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Green Transformation of Small Businesses

ACHIEVING AND GOING BEYOND ENVIRONMENTAL REQUIREMENTS

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JEL Classification: K32, K42, L53, M48, O44, O57, Q58

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ABSTRACT

This report aims to help environmental and other competent authorities in OECD countries to promote green business practices among small and medium-sized enterprises (SMEs). It analyses different ways to establish environmental regulatory requirements for facilities with low environmental risk (most of which are SMEs). It also examines how to design and apply information and market-based tools to promote compliance with such requirements and adoption of cleaner technologies and good environmental management practices. The report suggests several ways to increase the effectiveness of these promotion tools with respect to the SME community.

The report addresses the roles of environmental authorities, local governments, business organisations and financial institutions in the greening of small businesses. It reviews in detail the experience of France, Ireland, Korea, the Netherlands and the UK (England and Wales and Scotland) and draws on examples of several other countries.

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RÉSUMÉ

Ce rapport a pour objectif d'aider les autorités environnementales et les autres autorités compétentes des pays membres de l'OCDE à promouvoir des pratiques commerciales respectueuses de l'environnement auprès des petites et moyennes entreprises (PME). Il analyse les différents moyens d'établir des prescriptions environnementales pour les installations présentant un faible risque environnemental (qui sont pour la plupart des PME). Il se penche également sur la manière de concevoir et de mettre en œuvre des outils axés sur l'information et les marchés en vue de promouvoir le respect de ces prescriptions et l'adoption de technologies plus propres et de bonnes pratiques de gestion environnementale. Le rapport propose plusieurs façons d'accroître l'efficacité de ces outils de promotion auprès de la communauté des PME.

Le rapport aborde le rôle des autorités environnementales, des administrations locales, des organisations professionnelles et des institutions financières en matière de verdissement des petites entreprises. Il procède à un examen détaillé de l'expérience de la France, de l'Irlande, de la Corée, des Pays-Bas et du Royaume-Uni (Angleterre, Pays de Galles et Écosse) et s'appuie sur les exemples de plusieurs autres pays.

Classification JEL : K32, K42, L53, M48, O44, O57, Q58

Mots-clés : conformité environnementale, autorités environnementales, PME, croissance verte

FOREWORD

This report analyses, based on the experience of several OECD countries, effective and efficient ways to establish environmental regulatory requirements for small and medium-sized enterprises (SMEs) with low environmental risk. It also addresses tools to promote compliance with such requirements and adoption of cleaner technologies and good environmental management practices. In addition, the report deals with institutional aspects of greening small businesses.

The report is in line with the OECD Framework for Effective and Efficient Environmental Policies which promotes "preventative approaches" to compliance of smaller polluters. It is also consistent with the OECD Green Growth Strategy, as the transition of SMEs to sustainable practices is key to the overall greening of the economy.

The report was prepared by Eugene Mazur of the OECD Environment Directorate. The study was financially supported by the environmental authorities of France, Ireland, Scotland and England and Wales (UK), who also, along with environment ministries of Korea and the Netherlands, provided in-kind contributions to this work. The paper was discussed and enriched at an OECD expert meeting in Paris on 31 May-1June 2012.

The author is grateful to Brendan Gillespie, Anthony Cox and Angela Bularga of the Environment Directorate as well as to all country experts involved in the project for reviewing and commenting on drafts of this document. Assistance from Irina Massovets in implementing the project is also acknowledged.

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EXECUTIVE SUMMARY

This report aims to help environmental and other competent authorities in OECD countries to promote green business practices among small and medium-sized enterprises (SMEs). It analyses different ways to establish environmental regulatory requirements for facilities with low environmental risk (most of which are SMEs). It also examines how to design and apply information and market-based tools to promote compliance with such requirements and adoption of cleaner technologies and good environmental management practices. The report addresses the roles of environmental authorities, local governments, business organisations and financial institutions in the greening of small businesses. It reviews in detail the experience of France, Ireland, Korea, the Netherlands and the UK (England and Wales and Scotland) and draws on examples of several other countries.

SMEs account on average for almost 99% of all enterprises and two-thirds of employment across OECD countries. Although small businesses' individual environmental footprint may be low, their aggregate impact can, in some respects, exceed that of large companies. The transition of SMEs to sustainable practices, in both manufacturing and services, is key to the successful adoption of the green growth model. However, many SMEs lack information about environmental requirements and financially attractive green business practices and have limited resources and skills to improve their behaviour. This is why small businesses need easy-to-understand regulations, guidance on the green practices available, and incentives to adopt them.

While permitting remains the dominant regulatory regime in most OECD countries, standard rules, from simplified permitting to activity-based requirements with or without mandatory notification of the regulator, are applied to a growing number of SME-dominated sectors with low environmental risk (this is the case, for instance, in France, the Netherlands and Scotland). Small businesses welcome a standardised, rules-based approach to setting environmental requirements, which gives them certainty about the most effective way to achieve compliance, reduces bureaucracy and does not distort the level playing field within an industrial sector. The potential problem of the lack of knowledge of low-risk SMEs by environmental authorities can be addressed by requiring operators to notify the environmental regulator prior to engaging in a relevant activity and/or to conduct regular self-assessments of compliance with the rules and report the results to the regulator.

The main compliance monitoring strategies for SMEs are inspection targeting with risk-based frequencies of site visits and inspection campaigns. An increasing number of environmental enforcement authorities (e.g. in the UK) undertake initiatives to cooperate with other, non-environmental regulators and private sector organisations to conduct inspections of non-complex, low-risk installations. Outsourcing of compliance monitoring is also becoming more widespread, especially at the local level (e.g. in Ireland), which requires a substantial degree of control over third-party compliance certifiers.

Efforts to reduce the administrative burden of regulations and compliance monitoring on businesses, especially SMEs, have led to the emergence of a customer service philosophy vis-à-vis the regulated community in the environmental enforcement authorities of some OECD countries (most notably in the UK). This includes tailored approaches to specific sectors, enhanced collaboration between various regulatory bodies, and recognition and promotion of voluntary compliance and adoption of good practices. Compliance promotion, particularly effective when targeting the SME community, helps establish a

dialogue between government and businesses, paving the way for activities to facilitate broader environmentally friendly business practices as a vehicle for green growth.

There is a great variety of strategies and instruments to promote environmental compliance and green business practices, including:

- Information provision: advising individual businesses directly or disseminating guidance to a wide audience in the printed and, increasingly, electronic form;

- Promotion of good environmental management: offering regulatory incentives and financial and technical support for the establishment of environmental management systems, introducing sector-specific certifications and eco-labels as well as other environmental recognition awards;

- Market signals: good environmental performance can be driven by supply chain pressure from larger companies and by green public procurement; and

- Financial incentives: grants, low-interest loans and tax incentives for businesses willing to go beyond compliance and invest in greener technologies.

Based on the analysis of OECD countries' good practices, the report suggests several ways to increase the effectiveness of these promotion tools with respect to the SME community:

- Environmental regulators should adopt a sectoral rather than a regulation- or activity-based approach to compliance promotion;

- The instruments of environmental outreach should be carefully tailored to the nature and needs of small businesses;

- Economic benefits of improved environmental performance (in terms of increased efficiency and competitiveness) should be the main "selling point" of environmental outreach to SMEs;

- Government bodies should work in partnership with trade associations and business support organisations to elaborate and disseminate environmental guidance;

- While in the long term web-based guidance is likely to become the dominant source of support for SMEs, in the short and medium term online tools need to be complemented by other, more traditional instruments such as paper and electronic mailings, brochures and workshops;

- Guidance should be concise and clearly distinguish between legal requirements and good practices in order to avoid costly over-compliance by small businesses;

- Governments should develop and implement green public procurement policies as a way to encourage potential SME suppliers to offer environmentally friendly goods and services;

- Environmental authorities should encourage private banks and insurance companies to provide incentives that promote good environmental performance of small businesses.

Government funding support for information provision and incentive schemes is essential at the initial stage of engaging SME-dominated sectors in green transformation, before the market for fee-based environmental services to small businesses develops further. Governments should use outcome indicators of environmental assistance (e.g. measures of resultant financial savings for SMEs) to justify such support.

1. INTRODUCTION

1.1 SMEs as a regulated community

The legal definition of small and medium-sized enterprises (SMEs) varies by country and by industry. In addition to number of employees, methods used to classify small companies include annual sales (turnover), value of assets and net profit (balance sheet), alone or in a mixed definition. The definition in the European Union (EU) is that an SME is an enterprise of less than 250 employees, with a turnover below EUR 50 million or balance sheet total not exceeding EUR 43 million. A small business is defined as having less than 50 employees with a less than EUR 10 million balance sheet, and a micro-business would have less than 10 employees and less than EUR 2 million balance sheet. For comparison, an SME in the US is a business with fewer than 500 employees (in most manufacturing and mining industries) [1], while in Australia this threshold is set at 200 employees and in Korea at 300 full-time employee equivalents.

SMEs account for approximately 99% of all enterprises and two-thirds of employment across the OECD area (OECD, 2010). Although small businesses' individual environmental footprint may be low, their aggregate impact can, in some respects, exceed that of large businesses. For example, SMEs account for 60-70% of industrial pollution in Europe (Miller, 2011). They produce 60% of commercial and industrial waste and cause 40% of pollution incidents in the UK (SNIFFER, 2008). The key sectors where SMEs have a particularly significant environment impact include livestock farming, construction, metal finishing, waste treatment, food and drink industry, textile and leather manufacturing, etc.

