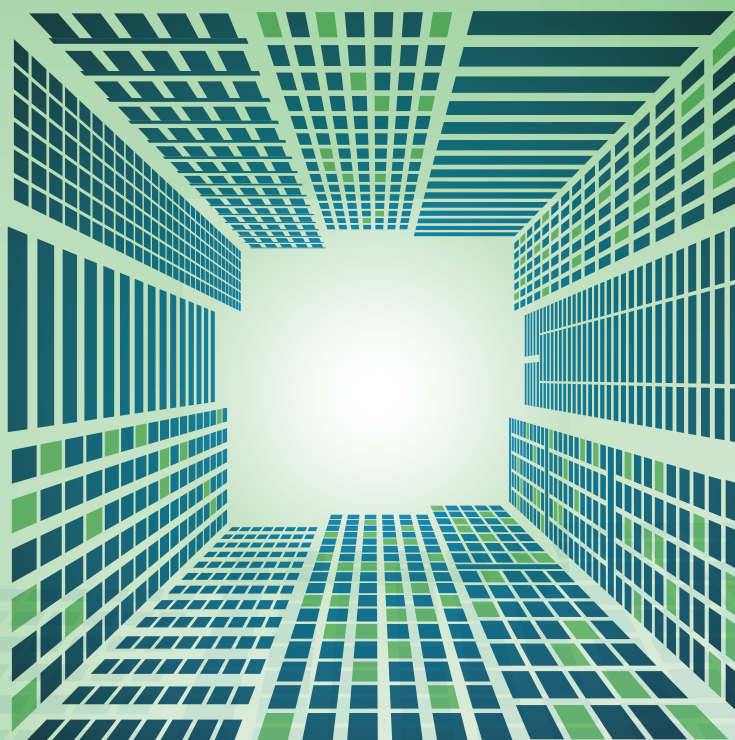

MOBILIZING SUSTAINABLE FINANCE FOR SMALL AND MEDIUM SIZED ENTERPRISES

REVIEWING EXPERIENCE AND IDENTIFYING OPTIONS IN THE G7



The UN Environment Inquiry

The Inquiry into the Design of a Sustainable Financial System has been initiated by the United Nations Environment Programme (UN Environment) to advance policy options to improve the financial system's effectiveness in mobilizing capital towards a green and inclusive economy—in other words, sustainable development. Established in January 2014, the Inquiry published its first global report, 'The Financial System We Need' in October 2015, with the second edition launched in October 2016. The Inquiry has worked in around 20 countries and produced a wide array of briefings and reports on sustainable finance.

More information on the Inquiry is at: www.unep.org/inquiry and www.unepinquiry.org or from:

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About this report

This report has been commissioned by Italy's Ministry of the Environment (MATTM) to explore the emerging links between financing for small and medium sized enterprises (SMEs) and sustainable development. A first draft was prepared as a background paper for a G7 Environment meeting held in Venice on 5-6 April 2017. It has been written by Jeremy McDaniels and Nick Robins of the UN Environment Inquiry.

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The opinions expressed in this report remain those of the authors alone.

Feedback on this report is welcome. Comments should be sent to nick.robins@unep.org.

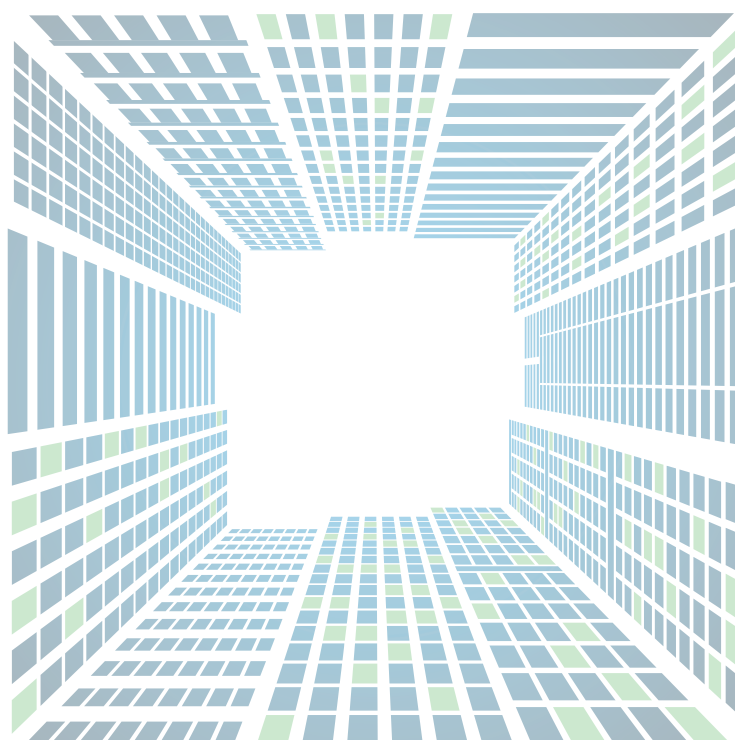
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EXECUTIVE SUMMARY

Small- and medium-sized enterprises (SMEs) contribute significantly to growth, employment, innovation and social cohesion across the G7. They are also a major driver of innovation for sustainable development. In order to accelerate the sustainability transition, further attention should be given to the financial needs of SMEs. To address this opportunity, Italy's Ministry of Environment included the issue of how to improve access by SMEs to green and sustainable finance as part of its 2017 G7 programme. This report takes stock of existing activities in G7 countries, identifies a range of emerging lessons and suggests possible next steps for action by G7 countries. This report focuses on green and sustainable finance – in other words finance that delivers environmental benefits, within the context of the wider shift to sustainable development.

Sustainable finance is rising up the agenda as a key tool to deliver the Sustainable Development Goals (SDGs) and the Paris Agreement on climate change. At a national level, countries are exploring the strategic implications, for example, through Italy's National Dialogue on Sustainable Finance. Internationally, the G20 has identified a series of shared policy options to mobilize private capital for green investment. Private sector engagement is also growing, highlighted by the rapid growth of the green bond market. Alongside this, governments are placing greater attention on the financing needs of SMEs to stimulate economic development, improve financial inclusion and address social priorities. At the international level, the Global Partnership for Financial Inclusion, for example, is exploring how innovative financing models can promote the integration of SMEs into sustainable global supply chains.

To date, however, the SME financing and sustainable finance agendas have operated largely in parallel. This represents a missed opportunity. Well-tried mechanisms to improve SME financing may well have important insights for how the sustainable finance needs of small enterprises can be met more effectively. Likewise, the sustainable finance arena offers fresh approaches to mobilizing capital that can contribute materially to SME financing more broadly.

Simply put, the green and sustainable finance agenda for SMEs comprises two core priorities:

- First, enabling finance for conventional SMEs to improve their sustainability performance, what could be described as the 'green performer' category.
- Second, allocating finance for SMEs that are focused on expanding sales of sustainability-related goods and services, a category that could be termed the 'green innovators'.

Beyond the well-established financing constraints that often face SMEs, specific barriers linked to insufficient green and sustainable finance can include:

- **Data:** a lack of robust data on the sustainable financing needs of SMEs among banks and other financial institutions.
- **Risk:** incomplete integration of environmental performance into the assessment of risks facing SME funding decisions.
- **Product:** a limited set of sustainable financing products both across the enterprise life cycle (including early-stage capital) and focused on specific opportunities (such as energy efficiency).

- **Institutional:** insufficient diversity of financial institutions offering long-term patient capital for the sustainable finance needs of SMEs.
- **Awareness and capacity:** A lack of awareness among SMEs themselves regarding sustainability-related investments as a way to lower costs and enhance competitiveness, as well as a lack of technical capacity and financial literacy.

Over the past decade, a growing number of solutions have been developed to help overcome these barriers. This report provides a first review of G7 experience in five main areas:

- **Public Financial Institutions (PFIs):** PFIs, such as state-owned promotional banks, have often been the first to fill financial gaps in the market for SMEs. The Montreal Group has profiled a range of debt and equity financing solutions ranging from the establishment of cleantech venture funds through to targeted green lending programmes.
- **Banking:** Commercial and stakeholder banks have increased their commitment to sustainability across their loan book. New initiatives such as the Principles for Positive Impact could help to close the funding gaps facing SMEs. However, disclosure on how banks are responding to the specific sustainable finance needs of SMEs is generally low.
- **Debt Markets:** Green bonds offer a range of options for SME financing, including the issuance of green bonds from banks that aggregate SME loans, the securitization of SME loans into asset-backed securities and the issuance of mini-bonds by medium-sized enterprises. An added advantage of green bonds is greater market transparency.
- **Impact Investing:** Assets dedicated to investment products that intentionally seek out enterprises delivering social, environmental and financial returns are growing. These often build on traditional private equity and venture capital financing models for both growth stage companies and traditional SMEs.
- **Fintech:** Fintech provides the newest source of green finance solutions for SMEs. Fintech applications can help to improve the efficiency of capital intermediation, with specific applications including crowdfunding for renewable energy projects. Fintech innovations – such as blockchain, learning algorithms, and smart contracts – could lower risk for financial institutions, reduce transaction burden, and ultimately lower costs of capital for SMEs to deliver sustainability.

What becomes clear from this review is the need to look strategically at the overall sustainable finance ‘ecosystem’ for SMEs. SMEs need tailored solutions that respond both to the diversity of their life cycle needs (including for start-ups) and to the range of actions they may take to pursue sustainability goals. In addition, the five financing strategies do not stand in isolation, but can build on each other if the links are made effectively. For example, public financial institutions can be pivotal for direct financing and crowding in private capital for both ‘green performers’ (e.g. energy efficiency) and ‘green innovators’ (e.g. cleantech) across a range of channels, including grants, guarantees, loans, equity, business advisory and green bond issuance.

Equally, this financing ecosystem still faces major gaps, but there is also strong potential to develop more trusted, more connected and networked approaches. Finally, experience suggests that successful innovation to improve SME access to sustainable finance can involve changes to market rules and regulations, innovative fund structures, fiscal incentives, network development as well as the application of technology.

G7 countries now have a strategic opportunity to use these lessons to scale up green and sustainable finance for SMEs. This could help support and strengthen the role that SMEs can play in connecting business growth, innovation strategies and entrepreneurial efforts with climate action and sustainable development.

To this end, a **Sustainable Finance Toolbox for SMEs** has been developed which contains a range of options for G7 countries to implement on a voluntary basis in partnership with key stakeholders such as financial institutions, SME business associations, public financial institutions, as well as central banks and regulators. The options within the toolbox are grouped in four categories as follows:

Strategy

- 1 Develop a strategy on green and sustainable finance for SMEs, including a roadmap of actions with specific milestones and targets, drawing on the options below.
- 2 Drive a two-way integration of the SME financing dimension in sustainability policies and the sustainability dimension in SME financing policies.

Assessment

- 3 Understand the role of SME finance in delivering sustainability and climate goals.
- 4 Evaluate SME needs for different types of green and sustainable finance along the enterprise life cycle.
- 5 Measure flows of green and sustainable finance for SMEs and evaluate the impacts of different options.

Promotion

- 6 Scale up the use of promising instruments such as green bond markets, sustainability funds and public finance, including the use of practice from other countries.
- 7 Explore the transformative potential of emerging solutions, such as fintech and impact finance.
- 8 Improve the financial architecture to facilitate green and sustainable finance for SMEs, including through market principles and standards, as well as exploring the appropriate application of legal and regulatory frameworks.
- 9 Provide catalytic financial support for individual SMEs and accelerators including the prudent provision of loans, guarantees and equity, as well as fiscally neutral incentives, advisory services and warehousing facilities.

