one of the leading institutional SRI managers and, along with FI&S, are closest to developing a global SRI capacity, with SRI funds distributed in Canada, Hong Kong, New Zealand, Australia and Europe. The NPI Global Care funds come under the retail brand National Provident Institution (NPI) which has its roots in the Quaker tradition of its founders in the early 1800s and is one the UK's leading specialist providers of retirement-related financial services. See www.npi.co.uk/globalcare.

[2]An earlier, expanded, version of this case study appeared in Pearce, B (2001), *Capital Markets, Financial Services and Sustainability*, Cambridge Programme for Industry Business & Environment Programme.

CASE STUDY 8

Engaging with companies to promote good corporate sustainability performance

Friends, Ivory & Sime[3]

Financial innovation

The Friends, Ivory & Sime (FIS) innovation was to design a sophisticated engagement policy to improve corporate environmental and social policy, trade-marked as REO (Responsible Engagement Overlay). This was explicitly designed for UK and overseas pension funds and other institutional investors, with a legal requirement to seek the best financial returns. Whereas specialist screened funds are arguably less suitable to institutional investors because of their narrower investment universe and resulting higher risk, an engagement policy can overlay a standard investment process.

The engagement policy is implemented by the FIS SRI team by putting pressure on companies to improve environmental and social performance when doing so would help improve financial performance. FIS believes there is considerable evidence for this business case and also that implementing corporate governance by simply voting shares at AGMs is not effective. They engage through an ongoing dialogue focused on several key SRI issues (presently environmental management, climate change, human rights and labour standards) with the managers of the companies in which FIS is invested. Transparency (to clients) and some measure of non-financial performance is provided by a client report and an audit trail of engagement with each company.

Impact on sustainable development

Institutional investors can have their diversification in a standard investment fund and separately seek to achieve sustainable development benefits through the engagement process. This does mean of course that FIS could be investing in companies that have activities in countries with oppressive regimes or have a significant negative environmental impact. This is a very different approach from traditional ethical investment funds that invest only in 'responsible' companies. However, engaging with the laggards offers a much bigger payoff in terms of potential environmental or social benefits from improved performance.

Key success factors and challenges

One of the key success factors was providing an investment product (engagement) that enables institutional investors with fiduciary duties to put pressure on companies to improve their environmental and social performance, without raising the investment risk profile on their portfolio. A challenge is that there are no universally accepted standards for corporate sustainability policies, unlike corporate governance which has its Combined Code, which suits an exploratory engagement approach rather than a strict screening of stocks. A further challenge is that a financially-driven approach to SRI does not always work. For example an arms exporting company is unlikely to create value for its shareholders by stopping sales of weapons to the third world. Finally, it may be inconsistent to completely separate the engagement from the investment process. If poor sustainability performance leads to poor financial performance and engagement does not work should the fund not disinvest?

Company profile

FIS is the fund management arm of its parent company Friends Provident, which owns 63% of its equity. FIS manages around £70 billion, which includes all Friends Provident's retail unit trust funds as well as FIS life and pension funds, and has recently acquired the asset management business of the Royal & SunAlliance. See www.friendsis.com and www.friendsprovident.com.

[3]An earlier, expanded, version of this case study appeared in Pearce, B (2001), *Capital Markets, Financial Services and Sustainability*, Cambridge Programme for Industry Business & Environment Programme.

CASE STUDY 9

Equity, bond and property investment in sustainable futures

Morley

Financial innovation

Morley Fund Management introduced a set of ‘Sustainable Futures’ investment funds with a number of innovations. The first is that the primary investment theme is sustainable development, and the investment process looks for companies making a direct link between sustainable development and long-term returns. The premise is that the necessary shift by world economies from environmentally and socially unsustainable growth to sustainable growth will be one of the key drivers of business in the 21st century. Therefore, the companies most likely to grow consistently over the next few decades will be those that are promoting or benefiting from sustainable economic development.

A further innovation is that these funds are invested across a number of different asset classes, including corporate bonds and property as well as listed equities. The property fund (known as the Igloo Regeneration Partnership) invests in partnership with local government to achieve regeneration in the difficult mixed use (residential and commercial) neighbourhoods around town and city centres which institutional investors often ignore. In addition to the active investment management style of these funds there is also active engagement with companies to improve environmental and social performance. Morley’s corporate governance voting policy has introduced a requirement for large UK companies to publish environmental reports. Where FTSE100 companies do not publish such a report, Morely will vote against the AGM resolution to adopt the company’s Report & Accounts. Where FTSE250 companies in high risk sectors do not produce such a report, Morely will abstain on the resolution to adopt the Report & Accounts.

Impact on sustainable development

In principle the funds’ allocation towards more sustainable companies could lead to equity and bond prices reflecting environmental and social impacts, sending a price signal that would help sustainable development. In practice the funds are too small to do that. The direct engagement of the investor with companies will have a greater impact. In the UK Morley often owns 2-3% of large listed companies and so is in a strong position to influence corporate policies on these issues. The property fund could also offer more direct sustainable development benefits. With property the investor is much closer to the environmental impact and has a more concentrated ownership, unlike listed equities where the investor is likely to be one of hundreds. Urban regeneration investments provide a more direct benefit to sustainable development by providing access to finance for projects with immediate social returns.

Key success factors and challenges

One of the reasons this approach may be successful in integrating environmental and social issues into mainstream investment decision-making is the focus on what is necessary to sustainable economic and social development for global society, and not the subjective moral judgement of specific social groups. There are three principle elements proposed: a responsible attitude to corporate governance, corporate sustainability, and human rights. The challenge will be to demonstrate to institutional investors that these things are ‘material’, or matter enough to make a significant difference to risk-adjusted long-term investment returns. As with other funds investing in listed equities and bonds there is also a challenge to show the extent to which this approach delivers environmental and social benefits.

Company profile

As the UK based institutional asset manager of Aviva (previously CGNU plc), Morley Fund Management manages assets in excess of £100 billion which includes the retail funds of Norwich Union.
See www.morleyfm.com.

CASE STUDY 10

Listed equity investment in companies supplying environmental solutions

Jupiter

Financial innovation

The Jupiter Ecology Fund, launched in 1988, was one of the world's first investment funds with an explicit focus on sustainable development. The fund invests internationally in companies that are responding positively to the challenge of environmental sustainability and are making a positive commitment to social well-being. The innovation in this fund is that although it does, in the mould of ethical investing, avoid companies operating in nuclear power, armaments, tobacco and animal testing it does not stop there. Because it is hard to see where the value-added lies in just avoiding companies, the fund also seeks out firms providing solutions to environmental problems. These companies are often more efficient in operations, offer significant potential for growth, and make up around 75% of the portfolio. The remainder of the fund is invested in 'best in class' companies, that operate as the environmental and social leaders in their particular sector.

The innovation, which has subsequently been followed by a number of specialist funds, is to invest in those companies providing solutions to a number of key sustainable development problems: air quality, water management, waste management, transport, and sustainable living. Air quality investments are focused on wind power, fuel cells and solar power. Water management investments include companies offering products and services that purify water and expand increasingly valuable fresh water supplies. Waste management investments look at companies offering ways of reducing waste generation as well as those offering landfill and recycling services. Transport investments concentrate on companies providing products and services to reduce congestion and improve mass transport services. Sustainable living investment investments are largely in organic food and healthcare companies.

Impact on sustainable development

In theory this fund may provide sustainable development benefits by generating an equity price differential between more and less sustainable companies. In practice the fund (with assets of £120-130 million) is too small to have such an impact. However, as a ready buyer of environmental technology companies it does provide liquidity for venture capital to exit from earlier stage financing of these companies. As such the existence of the Jupiter Ecology Fund arguably encourages the financing of the key start-up companies by venture capital, which will have important sustainable development benefits. Jupiter themselves would see their impact on corporate environmental and social performance coming from a programme of constructive dialogue through correspondence and meetings.

Key success factors and challenges

One of the success factors in attracting significant individual investment into the fund has been the clarity about the funds objective and how it invested. The positive approach of investing in companies providing solutions clearly offers more in terms of investment return and sustainability benefits than the exclusion approach of ethical investment. The challenge will be to show this approach works. As an investment the fund has done well. As a mechanism for promoting sustainable development the results of the engagement process has been promising, but it is difficult to make a direct link between the fund and an improvement in corporate sustainability because of the complexity of the range of influences in that company.

Company profile

Jupiter International Group is an international investment management group, a subsidiary of Commerzbank AG, one of Germany's leading banks. Jupiter manages over £11 billion of assets. See www.jupiteronline.co.uk.