At the same time, environmental regulatory regimes are designed around environmental risk and not to address any particular company size. No environmental regulation specifically targets SMEs, instead distinguishing low-risk activities and installations, although regulatory guidance usually keeps in mind particular features of small businesses. Environmental enforcement authorities are not systematically aware of the number of SMEs they regulate and do not collect this information.

It is not easy to define low risk to human health and the environment. Environmental regulators in different countries have very different risk tolerances, driven in part by their mandate and the institutional context. In practice, low-risk installations are usually defined "by exclusion", i.e. as those that are not considered high-risk. Risk assessment criteria typically relate to the environmental hazard of a regulated facility (its complexity in terms of impacts on different environmental media, location with respect to urban and environmentally sensitive areas, volume of pollution releases and potential for accidents) and to its operator's performance (compliance record and environmental management practices). Low-risk installations are generally eligible for a simplified regulatory regime.

This paper uses the term 'SMEs' as a more widely accepted, particularly in the context of greening the economy and in recognition of the specific regulation and compliance challenges related to small businesses (discussed in the following section). The focus of the analysis, however, is on those SMEs that are considered by relevant environmental regulators to be low-risk installations.

[1] US states may define small businesses differently: for example, a business with fewer than 100 employees is considered small in Virginia.

1.2 Regulation and compliance challenges of small businesses

The main challenges of regulating SMEs can be categorised as follows:

- The diversity and complexity of SMEs' activities both within and across different sectors, affecting the type and degree of environmental problems in a particular sector or group of businesses as well as the way in which this sector should be regulated;

- The substantial number of operators and the related lack of information available to the regulator about their levels of compliance or the factors that affect their compliance;

- The potentially limited capacity (lack of resources, time and expertise) of small businesses to absorb regulatory requirements and to comply with them; and

- The low awareness of small business owners of the need to address their environmental impacts and hence to comply with respective regulations.

Recent research has shown that while SMEs account for approximately 64% of the industrial pollution in the EU, only very few of them actively engage in actions to reduce their environmental impact: 3-4% of micro-businesses, 7-8% of small companies and 6-7% of medium-sized companies (Calogirou et al., 2010). These figures correspond to the findings in England and Wales, where a survey has found that the vast majority of SMEs believe that their activities are not harmful to the environment, with only 10% aware of their environmental impact (NetRegs, 2009)[2].

The problems of environmental ignorance and lack of awareness of regulation are even more severe in the case of micro-businesses. A UK survey of micro-businesses (Defra, 2011b) identified "introducing new regulations too quickly" as the most significant barrier to environmental compliance (by 43% of respondents). Other most frequently cited barriers are "lack of funds" (39%), "lack of clear information on minimum requirements for compliance" (39%) and "lack of knowledge" (37%).

What motivates SMEs and their owners is likely to be very different from what motivates large corporations. The small size of SMEs means that managers have many different responsibilities, so environmental issues suffer from the lack of attention compared with core business decisions. Many SMEs have not integrated environmental issues into their business decisions, making it difficult to persuade them of economic benefits of environmental improvements.

1.3 Role of SMEs in greening the economy

Beyond achieving environmental compliance, the transition of SMEs to sustainable practices, in both manufacturing and services, is key to the successful adoption of the green growth model. The "green transformation" is also a significant business opportunity for SMEs themselves as important actors in green technology innovation and production. However, the willingness and capability of SMEs to adopt sustainable practices and seize green business opportunities generally face size-related resource constraints, skill deficit and knowledge limitations.

SMEs are often unaware of many financially attractive opportunities for environmental improvement. There is a widespread misperception that protecting the environment is associated with technical

[2] A recent survey conducted by the European Commission (EC, 2012) indicated that 92% of EU's SMEs say that they comply with environmental requirements, and 33% claim to be improving resource efficiency as a matter of priority. In light of other studies on this issue, these figures should be treated with caution.

complexity, burdens and costs. Even when they are aware of the potential of better environmental performance to improve a firm's competitiveness, a lack of appropriate skills and expertise commonly prevents firms from acting upon win-win opportunities. At the same time, the lack of resources often leads to SMEs being risk-averse and less willing to invest in new technologies, partly because of the uncertainly about the payback period.

The UK Carbon Trust poll found that 65% of consumers want to purchase products from environmentally responsible companies. Yet more than half of SMEs see a greener economy as a threat, about half of small businesses believe that benefitting from the green economy requires a lot of investment capital, and only 22% think that investing in green products and services will lead to higher profits (Carbon Trust, 2011).

For SMEs, going green is largely a voluntary action dependent upon the vision and conviction of one or a few individuals. Many SMEs are willing to invest in more energy-efficient and environmentally friendly processes, but they require reliable partners in financing their investments and the right regulatory framework. However, they often face obstacles in getting access to finance, with banks being reluctant to fund such investments and lacking the specialised staff needed to evaluate SME projects.

The increasing number of business associations in OECD countries (for example, the UK Forum of Private Businesses[3]) are asking their governments to provide support to SMEs in the transition to the green economy by making sure that regulations are easy to understand and take account of the needs of small businesses; providing clearer information on the range of green choices available and their practical and financial aspects; and using financial incentives to give small businesses confidence to invest in green technologies and management systems.

1.4 Objective and scope of the study

This study's objective is to help competent authorities in OECD countries to facilitate a "green transformation" of the SME sector by:

1. Identifying good practices in the environmental regulation of SMEs – to manage their overall environmental impact while reducing the administrative burden and regulator's costs; and

2. Suggesting ways in which packages of information instruments and financial incentives can be designed to encourage "green behaviour" of small businesses[4].

Accordingly, the study analyses different ways to establish environmental regulatory requirements for low-risk facilities (Chapter 2) and tools to promote compliance with them and adopt cleaner technologies and good environmental management practices (Chapter 3). In addition, the study addresses institutional aspects of greening small businesses, such as the roles of environmental authorities, local governments, business organisations and banks (Chapter 4).

The analysis focused on the experience of France, Ireland, Korea, the Netherlands and the UK (England, Wales and Scotland) whose governments provided financial and/or in-kind support for the study. The information collected from these countries using a targeted questionnaire, research and interviews was complemented by literature and web queries on other OECD countries with relevant practices.

[3] "Government asked to help SMEs going green", by Jamie Lawrence, 20 September 2011, www.inspiresme.co.uk

[4] The report does not address policy instruments required to strengthen the role of SMEs in environmental innovation, which are considerably different from the tools to encourage environmental practices of SMEs themselves.

2. REGULATORY PROGRAMMES FOR LOW-RISK FACILITIES

Regulatory programmes are designed based on the identification and understanding of different segments of the regulated community and on their ability and willingness to comply with requirements. A differentiated approach to setting these requirements enables competent authorities to tailor their use of compliance assurance instruments, to prioritise inspections and to focus compliance promotion and enforcement efforts.

In some countries, regulators do not have strategies that are used only for low-risk facilities – they simply have fewer resources applied to them than to high-risk sites. However, an increasing number of environmental regulators establish special regimes for low-risk installations, the vast majority of which are SMEs. This chapter looks at the main types of such regulatory regimes and analyses regulators' strategies to monitor compliance of SMEs.

2.1 Simplified permitting and general rules

While permitting remains a dominant regulatory regime in most OECD countries, there is a rapid expansion of standard rules, from simplified permitting to activity-based requirements without mandatory notification of the regulator, to a large number of SME sectors. Smaller businesses, usually having few or no in-house regulatory resources, usually welcome a standardised, rules-based approach to setting environmental requirements, which gives them certainty about the most effective way to achieve compliance, rather than individual, bespoke permits. Most SMEs prefer to be told what they need to do clearly and concisely. Rule-based regimes also have other benefits, including reduced bureaucracy and costs to the regulator and the absence of impact on the level playing field within an industrial sector.

The trend to simplify regulatory requirements for SMEs is well illustrated by the recent (2009) introduction in France of a new environmental regulatory regime – registration – for installations that present risk significant enough to justify its prior evaluation but that can be addressed through standardised regulatory requirements[5]. By the end of 2014, 35% of installations previously covered by permitting requirements are planned to be transferred to the registration regime. This is done for specific activity sectors (e.g. warehouses, petrol stations, drycleaners, small distilleries), activity volume thresholds being applied where necessary. The introduction of this new regime was the result of a gap between the administrative formality of a declaration and the extremely rigorous process of authorisation (permitting). The registration still requires the submission of an application and a simplified public consultation, but it has increased the predictability of the requirements and reduced the application processing time.

Another example of simplified permits is found in England and Wales, where local authorities issue air pollution permits to small businesses. The Department of Environment, Food and Rural Affairs (Defra) produces guidance notes for each of the 80 sectors regulated by local authorities. Developed in collaboration with business organisations by technical working groups, these guidance notes contain the

[5] In this case, the term 'registration' refers to a simplified permitting regime.

descriptions of relevant best available techniques and emission limit values. They are generally quite prescriptive so as to maintain a level playing field between local authorities across the country.

Regulatory regimes for setting environmental requirements are usually organised in tiers, depending on the level of a facility's risk. In Scotland, SMEs that are not subject to integrated permitting can be regulated by simple licences/permits (with template conditions), a registration regime (involving a notification with information on who is engaging in relevant activities), or general binding rules (GBRs) where low-risk activities (discharge into a surface water drainage system, storage and application of manure and fertilisers, etc.) do not need to be notified to the environmental regulator.

The following principal criteria are commonly applied when the use of GBRs or other rules-based regimes is considered for a segment of the regulated community:

- Rules must cover a sufficiently large number of regulated entities in a particular sector to make this regulatory regime effective;

- The state of technology and techniques in that sector must not be fast moving, as rules cannot be updated frequently; and

- The facilities must have a similar, low-risk environmental impact.