Cooperation

- 10 Raise awareness and commitment from commercial financial institutions to integrate sustainability opportunities and environmental risk analysis into mainstream SME finance.
- 11 Share examples and experience across countries and examine the value of knowledge networks (e.g. partnerships of stock exchanges working on green finance for SMEs).
- 12 Share results and lessons learned with other countries, including beyond the G7 and identify common principles that emerge.

1 THE CHALLENGE OF SUSTAINABLE FINANCE FOR SMEs

Small and medium-sized enterprises (SMEs) contribute significantly to growth, employment, innovation and social cohesion across the G7. This is especially the case for the transition to a low-carbon, circular and green economy. However, access to finance remains a continuing challenge for the SME sector as a whole, as well as for what could be called ‘green’ or ‘sustainable’ SMEs – companies that seek to improve their environmental performance or are providing innovative sustainability-related products and services.

Enhancing access to finance for SMEs has been a long-standing public policy priority within the G7 and internationally. G7 countries have also recognized the need to scale up green and sustainable finance in order to stimulate growth and address pressing environment challenges, including the delivery of the SDGs and the Paris Climate Agreement. To accelerate the sustainability transition, further attention should be given to the finance needs of SMEs, which require financial services tailored to their specific requirements.

To address this opportunity, Italy’s Ministry of the Environment included the issue of the linkages between sustainable finance and SMEs as part of its 2017 G7 programme. This report takes stock of existing activities and domestic sources of green and sustainable finance for SMEs in G7 countries, identifies a range of emerging lessons, and suggests possible next steps for G7 action.

1.1 THE GROWING GLOBAL MOMENTUM

Harnessing the financial system will be essential for a successful transition to a low-carbon, inclusive and sustainable model of development. Finance lies at the heart of the three key international policy achievements reached in 2015: the Financing for Development package, the new set of 17 SDGs and the Paris Agreement on climate change.

- **Financing for Development:** The outcome document of the Financing for Development conference (Addis Ababa Action Agenda) focused on steps to increase domestic and international resource mobilization for developing countries, including private capital. One of its conclusions was to “strengthen regulatory frameworks to better align private sector incentives with public goals, including incentivizing the private sector to adopt sustainable practices, and foster long-term quality investment” both from domestic and international institutions.
- **Sustainable Development Goals:** The centrepiece of the 2030 Agenda for Sustainable Development, the 17 SDGs bring together an interlocking set of economic, social and environmental objectives with targets through to 2030, matched by 169 targets. For the financial system, the SDGs set out a high-level roadmap for generating ‘shared value’ – shifting capital away from damaging ‘business as usual’ trends and towards an end to poverty, increased prosperity with social inclusion and environmental regeneration.¹ Estimates suggest that US\$5-7 trillion a year is needed to implement the SDGs globally.²
- **Paris Climate Agreement:** The Paris Agreement established the goal of “making financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development”.³ In practice this means aligning capital with the long-term goal of keeping global warming “well below 2°C above pre-industrial levels”, with the aspiration to “limit temperature increase to 1.5°C” – as well as financing adaptation investments.

Across the world, banks, capital markets, insurers and investors are showing increasing commitment to sustainable finance, notably in terms of responding to critical environmental challenges such as climate change.⁴ This shift is reflected in a number of key developments within the G7:

- **Banks:** 12 of the world largest banks by market capitalization are based in G7 countries, and are all active in the green bond market.⁵
- **Equity Markets:** Stock markets in the G7 represent seven of the top 10 exchanges in terms of the level and quality of sustainability disclosure, and are home to the largest value of listed firms with green revenues.
- **Bond Markets:** G7 countries are among the largest issuers and investors in green bonds, which reached US\$81 billion in 2016 (47% of which were issued by G7 countries), up from US\$11 billion in 2013.
- **Investors:** Institutional investors from G7 countries account for over 1,000 of the nearly 1,400 signatories of the Principles for Responsible Investment (PRI), with an even larger share of the US\$65 trillion in assets under management that support the PRI.
- **Insurers:** G7 insurers make up the bulk of signatories of the Principles for Sustainable Insurance, and are leading innovators in new underwriting approaches.

This fast-emerging marketplace is driven by a diversity of approaches, including values-based ethical finance along with the increasing focus on integrating environmental, social, and governance (ESG) factors into mainstream financial decision-making, for example, as part of responsible investment strategies. As well as managing risks, there is a growing emphasis on opportunities and on financial practices that generate a real contribution to sustainable development, as encapsulated in the recently launched Principles for Positive Impact Finance.⁶

In this report, we focus on the interlinked concepts of green and sustainable finance:

- **Green finance** aims to deliver environmental benefits, tackling issues such as air pollution, biodiversity loss, climate change, resource efficiency, sustainable agriculture and forestry, as well as waste and water management. It is often used to describe the environmental character of particular assets (such as green bonds).
- **Sustainable finance** takes a comprehensive approach to the management of the economic, social and environmental dimensions of finance to enable broad-based progress to sustainable development. It is often used to describe the desired performance and impact of financial institutions (e.g. Principles for Sustainable Insurance).

Across the world, some countries are taking initiatives focused on green finance and others are framed in terms of sustainable finance. But the connectivity between these various initiatives is clear, with green finance targeting the environmental dimension as part of the broader transition to sustainable development. Importantly, actions from central banks, financial regulators and financial ministries increasingly support and complement market action on green and sustainable finance. Examples include:

- **China:** In September 2016, China's financial authorities issued a 35-point programme for greening its financial system.⁷
- **EU:** In December 2016, the European Commission launched a High-Level Expert Group on sustainable finance "to develop an overarching and comprehensive EU strategy on sustainable finance as part of the Capital Markets Union".⁸
- **France:** In 2015, France introduced its Energy Transition law, which includes a number of finance-focused measures, including the link between climate change and stress testing for banks, as well as extended disclosure requirements.
- **Italy:** In February 2017, Italy released the results of a year-long national dialogue on sustainable finance, which identified 18 options for further action.⁹

In total, the UN Environment Inquiry has identified over 200 policy and regulatory measures that have been taken across 60 countries to link finance and sustainability.¹⁰ These include measures to promote corporate disclosure, strengthen fiduciary duty, improve investor stewardship, manage climate risks to sectors and systems, and help develop markets for green assets.

At the global level, the G20 has advanced leadership through its Green Finance Study Group (GFSG), co-chaired by China and the UK, with UN Environment acting as the secretariat.¹¹ At the 2016 Hangzhou Summit, G20 Heads of State for the first time recognized the need to ‘scale up green finance’ and endorsed a set of options to achieve this goal. In addition, the Financial Stability Board’s Task Force on Climate-related Financial Disclosures (TCFD) – launched in 2015 – represented the first time that the FSB has addressed an environmental issue. Its draft recommendations were published for consultation in December 2016, and broke new ground by highlighting the importance of forward-looking disclosures in addition to reporting on past performance.¹²

The pivotal role of SMEs emerged as a strategic issue in Italy’s National Dialogue on Sustainable Finance launched in February 2016 by the Ministry of Environment. The Dialogue brought together banks, capital markets, investors, insurers as well as public authorities to identify options that would improve the integration of sustainability factors across Italy’s financial sector. It found that reforms to green the finance sector can help to identify new growth areas, new ways of ensuring the soundness of financial institutions and new ways to serve clients. The results of the Dialogue were released in February 2017 at a meeting co-hosted by Banca d’Italia with interventions from Italy’s Finance Minister, Environment Minister and the Deputy Governor of the central bank.¹³ The final report of the Dialogue identified the prominent role of SMEs in the Italian economy as a particular imperative for scaling up green and sustainable finance.¹⁴

1.2 SME FINANCE IN G7 ECONOMIES

Looking across G7 countries, SMEs comprise varying but significant shares of total businesses, total employment, and economic value-added – and are a major driver of economic growth (Table 1). In the European Union (EU) as a whole, SMEs account for two thirds of all employment and nearly 60% of value-added in the non-financial business sector.¹⁵ The majority of SMEs in the EU are micro enterprises of less than ten employees, with such small firms accounting for 93% of all enterprises.¹⁶

TABLE 1: SMEs ACROSS THE G7

Country	Share of SMEs in total businesses ¹⁷	Share of SME loans vs. total business loans (Stocks) (2014) ¹⁸	SME Interest Rates, % (2014) ¹⁹	Government Guarantees for SMEs (2014)	Venture Capital Investments, US\$ million (2015) ²⁰
Canada	98%**	14.2%	5.10	CAD\$1.33 bn	1,825.63
France	99.8%	21.2%	2.09	€7.25 bn	757.86
Germany*	99.5% ²¹	..	..	..	928.47
Italy	99.9%	18.9%	4.40	€11.75 bn	51.33
Japan	99.7%	65%	..	JPY29,348 bn	1,105.29 (2014)
UK	99.5%	22.5%	3.43	£0.25 bn	951.93
US	99.9%***	21.2%	3.39	US\$22 bn	59,698.50

* Germany is not a participating country in OECD SME Finance Scorecard

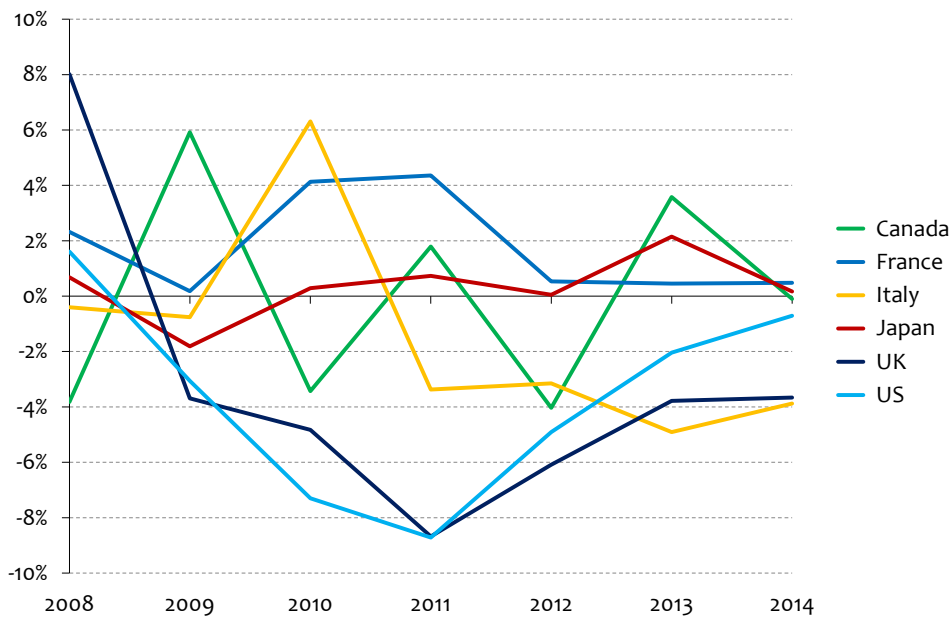
** Small businesses defined as 1-99 employees.