CASE STUDY 11

Engaging on corporate environmental performance using Local Agenda 21

SG Asset Management

Financial innovation

The innovation taken by SG Asset Management to investor engagement, on behalf of local government pension funds, was to design their approach using the local Agenda 21 programme. This was developed in response to a mandate from Norfolk County Council pension fund that placed around £300 million of its assets with SG Asset Management to be managed in a standard fashion, but coupled with a programme of engagement on environmental issues.

The commitment of local government to sustainable development through the local Agenda 21 programme meant that this was a pre-existing framework to use for designing investor engagement on environmental issues. It gave the asset manager a much clearer focus, than would have been the case with a more general sustainable development or corporate social responsibility objective, for achieving the particular objectives of this pension fund. The objectives were to use their position as responsible shareholders to influence and improve corporate behaviour to achieve sustainable development, while mindful of the pension fund's fiduciary duties to achieve good investment returns. In particular there was a focus on issues with local impact, as described in more detail below. As a local government investor with an explicit sustainable development objective and local Agenda 21 programme this innovative approach has a clear fit. The fit might well not be so close for a corporate pension fund without the explicit commitment to sustainable development by its sponsor.

The engagement approach itself is based on conducting a regular, formal, dialogue with companies that enables SG Asset Management to assess the extent of a company's environmental impacts and what steps can and are being taken by management to minimise these impacts. Specifically, there is a focus on a company's resource management (waste, water, energy, land), any technologies that can be adopted to reduce impacts, and an assessment of how well the company is placed to address increasing environmental regulation. While behind-the-scenes dialogue with a company is the preferred means of investor engagement, collaboration with other investors, voting shares and shareholder resolutions are other tools that may be used to try to improve corporate disclosure and environmental performance.

Impact on sustainable development

The engagement programme aims to directly contribute to sustainable development by using the leverage of the equity owner to improve corporate environmental performance. The focus for the Norfolk County Council pension fund is the local, as well as the global, impact of some of the key environmental concerns within the local Agenda 21 programme. They recognise, for example, that climate change is a global issue that has a direct impact on the county of Norfolk. Much of the coastal hinterland around Norfolk, the Fens and the Broads are below mean sea level and consequently at risk from flooding. Norfolk is also in the driest part of Britain, so increased water consumption and the resultant effects of climate change would have a serious impact on the local economy. A further issue for the area is waste, since there is an increasing shortage of landfill space to contain the annual flow of 1.9 million tonnes of waste produced. By dialogue, collaboration with other investors and voting on behalf of Norfolk County Council, SG Asset Management aims to increase disclose of information by companies on these issues, and improve their performance.

Key success factors and challenges

One of the successful aspects of this particular innovation was the clear relevance of the engagement objective, using the local Agenda 21 as a framework, to the aims of the pension fund. Nonetheless, it remains a challenge to address corporate environmental performance without compromising the investment objectives of the fund. A further success has been the response of companies to the approach of discussing issues that take 'waste' out of the system from both a corporate and environmental perspective, and identifying scope for companies to innovate. It is an ongoing challenge to assess whether this has had any real impact on corporate performance, but to date the impact appears to have been greatest among the medium sized companies in the housebuilding and building materials sectors.

Company profile
SG Asset Management UK Limited is part of the £167 billion global asset management business of the Societe Generale. SG Asset Management was set up four years ago and has since accumulated £8 billion of assets under management, 60% from UK pension fund clients. See www.sgam.com.

CASE STUDY 12

Reconciling institutional investment values and sustainable development

Storebrand Investments

Financial innovation
Socially responsible investments often fail to gain mainstream market penetration. This is often due to the perceived extra investment risk of reducing the investable universe of stocks, as suggested by market theory.
In 1996 Storebrand launched its Profits with Principle Funds, to try to offer SRI products to mainstream investors at a similar risk to conventional products.
The Fund does this by first rating companies' sustainable development performance against environmental criteria based on the work of the World Business Council for Sustainable Development and the UN Environment Programme, and on social criteria from the UN Universal Declaration of Human Rights, the conventions of the ILO and guidelines published by Amnesty International.
From these rankings a 'qualified' universe is created that includes only the top 30% from each sector.
Then a complex analysis is performed to assess which companies to include from this universe based on financial metrics that will give the fund a low volatility compared to its benchmark indices, and hence a low tracking error and comparative investment risk.

Impact on sustainable development
The key sustainable development benefit of this product is that it invests in companies with good sustainability performance, and it offers low risk and market benchmark tracking as one of its key aims. This allows trustees with fiduciary responsibilities, such as those serving pension and charity funds, to invest their assets in a sustainable manner. One of the main reasons given by trustees for not choosing sustainable approaches over their mainstream counterparts is that reducing the investable universe in such a way would increase risk and compromise their fiduciary duty. If funds like this successfully track their benchmark indices over time then this concern would be addressed.

Key success factors and challenges
The key success factor of Storebrand's approach is access to quality socially responsible research. To meet the funds' objectives requires an in-depth understanding of how sustainable performance impacts on companies, and goes beyond traditional financial analysis. This approach requires the analysts to be able to objectively integrate environmental and social data in to financial analysis to discover hidden risks and value creation opportunities that enable the fund to keep its low relative risk profile and pursue out performance opportunities.
Another challenge lies in tracking the features of sustainable development and incorporating this changing landscape into the research framework.

Company profile
In the UK Storebrand Investments is a specialist provider of SRI mandated fund management. It is part of the Storebrand Group, a leading Norwegian financial institution with total assets under management of € 20 billion, over € 3 billion of which is managed under SRI mandates making it one of the largest SRI fund managers in Europe. Storebrand's approach to SRI stems from concerns over the impact of climate change on the business conducted by its property and casualty insurance subsidiary. See www.storebrand.com.

CASE STUDY 13

Creating a missing market in greenhouse gas emissions

UK Emissions Trading Scheme

Financial innovation

The industry-led creation of a market for trading in greenhouse gas emissions is one of the key examples in the UK of a market innovation with a significant impact on sustainable development. Emissions trading is a way of setting an overall target covering a group of organisations, and then letting those participants decide in a flexible way how to achieve their own target. Because greenhouse gas emissions have the same environmental impact regardless of where they enter the atmosphere, it doesn't matter how much individual organisations emit, as long as the overall target is met. Participants can meet their target by reducing their own emissions, reduce their emissions below their target and sell or bank the excess emissions allowances, or let their emissions remain above their target, and buy emission allowances on the market from other participants. This innovative market will allow the cap on emissions to be achieved at the lowest cost of compliance, and once liquidity develops will provide transparent information on the price of carbon.

The market was launched in March 2002 when 34 organisations bid to join the UK Emissions Trading Scheme (ETS). Over the five years of the scheme, participating companies have pledged to reduce their annual greenhouse gas emissions by more than four million tonnes of carbon dioxide, over 5% of the planned reduction in the UK's annual emissions by 2010. This innovation was initiated by the Emissions Trading Group (ETG) comprising 27 companies and associations with the participation of several government departments. When the ETG submitted outline proposals for a UK Emissions Trading Scheme in March 2000 the UK Government welcomed them and committed £215 million from 2003-4 to 2007-8 to provide the financial incentive for companies to take voluntary but binding caps on their emissions.

Impact on sustainable development

Emissions trading is a mechanism for delivering environmental benefits in a cost effective way. The existence of a market in which to trade greenhouse gas emissions does not in itself reduce pollution. The absolute cap is set by Government. However, the use of fewer resources to comply with this cap is clearly consistent with sustainable development. Moreover, trading will also create transparent information about abatement costs for greenhouse gas abatement and thus encourage investment in technologies and processes to achieve lower emissions more effectively. The availability of a transparent price for emissions will also permit mainstream financial analysts to estimate the cost of compliance for high energy using companies, and the potential revenue stream for companies able to sell low cost emission reductions. As a result share prices should come to reflect corporate climate change impact, providing a lower cost of capital for more sustainable companies.

An important potential benefit is that the UK market could offer the opportunity for developing countries to cash in carbon credits derived from Clean Development Mechanism (CDM) projects. The rules for this to take place are being developed as part of the ability of project-based greenhouse gas emission reductions to participate in the market. This potential transfer of resources from North to South for clean development projects has significant sustainable development benefits.

Key success factors and challenges

One of the key success factors behind this market innovation was the clear and substantial cost savings that it could deliver to participants. Using market mechanisms to tackle sustainable development issues is also an accepted priority for policy-makers in the UK and overseas. A very important factor was the existing experience and capacity of London financial markets and institutions to establish and support a liquid market in this new commodity. A challenge facing the market's ability to deliver sustainable development benefits, in addition to the cap on emissions, is the success with which it sets out simple rules for the participation of CDM projects.