While the simplified permitting procedure always involves a formal application from the operator, which is approved by the regulatory agency (although agencies in many countries increasingly use straightforward online application forms tailored to individual sectors), rules-based regimes may or may not require notification of, or registration with, the competent authority.

There is no standard terminology to describe rules-based regulatory regimes across OECD countries. Such terms as 'registration' and 'general binding rules' mean different things in different systems. For example, in some countries (e.g. in the Netherlands for Type B installations, see Box 1) GBRs are defined as standard conditions specific to a type of activity or a sector with obligatory notification of environmental authorities before engaging in an activity, whereas in others (e.g. in the UK) they do not impose such a requirement. In the latter case, the system is similar to that of exemption from permitting, where the regulator does not know who is engaging in an activity to which the rules apply and how much low-risk activity is being conducted overall.

Even a GBR regime with mandatory notification does not always give enough information to the regulator. Installations under the "declaration" regime in France are subject to GBRs that are laid out in standardised ministerial orders (*arrêtés-types*). These requirements are attached to the formal acknowledgement of receipt of a declaration which is sent by the prefect to the operator. In some cases, they may be made more stringent by an order of the prefect to reflect local conditions. However, the inspection services do not usually have an opportunity to review a declaration or recommend to reject it. There is a consequent problem of the lack of knowledge of low-risk SMEs by environmental regulatory authorities.

Box 1. General Binding Rules in the Netherlands

In the Netherlands, the regulatory changes introduced as of 2008 establish different requirements for three categories of installations (defined in a government decree):

- Type A facilities, characterised by minimal environmental impact, are regulated by general, not activity-specific provisions; they do not need to notify the competent authority of their operations;
- Type B installations have a moderate environmental impact, are covered by activity-specific GBRs and are required to notify the competent (local or provincial) authority of the nature and size of its activities four weeks before starting operations;
- Type C installations have a potentially important impact and require an environmental licence which they have to comply with along with applicable activity-specific GBRs (this category includes large installations which are subject to the EU Industrial Emissions Directive and need an integrated permit/licence).

GBRs establish "quantitative target-based provisions" (i.e. emission limit values) that can be achieved by any "recognised" measure without prior consent from the competent authority as well as "qualitative" provisions that require certain specific techniques or management practices that can be modified only with the competent authority's consent.

GBRs have been developed for activities related to hazardous substances, plastics, metals, paper and textiles, food products, vehicles and other motorised equipment, etc. The range of activities subject to GBRs is expanding every year until 2016. GBRs currently cover about 400,000 companies.

The Dutch government asserts that the introduction of GBRs has already resulted in a reduction of the administrative burden for small businesses worth EUR 290 million per year.

Source : Ministry of Infrastructure and the Environment, responses to the OECD questionnaire, January 2012

This issue can be addressed by requiring operators to regularly assess their own compliance with the rules and submit a respective statement to the competent authority. For example, the Small Quantity Hazardous Waste Generator Education and Self-Certification Program in the US state of New Hampshire (in place since 2003) requires the state's approximately 3,700 small quantity hazardous waste generators to conduct a facility assessment every three years and provide a declaration to the New Hampshire Department of Environmental Services that the company is in compliance with the applicable rules (ECOS, 2011). Similarly, the US Environmental Results Program (ERP) facility uses self-audit and self-certification, preceded by compliance assistance and complemented by the regulating agency's random and targeted inspections to evaluate facility and sector performance. The ERP targets business sectors with large numbers of small facilities that are dispersed and difficult to monitor for compliance. Since its initial piloting by Massachusetts in 1997, ERP has been implemented by 17 states in ten economic sectors, including auto repair shops, dry cleaners, printers and petrol stations.

2.2 Targeting and outsourcing of compliance monitoring

Despite the great number of SMEs, their identification for compliance monitoring purposes does not represent a big challenge: regulators use trade association databases, different government sources, even "yellow pages" directories (to find service businesses such as dry cleaners). Sometimes regulators hear about newly established small businesses from their competitors in the same geographic area.

Environmental enforcement authorities still rely predominantly on inspections to monitor compliance at low-risk sites, although such alternative methods as third-party audits and operator self-assessments are increasingly used. The regulator's limited resources make it unreasonable to try to inspect all SMEs with environmental obligations. Random inspections of low-risk installations may be seen as a statistically robust way of monitoring compliance. Although a related publicity strategy can make random inspections an effective deterrent against non-compliance, random inspections are not cost-effective. Instead, many enforcement authorities use different approaches to target site visits.

One approach is to set minimum inspection frequencies based on the regulatory regime. In France, installations subject to registration (Section 2.1) are routinely inspected only once every seven years, while those with a lower risk (corresponding to the declaration regime) are usually not routinely inspected[6]. In Scotland, the Dynamic Regulatory Effort Assessment Model (DREAM) used by the Scottish Environmental Protection Agency (SEPA) distinguishes three ranges of low-risk installations on the basis of 35 risk factors, with corresponding frequencies of walk-through inspections of every two, three or five years.

In many sectors, themed and special inspections (inspection campaigns) have been increasingly used to monitor low-risk sites or activities. Rotating sector-specific campaigns is another strategy for maximising the impact of limited agency resources. Such campaigns can create the impression of a substantial regulatory capability and threat of enforcement, with a very limited regulatory resource commitment. It is advisable to link awareness campaigns and inspection campaigns: the former give businesses information to comply while the latter, after a certain period, seek to establish a level playing field through compliance monitoring and enforcement. However, there is a challenge of balancing attention to thematic risks with attention to site-specific risks during inspection campaigns.

Irrespectively of whether inspection targeting is adopted or not, reliance on complaints and reports from the public remains a necessary and even, given the resource constraints, inevitable part of compliance monitoring of SMEs. However, while complaints have the potential to uncover new risks and risk-posing businesses, they are often driven by immediate concerns that may not be related to the regulators priorities or even fall under its mandate, thus dissipating agency resources.

An increasing number of environmental enforcement authorities undertake initiatives to cooperate with other, non-environmental regulators and private sector organisations to conduct compliance monitoring of non-complex, low-risk installations. For example, Scotland's Environmental and Rural Services (SEARS) partnership of eight Scottish regulators with competencies over the farming and forestry sectors ensures coordinated inspections and streamlined reporting procedures. SEARS partners arrange joint visits or entrust one or two of the partners to inspect the aspects that are normally under the other organisations' jurisdiction. They also share information provided by the farmers and other relevant businesses, thereby reducing the administrative burden on the regulated community, and coordinate the handling of customer enquiries. SEPA, the environmental regulator, trains staff of other partner agencies that conduct regular site visits according to their own mandates but also perform certain environmental regulatory responsibilities delegated by SEPA. This initiative corresponds to the "co-regulation" approach which is currently actively promoted in the UK.

Outsourcing of compliance monitoring is more widespread at the local level, where competent authorities often lack capacity to properly exercise this function. In Ireland, Dublin City Council has appointed a contractor to implement its Fats, Oils and Grease programme to reduce grease discharges from food service establishments (pubs, restaurants, hotels, etc.), thereby preventing blockages in the public

[6] There is also an interim regime of declared installations subject to inspections which should be routinely inspected once in five or ten years, depending on whether they have a certified environmental management system.

drainage network. The contractor's role is to identify premises that require an effluent licence, advise the operator on best management practices, and inspect the premises four times a year to ensure compliance with licence conditions.

At the same time, in using third-party compliance monitoring there is a risk that the third party's discretionary judgements on the extent of compliance may diverge considerably from those of the competent government authority. To address this concern, regulators should exercise a substantial degree of control over contracted certifiers, making them part of a consistent compliance assurance strategy.

2.3 Better regulation initiatives for small businesses

Small businesses often complain that keeping up to date with environmental requirements is burdensome, particularly in relation to understanding which requirements apply in their individual context. Finding guidance and advice explaining what they have to do to comply with given regulations is difficult. SMEs often feel that they are not supported enough and are unreasonably expected to cope with the same levels of paperwork and regular obligations as larger companies. Businesses generally express support for a customer-focused relationship between regulators and the regulated with the primary goal of compliance rather than enforcement. Improved information for regulated entities has been consistently identified as the most important factor for reducing the administrative burden on businesses (EA, 2011).

A recent UK survey (Defra, 2011b) suggests that micro-businesses spend more time on activities associated with demonstrating compliance (preparing for inspections, completing paperwork, record-keeping) than actual activities to comply with regulations. Despite efforts to reduce unnecessary duplication of inspections, business are still often required to provide the same information more than once in demonstrating compliance with regulations.

These concerns of small businesses became a priority as governments across the EU introduced better regulation initiatives over the last five-seven years. The Small Business Act for Europe (2008) was developed to establish the "Think Small First" approach to policy making and regulation and to promote SMEs' growth. One of its ten high-profile principles is "enable SMEs to turn environmental challenges into opportunities" – a paradigm which lies at the heart of the transition to green growth. The European Commission has committed itself to "rigorously assessing the impact of forthcoming legislation and administrative initiatives on SMEs ("SME test") and taking relevant results into account when designing proposals" (EC, 2008).

Similarly, the first of the UK Government's five principles of better regulation[7] is the proportionality of regulation, which presumes regulating small businesses only where necessary and with practical exemptions[8]. For rules that will have a significant impact on small businesses, soliciting their input reduces eventual adverse effects. The US Small Business Regulatory Enforcement Fairness Act (1996) provides SMEs with an expanded opportunity to participate in the development of certain regulations. Some European countries require regulatory agencies to prepare special statements on the potential impact of proposed regulations on small businesses.