*** Small businesses defined as 1-500 employees.

On average, over 50% of SMEs across G7 countries require external financing through various channels. Bank finance remains the primary channel for SME finance in the G7, including credit lines and loans. The varying structures of the banking sector – and prevalence of other types of institutions – have led to different outcomes for SME credit environments, interest rates and risk appetites. Following the

financial and economic crisis of 2007-08, which severely impacted the capacity of SMEs to access finance in many countries, recovery in credit and lending has been uneven – despite, in some cases, evidence of positive GDP growth.²² Growth in the total stock of outstanding SME loans has been divergent across G7 economies since 2008 (Figure 1). Parallel to this, focus has increased on mobilizing other sources of non-bank finance, including attracting private equity and venture capital. Equity channels are a major source of finance for SMEs in certain G7 countries, including Italy, the UK and the US. Some evidence suggests that the finance gap for SMEs may be decreasing in certain G7 countries, including those in Europe – where access to finance is identified as a less pressing challenge for SMEs than in previous years.²³

FIGURE 1: GROWTH OF SME BUSINESS LOANS - OUTSTANDING SME BUSINESS LOANS (STOCKS)



Source: OECD, 2016 (SME Finance Scorecard) * No data provided for Germany

Across the G7, common barriers exist for SMEs accessing finance – including the small sizes of transactions, high transaction costs and collateral requirements, and high risk profiles affected by a lack of economic or geographic diversification. For start-ups and early-stage businesses lacking credit histories, revenues and collateral, a lack of bank finance may force entrepreneurs to leverage other financing channels, often with low success rates. Addressing these and other barriers and issues has been a long-standing public policy priority in G7 countries, with actions taken from local to national scales. Recently, many countries have increased their efforts, including as part of broader economic, industrial and trade strategies.

- Canada** has implemented a range of schemes to support SME finance, including direct financing under the Canadian Small Business Financing Programme.²⁴ Action has been taken to leverage private finance through the Venture Capital Action Plan (established 2013), with CAD\$390 million to establish private sector-led funds of funds that raised nearly CAD\$1 billion in private sector capital for innovative SMEs.²⁵ Over the next six years, Canada will make strategic investments totalling 2.5 per cent of GDP (around CAD\$50 billion) to support economic growth, with a significant allocation towards funding clean technology sectors and infrastructure.
- France** supports SME access to finance through multiple channels, including a credit mediation scheme, as well as concessionary finance mechanisms delivered through public development bank Bpifrance. Following a request from the Ministry of the Economy, the Observatoire du Financement des Entreprises has engaged with SME organizations and financial institutions, resulting in actions to enhance credit granting processes being collectively endorsed by the French banking association.²⁶ Currently, France is introducing measures to simplify the business environment for micro-, small- and medium-sized enterprises (MSMEs).

- **Germany:** There are several promotional schemes for SMEs in Germany (including grants, guarantees, promotional loans, equity and other instruments).²⁷ Public support for SME finance in Germany is often channelled through the national promotional bank KfW and regional promotional banks in partnership with commercial banks. In 2014, KfW provided financing of €11 billion to SMEs at an average interest rate of 2.03%.²⁸ These development/promotional banks have several programmes to support SMEs at different stages of development. In addition to loans, development/promotional banks provide a range of equity and mezzanine financing instruments and may also grant financial guarantees, as well as refinancing commercial institutions to deliver financial services targeted to SMEs. Moreover, there are further (public or public/private) guarantee schemes that share the credit risk with the commercial banks. However, the more important financing partners for SMEs are usually the local public saving banks (Sparkassen), local private cooperative banks and some private corporate banks.
- **Italy** has undertaken several initiatives to ease access to credit for SMEs and support liquidity, including public guarantee schemes and measures through its promotional bank, Cassa di Risparmio di Roma e di Credito per le Imprese (CDR). Italy is now adopting a new package of measures to mobilize capital for SMEs through access to capital markets, as well as to support growth and enhance competitiveness.
- **Japan** provides support for SMEs through a credit guarantee programme and direct loans, which comprise a significant share of total SME lending. Promotional institutions such as the Japan Financial Corporation provide support for start-ups and expansion through long-term loans.
- **UK:** The British Business Bank (BBB), the UK's public promotional institution for small business, was made operationally independent from the government in November 2014.²⁹ The BBB provides a range of support to SMEs including direct financing, as well as mechanisms to increase competition and diversity of financing sources. The BBB is the main channel for disbursing £400 million in government funding for SMEs, including through its venture capital programmes, which support early and growth stage businesses across digital, life sciences, energy and resource efficiency.³⁰
- **United States:** The Small Business Administration (SBA) is the major promotional agency for SMEs in the United States at the federal level, working to connect SMEs with sources of capital. The SBA provides a range of financing programmes, including loans, surety bonds, and equity financing.³¹ The Small Business Investment Company is a fund of funds for venture capital firms certified by the SBA that are seeking to invest in SMEs.
- **European Union:** In Europe, the Juncker Plan is seeking to mobilize €315 billion for infrastructure, innovation and SMEs – 80% from the private sector – with a strong focus on sustainability priorities such as clean energy, resource efficiency and public transport. As of March 2017, the EIB Group has allocated €32.8 billion in financing, mobilizing €177.7 billion in investment approvals – with 29% of investments directed towards SMEs.³² The EU has introduced the SME Supporting Factor into the EU Capital Requirement Regulation to reduce the capital requirements associated with loans to SMEs.³³ Most recently, the EU's Capital Markets Union programme has targeted a number of reforms relevant to SME finance, including strengthening venture capital financing and supporting social entrepreneurship.

At the international level, there are multiple initiatives targeting issues of SME access to finance, as well as efforts to expand financial channels for social entrepreneurship.

Within the G20 process, the Global Partnership for Financial Inclusion (GPFI) serves as a platform for all G20 countries, interested non-G20 countries and other stakeholders to take forward work on financial inclusion. The GPFI has established a dedicated subgroup on SME finance, guided by the G20 Action Plan on SME Financing adopted in 2015.³⁴ Under the 2017 German G20 Presidency, the GPFI is advancing the Action Plan through country self-assessments of conditions for SME financing, based on the Implementation Framework adopted at the 2016 Hangzhou Summit.³⁵ Responding to previous analysis on the need to further develop instruments for SME financing, the GPFI has set out intentions to investigate how innovative financing models may promote the integration of SMEs into sustainable global supply chains.³⁶ Work is currently under way on how to design policies and regulations that help MSMEs to adapt

to and strive in the context of changing climate conditions, which were discussed at the GPFI Workshop “Climate smart financing for rural MSMEs – enabling policy frameworks”.³⁷

Within the G7 process, several initiatives have been established to mobilize finance for investment in SMEs and social enterprises. The Social Impact Investment Taskforce (SIITF), launched under the 2013 UK G8 Presidency, was established to catalyse the development of the social impact investment market. The final report of the task force, released in September 2014, highlighted the need to increase access to finance for impact entrepreneurs, and channel existing support for SMEs towards impact-driven enterprises.³⁸ The Global Social Impact Investment Steering Group was established in August 2015 as the successor to the SIITF,³⁹ aiming to catalyse a global social impact investment market across a broader membership group of 13 countries, plus the EU.

1.3 BRINGING THE AGENDAS TOGETHER

To date, the SME financing and sustainable finance agendas have operated largely in parallel, with no substantive actions made to bring them together. This represents a missed opportunity. Proven mechanisms applied to improve SME financing may well have important insights for how the sustainable finance needs of small enterprises can be met more effectively. Likewise, the sustainable finance arena offers fresh approaches to mobilizing capital that can contribute to SME financing more broadly.

The green and sustainable finance needs of SMEs in the G7 are significant and growing. Recent surveys suggest that over a quarter of SMEs in Europe offer green products, with more than a third in the US.⁴⁰ Nearly 75% of EU companies have undertaken circular economy activities, with most companies self-financing such activities.⁴¹ Many SMEs wish to invest in the transition to a more circular model for their businesses, but more than a quarter (27%) report that they encounter difficulties in accessing financing.⁴²

Simply put, the green and sustainable finance agenda for SMEs can be said to comprise two core priorities:

- First, enabling finance for conventional SMEs to improve their sustainability performance, firms that could be described as ‘**green performers**’.
- Second, allocating finance for innovative SMEs that are focused on expanding sales of sustainability-related goods and services, a category that could be termed ‘**green innovators**’.

Beyond the widely recognized financing constraints that often face SMEs, specific barriers linked to insufficient green finance can include:

- **Data:** There is a lack of data on the sustainable financing needs of SMEs, including a lack of information on how needs may differ across start-up, early-stage, and mature firms.⁴³ If needs and potential opportunities are not clearly understood, financial institutions may face difficulties in advancing the business case for scaling up green and sustainable finance. Confidentiality concerns among lending institutions can be another barrier to building transparency around stocks and flows of green SME finance.
- **Risk:** Information asymmetries between financial institutions and SMEs may constrain the ease of credit and loan granting and these may be exacerbated for SMEs engaged in sustainability-related activities. A lack of familiarity, common approaches or standards for evaluating the credit quality of SMEs engaged in new clean technologies, green products or sustainability services may affect risk pricing, ultimately impacting the cost of capital. Furthermore, incomplete integration of environmental and social factors into the assessment of risks facing SMEs can mean that the credit benefits of improved performance are overlooked. Equally, environmental factors can pose financial risks for SMEs which may not be properly assessed and integrated (see Box 1).
- **Product:** Currently, there may be a limited set of financing products appropriate for the different life stages of SMEs (i.e. early-stage capital) or products tailored to their specific investment needs.

Green innovators (such as clean technology SMEs) can face major challenges in accessing early and growth stage financing due to their core business propositions, involving riskier technologies and longer time frames to market. Green performers may face difficulties in financing investments with high capital requirements and long payback time frames, such as resource productivity or energy efficiency. Here, further work is necessary to explore how existing financial products could be adapted for sustainability-related investments and to understand what other constraints may affect SME capacity for such investments.

- **Institutional:** An insufficient diversity of financial institutions can affect the stocks and flows of long-term capital with appetite for sustainable investments in SMEs. Institutional barriers may also arise if local financial institutions are unable to effectively unlock public funding instruments or develop partnerships with larger commercial institutions.
- **Awareness and Capacity:** There can also be a lack of awareness or understanding among SMEs of the potential for investment in sustainability opportunities as a way to lower costs, enhance competitiveness (i.e. through efficiency investments or circular economy strategies) or gain market share (i.e. through product innovation). Environmental business opportunities may be considered constraints and valued purely in terms of compliance costs, rather than as opportunities to support long-term value generation. SMEs are also often intrinsically less able to access sustainable finance because of capacity barriers, including financial literacy around the range of products provided by promotional institutions⁴⁴ as well as challenges in accessing capital market products.