Company profile
The ETG was formed in 1999 by the CBI and the Advisory Committee on Business and the Environment (ACBE) and includes a number of the specialists carbon finance advisers and brokers, such as NatSource, co2e.com and EcoSecurities. See www.uketg.com.

CASE STUDY 14

Improving SME environmental performance through bank lending

The big-4 commercial banks

Financial innovation
Important process innovations, that incorporate environmental risk in the credit risk procedures for bank lending, have been introduced by the major UK commercial banks. These environmental risk assessments have been designed to deal with the risk of loss from environmental liabilities and the loss of loan repayments. They have also addressed the issue of reputational risk from lending to controversial projects. Although the strict liability system of the US is not found in the UK (pending EU legislation notwithstanding), under the common law system a business bankruptcy or foreclosure by a customer often results in the bank becoming the owner and potentially liable for any site clean-up costs. But risk also presents opportunity from developing new loan business in high growth environmental sectors, such as renewable energy.

Environmental risk has provided a new set of criteria for bank loan officers' credit risk criteria. Since much of commercial bank lending is to the Small and Medium-sized Enterprise (SME) sector there is not often the commercial justification to do a full-scale environmental impact assessment. However, the risk assessment process takes considered steps to assess past use of a site, any contamination and whether that contamination is doing harm. In particular the lender will consider how these risks are managed since good management could substantially mitigate the risks of environmental damage and risk to the lender. Implicitly, this process innovation factors the cost of environmental risk into the price of the loan.

A number of banks have explicit environment loan support schemes aimed at businesses with investments that benefit the environment. These are often collaborations with the European Investment Fund's Growth and Environment Scheme or similar public sector instruments that help to lower credit risk to acceptable levels. However, in many cases the banks' specialist knowledge in environmental technologies (particularly 'clean production') allows a clear identification and management of risk and as a result lending to these businesses goes through the standard credit risk process and cannot be distinguished from the banks' mainstream lending business.

Impact on sustainable development
Bank lending to the important SME sector can impact sustainable development through providing access to market finance for sustainable business and through pricing debt for environmental risk.

Through providing access to market finance for the key new environmental technologies and firms with sustainable business models, commercial banks are helping to put in place the capital that will eventually transform the economy. In practice the environmental loan support schemes are marginal. Most funding to clean production, renewable energy and other environmental technology businesses goes to commercially viable projects through the mainstream lending business, or other financial instruments such as private equity.

The main impact of the process innovation described above is to implicitly include environmental risk in the price of a loan. This is largely implemented through the screening process and conditions attached to the loan – and explanations to borrowers as to why a loan application was rejected on environmental grounds – rather than an explicit calculation of the financial impact of that risk, which so far has proved resistant to a generic model in the face of large site-specific variations.

Key success factors and challenges
One of the success factors was the raising of awareness about these environmental risks among the banks' corporate borrowers by initiatives such as the British Bankers Association publication *The Environment – the Challenge for Business and Banking*. Another was the ability to understand the new technologies, and therefore their risk, a capacity provided by the specialists in bank environmental risk groups. One major challenge is poor and inconsistent data in the SME sector. Environmental credit risk assessment undoubtedly leads to lower risk to the lender. From the viewpoint of sustainable development a challenge is to improve the extent to which this process innovation leads to better price signal or incentive for SMEs to improve environmental performance.

Company profile
Those financial institutions that have adopted this process innovation, to integrate environmental risk in their credit risk assessments include, among others, the major four commercial banks in the UK: HSBC, Royal Bank of Scotland, Barclays and Lloyds TSB. See www.hsbc.com, www.royalbankscot.co.uk, www.barclays.com, www.lloydstsb.co.uk.

CASE STUDY 15

Micro-credit development fund to stimulate pro-poor access to market finance

Deutsche Bank UK

Financial innovation
The UK Microcredit Development Fund was set up by Deutsche Bank in 2002 to support the long-term sustainability of microcredit institutions in the UK and developing countries, by encouraging financial and operational self-sufficiency. Many existing micro-credit institutions in the UK are philanthropic rather than commercial ventures. However, unless microcredit institutions achieve mainstream status by becoming profitable businesses, they will fail to reach the necessary scale to effect true change for the world's poor. This innovative fund by Deutsche Bank in the UK does not make loans to micro-entrepreneurs itself but provides capital to microfinance institutions in the UK and in developing countries.

Microcredit institutions are proving to be a revolutionary force enabling families to rise from poverty, and financial institutions like the Grameen Bank have shown this can be done profitably. The original product innovation was to extend credit to groups of poor entrepreneurs, without a requirement for collateral or previous credit history. It was found that the poor are often good credit risks, particularly in the context of group borrowing structures, and the Grameen Bank claims a higher repayment rate than traditional banks. In 1997 an international Microcredit Summit in Washington set a goal to extend microcredit opportunities from the estimated 13 million families currently served to 100 million. The UK Microcredit Development Fund offers the very practical measure of providing financial capital to local microcredit institutions that they can use as collateral to leverage finance from other lenders.

Impact on sustainable development
There is a increasingly widely held view that access to market finance is far more powerful for stimulating developing economies than the receipt of more aid and concessionary finance. Loans to small businesses and individual entrepreneurs foster self-reliance and community-wide economic development. There is certainly much evidence that jobs, or sustainable livelihoods, are created in the SME sector and benefit from smaller scale financing such as micro-credit. Small loans to families can also provide opportunities for education and training. Of the Grameen Bank's 2 million borrowers, one-third have crossed the poverty line and another third are close to crossing it.

Key success factors and challenges
The experience of the sister microcredit development fund in the US has provided many valuable lessons that will contribute towards the success of the

UK Microcredit Development Fund. One of the keys to helping a local microcredit institutions become profitable has proved to be to providing sufficient finance and capacity building for them to develop strong relationships with local providers of capital. The experience in the US suggests the UK fund will be able to help commercialise local and developing country microcredit intermediaries. One of the major challenges for Deutsche Bank UK is to move the Fund itself onto a commercial basis and out of the charitable programme.

Company profile

Deutsche Bank is Europe's largest bank, employing around 100,000 people in 73 countries, who between them serve the needs of 12 million customers. In the UK Deutsche Bank is the largest employer in the City of London Square Mile employing some 10,000 people. It manages £350 billion of assets globally, and is the second largest investment bank in the world by revenues, and the largest bank trading on the London stock exchange with 13% of daily turnover. See www.db.com.

CASE STUDY 16

Risk capital provision to developing economies

CDC Capital Partners

Financial innovation

CDC Capital Partners' (CDC) innovation has been to become a provider of private equity finance and other risk capital to businesses in low-income economies. This is proving to be a much more effective financial instrument for stimulating sustainable enterprise and livelihoods than the aid finance that has proved largely unsuccessful at reducing poverty or boosting private sector economic activity over recent decades. It has also been innovative in the way it does business through a set of business principles covering business integrity, social issues, environment, and health & safety performance.

In 1997 CDC's owner, the UK Government, changed the institution from a traditional development bank, providing debt finance to mainly Commonwealth countries, to making its balance sheet available as private equity finance to businesses in low-income economies. As its existing loan book is being repaid, at a rate of roughly € 250 million per annum, it is recycling these funds as private equity finance. It has been set a target of 70% of its new investment each year to go to the poorest countries, with income per capita of $1,750 or less, many of which are in Africa. It is not providing concessional finance. Its mandate, to seek out commercial rates of return on the businesses it finances and to fund private and not Government projects, is designed to act as a demonstration effect to draw in private capital. It provides equity directly to larger companies and indirectly to small- and medium-sized enterprises through a number of funds located in Africa, Asia and Central America.

Impact on sustainable development

The CDC's greatest impact on sustainable development comes from the type of finance its is providing to entrepreneurs in the poorest of developing countries. Poverty reduction requires the creation of sustainable livelihoods and private equity finance not only provides the risk capital required by newly expanding, job creating companies with uncertain cash flows, but also can contribute management expertise or capacity-building where it is lacking. This sort of financing by the CDC has the potential to help create an entrepreneurial wealth-creating private sector in countries that have for decades failed to transform natural and human assets into sustainable economic development. By applying its Business Principles to each investment, CDC aims to ensure that this wealth is not created at the expense of people or the environment. This is particularly important in the countries of CDC's operation because labour and environmental legislation may be weak or poorly enforced and the most vulnerable often do not have a voice.

Key success factors and challenges
One factor critical to CDC's successful transformation into a private equity provider was to capitalise on an extensive network of local knowledge and a specialisation in sectors such as transport, power, infrastructure, financial institutions and healthcare. This was essential to provide the support and monitoring to the businesses receiving Private equity finance. One of the challenges, apart from doing business in some of the most difficult markets, has been to exit these investments, once established, in order to reinvest funds in new businesses. CDC has had to respond to perceptions that it was selling off investments, such as agri-businesses in Africa, rather than selling them on to new investors which it would see as an integral part of its role as a private equity provider.