While some countries set quantitative targets for the reduction of the administrative burden, others (e.g. Scotland) focused more on the quality rather than quantity of regulations and more on the policy message than on a quantitative target. For example, SEPA's Customer Focus Programme aims at getting

[7] PACTT principles of better regulation: proportionate, accountable, consistent, targeted and transparent (BRE, 2010).

[8] As part of the government effort to protect micro-businesses from the economic crisis, they received an exemption from new regulation for three years (2011-2014) in England and Wales.

the agency to think of the regulated community as its customers, to study its "customer base" and to have customer contacts within the organisation for different economic sectors.

The customer service approach to regulation requires enhanced collaboration between various regulatory bodies. Listing the full range of regulations that have an impact on small businesses in selected sectors could help to identify opportunities to reduce duplication in paperwork and/or processes among regulatory authorities. Among different ways to simplify the administrative requirements for reporting on environmental issues and avoid duplication of requested information is the creation of nationwide information registration systems accessible by all competent government authorities. Offering compliance-related information to businesses (Section 3.2) also contributes to better regulation by reducing their transaction cost of compliance.

Recognising and promoting best practice has become one of the key regulatory principles of the current UK Government (BIS, 2011a). Regulators are required to take account of businesses' efforts to comply with regulations, to create positive incentives for voluntary compliance and adoption of good practices. "Responsibility deals" with industry in the form of codes of good practice are seen as a potential alternative to regulation.

Finally, promoting national consistency of compliance assurance also has implications for small businesses. The Primary Authority scheme in England and Wales currently focuses on businesses with multiple facilities across the country that are regulated by local authorities. Primary Authority gives such companies the right to form a statutory partnership with a single local authority, which then provides advice to other local authorities to take into account when carrying out inspections or dealing with non-compliance. There are now proposals to extend the same approach to the regulation of some SME-dominated sectors, where a trade association of a certain sector would establish an agreement with one local authority that would become a "centre of excellence" for regulating that sector (BIS, 2011b). However, it is clear that this scheme would only be suitable for SME sectors that have nearly universal membership in a trade association and fairly standard operations.

3. PROMOTING COMPLIANCE AND BEST PRACTICES

SMEs, particularly micro-businesses, have limited ability to understand and interpret regulations, leaving them feeling confused. Businesses are told that they have a duty to act in an environmentally responsible way, but it is often unclear what this actually means, how a business can do it and at what cost. Going beyond compliance represents an even bigger challenge, where the lack of awareness of cost-effective opportunities is the key bottleneck.

Government's engagement in compliance promotion can reduce compliance costs to businesses by allowing them to achieve and maintain compliance as efficiently as possible, and may allow a reduction of compliance assurance costs to regulators by increasing the efficiency and effectiveness of compliance monitoring and enforcement. Compliance promotion is particularly effective when it is targeted at the SME community, where non-compliance is caused primarily by a lack of knowledge or capacity and where cultural resistance to enforcement is the greatest. Compliance promotion helps establish a dialogue between government and businesses, paving the way for activities to promote broader environmentally friendly practices as a vehicle for sustainable, greener growth.

This chapter focuses on the experience in the use of such promotion tools as dissemination of information on the requirements, compliance means and good practices to the regulated community, promotion of good corporate environmental management, and market-based incentives. It also analyses factors of effectiveness of these instruments, indicators of their performance as well as ways to fund compliance promotion services.

3.1 Linking activity-based regulation with sectoral approaches to compliance

Regulatory requirements (such as GBRs) are usually activity-based and driven by the type of environmental impact, although they tend to affect specific sectors. However, compliance assurance in general and particularly compliance promotion are predominantly sector-based. So the environmental regulator finds itself in the role of a translator between the two approaches.

In doing so, a growing number of environmental enforcement authorities produce sectoral strategies that seek to optimise the balance between the three pillars of compliance assurance – compliance promotion, monitoring/assessment and enforcement – in relation to the needs and challenges of a specific segment of the regulated community. For example, the Environment Agency (England and Wales) has started to systematically produce five-year strategies and annual intervention plans for a range of economic sectors. As a result, a significant share of compliance monitoring/assessment activities is becoming sector-based, although it continues to rely on activity-based regulations.

Alternatively, the Scottish EPA's concept of "regulatory mapping" is not about producing written sectoral strategies but about engaging businesses in a common effort of promoting a level playing field by focusing the regulatory interventions on jointly defined priorities and outcomes. Ultimately, both approaches are motivated by the problem-solving and efficiency drives which represent global trends in environmental compliance assurance (OECD, 2009).

The sectoral approach is crucial in promoting compliance and green practices among SMEs. Small businesses respond only to messages adapted to their activity sector, as is further discussed in Section 3.6.

3.2 Information tools and their relevance to small businesses

Among information dissemination tools, one can distinguish between advice and guidance. Advice is active, direct engagement with a business face-to-face during inspection visits or audits, answering telephone, e-mail or website help requests, as well as addressing business representatives at seminars and similar events. Guidance is the provision of information to regulated entities, typically in the written (printed or electronic) form. Guidance includes, among others, e-mail updates, website free-access guidance pages, leaflets, brochures and other publications.

Proactive information dissemination

The simplest tool to disseminate regulatory information is a "regulatory watch" – a (paid or free) subscription service sending regular e-mail or mobile phone updates on relevant legislative developments and new applicable regulatory requirements. One example of such a service, usually established by trade or business support organisations is Enviroveille in France, managed by the Assembly of French Chambers of Commerce and Industry.

Industry magazines, newsletters and business or community events are seen to be helpful methods of advertising regulatory requirements and enforcement cases[9], particularly to some small or rural businesses which may not have access to the internet. Workshops, training seminars and industry fairs (particularly those organised by trade organisations and other business groups) can also be effective in conveying information or generic advice on how to comply with the requirements. They can facilitate positive relations between regulators and regulated businesses, help share good practices and foster cooperative approaches to addressing environmental issues. However, most SME operators are unlikely to be able or inclined to take the time to attend such sessions, as they usually do not have dedicated environmental personnel. In addition, these events are not necessarily helpful in seeking meaningful feedback on the design of environmental guidance.

On the other hand, targeted, concise, user-friendly publications can be very useful in delivering a message that adhering to environmentally friendly practices (and thereby complying with the law) is a smart way to do business. The dissemination of compliance assistance information to the regulated community is best achieved in partnership with multiple stakeholders. For example, the pocket-size "Small Environmental Guide for Construction Workers" prepared jointly by the Scottish EPA and the Construction Industry Research and Information Association targets professional contractors working on all types of construction sites. The Guide illustrates the "business benefits first" approach to promoting good environmental behaviour. It advocates that "working in an 'environmentally friendly' way can help to improve business performance and save you money in the process. Getting it right […] helps you to stay in business". There are also examples of cross-sectoral guides for SMEs, including the "Environment and Energy Guide for SMEs" issued by the Assembly of French Chambers of Commerce and Industry (ACFCI, 2010).

Several environmental authorities organise help desks to respond to compliance questions from businesses and other stakeholders. The Swedish EPA operates a so-called "legal support service" available by telephone for two hours every working day, which offers advice and interpretation on legal issues. The US EPA's Asbestos and Small Business Ombudsman answers technical and regulatory questions coming from small businesses on a toll-free hotline, in addition to developing other compliance assistance tools. Some agencies are exploring the possibility of tapping into social networks to provide compliance assistance.

[9] Businesses acknowledge the value of hearing about enforcement action taken against other businesses in their sector (Defra, 2011a).

Many regulators find providing direct compliance assistance to operators during inspection visits to be an effective strategy for dealing with particular types of regulated entities, particularly SMEs that are generally willing to comply but who are not aware of the regulatory requirements or who lack the organisational capacity to comply (SNIFFER, 2011). The aim is for operators to see the regulator as not only a "good policeman" but as a "good advisor" and to save on costs of working out what they are supposed to do and how. Such "advise and assist" visits can be formally distinguished from compliance inspections in an enforcement agency's plan of activities. In Finland, inspectors have regular discussions with operators on existing and potential compliance problems and possible solutions; and the results of such discussions are recorded in the electronic compliance monitoring system (OECD, 2009). However, this instrument has an associated risk of "capture", as inspectors may start to see the world through the eyes of the firms they are advising. Such advisory visits are also quite resource-intensive.

Non-government actors can provide face-to-face advice to businesses through audits of different aspects of their environmental management. For example, the Waste and Resources Action Programme (WRAP), a government-supported non-profit company in the UK, works with businesses to identify and realise the benefits of reducing waste, develop sustainable products and use resources in an efficient way. An innovative way of advising small businesses has been developed by the Green Business Partnership (Scotland), whose popular Bright Green Placements programme has been organising for already over 15 years two-three month student placements in SMEs to follow up on environmental audits and work with the company's management to implement the recommended measures (and achieve related savings). A similar initiative was to offer an "ad hoc environmental manager" for one day per month to a small business that cannot afford a dedicated environmental manager in order to help it with environmental management activities.

Web-based guidance tools

Over the last decade, there has been rapid proliferation of government-sponsored business advisory websites, especially targeting SMEs. Government authorities like online guidance tools because they offer regulatory consistency of advice, time and cost savings on face-to-face advice as well as anonymity which facilitates communication with the regulated community. Environmental guidance is delivered through environmental regulators' own websites, specialised sites funded by environmental authorities, and generic business portals which direct users to information on environmental compliance and good practices.

The US EPA's online National Compliance Assistance Centers (www.assistancecenters.net, created in 1998) deliver information through websites for 16 manufacturing and services sectors, federal facilities and local governments. The EPA also runs a Small Business Gateway (www.epa.gov/smallbusiness) which, among others, provides information on environmental assistance and technical help available from the Agency. In addition, the US Small Business Environmental Home Page (www.smallbiz-enviroweb.org) is intended to be a "one-stop shop" for small businesses and assistance providers who seek information on a wide range of environmental topics. It directs users to compliance information (including links to state websites), fact sheets on environmental best management practices in ten SME sectors (bakeries, service stations, retail stores, etc.), key small business publications, information on upcoming events, etc.