Meeting the needs of SMEs for green and sustainable finance involves both the integration of environmental factors into mainstream financial practice, as well as developing specialist financial

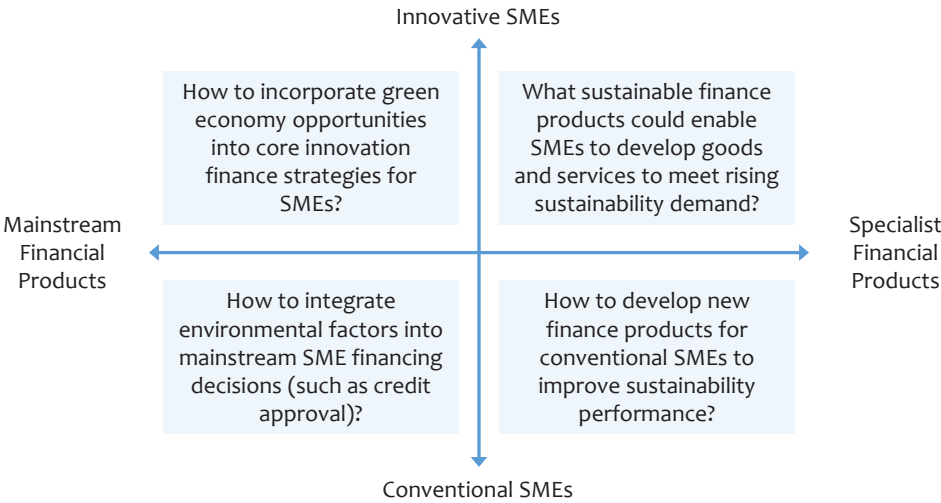
BOX 1: EXAMINING SME LOAN EXPOSURE TO FLOOD RISK IN ITALY

Financial actors are increasingly interested in the potential implications of environmental risks for the performance of bank assets, including loans to SMEs. An ongoing study undertaken by the Banca d'Italia is investigating disaster risk borne by the banking sector, focusing on flood risk.⁴⁵ As of end-2014, total lending to SMEs by Italian banks amounted to €856 billion, of which 40% were allocated to high-risk provinces. Results show that disaster risk reduction is positively correlated with loan granting: a 10% reduction in disaster risk is associated with a 3.1% increase in outstanding loans.

“Aside from damaging the economic activities of businesses and households, floods and landslides also reduce the collateral value of bank loans as a result of the material damage to the collateralized assets and, in turn, influence borrowing and lending propensities” – Luigi Federico Signorini, Deputy Governor, Banca d'Italia

services suited to specific sustainability requirements. The four key challenges are set out in Figure 2. For mainstream financial products, there is a dual challenge of integrating environmental factors into core decision-making around risk as well as more strategically understanding the innovative potential of the green economy. Equally, specialist financial products will be needed to respond to the requirements of dedicated green innovators as well as the requirements of conventional SMEs seeking solutions for their sustainability challenges. Financial product innovation (such as alternative loan structures, property-linked efficiency financing, and insurance for green assets) can help meet the needs of both innovative and conventional SMEs seeking to green their businesses. Technical support and capacity building are necessary to ensure the success scaling up such innovations – and the creation of new secondary markets to support liquidity.

FIGURE 2: THE SUSTAINABLE FINANCE CHALLENGE FOR SMEs



Source: UN Environment Inquiry, 2017

2 LEARNING FROM PRACTICE

A preliminary review across the G7 reveals five main channels through which public and private institutions are seeking to mobilize green and sustainable finance for SMEs:

- 1 Public Financial Institutions
- 2 Banking
- 3 Debt Markets
- 4 Impact Investing
- 5 Fintech

The sections below, defined with the support of PwC, provide examples from practice across these five areas, summarized in Table 2. Banks remain the largest sources of finance for SMEs – including private sector corporate and stakeholder institutions, as well as public development finance institutions. Debt markets are increasing as a source of green and sustainable finance through green bonds and other securities linked to SME loans. Impact investing (including private equity and venture capital) remains important for early-stage green innovators. Fintech innovations are generating new alternative sources of capital for green projects and firms. The examples listed below are not comprehensive, or representative of all actions taken by a given institution.

TABLE 2: EXAMPLES FROM PRACTICE

Institution Type	Financing Channel – Debt	Financing Channel – Equity/Other
Banks (promotional)	Bpifrance (France), KfW (Germany), DBJ (Japan), Connecticut Green Bank (US)	BDC (Canada), CDP (Italy), GIB (UK)
Banks (corporate)	Intesa Sanpaolo (Italy), <i>Positive Impact Initiative (Global)</i>	
Banks (stakeholder)	<i>Triodos (EU), GABV (Global)</i>	GLS Bank (Germany)
Securities markets	Lloyds (UK), <i>Rabobank (EU)</i> , Mini-bonds (Italy)	WHEEL (US)
Impact Investing		ETF (UK), <i>Jadeberg Partners (EU)</i> , BNP Paribas 90/10 Funds (France), SJF Ventures (US), DBL Partners (US), AQAL AG (Germany), Oltre (Italy)
Fintech	Abundance (UK)	Crowdfund IMPATTO (Italy), Social Stock Exchange (UK), <i>Hiveonline (Sweden)</i>

Notes: Non-G7 countries are in italics; institutions mentioned may provide more than one type of green and sustainable finance.

The diversity of SME sectors, market norms and policy frameworks across the G7 countries is reflected in the range of channels being used to mobilize green sustainable finance for SMEs. The examples reviewed here confirm that there is no single model and that the choice of instruments can depend significantly on national circumstances and priorities.

2.1 PUBLIC FINANCIAL INSTITUTIONS

Public financial institutions in the G7, including promotional banks, have historically been core providers of capital for SMEs. Set with public mandates, and serving as instruments of public policy, PFIs utilize public finance to leverage private capital for investment towards economic and social objectives. PFIs in G7 countries have also been important catalysts for investment in green projects as both direct financiers and intermediaries. Now, there is an increasing focus on green and sustainable finance for SME sectors.

2.1.1 The Strategic Role of PFIs

PFIs can play multiple roles in driving forward green and sustainable finance stemming from their extensive engagements with SMEs, including direct financing, refinancing, mechanisms to mobilize private investor capital and capital markets activities. A recent review by the Montreal Group identified a broad range of instruments used to mobilize green financing for SMEs, ranging from debt and equity financing to structuring and intermediation of financial products⁴⁶ (Table 3).

PFIs can also directly and indirectly support the broader ecosystem for green SME finance – including approaches detailed in this report, such as:

- Supporting the **broader green banking environment for SMEs**, including through low-cost credit lines linked to development objectives, or the establishment public-private partnership facilities;
- Leveraging **green debt markets** for SME finance, including through the issuance of green bonds linked to SME loans, purchasing green bonds, or providing technical assistance to issuers;
- Supporting the ecosystem for **impact investment** in green SMEs by seeding clean technology funds, or other innovative equity instruments;
- Identifying ways to unlock **fintech** solutions, including innovations that could ease the granting of green credit, harness new data and information sources or support collective action among SME stakeholders to build sustainable supply chains; and
- Supporting **market demand** from SMEs, including through the provision of advisory services to assess opportunities associated with investments in environmental performance and innovation, as well as through dialogue with investee companies.

2.1.2 Examples from G7 PFIs

G7 PFIs illustrate the breadth of activities that can be undertaken to support green SMEs. The examples detailed below, drawing on analysis by the Montreal Group, are by no means comprehensive considering that several PFIs may be active in one country or representative of all the actions taken by a given institution.

Canada – Business Development Bank of Canada (BDC)

BDC defines green financing as sustainable lending, which involves both financing and consulting for firms focused on “triple bottom line” outcomes, and businesses seeking to integrate environmentally and socially responsible practices.⁴⁷ BDC has sought, over time, to close financing gaps for Canada’s rapidly evolving cleantech industry, where risk profiles of longer-term investments have posed barriers to raising finance from domestic and international sources of venture capital. In 2001, BDC established its first Industrial, Clean and Energy Technology (ICE) venture fund, which targets investments in capital-efficient and scalable early-stage Canadian businesses seeking to enhance resource productivity.⁴⁸ In November 2016 BDC established the ICE II fund, a new CAD\$135 million venture capital fund to support 15-20 Canadian energy and cleantech start-up businesses with global potential.⁴⁹ The 2017 Budget also increased financing support for Canada’s clean technology sector by making available more equity finance, working capital and project finance to promising clean technology first through BDC and EDC (Export Development Canada).

TABLE 3: PFI INSTRUMENTS TO MOBILIZE GREEN FINANCE FOR SMEs

Instrument	Typology	Characteristics/Comments
Direct Loans	Debt Financing	PFI may lend directly to green SMEs, including through targeted SME lending portfolios or specific green credit lines.
Indirect Loans	Debt Financing	PFI may lend indirectly to green SMEs, including through commercial banks.
Long-term Investment Loans	Debt Financing	PFI may provide loans with longer terms than what is available in the market.
Short-term Working capital loans	Debt Financing	PFI may provide short-term loans with favourable terms, grace periods and low interest rates, for example credit lines for SME working capital.
Bridge loans	Debt Financing	PFI may provide interim financing for a green project, say by an SME, until permanent or the next stage of financing can be obtained. Money from the new financing is generally used to close out the bridge loan.
Concessional Loans (“Soft” loans)	Debt Financing	Concessional loans have favourable terms and conditions for green financing, such as lower interest rates, longer tenors, grace periods or different amortization schedules designed to ease repayment.
Revolving Credit	Debt financing	Flexible credit structures whereby PFI offer SMEs that need money for operations “on and off”, with varying payback timelines.
Debentures	Debt financing	Green financing for SMEs through fixed-interest loans secured against the firm’s assets – with either a specific asset (fixed charge) or a general claim against all company assets (floating charge).
Direct Equity	Equity Financing	PFI may make direct equity investments in green SMEs or green projects.
Mezzanine Financing	Equity Financing	PFI may provide hybrid instruments combining equity and debt, with rights to convert outstanding debt to equity.
Partial Risk Sharing	Intermediation & Structuring	PFI share risk with a borrower or another lender. Collaterals are sometimes used to protect lenders in case of default.
Co-financing	Intermediation & Structuring	PFI can agree to lend with another financier under the same documentation and security packages but may have different interest rates, repayment profiles and terms.
Channelling Government Grants	Intermediation & Structuring	Grants include cash or in-kind support for which recipients incur no legal debt. Grants reduce upfront layout in project investment costs.
Management of public funding instruments	Intermediation & Structuring	For example, management of concessional loans from public bodies (i.e. national investment or climate finance funds).
Loan Guarantees to banks	Intermediation & Structuring	Reduce risks for banks/lenders by providing loan guarantees or partial risk/credit guarantees with a risk-sharing component.
FX/Liquidity facilities	Capital Markets	PFI can protect green projects from exchange fluctuations by providing cross-country loans in local currency.

Source: Adapted from Montreal Group (2016)⁵⁰

France – Banque Publique d’Investissement (Bpifrance)

Bpifrance provides a green loan (Prêt Vert) that provides up to €3 million over seven years to SMEs at a subsidized interest rate, with no guarantees made against company assets.⁵¹ Loans are used to finance investments in more efficient production systems, or the development of eco-efficient products – such as investments in intangible assets (such as R&D, certifications, etc.) as well as optimization. The loan is co-financed with an SME’s existing financial institution, and is stipulated at one green euro for one

euro from another lender or equity investment in the company. Bpifrance also provides smaller low-rate loans (Prêt Eco-Energie) of up to €100,000 for SMEs to improve energy efficiency, including lighting, heat and other electricity systems,⁵² on similar terms to green loans. In addition to green loans, it provides a range of other debt and equity green financing products for SMEs, including equity financing (growth) for SME renewable energy developers; venture capital financing for cleantech start-ups, and grants and reimbursable advances for R&D for innovative projects at early stages.

Bpifrance also supports SMEs to better understand and implement sustainability strategies for their businesses, including through dedicated advisory services to help establish self-diagnosis of sustainability profiles (integration of environmental issues in business processes, product design, etc.), define corresponding action plans. Bpifrance also engages in permanent shareholder dialogue with invested companies, in order to help them anticipate the opportunities that could result from a better assessment of environmental issues relevant for their business.