Company profile
CDC was turned into a public private partnership, owned by the UK Government represented by DfID, in the late-1990s. CDC started out as the Colonial Development Corporation in 1948, becoming the Commonwealth Development Corporation in 1963 after the independence of the British colonies. See www.cdcgroup.com.

CASE STUDY 17

Public-private partnership financing solar energy in developing countries

Impax Asset Management

Financial innovation
The Photovoltaic Market Transformation Initiative (PVMTI) is a public-private fund which has been set up to accelerate the sustainable commercialisation and financial viability of PV technology in the developing world. There is a strong latent demand for off-grid renewable energy capacity in these countries but private finance has been prevented by a number of factors including country risk and the resulting difficulties in achieving commercial rates of return. The innovation of this fund has been to bring in the International Finance Corporation (IFC) and the Global Environment Facility (GEF) to share this risk and allow the fund to be structured such that the private sector funders achieve their hurdle rates of return.

PVMTI will use up to $30 million in funds provided by the GEF with $15 million allocated for project financing in India, with $5 million each for Kenya and Morocco, and $5 million for technical assistance. Additional co-financing of $60-90 million from commercial banks and others is expected to result in total project funding of $85-115 million.

Impact on sustainable development
The PVMTI is based on the premise that private sector project design and financing on a commercial basis will stimulate more sustainable ventures than government or donor financed PV businesses. These projects are eventually expected to provide successful examples of sustainable and replicable business models that can be financed on a commercial basis. The provision of cheap, clean and reliable electricity would make a substantial contribution to sustainable development in the developing world, where high growth in energy demand and the relative immaturity of the energy sector provide entry points for alternative energy solutions. This large market potential offers commercial and near-commercial opportunities to serve these growing energy needs with photovoltaics, while simultaneously improving the availability of PV for global applications and benefits.

Key success factors and challenges
Although PVMTI investee companies have only just started implementing their business plans a number of critical success factors for this type of financing in this type of economy. First, a clear level policy playing field, because poorly executed government intervention in the PV market stifles initiative. Second, excellent market understanding on the part of the investor. Third, first class management. Finally, flexible investment partners, investors able to offer a mix of equity, debt and guarantees. There are many challenges in working with the difficult market conditions typically found in developing economies. In particular weak macro-economic performance and

political instability has been found to subdue the private sector and the prospective commercialisation of the PV projects funded.

Company profile
The PVMTI is advised by Impax Asset Management, a subsidiary of Impax Group plc, which is a multi-disciplinary finance and strategy adviser specialising in environmental infrastructure and technology. The International Finance Corporation is part of the World Bank Group. Its Environmental Project Unit initiated the PVMTI as part of the IFC's effort to engage the private sector in sustainable commercially-based development projects. The GEF assists developing countries to protect the global environment, and is a fund implemented by the World Bank, the United Nations Environment Programme and the United Nations Development Programme. See www.pvmti.com and www.impax.co.uk.

CASE STUDY 18

Tackling financial exclusion through community banking

HBOS

Financial innovation
Halifax Bank of Scotland (HBOS) signed an innovative Community Banking Agreement (CBA) in March 2001 with the community of Wester Hailes in Edinburgh, recognised as the first of its kind in Europe. This pilot demonstrates how financial exclusion can be tackled in a viable and commercially beneficial way for the Bank.

The CBA states that the Bank will treated as banker of first choice, in return for the provision of four key elements: access to basic banking facilities; access to small business finance and support; money advice; and financial education. It is not a legally binding agreement. Among the other partners supporting the CBA are the Scottish Executive, Scottish Enterprise, and Capital City Partnership.

Impact on sustainable development
The key sustainable development impact of the HBOS CBA is to improve access to market finance in a disadvantaged community, enabling individuals and entrepreneurs to develop new businesses where they had previously been unable to do so.

For instance a new start up business run by a previously unemployed person was financed by a loan using New Deal income as collateral for loan repayment. Another example is a savings and loan scheme, where the local community housing association assesses prospective clients and guarantees loans, reducing transactions costs that previously had restricted the provision of market finance. In addition the promotion of basic banking and savings facilities increases customers' personal ability to budget and save for the future, and therefore the possibility of future investment in sustainable local and business activities. There were 13 new accounts opened on the launch date of the CBA and there are now over 500 accounts open.

Key success factors and challenges
One of the key success factors in this innovation has been its commercial results. Often community banking is seen as a cost of doing business and a charitable activity. However, HBOS have demonstrated that both social and commercial benefits can be delivered jointly. The Bank has benefited from a number of opportunities as a result of the CBA, winning new tenders in several cases where they had not submitted the best price. The Bank's partnership with the Wester Hailes community has also resulted in approaches from other community organisation in Britain to set up similar initiatives. This innovative scheme has received many plaudits. The challenge will be, and it is too early to reach any definitive conclusion, to ensure the scheme is effective in stimulating local economic activity and welfare gains.

Company profile
HBOS was formed in September 2001 by the merger of Halifax plc, the UK's largest mortgage and savings provider, with the Bank of Scotland. It is Britain's fifth largest bank. See www.hbosgroupplc.com.

CASE STUDY 19

Venture capital to stimulate enterprise in disadvantaged communities

Apax Partners

Financial innovation

This important innovation seeks to provide access to market-based equity finance, and thus become a catalyst, for previously unexploited entrepreneurship in disadvantaged communities in Britain. The £40 million Bridges Ventures venture capital fund has been set up to provide venture capital finance on a for-profit basis to small and medium sized enterprises (SMEs) in the most deprived 25% of electoral wards in England. It has already raised £20 million from the private sector that has been matched by funding from the Government.

The money will be invested mainly as equity with some quasi-equity financing and hybrid deals available. The benefits of venture capital in the form of equity, over traditional bank loans is that it demands no immediate return or set repayment date, and equity can fund growth of companies when bank finance would not be available because of uncertain cash flows and a lack of collateral security. The other key advantage of venture capital for potential entrepreneurs in disadvantaged communities is that the fund will provide hands on support, resources and contacts to portfolio businesses to help them grow. It will do this through an Entrepreneurs Club where leading businessmen and financiers will act as mentors and technical advisers. Having catalysed the growth of a commercially successful SME the venture capital fund would seek to exit from the investment after 5-10 years, in order to recycle the funds to a new venture, through a sale to a corporate, management buy-out, or possibly floatation on the stock-market.

Impact on sustainable development

The problems of poverty and exclusion are a complex blend of economic, social and geographic factors. One common feature, however, is that deprived communities are 'under-invested'. The private sector tends not to see opportunities in deprived areas and these communities have become heavily dependent on philanthropy and public assistance. The Fund will meet these challenges by seeking investment opportunities that will demonstrate that both social and financial returns can be made by focusing on entrepreneurs in these communities. This in turn should result in the attraction of increased private sector finance into disadvantaged communities. Just as the mainstream venture capital sector has been a powerful force behind entrepreneurship and job creation in the mainstream economy over the past 20-30 years, it is hoped that this fund will begin a similarly catalytic process in the parts of the country that are getting left behind economically.

Key success factors and challenges

One of the success factors in using this type of financial innovation to catalyse entrepreneurship in disadvantaged communities is that it has worked in other circumstances before. Under-invested communities are too often seen as areas with little economic or business potential. Likewise, when the first venture capital funds in Britain were being raised twenty years ago, many doubters felt that they could not work because there were not enough entrepreneurs in Britain. Britain mainstream venture capital industry has boomed. Over two million people in Britain are estimated to be employed by companies backed by venture capitalists. Moreover there are important lessons to be drawn from overseas experience. In the United States community development venture capital has been one of the fastest growing sectors in the field of community development finance. Since 1990, the industry has grown to more than sixty funds with more than $400 million under management.

The challenge of locating appropriate investment opportunities is being tackled through partnerships with institutions that have deep local contacts or regional representation. The include the Inner City 100, an index run by the New Economics Foundation of the 100 fastest growing inner city companies , the Prince's Trust, which operates the largest micro-finance lending programme in Britain, Community Development Finance Institutions, Regional Development Agencies and Enterprise Agencies.

Company profile

The Bridges Fund is an initiative arising out of the Social Investment Task Force, chaired by Sir Ronald Cohen of Apax Partners. The Task Force reported to the Chancellor of the Exchequer in October 2000 and recommended a five-point programme of action for Government, business, finance and the voluntary and community sector aimed at increasing investment, enterprise and wealth creation in disadvantaged communities. One of the five points was the creation of Community Development Venture Funds. The Bridges Fund is to be the first of these. This £40 million venture capital fund is managed by a dedicated management company, Bridges Community Ventures Ltd, which is owned by Apax Partners Holdings Ltd, 3i Holdings plc and Tom Singh. See **www.bridgeventures.com**.