NetRegs (Box 2), a web-based tool created in partnership between the UK environmental regulators (for England and Wales, Scotland, and Northern Ireland), provided between 2002 and 2011 free environmental guidance to small and medium-sized businesses throughout the country. Sector guidelines were tailored to provide specific guidance on environmental legislation and good practices applicable to the processes in each sector, but distinguishing between the two. Management guidelines contained practical explanations of issues such as packaging, waste, clean air and effluent management which are relevant to all businesses regardless of their industry sector. Regular surveys of user businesses contributed to the distinct customer service focus of this tool.

As part of the better regulation reform, the UK Government has recently integrated environmental guidance to businesses into one Business Link hyper-portal (www.businesslink.gov.uk) in England, Business Gateway (www.business.scotland.gov.uk) in Scotland and similar business portals in Wales and Northern Ireland. The idea was to facilitate user navigation to different types of business-related advice and to save government resources. However, only between 40% (in England) and 80% (in Scotland) of NetRegs materials have been migrated to the respective business portals. The remaining content is likely to be transferred to trade associations and non-profit organisations running government-funded programmes to promote green business behaviour.

Box 2. NetRegs – an internet-based compliance assistance tool in the UK

NetRegs, launched in 2002, was a web-based tool created in partnership between the UK environmental regulators (for England and Wales, Scotland, and Northern Ireland) to provide free environmental guidance to small and medium-sized businesses throughout the country. The content was developed jointly by the three regulatory authorities but was customised for each UK country's context. NetRegs included:

- Guidance by business type for 112 sectors in agriculture, construction, offices, etc.;
- Guidance on 41 environmental topics;
- Guidance on existing and forthcoming national and EU legislation and a free e-alert service, which provided regular updates on changes in the environmental legislation;
- A self-assessment questionnaire that enabled businesses to discover more about what they must do to fully comply with environmental legislation;
- Interactive learning modules (e.g. on agricultural waste, food and drink manufacturing water use, etc.);
- A postcode-driven "waste directory" containing a matrix of waste recycling and disposal contacts; and
- Links to trade associations and other sources of environmental guidance and business support.

NetRegs undertook major biennial telephone surveys to understand how SMEs perceive their environmental performance and the assistance they get in improving it. In the last, 2009 survey, a total of 7,000 businesses were interviewed across the four UK countries and 10 business sectors. According to the survey, small businesses' reasons for using NetRegs were: to find out how to comply with the law (56.4%), to find all the relevant information in one place (23.4%), to build the business's green credentials (10.2%), and to find out how to reduce waste (7%).

NetRegs had over 470,000 unique monthly visitors in 2011, about 60% of which were SMEs (the rest being larger businesses, consulting firms, local authorities, etc.) It was estimated that by using the NetRegs service, UK SMEs were saving an estimated GBP 58 million annually, an average of GBP 2,600 per business. The project's start-up costs were GBP 3.5 million and the operating cost was about GBP 1 million per year.

Source : www.netregs.gov.uk (2011)

Environmental assistance to European SMEs is also available from the European Commission (EC). An SME portal created on its DG Environment website (ec.europa.eu/environment/sme) provides access to relevant legislation, information, tools and available training. The Environmental Compliance Assistance Programme (ECAP) established in 2007 maintains a website which offers an online best practice database which helps businesses implement European environmental legislation and minimise the environmental impact of their activities.

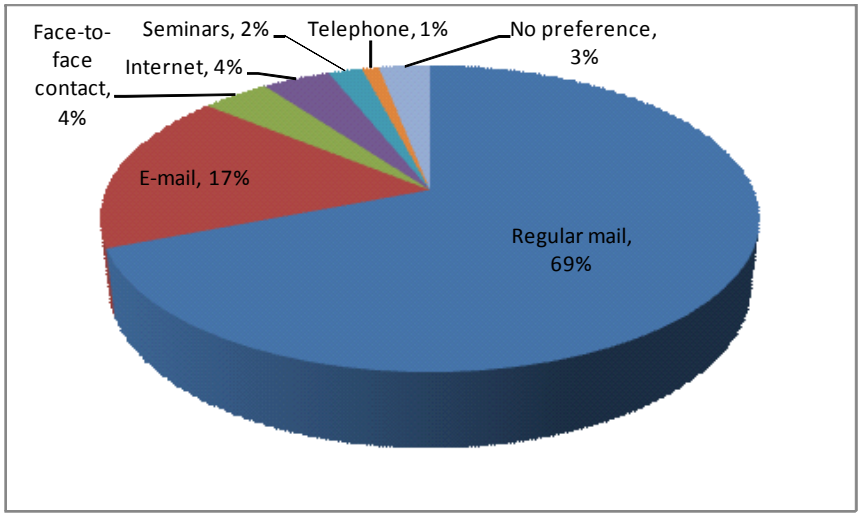
To avoid excessive or unnecessary costs for businesses, compliance guidance should clearly state the minimum legal requirements and have a status that is widely recognised by regulators. Businesses are also supportive of such guidance being legally defensible, if accurately followed, wherever possible. Poor guidance which is not adapted to the needs of small businesses leaves business owners worrying that they are doing something wrong and that when they try to do the right thing, they can be penalised for not getting it absolutely right.

On the other hand, too much advice and guidance may restrict innovation in finding solutions that are cost-effective for the operator's specific circumstances. Many businesses perceive that guidance is becoming increasingly detailed and risk-averse, potentially putting smaller businesses at a competitive disadvantage. As the volume and complexity of both mandatory and voluntary (good practice) guidance grow, businesses are concerned that it is becoming more difficult to differentiate between the two and that voluntary guidance can sometimes be treated as mandatory in practice. To avoid this, compliance and good practice guidance should be clearly distinguished.

Using packages of information tools

According to a recent survey in England and Wales (Defra, 2011b), micro-businesses (with fewer than 10 employees) prefer to receive information about environmental regulations via mail (Figure 1). Fewer than one in four micro-businesses used internet sites to access information on their environmental obligations, and only 4% preferred to receive environmental information from the government via the internet. Businesses may feel that there are too many advice websites and that using them is too time consuming as advice still lacks context. The willingness to use such websites is often reduced by negative past experiences (LBRO, 2010).

Figure 1. Information delivery preferences of micro-businesses, England and Wales



Source: Defra, 2011b

The extent to which particular tools can be effective in disseminating information varies substantially depending on the sector and the size of target groups, but it is clear that these tools need to be deployed in a package (Box 3). For instance, designing and launching an online guidance tool is not enough: there needs to be an effective communication strategy to ensure that businesses continue to use and benefit from it. Web-based tools should be supplemented by other instruments (such as mailings, brochures, workshops) which can add significant value. At the same time, while mail and face-to-face contact may continue to be

an important route for outreach to small businesses in the short term, improving access to, and use of, the internet among small businesses is likely to be a more sustainable and cost-effective form of communication in the longer term.

Box 3. Multiple tools to promote resource efficiency: Zero Waste Scotland

Zero Waste Scotland – a waste minimisation programme fully funded by the Scottish Government – uses a variety of tools to help small businesses to achieve cost savings, new sales, reduced risk and competitive advantage through improvements in resource efficiency. The tools are sector-specific and include on-site audits (especially at the start of the programme, much less currently), events and workshops, publications on resource efficiency and waste minimisation topics, and online guidance (e.g. on green accounting and green procurement) and training. In the implementation of all these tools, Zero Waste Scotland works closely with the Federation of Small Businesses, trade bodies and chambers of commerce.

Source : www.zerowastescotland.org.uk

The key feature of comprehensive information-based assistance programmes is that enterprises can get advice, informational and methodological materials in one place. However, the development and operation of such programmes require significant funding, mostly from public sources.

3.3 Promotion of good environmental management

In recent years, the focus of compliance promotion in many OECD countries has been moving from the traditional regulatory programme-oriented approach to one of encouraging green behaviour through establishing environmental management systems (EMSs), pollution prevention, resource conservation and greenhouse gas emission reduction, and generally going beyond compliance. The incentives for the adoption of good environmental management practices range from explicit, formal policies to facilitating market recognition of "green businesses". For example, the European Commission encourages EU Member States to "provide more information, expertise and financial incentives for full exploitation of the opportunities for new "green" markets and increased energy efficiency, partly through the implementation of environmental management systems in SMEs" (EC, 2008).

Incentives for EMS certification

While the main driver for businesses to have a certified EMS is market demand from customers and clients, environmental authorities may offer additional regulatory and financial incentives. The adoption of an ISO 14 001 EMS or a similar European Eco-Management and Audit Scheme (EMAS) standard may entitle operators to certain privileges in the permitting process. In the Netherlands, EMS-certified operators can apply for licences that are less detailed and prescriptive. Several EU countries (e.g. Italy, Slovakia) issue permits with longer validity periods and with reduced reporting requirements to EMAS-certified companies (EC, 2004b).

The US EPA's Small Business Compliance Policy allows small businesses to obtain reductions in civil monetary penalties if violations are discovered by any voluntary means, including government-sponsored on-site compliance assistance activities or environmental audits[10], EMSs, use of online

[10] The EPA Audit Policy prescribes, among others, an audit protocol which summarises key statutory requirements and contains a regulatory checklist with detailed procedures for conducting an audit of facility operations.

compliance assistance tools, etc. In Austria, administrative fines are waived for EMAS-registered businesses if they detect non-compliance during an internal audit.