Germany – KfW

KfW offers low-interest rate loans, partially with repayment bonus, via on-lending banks to SMEs for investments in energy efficiency, with specific programmes for investments in energy-efficient production systems, utilization of industrial waste heat, heat recovery systems, and construction and refurbishment of energy-efficient buildings.⁵³ Production efficiency investments must qualify against KfW performance criteria (at least 10% improvements against industry benchmarks, respectively 30% in the premium standard). For construction and refurbishment, KfW has defined levels of support linked to efficiency benchmarks. It also provides support to SMEs to invest in renewable heat generation systems.

KfW also actively supports the development of the green bond market. As an investor, it started in 2015 to build up a €1 billion Green Bond portfolio backed by the Federal Ministry of the Environment to expand its promotional activities for climate protection with a capital market instrument.⁵⁴ KfW is also one of the largest issuers of green bonds, issuing 11 green bonds totalling €11.5 billion since 2014.

Italy – Cassa Depositi e Prestiti (CDP)

CDP has set out a strategic vision for stimulating the sustainable development of the Italian economy – including investment promotion, social housing and infrastructure. CDP has advanced a range of sustainability-themed mechanisms, with several directly relevant to Italian SMEs:

- **Fondo Italiano d'Investimento (FII, Italian Investment Fund):** The FII is a €1.2 billion private-public fund to promote the capitalization and the aggregation process among SMEs. The Fund operates through both direct investments in SMEs and indirect investments and as a fund of funds for private debt funds and for venture capital. Summing all direct and indirect investments, the FII's activities have involved 150 Italian firms for a total turnover of more than €5 billion and total employees of about 27,000.
- **Venture Capital (VC) Fund of Funds:** Created within FII, the fund is providing an active contribution to the launch and development of innovative start-ups in Italy. With a fundraising target of €150 million, of which €50 million already committed by CDP and €30 million by other investors, it aims at fostering and supporting sustainable innovations among SMEs. CDP is currently one of the leaders in the Italian VC market. As confirmed in its new business plan 2016-2020, CDP aims at preserving such a leadership in the future and encouraging the creation of innovative start-ups intensifying its role in the innovation of the economy.

CDP plays a key role working with other EU and international institutions on sustainability-related funds on infrastructure and energy efficiency, among other areas. For example, in 2014, CDP partnered with KfW to provide €500 million in financing to support Italian SMEs and investment in energy-efficient

infrastructure.⁵⁵ In December 2016, CDP launched ITAtech with the support of the European Investment Fund (EIF), a dedicated platform to support technological innovation in Italy.⁵⁶ A €200 million portfolio of technology funds will be developed to enhance access to equity and innovation investments for businesses – from seed and start-up stages to expansion, including the commercialization of intellectual property.

Japan – Development Bank of Japan (DBJ)

Policy action in Japan to support green and sustainable finance has been under way for over a decade, starting with the establishment of the DBJ's Environmentally Rated Loan Portfolio (ERLP) in 2004. Under this programme, it applies a screen system to evaluate enterprises on the level of their environmental management and then sets financial conditions (including special interest rates) for high performing companies based on assessments. While not exclusive to SMEs, DBJ has financed a range of clients under the programme, including regional medium-sized companies amounting to a total of JPY1,194 billion in loans as of March 2017.

Following through from being the first Japanese issuer of a green bond in October 2014, DBJ has started issuing green and sustainability-themed securities on the back of ERLP, and loans under Green Building Certification.^{57,58,59} In addition, DBJ has supported international standards for green securities, including joining the Green Bond Principles as a member institution in 2016.⁶⁰

Domestically, DBJ has also provided substantial inputs for scaling up green and sustainable finance. These have included participating in development of the Principles for Financial Action for the 21st Century. Launched in 2011 by the Ministry of Environment and a group of leading financial institutions, the Principles set out steps to shift towards a strategic vision of engagement between the financial sector and environment.⁶¹ In addition, DBJ provided substantial inputs to the development of Japan's Green Bond Guidelines as a member of the study group for considering the content of the Guidelines. The Guidelines were published in March 2017 for the purpose of spurring Green Bond issuances and investments in Japan.

United Kingdom – Green Investment Bank (GIB)

The UK established the world's first Green Investment Bank in 2012. The GIB was designed to address market failures within the financing of low-carbon investments, overcoming excess risk aversion by working on a commercial basis to crowd in private capital through co-investments.⁶² Since 2012, the GIB has backed 98 green infrastructure projects, committing £3.8 billion as part of transactions worth £12 billion.⁶³ The GIB provides funds for SME energy efficiency investment through a specialized £2 million fund, invested into the ReEnergise SmartEnergy Finance vehicle, which then provides loans to SMEs.⁶⁴

US – Financing Energy Efficiency through State-level Green Banks

Several G7 countries have established new Green Banks – specialized public financial institutions focusing exclusively on mobilizing finance for green investment. In the US, state-level green banks (or similar green bank-like entities) have been established in California, Connecticut, Hawaii, New Jersey, New York and Rhode Island.⁶⁵

The Connecticut Green Bank (CGB) has facilitated a significant scale up in energy efficiency finance for commercial buildings through Property-Assessed Clean Energy (PACE) schemes. PACE is a clean energy finance structure whereby a borrower repays a loan through property taxes attached to the building that is upgraded, through the application of a new tax lien to the property. The CGB C-PACE programme is a centrally administered and financed programme that coordinates all commercial PACE activity – from loan origination to securitization and sale of loan portfolios to private investors. In the two years since its

establishment in early 2013, the C-PACE programme has financed nearly US\$54 million in energy upgrades for 89 buildings. Through its activities, the CGB has found that taking a “whole building” approach to PACE investment – including integrating energy efficiency improvements as part of deeper renovation activities – has been successful. While not specific to SME finance, PACE represents an innovation with major potential across the G7.

European Union – European Investment Bank (EIB) Group

The EU has implemented a range of measures to support access to finance for green SMEs, including direct financing activities through the EIB, credit enhancements, the development of specialized EIB group funds, and partnerships with private financial institutions. In addition, EIB institutions and platforms provide a range of technical support, guidance, and facilitation for both suppliers of capital and SMEs.

The EIB Group is the primary channel to unlock the mobilization of the €315 billion Investment Plan for Europe, including through specialist instruments such as the European Fund for Strategic Investments (EFSI). Established in early in 2015 by the EIB Group, EFSI has already mobilized more than €100 billion across the European Union – with funds allocated through an infrastructure and innovation window focusing on investments in green projects (administered by the EIB), and an SME window (administered by the EIF). Under this programme, over 141,000 SMEs expected to benefit from improved access to finance – with a significant share of capital allocated to new innovative SMEs.

The EIB has several specific initiatives aimed at scaling up finance for green and innovative SMEs, such as the InnovFin programme. A joint initiative in cooperation with the European Commission under its Horizon 2020 Programme,⁶⁶ InnovFin was adapted in December 2015 to allow higher-risk, innovative, sustainable business models to access to the scheme, building on changes to the EU’s Circular Economy Strategy.⁶⁷ In addition, the EIB has developed several partnership facilities with major G7 banks to support investment in environmental projects and SMEs, such as Rabobank.⁶⁸

The EIB Group has also been active in advancing new financial instruments to mobilize capital against SME financial assets. The SME initiative aims to stimulate financing by providing partial risk cover for SME loan portfolios of originating financial institutions,⁶⁹ through an uncapped portfolio guarantee instrument and a new SME Initiative Securitisation Instrument.⁷⁰

2.2 BANKING

Banks are the primary source of external capital for SMEs in G7 economies – and changes within mainstream banking as well as among smaller specialized institutions can help to promote finance for green SMEs. G7 banking sectors are diverse in their composition, concentration and balance of domestic vs. international activities. In the UK, the banking sector is dominated by a few major commercial banks. In other G7 countries, there is a mix of commercial, public and stakeholder banks; in France, for example, 60% of deposits and loans are managed by cooperative banks owned directly by customers.⁷¹

Action to incorporate critical environmental factors into the banking system has been gathering momentum across the G7, with activities in some countries under way for over two decades.⁷² Momentum towards a wider green banking shift is accelerating as market and policy factors are driving firms to consider a range of ESG risks and opportunities in their operations, financing and capital raising activities.

Looking across the G7, efforts by banks to scale up financing to sustainable finance for SMEs can be grouped into two main categories:

- Targeting SMEs as part of broader sustainable banking activities, including for renewable energy and energy efficiency, green property and project finance;

BOX 2: RECOMMENDATIONS OF THE MONTREAL GROUP FOR PFIS AND GREEN SME FINANCING

- 1 Engage in networking activities with climate policy influencers, financing institutions, government policy advocacy groups, ESCOs, and MSME associations.
- 2 Find ways to influence public policy, advocacy groups, financial institutions, private lenders and investors in effective and efficient practices that promote sustainability.
- 3 Create a commonly shared framework for the integration of ESG criteria along with profit criteria. This agreed upon framework should be used, along with necessary customization that is transparent to all members, in funding mitigation and adaptation projects.
- 4 Develop a standard template that would be used by all members to report on characteristics of each project, the partnerships involved, the financial and non-financial support provided, the risk-rewards criteria used at the beginning of the project, impacts of each project and their quantification.
- 5 Create and use a commonly accessible database to share knowledge and learn from each other's experience of enablers and disablers in green financing with respect to both mitigation and adaptation projects.
- 6 Develop an internal team of financial analysts to monitor trends and best practices, specifically with respect to various types of instruments being used, and to disseminate information to members on an ongoing basis.
- 7 Focus on direct and indirect equity financing to help innovators who are trying to spawn new cleantech products and services, incubate renewable energy ideas, identify new technologies for energy conservation and launch adaptation measures to reduce CO₂ emissions and greenhouse gases. This would mean a shift away from balance sheet lending and collateral practices and a move towards cash flow based investments (equity financing based on projection of projects' net present values) to encourage venture capital funding.
- 8 Study the advantages of green bonds and "YieldCos" to assist SMEs to use them in their structure.
- 9 Take a strategic approach to encouraging and promoting adaptation measures among MSMEs.
- 10 Launch a newsletter to report on various activities that are interesting from policy and project perspectives.

Source: Montreal Group (2016)⁷³

- Strategic choices to apply a "triple bottom line" approach in financing decisions, targeting positive environmental and social impacts.

Below we examine examples of leadership in these areas in commercial and stakeholder banking.

2.2.1 Commercial Banking

Recently, there has been upswing in action by commercial banks in the G7 to expand sustainable banking activities, largely focused on renewable energy project finance. Several major institutions (such as Crédit Agricole, ING, UniCredit and others) have established sustainable banking teams, as well as implementing broader strategies and commitments to scale up sustainable lending. Some institutions have implemented targeted initiatives to scale up finance for SMEs, with a focus on specific green sectors. Other lending initiatives targeting environmental or social benefits – such as green property investment – may be relevant to SMEs, but are often focused on larger corporate entities.

Major commercial banks are at the operational core of many of the innovations described in this report – from acting as implementing bodies for PFI funding and entering into public-private partnerships, to issuing green bonds linked to SME loans. Several banks are also taking forward work examining how environmental risks may affect loan books, as well as seeking to better understand how finance flows are contributing to the green economy. However, current disclosures by banks often make it difficult to ascertain how major institutions in the G7 are engaging with the green SME finance challenge.

International – Driving Positive Impact

Several major G7 commercial banks have taken action to ensure that their financing drives positive social and environmental impact – with lending to SMEs emerging as a central priority. Banks such as UniCredit are employing proxy data to assess portfolio-level impact on terrestrial resources and water, as well as identifying broader social impacts driven by total macroeconomic value-added. Société Générale has established a Positive Impact Finance project, with a new methodology for identifying projects that meet social needs while ensuring appropriate management of environmental impacts, as well as the issuance of a positive impact bond.⁷⁴ Recently, financial institutions have begun to work collectively to promote positive impact finance through UN Environment’s Finance Initiative (UNEP FI) (see Box 3).