CASE STUDY 20

Underwriting risk in the wind energy sector

Royal & SunAlliance

Financial innovation

Wind energy currently generates a small portion of the UK's electricity. With sharply rising insurance rates it is difficult to get good insurance terms for this technology, particularly when there is limited understanding of the risks associated with it. This has led to a lack of insurance and risk management products, however, Royal & SunAlliance (R&SA) sees this as a major growth area. The R&SA Renewable Energy Package Policy provides comprehensive insurance for the wind energy sector, covering all risks from the construction stage through to operation.

Impact on sustainable development

Risk transfer or mitigation can be a key factor in encouraging the financing of sustainable development. Investors have been very cautious in financing wind energy projects because of the risks. Providing comprehensive insurance against major losses, and hence loan defaults, has meant this innovative insurance product is a key factor in helping the wind energy industry to grow.

Key success factors and challenges

One of the key success factors for R&SA's product has been its location in London, a major centre of international insurance and reinsurance, with an engineering insurance market dating back to the 1850s. As a result R&SA's wind energy business expanded rapidly in terms of premium written and the geographical spread of insured risks, producing annual premium income of £6 million from projects located across the world. It has been a commercial success as well as a benefit to sustainable development. Another factor was the ability to transfer experience gained in R&SA's Danish subsidiary on the level of risk and insurability of projects, resulting from the importance of wind energy generation to the Danish electricity network. R&SA has had to commit significant resource to this niche market to keep abreast of technology and regulatory developments. This commitment was made because of the strong potential growth in the renewable energy sector as a whole and much of this will have to come from both onshore and offshore wind in order to meet the government's 10% target by 2010. The challenge for providing comprehensive insurance for these new energy technologies is the lack of past experience for underwriters to base their premium calculations. This is particularly the case for offshore wind farms and will be a factor limiting the availability and increasing the price of insurance cover.

Company profile

Royal & SunAlliance is a merger of three insurance companies. The Sun was established in 1710 and is the oldest insurance company in existence still trading under its own name, the Alliance was founded in 1824 and the Royal in 1845. R&SA came into existence in 1996 when Royal Insurance merged with the Sun Alliance Insurance, and is now one of the world's largest multinational insurance groups with operations in some 50 countries. See www.royalsunalliance.com

5 Practitioners' ideas for innovation tomorrow

Our discussions with over 40 financial institutions and a subsequent workshop for a further 80 participants raised a number of ideas about how the role of financial services in sustainable development could be improved. This section discusses a selection of those ideas. These are not recommendations by the institutions endorsing the London Principles project but are ideas for future innovation put up for discussion.

The explicit focus is on how the financial market mechanisms could be used to generate sustainable development benefits. In particular there is an emphasis on eliminating market imperfections of information or transactions cost that hinder the financing of sustainable development. The discussion is also set within the context that governments are the democratic agents through which society's preferences are set. Financial institutions, while quite rightly seeking profitable opportunities, must operate within this framework as well as within a generally accepted set of business ethics. In order for the London Principles of Sustainable Finance to be effective Government needs to play its part through appropriate regulation and taxation of environmental

Table 3 Practitioners' ideas for future innovation

	Process innovation	*Product innovation*	*Market innovation*	*Regulatory innovation*
Pricing assets and exercising ownership	1 Sell-side research 2 Buy-side disclosure 3 Risk management 4 Investor collaboration 5 Globalisation	6 Indexed funds 7 High-impact asset classes 8 Specialist technology funds 9 Training	10 New commodity markets 11 Carbon trading	12 Disclosure regulations 13 Stock exchange listing requirements 14 Tax incentives
Providing new finance	15 Corporate finance advice 16 Public-private partnerships	17 Exit opportunities 18 Finance for small-scale intermediaries		19 Emerging markets task force 20 Loan/ equity guarantees 21 Enabling environment 22 Tax incentives
Risk management		23 Agricultural yield guarantee 24 Discount rate reduction 25 Premium linkage to risk		

and social impacts, in other words, help to create the business case where necessary for the financing of sustainable development. Some of the ideas below relate to this role.

One point to note is that there is a bias in Table 3 towards ideas on investment and lending, rather than insurance, that may reflect the composition of those interviewed rather than the number of ideas being generated from within the financial services industry.

5.1 Pricing assets and exercising ownership

Idea 1 That investment bank sell-side analysts integrate corporate environmental and social performance into their financial analysis of
companies where relevant, and provide this research for their asset manager and institutional investor clients.
Why? Since brokers' analysts are the main interface between investor and company, their acknowledgement of the importance of environmental and social performance as a factor in business success would dramatically increase the effectiveness of SRI. In fact SRI as a separate investment style would disappear as mainstream analysis adopted the relevant information.

Idea 2 That fund managers disclose more information on how they are implementing SRI for their retail and institutional investor clients.

Why? There is a perception that a lack of transparency is weakening the effectiveness of the pension disclosure regulation. Many pension funds have delegated responsibility for implementing SRI to their fund managers, and it is not clear whether much is actually being done to take environmental, social and ethical matter into account, with a number of notable exceptions. Some fund managers have suggested disclosure by fund managers on their SRI investment and engagement processes would improve transparency and accountability – and possibly impact. The extensive disclosure on engagement by the Central Finance Board of the Methodist Church offers a good model.

Idea 3 That values-based investors with a fiduciary duty to maximise financial returns within an ethical or sustainable development constraint, such as churches, charities and public sector pension funds, do so by innovative risk management techniques.
Why? The Central Finance Board of the Methodist Church has been a 'modern SRI' investor for many years, and has an excellent investment returns performance. One factor behind this success has been to ensure that the SRI fund has a similar variance or beta to the market, by replacing excluded stocks with those having a similar correlation with market movements; tobacco with food retailing for example. An alternative approach has been taken by the Universities Superannuation Scheme who follow a standard investment process but manage 'non-financial' risk through a corporate governance team who engage with companies to improve their environmental and social performance

Idea 4 That investors collaborate nationally and internationally in order to engage on specific environmental and social issues with companies and policy-makers.
Why? The impact on business success of major environmental and social issues, such as climate change, affects investments across the economy and so it makes sense for investors to collaborate in order to protect investment returns. There have been a number of successful examples in the UK recently. The SRI Forum of major UK investors and asset managers collaborated in putting together a set of business-risk related SRI engagement guidelines, which were the model on which the ABI guidelines have been based. The Universities Superannuation Scheme initiated the Institutional Investors Group on Climate Change (IIGCC) and the Carbon Disclosure Project has the support of investors with over $4 trillion of assets.

Idea 5 That investors and fund managers contribute to the process of offsetting the adverse environmental and social impacts of globalisation through engagement with MNEs to improve their FDI and supply chains.
Why? There is little investment in listed equities in developing economies by developed country investors. However, there is an important channel of influence on sustainable development in the South through the foreign direct investment (FDI) and supply-chain relationships of multinational enterprises (MNEs). The Just Pensions project in the UK is seeking to identify the investment case for pensions to take account of the developing country impact of their investments.

Idea 6 That index-tracking or quasi-index-tracking investment funds extend their corporate governance activities to include engagement on environmental and social performance.
Why? Engagement by equity investors with investee companies on environmental, social and other corporate governance issues is necessary to exercise responsible ownership, given they are increasingly material 'non-financial' risks to business performance. Many funds are under pressure to match benchmark index performance and have become in effect quasi-index-tracking funds to add to the growing proportion of explicit index funds. As a result many investors have become permanent owners of the top 20-30 or so companies in the benchmark index, and so do not have the option of disinvestment if the company underperforms on any criteria. Engagement to improve performance as an overlay to the index-tracking investment process is the only option. HERMES offers an excellent model on corporate governance engagement. Friends, Ivory & Sime have entered into an innovative collaboration with State Street Global Advisers to offer index-tracking funds with an engagement overlay.

Idea 7 That specialist SRI or funds investing in sustainable development invest a proportion of their portfolio in high environmental and social impact assets, such as venture capital, project finance (such as the PFI in the UK), emerging markets, property or community finance.
Why? Investor engagement offers a promising way of generating environmental and social benefits at the same time as protecting investment returns. However, there is little evidence to suggest specialist SRI funds are large enough to influence corporate behaviour by changing their cost of capital through investing in listed equities. However, assets other than listed equities can have a more direct and powerful effect, such as providing venture capital for new environmental technologies or project

finance for key infrastructure investments. Funds such as the MLIM New Energy Technology Fund and the FI&S ISIS EcoTec Environmental Technologies fund invest a proportion of their assets in unlisted equities and offer a useful model.