In England and Wales, a functioning EMS is incorporated in an installation's Operational Risk Appraisal (Opra) score, which results in a reduced annual permit fees (by 5 or 10%) compared to sites without an EMS. Denmark offers a 50% reduction of inspection fees to EMS-certified operators (EC, 2004b). Austria, Germany and a few other European countries make the presence of an EMS an important criterion in public procurement decisions (see also Section 3.4).

The inspection frequency may also be directly or indirectly linked to the presence and quality of the operator's EMS. Companies with a certified EMS enjoy reduced inspection frequency in Norway, and in France installations registered with EMAS (there were only 17 such installations in April 2011) are exempted from routine compliance inspections. In Korea, "green companies" designated by the Ministry of Environment are exempted from routine environmental reporting, and their inspection frequency is reduced. Still, while there is some reliance on EMSs to facilitate compliance, the experience of many regulators (e.g. in the UK and the US) is that an EMS is far from being a guarantee of compliance (especially since ISO 14 001 does not account for compliance). Therefore, there may not be sufficient reason for special treatment of EMS-certified businesses in compliance monitoring.

In the late 1990s and the early 2000s, many OECD governments provided direct financial support and extensive technical assistance to businesses, especially SMEs, for the establishment and certification of an EMS. For example, the Bavarian Environmental Agreement, launched in 1995 between the *länder* (state) government and industry, allowed SMEs to receive subsidies for an audit by an environmental consultant and the establishment of an EMS (SNIFFER, 2008). Some of these support programmes have now been phased out (e.g. in the Netherlands) as their primary mission to jump-start the market demand for corporate environmental management has been accomplished. Others, like the Green Offer by Enterprise Ireland (Box 4), have made the increased competitiveness of national industry an explicit focus of their EMS promotion activities.

Box 4. Green Offer by Enterprise Ireland

Enterprise Ireland is the government organisation responsible for the development and growth of Irish enterprises in world markets, with particular emphasis on SMEs. In addition to efforts to enhance environmental awareness and improve performance in Irish industry through its environmental information portal, Envirocentre.ie, Enterprise Ireland's Green Offer aims to increase the adoption of green business principles by its clients. The Green Offer comprises three programmes:

- The Green Start programme helps SMEs, at no cost to them, to establish a simple environmental management system by conducting a site audit and providing advice on regulatory compliance issues, green market positioning, preparation of an environmental policy, etc.
- Green Plus is meant to build on Green Start and to assist companies to develop products and services to a level where they comply with specific green procurement requirements. This may involve the implementation of an accredited EMS, improvements in products or processes or applying for eco-labels.
- Finally, Green Transform is designed to further improve the competitiveness and market access of those companies who have maximised their energy efficiency or reduced their carbon footprint.

Source : www.envirocentre.ie

Adapting environmental management systems to SME needs

A recent EU-wide study (Calogirou et al., 2010) has shown that despite all the above-mentioned incentives only 0.4% of European SMEs have a certified EMS. According to a British survey (NetRegs, 2009), just under 4% of the SMEs surveyed stated that they had an EMS in place, with the construction sector being the most likely to have a system. Around a quarter of all businesses had an environmental policy, and the likelihood of this increased with the size of the business. Just about one-tenth of small businesses considered that an EMS would be "quite useful" or "very useful", and the fewer employees they had, the less favourably they viewed the benefits of such a system.

Although supply chain pressure in some sectors is a powerful driver for some SMEs to adopt an EMS, small businesses face serious obstacles, including a lack of resources, knowledge and technical capacity, the fact that most EMS-related costs are upfront and benefits are medium-term, as well as low public visibility. The challenge is to tailor EMSs, both in terms of their content and delivery, to the particularities of SMEs. The key, at least for smaller businesses, is to focus on simple, accessible improvements in management practices, rather than the introduction of a formal, administratively complex EMS.

There are initiatives in several OECD countries, mostly coming from the private sector, to design simplified EMSs suitable for small businesses. Econcertive is an Irish company which provides environmental support to businesses and organisations in all sectors, primarily by means of the EcoCert scheme[11]. The requirements for achieving EcoCert certification are the same core requirements as for any recognised EMS standard, but the paperwork is minimal. In addition, the certification process includes the identification of energy, waste and water-related savings (with a money-back performance guarantee).

The French Chambers of Commerce and Industry lead two initiatives on "EMS-light", with substantial technical, methodological and financial assistance from the public Environment and Energy Management Agency (ADEME). The "1.2.3 Environment" programme is designed to facilitate step-by-step ISO 14001 certification. EnVol is special environmental management programme for small businesses (with less than 50 employees) that do not aspire fully fledged ISO 14001 certification but would like to get recognition for their basic EMS, which roughly corresponds to the first level of "1.2.3 Environment" (ACFCI, 2010). A similar "Programa e+5" in Spain allows SMEs whose clients demand environmental management improvements to show such improvements without attaining the level of full ISO 14001 or EMAS certification (Miller, 2011).

The "green tick" logo launched by Scotland's Green Business Partnership in February 2011 is another example of making corporate environmental management accessible to SMEs. One tick demonstrates that the company has an environmental policy, assessed its legal compliance and is committed to making continual environmental improvements. The accreditation with two ticks means that the business, in addition, manages its compliance, reviews its suppliers and has an environmental action plan. Three ticks signify the existence of a fully fledged environmental management system.

Finally, the European Commission supports the EMAS Easy scheme, which is a more accessible method for EMS implementation designed specifically for small and micro-businesses. Using simple and sequential tables and prompts, SMEs can develop an environmental management system and either register for EMAS or achieve certification to ISO 14001.

All these schemes are fairly recent, and their longer-term sustainability will ultimately depend on the competitiveness benefits small businesses will be able to draw from participating in them.

[11] www.ecocert.ie

Sector-specific green certifications and eco-labels

In order to make environmental management credentials more relevant to specific economic sectors, business associations collaborate with environmental authorities to develop sectoral certification brands, many of which target SMEs. The environmental regulator (and, sometimes, local authorities) work jointly with trade bodies to produce "green standards" for the sector as well as guidelines on how businesses may "earn" the right to display appropriate signs (stickers, posters, etc.) to highlight their environmental practices to their customers.

For example, Ireland's Green Hospitality Programme (under the National Waste Prevention Programme) has been developed to act as an umbrella brand for hospitality-related environmental initiatives, including the Green Hospitality Award, Green Caterers, Green Restaurants, Green Festivals, etc. Formal resource efficiency audits, resource consumption benchmarks, workshops, training and guidance are provided to each participating hotel or caterer to enable them to develop their own environmental programme and prepare for the different levels of award. Hotels pay for membership, but the fee is partly subsidised by the government.

A similar programme for print shops has been quite popular in France. Created in 1998 by a regional Chamber of Trade and Crafts and since rolled out nationwide, the Imprim'Vert label has been awarded to over 1,800 print shops that adhere to a set of good environmental practices such as not using toxic products and secure storage and appropriate disposal of waste. However, environmental compliance is not among the label award criteria.

An example of how a "green standard" can be part of a larger self-regulatory business initiative is the Red Tractor Assurance scheme in England and Wales. This scheme is administered by Assured Food Standards (AFS) – a company owned by the UK farm unions and several agro-industry trade bodies. Originally focused on the food safety issue, Red Tractor Assurance has been extended to cover many environmental aspects of food production (management of pesticides, fertilisers, manure runoff, etc.) across about 80,000 participating farms. Under the "environmental compliance module" for pig and poultry producers, certification bodies collect data on compliance with environmental permits when carrying out audits for the Red Tractor scheme. This helps to decrease the number of Environment Agency visits to farms (to just once every three years) and to cut annual permit charges for farmers.

Whereas green certifications apply to businesses, eco-labels have the same function with respect to products. The EU Ecolabel scheme – the only pan-European labelling scheme – was established in 1992 and is managed by the European Commission. It provides preferential treatment for SMEs and micro-businesses, with considerably reduced application and annual fees. Obtaining the Ecolabel gives businesses a market advantage, allowing them to promote their products and services as eco-friendly with the increasingly well-known flower logo. In 2010, Italy and France had the greatest number of EU Ecolabel holders, with 359 and 244 licences respectively, accounting for 52% of the total number across the EU.[12]

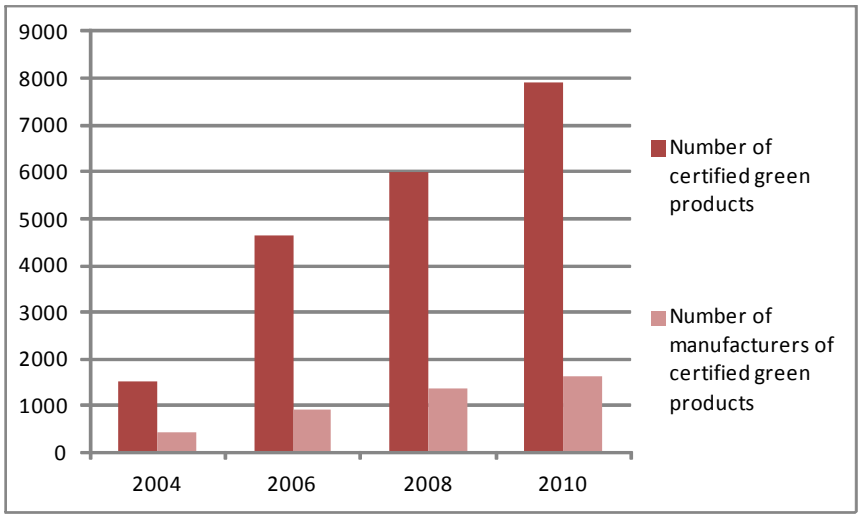
Eco-label criteria can be based on one single parameter or on studies that analyse the environmental impact of a product or service throughout its life cycle. The EU Ecolabel, the Scandinavian "Nordic Swan" and the German "Blue Angel" are examples of lifecycle eco-labels. Single-issue labels can be related to energy efficiency (for example, the US "Energy Star") or sustainable management of a particular natural resource (e.g. forestry certification schemes).