BOX 3: PRINCIPLES FOR POSITIVE IMPACT FINANCE

In January 2017, the Principles for Positive Impact Finance⁷⁵ were released to provide guidance for financiers and investors to analyse, monitor and disclose the social, environmental and economic impacts of the financial products and services they deliver. This initiative emerged from the UNEP FI working group on Positive Impact Banking in 2015,⁷⁶ which brought together banks and investors⁷⁷ to find ways to close the funding gap for the SDGs by taking an impact-based approach.

Positive impact finance is understood to support positive impact business – that which serves to deliver a positive contribution to one or more of the three pillars of sustainable development (economic, environmental and social), once any potential negative impacts to any of the pillars have been duly identified and mitigated. By virtue of this holistic appraisal of sustainability issues, positive impact finance constitutes a direct response to the challenge of financing the SDGs.

The Four Principles for Positive Impact Finance are:

- 1 Positive Impact Finance is that which serves to finance Positive Impact Business.
- 2 To promote the delivery of Positive Impact Finance, entities (financial or non-financial) need adequate processes, methodologies, and tools, to identify and monitor the positive impact of the activities, projects, programmes, and/or entities to be financed or invested in.
- 3 Entities (financial or non-financial) providing Positive Impact Finance should provide transparency and disclosure on:
 - a the activities, projects, programs, and/or entities financed considered Positive Impact, the intended positive impacts thereof;
 - b the processes they have in place to determine eligibility, and to monitor and to verify impacts; and
 - c the impacts achieved by the activities, projects, programs, and/or entities financed.
- 4 The assessment of Positive Impact Finance delivered by entities (financial or non-financial), should be based on the actual impacts achieved.

Banks and other actors are also innovating elsewhere within the credit granting process to help support access to finance for green SMEs, including on credit ratings and other environmental indicators. Major banks issuing green bonds backed by loans to SMEs (see Section 2.3.1) have developed systems to flag clients as “green”, both in terms of operations and performance (including through the presence of sustainability certifications) as well as sectoral activities (i.e. clean energy).

Italy – Intesa Sanpaolo Circular Economy (CE) Standard

In 2016, the Innovation Centre of Intesa Sanpaolo started to develop an internal tool in order to assess the “circularity” level of a company, as a way to track Intesa Sanpaolo’s support for the transition at portfolio level. Through the CE Standard, the Bank can define the possible commercial and credit proposition (in line with the assessment’s results) and create connections among companies that stand out for the adoption of circular solutions. This scoring model is a starting point for the evolution of credit metrics in a circular vision.

BOX 4: MEETING THE ENERGY EFFICIENCY FINANCE CHALLENGE – TAGGING AS A SOLUTION?

Enhancing the energy and resource productivity of SMEs is a pressing financing challenge, most notably through enhancing energy efficiency of buildings and technologies. The importance of energy efficiency finance has been recognized at the G20 level through the Energy Efficiency Finance Task Group (EEFTG), which developed the Voluntary Energy Efficiency Investment Principles in 2015,⁷⁸ bringing together 115 banks and 40 investors managing close to US\$4 trillion of assets to increase their consideration of energy efficiency across their operations.⁷⁹ The EU Energy Efficiency Financial Institutions Group (EEFIG), co-convened by the European Commission and UNEP FI, released its final report in February 2015, providing a comprehensive set of market-level, broader economic, financial and institutional actions to scale up energy efficiency investment.⁸⁰

Growing numbers of banks are recognizing the importance of the energy efficiency finance challenge. One promising measure that could help improve market transparency, enable market creation in energy efficiency markets and green securitization would be to “tag” bank loans for specific SME assets (i.e. commercial real estate, automobiles or equipment) to their underlying energy performance or environmental standards. For example, 20 countries now have energy performance standards for buildings (including the EU as one unit). However, at present there is no data on how many loans are going to A-grade buildings, or how many are going to poorly performing buildings that can be retrofitted during the lifetime of the mortgage.

This approach could be a simple and low-cost way for countries to scale up finance for green SMEs using existing standards, and could also provide the platform for banks to grow energy efficiency finance markets necessary to meet country targets. In Europe, the European Mortgage Federation has proposed a new “energy efficiency label” for mortgages, based on certain energy performance indicators, with a lower interest rate and additional retrofitting funds to improve the energy performance of the property.⁸¹

2.2.2 Stakeholder Banking

Evidence suggests that banking sector diversity improves the availability and cost of finance for SMEs – and that the presence of smaller institutions (i.e. stakeholder or community banks) can be beneficial for green SME innovators and performers.⁸² Four factors are key:

- Financial assets: Non-commercial banks generally place greater emphasis on long-term lending to the real economy, with a greater share of assets in “non-bank” lending relative to commercial banks. Lending by non-commercial banks is on average allocated towards smaller firms, over longer time horizons.
- Local presence: Banking diversity ensures the presence of financial institutions that focus on retail customer facing-activities. Research has shown that the local presence of banks facilitates local lending and strengthens innovation.
- Time horizons: Lending by non-commercial banks is generally longer-term in nature than that of commercial banks, stemming from a focus on real estate and mortgage lending.
- Stability of credit provision: A diversity of banking ownership, business models and lending allocations may help to buffer against financial shocks if risk exposures differ more across individual financial institutions. On the whole, this can ensure more stable credit provision and a more resilient banking system.

Within the G7, Germany illustrates a banking system with a diversity of institutional models for SME financing, including private commercial banks, public regional and local savings banks (Landesbanken and Sparkassen), as well as cooperative banks. While many public banks are focused specifically on SME financing, Germany’s social and alternative banks have led green financial innovation for SMEs.

Germany – GLS Bank Financing Partnership for Green Entrepreneurs

GLS Bank, a leading alternative bank, has developed a Financing Partnership for Green Entrepreneurs. The core of the partnership is a special purpose vehicle that pools several investments and grants subordinated loans for green companies.⁸³ This model facilitates the blending of different capital funding sources and types of capital. Private investors and foundations (e.g. via bonds), development banks and venture capitalists (e.g. via equity) as well as banks (e.g. via loans refinanced through the issuance of savings certificates) are able to contribute capital for this pool. Thus, a portfolio with green projects is created through several funding components – whereby the elements are tailored and adequate in terms of risk for all parties.

EU – Triodos Bank

All of Triodos’ business lending is to companies and projects that qualify as sustainable, and contributing to quality of life. Triodos finances SMEs working across three core categories:

- Environment: including loans to renewable energy projects, organic agriculture projects and food supply chains, environmental technologies, and nature conservation.
- Social: including loans to businesses and non-profit organizations with social objectives, such as social housing, fair trade businesses, health care, and social integration.
- Culture: including loans to organization working in educational, cultural, or artistic sectors.

Triodos’ lending criteria starts with assessment of the motivations of entrepreneurs, in order to understand their sustainability attitudes alongside the systemic significance of their venture in context – followed by assessments of commercial feasibility and risks. Triodos employs a range of safeguards to ensure sustainable value creation, including financing clearly defined activities, and monitoring impacts.

International – Values-based Banking

A values-based banking movement comprised of community banks, cooperatives, credit unions and specialized private banks has emerged in Europe, seeking to support an inclusive, sustainable economy.⁸⁴ The Global Alliance for Banking on Values (GABV) is a group of 28 small- and mid-size financial institutions aiming to use finance to deliver sustainable development. Guided by the Six Principles of Sustainable

Banking, GABV institutions adopt a triple bottom line approach that actively works to do good – not just avoid harm.⁸⁵

2.3 DEBT MARKETS

Worldwide, there has been a rapid growth in debt finance instruments whose proceeds are ring-fenced for investment in a range of green activities such as clean energy, building efficiency, sustainable transport, water and waste management. Green bond issuance has grown rapidly from US\$11 billion in 2013 to US\$81 billion in 2016 – with the total stock outstanding now over US\$115 billion.⁸⁶ Financial institutions in G7 countries are leading globally on efforts to mobilize debt markets to raise finance for green SMEs, principally through three channels:

- 1 Green bonds issued by banks, including on through aggregation mechanisms, or covered bonds.
- 2 Issuance of mini-bonds by unlisted companies, in countries such as Italy.
- 3 New types of green securitization, such as asset-backed securities (ABS) linked to green loans.

2.3.1 Green Bonds from Banks

UK – Lloyds Banking Group ESG Bond

In 2014 Lloyds Banking Group (LBG) released the UK's first ESG bond, based on loans to SMEs with high environmental and social impacts. An SME bond framework was developed with Sustainalytics as a tool to identify qualifying loans, which undergo three tiers of eligibility criteria (exclusionary, governance, environmental and social) for inclusion.⁸⁷ By March 2015, funds from the bond had been allocated to over 1,370 SMEs in four categories: firms in economically disadvantaged areas, firms under Regional Growth Fund schemes, health care, and renewable energy.⁸⁸ The initial bond was over two times oversubscribed – leading to LBG issuing a second ESG bond in June 2015. Together, these two bonds allocated £47 million to health care SMEs, and £29 million to small-scale renewable energy.⁸⁹

EU – Rabobank Sustainability Bonds

Rabobank has developed a Green and Sustainability Bond framework, under which it can issue Sustainability Bonds – with proceeds allocated to a portfolio of existing or future loans to SMEs with selected sustainability certifications on products, processes or buildings.⁹⁰ The stated objective of this programme is to increase lending to SMEs that are considered sustainable front runners in their sector or industry. Selection of SMEs lending is based on the flagging of clients with sustainability certifications in Rabobank's client relationship management systems. In the 18 months to September 2016, Rabobank granted 848 new loans to SMEs with sustainability certifications eligible for inclusion.⁹¹

2.3.2 Mini-bonds

Italy – Green Mini-bonds for SMEs

Mini-bonds are medium/long-term debt instruments for SMEs intended to development plans, such as extraordinary investment transactions or refinancing. The market for mini-bonds was promoted and facilitated by a government decree providing tax incentives for the instrument: from 2013 to 2016, 292 issues came from listed and private large companies and SMEs, including commercial paper totalling more than €11.5 billion, of which 245 issues raised less than €50 million each and 89 raised between €2-5 million each. The vast majority of the mini-bonds – 201 issues out of 292 – are listed on ExtraMOT Pro, the mini-bond market established and managed by the Italian Exchange. It is to be noted that only 12% of the bonds are investment grade, and that most bonds (61%) are not rated.⁹²

In Italy, SMEs are using the mini-bonds market as a way to raise green capital.⁹³ The VedoGreen observatory has been detecting an increasing trend by listed SME of the green economy to use the debt instrument to collect funds for their business growth; in 2014, seven mini-bonds valued at €259 million were issued as diversification of funding sources, with an average coupon of 7.9%.

In the mini-bond market, the green segment is taking large place for the following reasons:

- ⦿ Strategic importance of the energy sector, especially after the 2015 Paris Agreement
- ⦿ Existence of real assets
- ⦿ Low correlation to traditional equity market
- ⦿ Low risk
- ⦿ Stable and predictable cash flows
- ⦿ Natural protection against inflation

To name a few examples, in 2014 Enna Energia Srl issued on the ExtraMOT Pro Market the first Italian mini climate-aligned bond for €3.2 million, with a coupon of 5% and maturing on May 2019. In the same year, utility Ternienergia successfully launched a small bond issue for €25 million on ExtraMOT Pro. The new bond, sold exclusively to institutional investors, is 5-year fixed rate senior note. The funding will be dedicated to optimize the financial profile of the group, specializing in renewable energy, energy efficiency and waste management, as well as to reduce bank debt.