Idea 8 That fund managers set up more specialist environmental technology funds to invest in sustainable energy, water, waste and resource management.
Why? These are some of the sectors that will produce the technologies required for a sustainable economy, and are long-term growth sectors as a result. Funds such as the MLIM New Energy Technology Fund or the Impax Capital Environmental Technologies Fund understand the nuances of the technologies, the regulatory environment and perform an important role for these new technology companies. They perform a stabilising role by buying low valued sustainable technology stocks when other general technology funds sell them along with other small caps. They also provide an important exit for venture capital and so encourage financing at the key start-up stage.

Idea 9 That financial sector associations include a core training module on finance and sustainable development in financial services professional training and examinations.
Why? There is a perceived need to ensure the competency of SRI analysts and fund managers. Environmental and social analysis, in particular the link with shareholder value, is not a subject most financial analysts and fund managers are familiar with. There is certainly the need for considerable capacity building to cope with the demand for SRI. Requirements for proof of competence may vary between retail SRI funds, which aim to produce environmental, social or ethical results for investors, and those investors looking to identify hidden shareholder value from 'management quality' – which is more an art than science. Forum for the Future and the Cambridge Programme for Industry run a senior executives learning network to build capacity in understanding the links between sustainable development and business success.

Idea 10 That the private sector expertise built up within the UK Emissions Trading Group is used to extend markets to other emerging commodities in the UK, such as NOX, SO2, aspects of water and waste streams. This expertise could also be exported to help other countries develop such markets.
Why? The carbon market established by the Emissions Trading Scheme has the potential to deliver important sustainable development benefits, reduce compliance costs and provide substantial commercial opportunities, as described elsewhere in this paper. The same benefits could be delivered by extending the expertise build up with carbon into new markets and new countries.

Idea 11 That investment banks and brokers provide project finance and trading capacity in London to facilitate the development of the UK Emissions Trading Scheme in 2002, which is likely to be the first active market in carbon emission allowances and credits.
Why? The industry-led UK Emissions Trading Scheme has the potential to be a key stage in the development of a carbon-constrained economy. Individual carbon trades have taken place elsewhere on a case-by-case basis but the UK market could offer the first transparent price for carbon and a place for Annex 1 countries to cash in carbon credits. The UK market could also facilitate the transfer of resources to developing economies by offering, once rules are established, a place for non-Annex 1 countries to

cash there CDM carbon credits. Barriers that need to be overcome include the cost of verification and a concern that developing country projects will become skewed to carbon and away from poverty alleviation.

Idea 12 That the UK pensions disclosure regulations are extended to all pooled assets and a requirement for annual reporting on implementation.
Why? The UK pensions disclosure regulations are a good example of joined up government (with the Turnbull Report and Company Law Review), and are a good regulatory first step in stimulating financial innovation to encourage investors to price sustainability risks and opportunities into equities prices, and to exercise responsible ownership over the companies they are invested in. Extending the coverage and encouraging action by a reporting requirement would increase their effectiveness in delivering sustainable development benefits and protecting investment returns.

Idea 13 That stock exchanges make a link with the Rio Conventions and listing requirements on the Stock Exchange. Listed companies to be required to file, for example, an appropriate carbon or forestry management plan if these 'non-financial' risks are material to the business.
Why? The SEC in the US require companies to explicitly address material risks to their business, for example, an oil company may have to file details of how the Kyoto Protocol will affect their business model. This sort of listing requirement could be linked to the Rio Conventions, allowing investors to assess whether their investments are at risk from these sustainability issues

Idea 14 That government provides appropriate tax incentives for sustainable and socially responsible investment funds, particularly in emerging markets.
Why? The evidence shows that SRI at the least has no cost and may enable portfolio out-performance. However, returns-driven rather than cause-based investors will require an incentive to provide the social and environmental benefits of sustainable and socially responsible investment that may not be reflected in financial returns. Polluter-pays taxation, if implemented, should ensure corporate environmental impacts are reflected in financial returns. This will not be so for investments in some overseas markets and in social community development, where a tax incentive is justified. The Dutch have a similar scheme. The risk premium for investing in the emerging markets can easily make most investment opportunities there unprofitable. The development/ social/ environmental benefit can be obtained by governments/International Financial Institutions taking on some of the risk through guarantees or a tax incentive. The Dutch have a similar scheme.

5.2 Providing new finance

Idea 15 The improvement of corporate finance advice to early-stage companies with sustainable technologies or business models, who are seeking finance for expansion.
Why? A barrier to development of many sustainable SMEs is a lack of business and financial expertise, or access to financiers who understand their technologies or business models. This has led in the US to the establishment of the Environmental Capital Network, in Latin America to the New Ventures, and in the Netherlands to Fair Ventures. All aimed at bringing venture capital and entrepreneurs together, and providing business advice. Impax Capital and the Wheb Partnership are two advisory services in the UK that have specialised in this area, understand the subtleties of the technologies, regulatory uncertainties, how to structure finance and what banks require in terms of cash flow structure, risk and IRRs.

Idea 16 Public (or International Financial Institution) partnerships with private sector institutions to provide venture capital for sustainable technology start-ups and businesses in developed and developing economies.
Why? Impax Capital is managing just such a public private venture capital fund, financed by IFC, GEF and private investors, to invest in photo-voltaic solar power ventures in Kenya, Morocco and India. The role of IFC and GEF is to shoulder some of the political risk and ensure that private investors can achieve acceptable IRRs.

Idea 17 That investors provide a clear exit opportunity for sustainable venture capital investors through a liquid and mature SRI market.
Why? A prerequisite for a strong flow of venture capital finance into sustainable environmental and community ventures is a clear exit several years later by investors who will buy listed equities in these new companies. The UK's maturing SRI market should provide this. This is also an argument for funds such as the FI&S ISIS EcoTec Environmental Technologies Fund that invests in small unlisted ventures as well as listed equities, providing support and finance for new environmental technology companies throughout their development cycle.

Idea 18 That investment banks provide finance and capacity-building support to small-scale financial intermediaries supplying innovative finance, such as micro-credit and venture capital to viable community and environmental ventures.
Why? Jobs and sustainable livelihoods, particularly in developing countries, are mainly generated in the SME sector requiring a small-scale of finance. These are provided in the UK by institutions such as StreetUK for community micro-credit and Triodos-UK for environmental finance, which have the cost structures and expertise to successfully deliver finance at the small scale often required by these ventures. The Deutsche Bank UK Micro-Credit Development Fund offers a useful model.

Idea 19 That Government convenes a task force with emerging market and SRI fund managers and analysts to examine ways of making portfolio flows to developing countries more sustainable.
Why? The emerging markets, particularly in Asia, are where sustainable development will be won or lost given prospective population growth, fossil fuel and biodiversity reserves. SRI investors and other have some influence through the FDI and supply-chains of MNEs. Hendersons also run an Asia Pacific SRI fund and Calvert Group in the US have a number of emerging market funds and joint ventures. However, the bulk of portfolio flows into the developing world arguably support unsustainable economic activity.

Idea 20 That Government provides concessional finance, where necessary, in the form of debt or guarantees to reduce the transactions costs of financing new sustainable ventures in developing economies and could facilitate learning, until commercial returns are possible.
Why? The experience of Impax Capital and others shows that there are substantial initial barriers to the private financing of new environmental or community ventures due to start-up difficulties and learning, to add to the political and market risk. The social and environmental benefits justify the use of concessional finance to enable companies like Impax Capital bring these emerging sustainable sectors to the point where they offer commercial returns to attract market finance.

Idea 21 That Government provides an enabling environment in developing economies to allow private investors to supply venture capital, by funding

necessary infrastructure and institutions, and providing training in business management.
Why? Country risk is often very high and makes even a 20% IRR unattractive. This risk can be reduce by government aid or IFI concessional finance to establish the infrastructure and institutions required to ensure the success of venture and allow eventual exit.

Idea 22 That Government improves the tax incentives for venture capital finance of sustainable technologies and companies with sustainable business models.
Why? In the UK there could be higher rate tax relief under the VCT scheme for venture capital investments in sustainable companies. This tax credit is necessary for getting this sort of risk capital into the organic agriculture sector, where returns often fail to meet hurdles IRRs. It has the advantage that the fiscal instrument and legislation is already in place. In addition there could be accelerated depreciation allowances for sustainable start-ups, a simplification of the tax regime for SMEs and a reduction of tax levels on share options. Another good example is provided by the tax credit for community finance introduced this year under the UK's Community Finance Initiative.