National eco-label schemes may, however, be costly for SMEs to participate in. In Korea, for example, the number of eco-certified products is very large and continues to grow, but the growth of the

[12] ec.europa.eu/environment/ecolabel/about_ecolabel/facts_and_figures_en.htm

number of companies producing such products is much slower, which demonstrates the predominant share of larger firms and not of SMEs in the green products market (Figure 2).

Figure 2. Manufacturing of certified green products in Korea



Source: Ministry of Environment of Korea, responses to the OECD questionnaire, February 2012

Ultimately, the primary goal of green certification or eco-labelling programmes is to increase the market share of their members. The scheme should be designed well enough so that the business benefits to SMEs outweigh both the direct costs in terms of fees that must be paid to obtain a label or certification and the indirect costs of staff time to be spent complying with their requirements. It is important to communicate to a broad audience to raise the recognition of the label or certification, starting at a very early stage of the scheme's development. Trade bodies should design marketing and promotional materials which a business could use to display to its customers its "green credentials". The criteria and process for determining whether a product merits an eco-label or green certification should be transparent. It is necessary to ensure that labels are not awarded too easily, without rigorous scrutiny of each company's practices, which would devalue them.

Environmental recognition awards

Governments can also use positive public relations incentives to promote environmentally friendly business behaviour. Scotland's VIBES initiative (Vision in Business for the Environment of Scotland) recognises businesses of all sizes and sectors employing environmental best practices in their daily activities. The award programme is supported by SEPA, several environmental non-profit organisations and business groups. There are several award categories, including an Energy Award, an Environmental and Clean Technology Award, and a Best Micro-business Award. A case study is produced for each winning business and published on the VIBES website.

Environmental awards can also recognise the role of different stakeholders in greening small businesses. The US National Steering Committee for the Small Business Ombudsman/Small Business Environmental Assistance Programs has established four Small Business Recognition Awards. Among them, the Trade Association Environmental Leadership Award recognises exemplary performance and leadership by an industry trade organisation in enhancing members' compliance with environmental regulations. There is also an award for a small business environmental assistance programme.

The main benefits of environmental awards are that they help raise environmental awareness through businesses and the community and that they help companies gain recognition for their good environmental performance. However, some SMEs may not have the financial or labour resources to enable them to complete the application process, which may dissuade them from entering environmental awards. To be effective, environmental awards need to be widely promoted in business and industry media.

3.4 Role of supply chain management and green procurement

Supply chain pressure offers a valuable means of influencing the environmental behaviour of SMEs. There needs to be a commitment of large companies to working with small businesses: contractors, suppliers or neighbourhood businesses. The motivation of large companies to do this is complex. It includes risk minimisation (a supplier closed down for poor environmental performance could both disrupt the supply chain and cause serious reputational damage) and cost savings from more efficient production practices. The government can encourage larger firms to form partnerships with smaller suppliers and provide public recognition to those who do so.

Several large companies not only require good environmental performance from their suppliers but also work with them to facilitate the improvements. The examples include the US retail giant Wal-Mart and Marks & Spencer in the UK. Big Korean companies sign "voluntary green purchasing pacts" with smaller suppliers. Larger companies may also audit their suppliers for resource and energy efficiency, this being primarily a cost-driven measure. Less formally, sustainable supply chain management may serve to influence suppliers in a more indirect way, if these suppliers improve their production processes in anticipation of gaining new business from a different or broader set of customers demanding sustainable products. Buyers' pressure and support are especially important for small suppliers who lack internal capabilities to proactively define their own greening strategy. Meeting green quality standards can be challenging for SMEs which face growing pressures to reduce costs, but they also offer SMEs access to environmentally conscious large firms, knowledge flows and global markets (OECD, 2012).

Governments can encourage the diffusion of green practices down the supply chain. In Ireland, a Business-to-Business (B2B) Green Mentor Programme was launched in 2003 by the Limerick/Clare/Kerry Regional Waste Management Office. It urges larger good practice companies to provide guidance on waste prevention to SMEs. Programme activities include an informational visit by SMEs to a volunteer "mentor" company, with follow-up guidance for individual SMEs on how to identify and implement ways of reducing waste generation or energy or water consumption. In another example, Zero Waste Scotland concludes voluntary agreements with retail companies that then pass on the resource efficiency requirements down the supply chain.

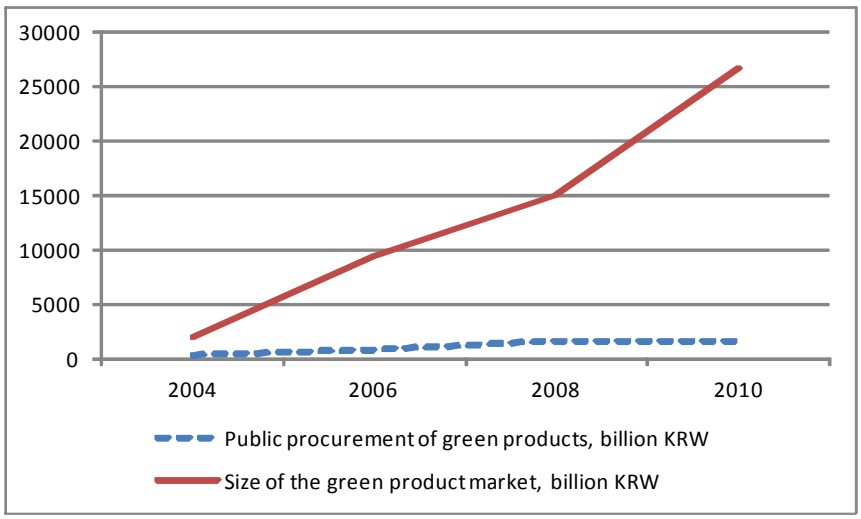
Government policy can play a significant role in creating demand for green products and services and boosting the market where private consumer demand for them is insufficient. Governments can exert its own supply chain pressure through its procurement policies and make it a condition of tendering for government contracts that the applicant commit to maintaining specified environmental standards up and down the supply chain. By using their purchasing power to choose goods and services with lower environmental impact, public authorities can help to drive down the costs of such purchases and make them more affordable generally. Procurement policies coordinated across all levels of government may directly affect, on average, up to 20% of purchases in a targeted market (OECD, 2003). Green public procurement also increases market acceptance of green products (e.g. by demonstrating their commercial feasibility). It encourages businesses to develop and market such products, supporting the development of the green economy[13].

[13] The OECD (2002) has adopted a Council recommendation to improve the environmental performance of public procurement.

OECD governments at the national, regional and local levels increasingly include environmental criteria in their purchasing decisions. For example, purchasing guidelines often require that particular products contain a minimum amount of recycled content or achieve specified levels of energy efficiency. Guidelines may also favour – through price preferences, explicit set-asides, or other mechanisms – suppliers who comply with environmental requirements, obtain green certification, qualify for environmental labels, or otherwise demonstrate their environmental credentials. Green public procurement covers areas such as the purchase of energy-efficient computers and appliances, environmentally-designed buildings, recycled paper, electric cars, electricity from renewable energy sources, etc.

As shown in Figure 3, public purchasing of environmentally-friendly goods and services in Korea helped jump-start the private sector market for them, whose growth rate has quickly outstripped the expansion of green public procurement.

Figure 3. Size of the green product market and public procurement in Korea[14]



Source: Ministry of Environment of Korea, responses to the OECD questionnaire, February 2012

The Scottish Government's "Public Procurement and Sustainable Development: Guidelines for Public Purchasers" [15] states that "those who fail to comply with environmental legislation may be excluded from selling to the Scottish Government" and that "development of environmentally preferable goods and services and use of recycled/renewable materials is likely to offer a competitive advantage". The Scottish government also seeks evidence that suppliers have in place appropriate environmental management policies and systems. In addition, suppliers are encouraged to take advantage of eco-labelling schemes to be able to provide evidence of their good environmental practices. UK Defra goes even further, encouraging suppliers to provide product-level lifecycle greenhouse gas data using emission factors from relevant inventory databases.

The European Commission had proposed that 50% of all public tenders be "green", i.e. compliant with common core Green Public Procurement criteria.[16] In adopting this EU target in terms of both number and value of such contracts, Ireland's National Action Plan on Green Public Procurement identified seven

[14] EUR 1 equals approximately KRW 1,483 as of February 2012.

[15] www.sustainablescotland.com

[16] ec.europa.eu/environment/gpp/gpp_criteria_en.htm

product groups as priorities for GPP: construction, energy, food and catering services, transport, cleaning products and services, paper, and uniforms and other textiles (DECLG, 2011).

Although the vast majority of public sector contracts go to large firms, public procurement is a big issue for SMEs because for many of them public contracts represent a significant share of business. Several OECD countries (e.g. Australia, France, Korea and the US) give preference to SMEs in public procurement (OECD, 2011). Still, only one out of ten EU SMEs bid for public procurement contracts that include environmental requirements versus 16% of large companies (EC, 2012).