In March 2017, Borsa Italiana added a new segment on its ExtraMOT PRO market dedicated to the issuance of green and social bonds. This included a formal procedure for issuers to request the accreditation of their mini-bonds listed on ExtraMOT Pro as green bonds through the provision of a second opinion certifying the green use of proceeds.⁹⁴ As of May 2017 this segment covers €1.2 billion in certified green bonds from large issuers such as ENEL as well as an estimated €590 million in climate-aligned bonds from smaller issuers. Some foreign supranational issuers have also entered the Italian market issuing green bonds listed on the Italian Stock Exchange (MOT and EuroMOT). Recently, the World Bank issued two sustainable bonds listed on the EuroMOT, targeted to Italian retail investors: one in Chinese renminbi and one in Indian rupees.

2.3.3 Green Securitization

US – Warehouse for Energy Efficiency Loans

Announced in 2014, the Warehouse for Energy Efficiency Loans (WHEEL) is a public-private partnership to create a national financing platform to bring low-cost, large-scale capital to government and utility-sponsored residential energy efficiency loan programmes.⁹⁵ Established by Citigroup, alongside Wells Fargo, AFC First, Renew Financial, EPC and the State of Pennsylvania, WHEEL funds unsecured residential energy efficiency loans (up to US\$20,000) in participating programmes, which are aggregated into diversified pools and used to support the issuance of rated bonds sold to institutional investors.⁹⁶ In June 2015, Citigroup and Renew Financial completed the first ABS transaction based on unsecured consumer loans for energy efficiency through WHEEL.⁹⁷ The US\$12.5 million issuance made an important first step towards the creation of secondary markets for retail energy efficiency loans. Based on this initial success, the Energy Programmes Consortium has examined the potential to establish similar programmes in other countries.⁹⁸

Germany – Green ABS for Solar Leasing

Banks may also support SMEs as part of other activities to securitize sustainable loans. In January 2017, Strasser Capital announced a €30 million tranche green loan from solar-lease issuer MEP's Green Financing programme, secured against a portfolio of solar leases to German homeowners.⁹⁹ The loan was certified

by the Climate Bonds Initiative. While this instrument is not financing SMEs, Strasser Capital is working with roughly 300 different SMEs to implement the installations¹⁰⁰ – highlighting potential to apply this mechanism in other areas, as well as indirectly benefit SMEs across sectors.

Box 5: OPTIONS TO SCALE UP GREEN SECURITIZATION

Global issuance of green asset-backed securities reached US\$5 billion in 2016, with the OECD estimating that annual issuance of green ABS linked to low-carbon assets could reach US\$280-380 billion by 2035.¹⁰¹ The Climate Bonds Initiative has identified a series of action areas for public institutions to support green securitization:¹⁰²

- 1 Provide guidelines for ‘green’ assets to support identification of green investments in existing portfolios.
- 2 Support the development of standardized contracts for loans funding low-carbon assets, including through:
 - a Establishing public-private initiatives and working groups, or offering direct financial support to existing market efforts on standardization of green loan contracts, if those are in place.
 - b Using the convening power of the Capital Markets Union to encourage harmonization of standardized contracts throughout Europe.
- 3 Support financial warehousing of standardized green loans, including through public-private partnership, or dedicated public financial institutions such as green banks.
- 4 Provide credit enhancement to support demand.

2.4 IMPACT INVESTING

Impact investing aims explicitly to generate social and environmental impact alongside a financial return. Total assets have grown to US\$77.4 billion in 2016 including from mainstream institutions.¹⁰³ Impact investing strategies may have a range of return expectations, and be pursued through different financial instruments offered from concessionary to risk-adjusted market rates. A key feature of impact investing strategies is a commitment to measure and report social and environmental performance of investments.

Traditional venture capital and private equity investments continue to be extremely important sources of finance for early-stage green SMEs in the G7 – including clean technology firms. The US remains the largest PE&VC market for cleantech, despite declines in recent years, with nearly US\$600 million in investments in Q3 2016.¹⁰⁴

Beyond cleantech, there is an expanding landscape of mainstream and specialist investors directing finance to support social as well as environmental objectives – where traditional SME structures are targeted alongside other novel types of social enterprise. Elsewhere, impact funds and other products are being pursued by investors as a way to increase allocations to impact assets.

Within the G7, impact investment with a sustainable finance focus can be divided into two main types:

- Specialized cleantech funds focused on investing in start-up and early growth stage companies providing environmental goods and services, and
- Impact-focused environmental funds with a broader social brief, which invest in a range of companies – including traditional corporate structures.

2.4.1 Specialist Cleantech Funds

UK/EU – Environmental Technologies Fund (ETF Partners)

ETF Partners is a venture capital group investing in early-stage companies with the potential to achieve sustainability through innovation – with an investment portfolio built around three pillars of smart industry, smart cities, and smart energy.¹⁰⁵ ETF Partners often acts as a lead investor committing between €5-10 million to companies with some established revenues. In the energy space, investee firms include software solutions for clean energy providers, smart energy devices, and smart HVAC technologies. Industry investments include resource efficiency and processing technologies, advanced materials, and drones.

EU – Jadeberg Partners

Jadeberg Partners is a venture capital investor focusing on technology leaders in German, Austrian and Swiss markets, generating revenues of €5 million or more with high growth potential. Investment focus areas include automation, digitization, advanced materials, agriculture, resource efficiency and energy innovation – including efficiency and management technologies. Jadeberg's investment criteria focus on delivering a double economic and environmental bottom line, and are based on international guidelines such as the PRI, EuroSIF, and GIIRS rating systems.

2.4.2 Impact-focused Social and Environmental Funds

France – BNP Paribas 90/10 Funds

BNP Paribas provides an innovative investment product, the “90/10” fund, to mobilize private capital for social and green SMEs with no additional efforts required from investors. Through the fund, 90-95% of capital is allocated to mainstream SRI assets (including listed equity), while 5-10% of the fund is invested in non-listed SMEs or non-profit organizations with demonstrated social and environmental impacts. In targeting mature projects (€8-10 million turnover) with proven business models, the 90/10 structure allows for capital to be allocated to SMEs without posing significant additional portfolio risk.

BOX 6: OPTIONS TO IMPLEMENT 90/10 STRUCTURES IN OTHER COUNTRIES

- 1 Develop supportive legal frameworks: allow for non-listed investments within retail fund structures, create product labels, or special legal status
- 2 Facilitate market growth: assess financing needs of green SMEs, Impose obligations to offer 90/10 funds in pension plans or savings funds
- 3 Encourage demand: provide fiscal advantages or other incentives
- 4 Facilitate impact measurement: provide access to public statistics and databases

Source: Adapted from BNP Paribas, 2017¹⁰⁶

US – SJF Ventures

Established in 1999, SJF Ventures has evolved into one of the most prominent US-based specialist funds investing in SMEs for social and environmental impact. From its initial Sustainable Jobs Fund, SJF expanded venture capital activities to 52 investments over four funds, focused on clean energy and efficiency, re-use and asset recovery, food and sustainable agriculture, education, health and wellness, and access. Notable investment examples include technologies for solar panel tracking, transmission networks enhancements, ethical integrated farming practices, access to education funding, and firms supporting

quality job creation. In its 2016 Impact report, SJF Ventures provides detailed metrics of the environmental and social impacts achieved through growth in investee companies – as well as action to promote best practices across the investment industry, such as the results of portfolio carbon assessment.¹⁰⁷

US – DBL Partners

DBL Partners' investment strategy focuses on achieving double bottom line impact through achieving strong venture capital returns while working with companies to enable social, environmental and economic improvements in local communities. Examples of such practices include strategic human resources development and investment, local contracting, environmental performance improvements (such as pollution and waste reduction), resource efficiency (including energy-efficient buildings), and support for community development. DBL Partners' first fund – the Bay Area Equity Fund I – has been implemented in the San Francisco area, with a second fund active across the Western US.

Germany – AQAL AG

AQAL AG is a technology holding company that performs direct investments in sustainable companies at multiple points on the growth cycle.¹⁰⁸ Its investment strategy focuses on integrating financial and legal due diligence criteria with social, environmental, cultural, behavioural measurements, as well as ethical criteria – selecting companies delivering sustainable and risk-adjusted returns on three axes of people, planet and profit.

Italy – Oltre Venture

Oltre Venture is an Italian specialist fund investing in enterprises to pursue innovation and social impact.¹⁰⁹ Since its establishment in 2006, it has raised €30 million in capital for 20 businesses in social sectors, with a focus on health care, education, social housing, social services and inclusive economic development.

2.5 FINTECH

The potential for fintech applications to revolutionize access to finance for SMEs is attracting growing attention. In 2016 the UN Environment Inquiry undertook an initial assessment of the interlinkages between fintech and financing for sustainable development.¹¹⁰ Several innovations relevant to SMEs were identified as high potential, including:

- Development of an SME collateral management registry, to consider a broader range of assets (such as receivables and inventory) as appropriate collateral for enterprise loans, ultimately lowering costs of capital
- Using smart technologies to reduce the transaction costs of trade finance for SMEs
- Applying fintech and big data techniques to streamline SME credit granting procedures, such as the formulation of credit ratings

Now, there is increasing activity among fintech companies to tackle sustainability challenges, including through the Green Digital Finance Alliance, a global partnership of leading fintech businesses, which is convened by UN Environment and ANT Financial Services.¹¹¹ While most fintech thinking has focused on solutions for developing and emerging economies, many innovations are also relevant to developed economies in the G7. Key here are crowdfunding and peer-to-peer investing platforms, which offer new ways to attract capital for smaller-scale green investments.¹¹² To date, flows have been small – but the broader implications of fintech for green financing of SMEs may be very significant.

2.5.1 Crowdfunding and Peer-to-peer Platforms

UK – Abundance

Abundance is the UK's first regulated online crowdfunding platform allowing individuals to lend directly to projects with social and environmental benefits, such as renewable energy projects. Abundance offers a variety of debenture instruments directly lending projects, including fixed and variable return debentures (linked to asset performance), as well as inflation-linked and short-term debentures,¹¹³ starting with a minimum investment of £5. Debentures are transferrable, and may be traded through an online marketplace for greater flexibility.¹¹⁴ Since 2012, Abundance users have mobilized £39.5 million in finance for 24 projects, generating returns of nearly £7 million.

Italy – Banca Etica Crowdfunding IMPATTO

Every year, Banca Etica promotes a competition to finance up to 15 projects by means of reward crowdfunding, with a further donation from Etica SGR's retail investors.¹¹⁵ In 2016, the selected projects aimed to develop innovative technologies in the welfare or sustainability areas. Selected projects benefitted from access to a training course on crowdfunding, and then inclusion in the Produzioni dal Basso online platform, which has funded nearly 1,700 different projects from a base of over 132,000 users.¹¹⁶ Finally, selected projects were eligible for a donation for up to 25% of the project value, on the basis that the crowdfunding initiative raised the remaining 75%. This 'charitable' contribution is made available by the microfinance and crowdfunding fund fed by voluntary donations from Etica SGR's clients (0.1% of the invested capital).