5.3 Risk management

Idea 23 That insurers provide agricultural yield guarantee products to developing economies, helping to manage climate risks and alleviate poverty.
Why? High discount rates in rural developing economies are partly due to crop losses following extreme weather events or variability. Insurers are able to understand, model and measure these risks, at least for irrigated cash crops, if not yet for rain fed subsistence agriculture. This makes it possible for the insurer to offer a guarantee for the crop yield – not necessarily the full potential yield but sufficient to repay the loan that has financed the crop. This may be a good opportunity for the introduction of micro-insurance, provided via local insurers, or for villages to pool risks (as with micro-credit) until a critical threshold is reached that makes it commercially viable for insurers to reinsure the pool.

Idea 24 That insurers improve the flow of private finance into sustainable development in the South by insurance products that reduce the rate of discount or risk premium required.
Why? One of the big problems with privately financing sustainable development in the South is that the payback period is often too long to make the project commercially viable, given very high discount rates and risk premiums. Reducing risk through insurance lengthens the payback period, allowing time for sustainable development criteria to be met.

Idea 25 That insurers link insurance premiums more closely with sustainability-related risks that the insured individual or company can have some control over.
Why? For example there are some discounts for low mileage offered on motor insurance policies. A more explicit link to mileage might both reduce the risk of insured loss and produce a market-based incentive for fuel economy and reduced greenhouse gas emissions.

6 The London Principles

The London Principles project is exploring several avenues for enhancing the financing of sustainable development and facilitating the development of opportunities for financial services emerging from sustainable development issues. The aim is to provide a mechanism of enduring value, that will produce benefits for sustainable development and the City of London beyond the Johannesburg WSSD.

The most developed of these is a set of principles to help thinking about what innovations are required to improve the financial system's financing of sustainable development.

A set of principles to guide financial institutions, markets and regulators

Many guidelines or principles in this field set out systems and reporting to improve corporate performance in specific activities, such as reducing energy use or increased recycling of waste. The London Principles, in contrast, aims to set out the conditions for a financial system that will enhance the financing of sustainable development. Whereas many guidelines focus on environmental performance or perhaps environmental and social impacts, these principles are designed to emphasise the financial sector's primary role in promoting economic prosperity as well as influencing environmental protection and social development. Financial sustainability is implicit in the principles; they do not imply value-destroying activities.

Financial institutions endorsing the principles endorse all of them in the sense that they make up an appropriately functioning financial system. However, not all of the principles may be relevant to their business. A UK mortgage bank for instance will not be providing or expected to provide access to finance for environmental technologies or developing economies.

Signatories are also expected to report on progress annually.

What do the London Principles mean?

These principles focus on the financial sector's primary role in promoting economic prosperity as well as its influence on environmental protection and social development. Within each of these three sustainability categories the Principles describe the role of financial services in providing access to capital, pricing risk, promoting high standards of corporate governance and a number of other features.

Financing economic prosperity

Principle 1 Allocating finance from savers to companies and individuals investing and innovating is the primary wealth creation role of the financial services sector. Trading in financial assets is an essential part of this role, to the extent that it enables market prices to be established and to exert market control for the efficient running of the underlying companies and projects.

Principle 2 Given the experience of recent months with ENRON and others the need for financial market mechanisms to promote high standards of corporate governance needs little explanation.

Protecting the environment

Principle 3 The primary market mechanism is the signal provided by prices. In order for financial markets to promote environmental protection it is necessary for debt and equity prices to reflect environmental risks. There is evidence that material impacts on long-term corporate financial performance from environmental risks are not already 'in the market', but should be. The same goes for social risks. However, some impacts will remain unpriced unless addressed outside the financial sector through regulation or reputation effects.

Principle 4 Equity investors have ownership rights over the companies in which they are invested, and a responsibility to exercise them in the long-term interests of the shareholders. Direct investor engagement with companies can be an effective market mechanism by which corporate environmental risk management and performance is improved.

Principle 5 Providing access to commercial finance for the developers of the key new technologies in energy, water, waste and other areas is perhaps the most vital role of the financial system. Reducing the environmental damage from existing technologies and businesses is important, but the transition to a sustainable economy will only come about through innovation and the financing of clean technologies.

Promoting social development

Principle 6 Business risks from supply chain employment conditions, local community impacts and other 'social development' issues have increased in recent years. One of the roles of equity investors, as owners, is to protect investment returns by ensuring these risks are managed through high standards of corporate social responsibility.

Principle 7 Post-September 11 it has become even more important for the market mechanisms of the financial services sector to provide access to commercial finance for both developing economies and business in disadvantaged communities in the OECD. This is partly in order to manage the risks arising from development disparities, but also a source of commercial benefit from untapped entrepreneurship in these areas.

Table 4 The London Principles

Signatories agree, where relevant to the product and geographical scope of their business, to

Economic Prosperity	
Principle 1	Provide access to finance and risk management products for investment, innovation and the most efficient use of existing assets
Principle 2	Promote transparency and high standards of corporate governance in themselves and in the activities being financed
Environmental protection	
Principle 3	Reflect the cost of environmental and social risks in the pricing of financial and risk management products
Principle 4	Exercise equity ownership to promote efficient and sustainable asset use and risk management
Principle 5	Provide access to finance for the development of environmentally beneficial technologies
Social development	
Principle 6	Exercise equity ownership to promote high standards of corporate social responsibility by the activities being financed
Principle 7	Provide access to market finance and risk management products to businesses in disadvantaged communities and developing economies

7 Putting The London Principles into practice

The following two tables show how the case studies and the practitioners' ideas demonstrate various options for financial institutions wishing to put the London Principles into practice.

Table 5 Linking the case studies in innovation today to the London Principles

Case study	*Principle 1*	*Principle 2*	*Principle 3*	*Principle 4*	*Principle 5*	*Principle 6*	*Principle7*
1	●	●		●		●	
2		●		●			
3		●		●			
4			●				
5			●				
6	●				●		
7		●		●		●	●
8		●		●		●	
9	●	●		●		●	
10	●	●		●		●	
11		●		●		●	
12		●				●	
13			●				
14	●		●		●		
15	●	●					●
16	●	●					●
17	●				●		●
18							●
19	●						●
20			●		●		

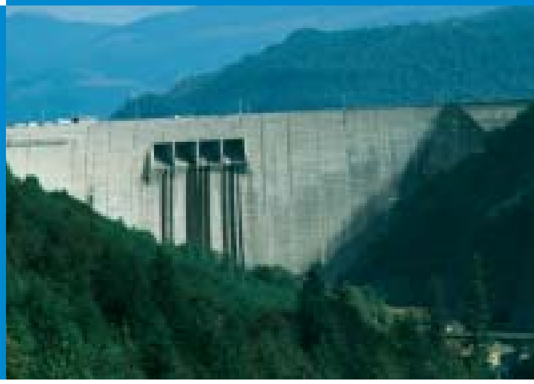


Table 6 Linking practitioners' ideas for innovation tomorrow to the London Principles

Idea	*Principle 1*	*Principle 2*	*Principle 3*	*Principle 4*	*Principle 5*	*Principle 6*	*Principle7*
1			●				
2		●					
3			●				
4		●		●		●	
5		●		●		●	
6		●		●		●	
7					●		●
8	●				●		
9	●	●	●	●	●	●	●
10	●		●				
11	●		●				
12		●		●		●	
13		●	●	●		●	
14			●				●
15	●				●		
16					●		●
17	●				●		●
18	●				●		●
19	●	●					●
20	●				●		●
21	●				●		●
22					●		
23	●						●
24	●						●
25			●				

8 Conclusions

There have been an impressive number of financial innovations in support of sustainable development in recent years in the UK. This is not to say that there is no need for further innovation. This project has limited itself to considering the use of financial market mechanisms to promote sustainable development and, even then, would not claim that everything is being done to finance sustainable development that could be done. One of the project's aims is that, by raising awareness of these opportunities and the achievements of many banks, investors and insurers, it will encourage the adoption of these innovations by other financial institutions, at home and abroad. There has also been considerable thought by practitioners about how this can be further developed. All this experience has helped the design of the London Principles of Sustainable Finance which should provide a mechanism to encourage the adoption of existing innovations and help to frame thinking about where further innovations need to take place to get the financial markets behind sustainable development.