UK – Social Stock Exchange

The Social Stock Exchange provides access to the world's first regulated exchange dedicated to businesses and investors seeking to achieve a positive social and environmental impact through their activities.¹¹⁷ In order to be listed, companies must pass a stringent validation process, demonstrating how they adhere to social and environmental mandates and missions. Organizations that pass the vetting process and meet NEX's listing requirements are then free to trade on the platform. Using impact report information generated through this process, investors can then seek out investments that speak to them and that reflect their individual impact goals, often in their local area.

2.5.2 Other Applications

Fintech innovations have potential to generate disruptive solutions for the mainstream financial industry, posing both challenges and opportunities for financial institutions engaged in funding SMEs. The use of fintech innovations could ease transaction processes for SMEs, streamlining microfinance, factoring, invoice finance and trade finance while reducing risk profiles and the potential for fraudulent activity. Here, innovations such as blockchain and ledger technologies, learning algorithms for SME credit risk, the use of smart contracts and provenance technologies could lower risk for financial institutions, reduce transaction burden, and ultimately lower costs of capital for green SMEs. New platforms, such as collateral-based reputation systems over blockchain, could enhance transparency across communities of green SMEs – providing greater confidence and lowering risk profiles. Fintech can also support fractional ownership and community ownership of common resources between SMEs, an obvious application of which in sustainable finance is renewable energy sources. By providing fractional ownership (again via smart contracts/blockchain applications), a large variety of fractional owners could benefit both from generation offtake as well as sales.

Sweden – Hiveonline

Hiveonline is a financial trust platform start-up being established for SMEs in the Nordic region.¹¹⁸ It is designed to fill the gap between banks, businesses, government and administration, with frictionless financial administration on the basis of a blockchain-based “trust vault”. Businesses, customers, workers and suppliers share decisions, contracts, authorizations and payments via mobile, while guarantees, decisions, pictures and certificates are stored in the trust vault. The trust vault builds an indelible profile on blockchain, so customers, banks, community members, retailers, authorities and businesses know that work was completed and that records are true.

PERSPECTIVE FROM PwC



PwC is a network of firms in 157 countries with more than 223,000 people who are committed to delivering quality in assurance, advisory and tax services. PwC has contributed to this report reaching out to PwC experts in the G7 Countries in order to identify some relevant case studies on green and sustainable finance for SMEs.

It has been **challenging** to identify relevant examples of green and sustainable finance initiatives as, in most countries, such initiatives are not specifically targeted to SMEs. Our understanding of the scenario is the result of informal conversations with colleagues around the G7 countries, and is in line with the author's analysis.

Looking at the five main channels reported in Chapter 2, PFIs play multiple roles in debt or equity financing and their offering is often focused on the most urgent and strategic areas of development for the country where they operate. Given this focus, it could be noteworthy to monitor the **risk/reward criteria** and to measure the outcomes each project has created in its respective country.

Banks have been very active in the past 10 to 15 years in their sustainability reporting practices but are still lacking in requesting **disclosure and accountability** for their clients. Integrating some basic environmental or social criteria to rate SMEs and consequently decrease the cost of capital could be a solution to boost green and sustainable finance for SMEs.

Green bonds and mini bonds seem to attract increasing capital for SMEs. The Green Bond Principles, issued in June 2016, are voluntary process guidelines that recommend transparency and disclosure and promote integrity in the development of the green bond market by clarifying the approach for issuance of a green bond. The guidelines represent a step in the direction of a **more transparent system** but the market still suffers from limited clarity and transparency on the process and disclosure for issuers.

For what concerns impact investing, the market is expanding and practitioners are experimenting different methodologies to measure social and environmental impacts. However, understanding of **impact measurement** and consistency of reporting are still far from established good practice. As previously mentioned, a key feature of impact investing strategies is a commitment to measure and report social and environmental performance of investments, therefore there is an urgent need to find a common approach that could rate impact investing based on its non-financial results alongside with the economic ones. Fintech examples reported in this report are mainly related to crowdfunding initiatives but fintech applications should be expanded to other areas of the sustainable finance space, such as commercial and stakeholder banks to **revolutionize access to finance** for SMEs.

Broader demand-side issues also affect sustainable finance for SMEs. While many aspects of SMEs are inherently aligned with sustainability (including supporting local employment and economic networks), they may lack the **sustainability culture** necessary to drive investments and strategies aligned with the green transition. SMEs may often struggle with liquidity, and only make investments with very short-term payback periods – while investments in performance or innovation may have longer return periods. By working collaboratively with SMEs, investors and lenders could help to bridge these gaps by engaging with clients to integrate **sustainability innovations within their business plans**, to reduce risks now and increase returns tomorrow.

3 LESSONS AND NEXT STEPS

3.1 BUILDING AN EFFECTIVE ECOSYSTEM FOR SMES

Looking across the G7, it is clear that SMEs will be central to the delivery of value creation, innovation and social cohesion in the transition to sustainable development. This means looking strategically at the ‘ecosystem’ of green and sustainable finance for SMEs. There is a growing array of practical measures to improve access to green and sustainable finance for SMEs, including efforts to integrate sustainability into SME credit decisions, novel securitization approaches, targeted investment strategies and new technological innovations. Such tools can helpfully complement the efforts of public financial institutions, which remain at the core of SME and green financing agendas across G7 countries in terms of refinancing, supporting product innovation for green credit and loans, mechanisms to crowd-in long-term private capital and seeding investment funds. Importantly, the five financing strategies reviewed in this report do not stand in isolation, but can build on each other if the links are made effectively

Yet, the reality remains that the financing ecosystem linking green and sustainable finance and SMEs still faces major gaps. SMEs need tailored solutions that respond to the diversity of their life cycle needs, their responses to sustainability and that build long-term relationships. The promising examples reviewed in this report are often far from mainstream practice. What is also clear, however, is that there is now the potential for developing a more trusted, more connected and networked approach to overcoming these gaps.

Two broad sets of lessons emerge – first for the design of policy frameworks and second in terms of how to develop financial practice.

3.1.1 Lessons for Policy Frameworks

a. Assessing financing needs: Efforts to bring the SME and sustainable finance agendas together are at an initial stage. A foundational first step towards effective market and policy action is to assess the needs of SMEs for green and sustainable finance. Deepening the understanding of SME needs – including increased granularity by size, financing type and development stage – is central to clarifying the scale and location of financing gaps.

b. Addressing market failures: Policy action needs to be focused on addressing market failures, including the size-related disadvantages facing SMEs as well as information asymmetries that constrain investment. Beyond these challenges lie more fundamental barriers such as failure to price environmental externalities and reflect environmental risks in risk pricing.

c. Tracking flows and Impact: Flows of green and sustainable finance to SMEs are still not tracked effectively. This could be addressed via the ‘green tagging’ of loans provided by banks. Furthermore, as many of the innovations reviewed here are relatively new, the effectiveness has yet to be fully assessed.

d. Checking for alignment: Most financial policies and regulations that impact SMEs have not been designed with sustainability in mind. This points to the need to ensure coherence across mainstream financial regulation, SME financing strategies as well as environmental and sustainability policy frameworks.

e. Connecting sustainable development policies with SME finance: Experience to date shows growing interest in the SME finance dimension to the clean energy challenge. But policymakers also need to consider the financial needs of SMEs when designing other environmental policies, notably for resource efficiency, the circular economy as well as to build resilience to natural hazards and climate impacts.

3.1.2 Lessons for Financial Practice

i. Stimulating strategic action by banks: Commercial banks could be encouraged to develop green and sustainable finance strategies for SMEs, for example, by deploying the new Positive Impact framework. This would also include considering environmental and climate change factors as part of their risk management frameworks and credit decision-making processes for SMEs. Public finance institutions could also seek to scale up refinancing agreements with commercial banks to target specific financing gaps, such as start-up capital for green innovators and capital investment for energy efficiency.

ii. Tapping capital markets: New options exist for tapping debt and equity markets for SMEs. This includes a variety of green bond structures (including mini-bonds and securitization), specialist equity markets (such as the Social Stock Exchange) as well as fund structures (such as the (90/10 model in France). These provide access to long-term institutional capital.

iii. Recognizing diversity: SMEs need tailored solutions to respond to the diversity of their life cycle needs and their responses to sustainability. In addition, a diversity of financial institutions and funding structures can strengthen the bargaining power of SMEs so that they can gain access to attractively priced finance for sustainability.

iv. Scaling through market standards: On the supply side, investment labels are having a tangible impact on investor appetite for green and social investments, while on the demand side, standardization of contracts can help drive down transaction costs and reduce risk profiles. Institutions could support guidelines and common definitions for the identification of green SME assets, explore the potential for common standards for green credit and loans to SME and establish public-private partnerships to support warehousing and aggregation.

v. Deploying public-private leverage: Given the critical role of public finance, further work could be done to identify how public capital can best be deployed to crowd in private funds for green and sustainable SMEs, including through existing public finance institutions or public green banks.

3.2 NEXT STEPS

Looking ahead, green and sustainable finance could provide a strategic catalyst for reconnecting finance with the underlying purpose of the financial system and provide attractive risk adjusted returns. The task is how to best to scale up this experience and spread best practice to drive solutions to sustainability challenges and reduce environmental risks in the financial system. The review of practice shows that G7 and other countries could take a phased approach:

- a) **Immediate action:** expanding tried and tested sustainable finance practices from public finance institutions; green bond markets; and impact fund strategies – including those approaches set out in this report.
- b) **Strategic action:** exploring the application of transformative solutions, such as stakeholder banking, new securitization, and fintech solutions, over the longer term.

To this end, a **Sustainable Finance Toolbox for SMEs** has been developed which contains a range of options for G7 countries to implement on a voluntary basis in partnership with key stakeholders such as financial institutions, SME business associations, public financial institutions, as well as central banks and regulators. The options within the toolbox are grouped in four categories as follows:

Strategy

- 1 Develop a strategy on green and sustainable finance for SMEs, including a roadmap of actions with specific milestones and targets, drawing on the options below.
- 2 Drive a two-way integration of the SME financing dimension in sustainability policies and the sustainability dimension in SME financing policies.

Assessment

- 3 Understand the role of SME finance in delivering sustainability and climate goals.
- 4 Evaluate SME needs for different types of green and sustainable finance along the enterprise life cycle.
- 5 Measure flows of green and sustainable finance for SMEs and evaluate the impacts of different options.

Promotion

- 6 Scale up the use of promising instruments such as green bond markets, sustainability funds and public finance, including the use of practice from other countries.
- 7 Explore the transformative potential of emerging solutions, such as fintech and impact finance.
- 8 Improve the financial architecture to facilitate green and sustainable finance for SMEs, including through market principles and standards, as well as exploring the appropriate application of legal and regulatory frameworks.
- 9 Provide catalytic financial support for individual SMEs and accelerators including the prudent provision of loans, guarantees and equity, as well as fiscally neutral incentives, advisory services and warehousing facilities.

Cooperation

- 10 Raise awareness and commitment from commercial financial institutions to integrate sustainability opportunities and environmental risk analysis into mainstream SME finance.
- 11 Share examples and experience across countries and examine the value of knowledge networks (e.g. partnerships of stock exchanges working on green finance for SMEs).
- 12 Share results and lessons learned with other countries, including beyond the G7 and identify common principles that emerge.

Overall, G7 countries now have a strategic opportunity to use these lessons to scale up green and sustainable finance for SMEs. This could help support and strengthen the role that SMEs can play in connecting business growth, innovation strategies and entrepreneurial efforts with climate action and sustainable development.

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