9 Appendices

Workshop attendance list

Organisation	Name
ACCA	Roger Adams
ACEVO	Gail Winter
American Embassy	Gwendolyn Pascoe
Andersen	Fiona K. Gadd
Andersen	Frank Joshua
Andersen	Simon Page
Ashridge	Adam Faruk
Barclays plc	Christopher Bray
Barclays plc	Phil Case
Baring Private Equity Partners	Roger Gill
BBA	Alison Ward
Berwin Leighton Paisner	Andrew Waite
BITC	Louise Hall
Cazenove	Andrew Birch
Cazenove	Kate Bolsover
Cazenove	Katie Meakin
CDC Capital Partners	Gillian Arthur
CDC Capital Partners	Sophie Salsbury
Central Finance Board of the Methodist Church	W.T.Seddon
Centre for Tomorrow's Company	Ian Buckland
CERTA	Matthew Hussey
Claros Consulting	Mark Mansley
Co- Operative Insurance Society	Jo Allen
Corporation of London	Judith Mayhew
Corporation of London	Simon Mills
DARAJA	Jenny Edwards
DARAJA	Dunia Hategekimana
DEFRA	Richard Bird (Chair)
DEFRA	Terence Ilott
DEFRA	Nicci Collins
DEFRA	Ed Mitchell
DEFRA	Davide Minotti
DEFRA	Betty Yabrifa
DFID	Jonathan Hobbs
DFID	Eddie Rich
Dresdner RCM Global Investors	Bozena Jankowska
DTI	Michael Massey
Eco Securities	Lionel Frett
Enterplan	Jeremy Swainson
Enterprise Oil	Alison Cairns
Environment Agency	Howard Pearce
Environmental Finance Magazine	Mark Nicholls
ERM	Alistair Fulton
ERM	Lee Solsbery
ERM	Tom Woollard
Euro Money plc	David Rutherford
F&C Management Consultants	Paul Dare
Forum for the Future	Brian Pearce
Forum for the Future	Patrick Roche
Freelance Journalist	Nina Mehra
Friends Ivory & Sime	Olivia Lankester
Friends of the Earth	Simon McRae
GAEIA	Brigid Benson
Global Legacy	Craig Hayman
Global Risk Management Services	Alan Banks
Good Corporation	Leo Martin

Organisation	Name
Harben Financial Services	Stella Rice
Headstar Publishing	Phil Cain
Henderson Global Investors	Gary Topp
Henderson Global Investors	Rob Lake
Henderson Global Investors	Mark Campanale
Hermes Focus Asset Management Ltd	Tim Bush
Hermes Focus Asset Management Ltd	David Pitt-Watson
HM Treasury	Hannah Brown
HSBC Investment Bank	Mike Tyrrell
Hymans Robertson	Geoff Singleton
Iceland Foods plc	Diane Osborne
Institute of Directors	Geraint Day
Institute of Directors	Dr Daniel Summerfield
Jupiter Asset Management	Emma Howard Boyd
KPMG	Gerry Acher
KPMG	Ashton Shuttleworth
Lattice Group	Tracy Kessler
Lloyds TSB plc	Richard Cooper
London Region Green Party	Jean Lambert
Marconi	Simon Boyle
Member of Parliament	Tony Colman
Mercer Investment Consulting	Jane Ambachtsheer
Merrill Lynch Investment Managers	Poppy Buxton
Methodist Church	Russell Sparkes
Morely Fund Management	Anne-Maree O'Connor
Ove Arup & Partners International Ltd	Chris Carter
PallMall Partners	Jeremy Smith
People and Planet	Meredith Alexander
Quadris Env.Inv. Ltd	Ian Hook
Rathbone Investment Management	Sarah Dresner
Royal & SunAlliance	Dr Paul Pritchard
Royal & SunAlliance	Susan Waddington

Organisation	Name
Royal Holloway Institute for Environmental Research (RHIER)	Professor Edward Maltby
RTZ	Lord Holme of Cheltenham
Ruston Whebb Limited	Rob Wylie
Ruston Wheb Limited	Claire Skinner
Scottish Executive	Martin Mathers
SERM Rating Agency Ltd	Jonathan Barber
SG Assets Management	Carole Arumainayagem
SG Securities	John Mayers
Small Business Service	Robert Brennan
Social Systems	John Robinson
Solar Century	Madeleine Lyons
Strathclyde University	Dr Andrea Coulson
Sustainability Ltd	Alex Cutler
The Blake Project	Dr John Hemingway
The Centre for Tomorrow's company	Mark Goyder
The Co-operative Bank	Jayne Beer
The ENDS Report	Keith Tyrell
The Environment Council	Sarah Holbrook
The Manifest Voting Agency Ltd	Adam Rose
Theodore Goddard	Claire Sheppard
Traidcraft	Fiona Gooch
Traidcraft	Michael Gidney
UBS Warburg	John Dean
UK Environment News	Nick Paget-Brown
Universities Superannuation Scheme	David Russell
University College London	Charles Van Oppen
Wessex Environment Public Health Advisory Panel	Janet Barber
Westpac Banking Corporation	Martin J Hancock
WSP Environmental	Jim Finnamore
WWF	Jules Peck

Institutions and individuals consulted

Wheb Partnership
(Raise venture capital and incubate environmental start-ups)
Rob Wylie, Director

National Association of Pension Funds
Peter Thompson, Chairman

Henderson Global Investors
(SRI asset manager)
Nick Robbins, Head of SRI Research

CGNU
(life insurer and asset manager)
Anthony Sampson, Environment Manager

Independent SRI consultant and financier
Mark Mansley, Claros Consulting

Environmental Resource Management
(climate change consultants)
Lee Solsbury, Head of Climate Change Services

Pall Mall Partners
(asset managers/ partners in the Carbon Disclosure Project)
Jeremy Smith, Director

Morley Fund Management
(SRI asset manager, part of CGNU)
Clare Brook and Toby Belsom, Head of SRI and SRI analyst

CDC Group
(Venture capital investors in low-income developing economies)
Gillian Arthur and Alice Chappell, MD and Fund Manager

London Stock Exchange
Marc Bailey, Director of Business Development

Sustainability
(Sustainable development consultancy)
Oliver Van Heel, Senior Consultant

Henderson Global Investors
(SRI asset manager)
Mark Campanale, SRI Product Development Manager

Cambridge Programme for Industry
(Senior executive education in sustainability)
Polly Courtice, Programme Director

Friends, Ivory & Sime
(SRI asset manager)
Craig Mackenzie, Head of SRI

International Underwriters Association
(Reinsurers trade body)
Marie-Louise Rossi, Chief Executive, Nick Lowe, Director

UK Social Investment Forum
(SRI investment and banking trade body)
Penny Shepherd, Executive Director

NatWest Bank
(commercial and retail banking)
Andrew Robinson, Director of Community Banking

Merrill Lynch
(investment banking)
Adair Turner, Vice Chairman

Friends, Ivory & Sime
(asset management and venture capital)
Rachel Crossley and Mark Thompson, Global Environmental Technology

Legal & General (Insurer)
Nevilel Watson, Director of Corporate Communication

Apax Partners
(Venture capital)
Sir Ronald Cohen, Chairman, Michele Giddens, Community VC fund

Anderson
(Climate Change consultants)
Frank Joshua, Head of Climate Change consultancy, Fiona Gadd

Jupiter Asset Management
(SRI fund manager)
Emma Howard-Boyd, Head of Green Research

Impax Capital Group
(Environmental technology corporate finance and asset manager)
Ian Simm, Managing Director, Bruce Jenkyn-Jones, Fund Manager

Central Finance Board of the Methodist Church
Russell Sparkes, Fund Manager

Royal & SunAlliance
(Insurer)
Paul Pritchard, Environment Manager

Independent expert on climate change for the Insurance industry
Dr Andrew Dlugolecki

EcoSecurities
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Aon
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Charles Crosthwaite Eyr and Justin Mundy, Carbon Risk Management

Friends of the Earth
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Simon McRae

PartnerRe
(Reinsurer)
Phil Cottle

Cooperative Bank
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Jon Lee, Ecological and Social Business Development Manager

Universities Superannuation Fund
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Department of Work and Pensions
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Peter Askins

WWF-UK
(Environmental NGO)
Jules Peck, Sustainable Finance Adviser

Environment Agency
Howard Pearce, Head of Corporate Planning
Ronan Palmer, Chief Economist

Deutsche Bank
David Pearse, Head of Emerging Commodities

Association of Sustainable and Responsible Investment in Asia
(SRI investor network)
Tessa Tennant, Chair

Just Pensions project
(To get development objectives into pension SRI policies)
Duncan Green, CAFOD researcher

Hendersons Global Investors
(SRI asset manager)
Rob Lake, Head of SRI strategy

FTSE
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Mark Makepeace, Chief Executive

Swiss Re
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Alan Bridgewater, CEO

CO2e.com
(Carbon emissions broker)
Nicola Steen

Deutsche Bank
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David Pearse, Managing Director

ACBE
(Advisory Committee on Business and the Environment)
Gerry Acher, Chairman

KPMG
(Management consultant)
Mike Kelly, Head of Environment

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