To reach SMEs, governments should communicate their green purchasing policy to a wide range of stakeholders, including present and future suppliers, service providers or contractors, so that they can take account of the new requirements. They should also educate procurement officials on how to implement these policies. The 2010 OECD Survey on Public Procurement found that 26 out of 34 OECD member countries have introduced practical guides on green public procurement, and 19 countries have developed training materials for public officials on green procurement. For example, in Japan guidelines define a process for selecting green goods across state institutions and local governments (OECD, 2011).

3.5 Financial incentives

There are very few cases of environmental compliance-related direct financial assistance in the studied OECD countries. Governments usually do not provide subsidies to industry for achieving compliance with environmental requirements as a matter of principle. At the same time, there are several financial mechanisms available to private companies, particularly SMEs, willing to go beyond compliance and invest in green technologies, including grants, low-interest loans and tax privileges. These incentives help to lower the barrier for SMEs' entry into the market of green technologies and facilitate their diffusion. (Examples of financial incentives for EMS certification are presented in Section 3.3.)

Direct subsidies are commonly offered by public agencies. For example, Enterprise Ireland, a public industrial development agency, provides grants to SMEs as a percentage (up to 50%) of consultancy costs for the identification and implementation of resource efficiency and other environmentally oriented measures. One enterprise can get up to EUR 200,000 over three years. Grants are associated with compliance audits, which also serves as a compliance assistance tool.

France's Environment and Energy Management Agency (ADEME) provides direct financial assistance (limited to projects going beyond compliance) for a wide range of investment projects in air pollution reduction, waste management, soil remediation, renewable energy, energy efficiency, and cleaner transportation. In 2007, ADEME signed a framework agreement with the country's SME Confederation (CGPME) to better adapt its support programmes to SMEs. ADEME also subsidises up to 50% of the costs of environmental audits, which cover both compliance and resource efficiency. The German public bank "Kreditanstalt für Wiederaufbau" (KfW) has a "Special Fund for Energy Efficiency in SMEs" which covers up to 80% of costs for SMEs to receive professional advice on energy efficiency improvements (Miller, 2011). The Korean Ministry of Environment provides financial support to SMEs in the priority areas of NO_x air pollution reduction and increased recycling. SMEs that voluntarily install low-NO_x boilers can get a 90% subsidy from the Ministry, which also operates a Resource Recycling Promotion Fund to provide grants to eligible small businesses.[17]

Low-interest loans (Box 5) are even more widespread than grants. The loan policy can be used to provide both positive and negative incentives to businesses. The Development Bank of Japan uses environmental screening to evaluate the level of corporate environmental management and reflects the

[17] Ministry of Environment of Korea, responses to the OECD questionnaire, February 2012.

findings in the conditions attached to its financing services. It must be noted, however, that such favourable loan conditions are usually offered only by public financial institutions, while the current financial crisis makes private banks reluctant to lend to SMEs in general, regardless of their financial profile (see Section 4.3).

Box 5. Low-interest loans for green investments: Examples from selected countries

Finland: The state's special financing company Finnvera gives reduced interest loans for environmental investments by SMEs, but the loans are conditional on the planned measures going beyond regulatory requirements and the use of best available techniques, and applications need to be certified by the competent environmental authority.

France: OSEO public investment bank offers loans at favourable rates and without collateral from EUR 50,000 to EUR 3 million for up to seven years for SMEs who adopt environmentally friendly technologies (with the share of capital costs exceeding 60%) or develop new ones.

UK: The Energy Saving Trust (a UK-wide non-profit organisation) provides zero-interest small business loans of up to GBP 100,000 to help businesses install renewable energy technologies or measures that reduce energy consumption. The Green Deal, the UK government's flagship initiative to be rolled out in 2012, will provide businesses with loans for energy efficient equipment without down-payment and with payback tied to cost savings obtained over the course of its operation.

USA: In the US state of Virginia, a cooperative agreement between the Department of Environmental Quality and the Department of Business Assistance has allowed the state's small businesses, since the year 2000, to obtain loans of up to USD 50,000 to finance the purchase of equipment to implement voluntary pollution prevention measures or to introduce agricultural best management practices. These loans have an interest rate of 3% with favourable repayment terms based on the borrower's ability to repay and the useful life of the equipment being purchased (ECOS, 2011).

Sources : www.finnvera.fi; www.oseo.fr; www.energysavingtrust.org.uk; ECOS, 2011.

There are also examples of tax incentives for environmental investments. For instance, the French government offers accelerated amortisation and reduced property and professional taxes for renewable energy and energy efficiency equipment. The Japanese government provides industry with tax preferences (*e.g.* reductions in the local corporate tax) for cleaner and climate-friendly technologies (OECD, 2009). However, environmental tax incentive schemes tend to benefit larger companies, which are better informed about the existence of such instruments.

The Netherlands has been operating two tax reduction schemes to promote the purchase of new environmental technologies: the Random Depreciation of Environmental Investments (VAMIL) allows accelerated depreciation of newly purchased environmental technologies listed by the government, and the Environmental Investment Allowance (MIA) allows a partial write-off of an investment in environmental technology against tax (ECAP, 2011).

3.6 Factors of effectiveness of promotion tools

According to a survey of small businesses in Scotland (NetRegs, 2009), the most common benefits that businesses enjoy by improving their environmental performance are reduced operating costs, a more motivated workforce, reduced risk of prosecution or fines, and improved customer relationships. For micro-businesses, improved local image, increased number of customers and staff morale appear to be the main incentives for better environmental practices (Defra, 2011b). At the same time, most small businesses believe that improved image or increased sales are unlikely to result from compliance with environmental

requirements because customers are not aware of a business's operational practices and, therefore, this does not influence their customer choice.

There is a strong argument for providing small company executives and owners with information and support that would relate to these incentives and to the needs of their respective industries. But how such information is packaged, what message it presents, and how and who delivers it, is critically important to its positive impact. The key sector-specific factors affecting the choice and implementation of promotional tools include the following:

- The degree of uniformity in size and management practices of the industry – the greater the diversity, the greater the need to develop different strategies and instruments for different sub-categories of businesses;

- The level of sophistication in the industry, which is likely to indicate its capacity to adopt a complex EMS and the need for detailed guidance;

- The existence of a well-organised industry association representing the sector, which affects the mode of communication with individual businesses; and

- The public profile of the industry, which may determine the extent to which SMEs may be susceptible to public pressure.

Numerous empirical studies have demonstrated that improving the environmental performance of a firm also improves its financial performance (OECD, 2012). Since by far the biggest concern of SMEs is the short-term financial profitability, selling the idea that environmental management can save money, reduce costs and increase efficiency is usually well received by business owners. Therefore, regardless of whether the objective is to improve compliance, influence the uptake of environmental technologies or increase the adoption of EMSs, environmental information targeting small businesses should make the "business case" and illustrate the financial benefits of environmental improvements.

It is crucial to emphasise that what is good in environmental terms may also be good for the financial bottom line. For example, the best practices guide for garages produced by the Irish EPA's National Waste Prevention Programme is called "Smart Garage Guide: Save money and improve the performance of your garage". Using the same approach, the EPA's Green Business Initiative (www.greenbusiness.ie) launched in 2006 seeks primarily to enable businesses to assess their own resource use efficiency, particularly with respect to waste and water, by using web-based audit/assessment tools. The Green Business web pages also offer tips and case studies on how to save money by reducing resource use.

In making the "business case", it may be particularly useful to present examples of other similar companies receiving commercial benefits as a result of the environmental management improvements in question. Case studies should preferably be local in order to increase the acceptance of their conclusions by small businesses. However, the experience shows that case studies lose their importance as the promotion programme matures.

Most small businesses seek clear and consistent information on the minimum requirements for compliance. Interpretation of text-heavy guidance can be difficult for an SME: there should be a simple message about the problem, its solution (step-by-step guidance) and where to go for more information. The most efficient way of providing advice and guidance to businesses is to take into account the full suite of regulations that apply to them, not just environmental regulations. Regulatory requirements that are communicated to small businesses should be well coordinated across government.

Environmental guidance should also make a clear distinction between legal requirements and good practice. Misleading advice could lead to over-compliance by micro-businesses and an unnecessary increase in the regulatory burden.

To make sure the information directed at SMEs is relevant, working with industry in formulating sector-specific guidance and codes of practice is of primary importance. Giving businesses a say in the structure and content of environmental guidance increases the likelihood that the material is understandable and resonates with business owners. The extent to which SMEs are willing to participate in the design of information tools and other incentives largely depends on the existence of established business organisations.

The most appropriate communication channels are likely to be sector-specific, reflecting the different business models and activities within different sectors. Public authorities tend to be best suited to delivering "one-way" information, whereas hands-on support is better delivered by business associations or private organisations (the institutional aspects are further discussed in Chapter 4). When guidance comes from a private sector organisation, it is generally perceived by small businesses as reliable, while information received from governmental bodies is often regarded with suspicion. At the same time, encouraging as many businesses as possible across all sectors to access centrally available web-based resources can contribute to the cost-effective, consistent delivery of regulatory guidance.

It may be difficult to persuade SMEs to act upon environmental information, even when it is obviously in their own financial interest and/or backed by generous financial subsidies. Evidence from the literature suggests that raising business awareness by providing them with more information on their environmental impact will not automatically lead to changes in behaviour (Defra, 2011b). Other considerations are at least as critical, primarily the need to strengthen market incentives for environmental improvements by directly (green public procurement) and indirectly (green certifications and eco-labels) increasing the demand for environmentally friendly products and services.

Another important aspect of promoting environmental compliance and good practices is the duration of support. Greater benefits in terms of compliance and overall greening of small businesses are more likely to be achieved through longer-term relationships with the SME community. This in turn requires sustained funding for relevant outreach initiatives and incentives, as discussed in the following section.

3.7 Funding outreach to businesses

Most compliance and green behaviour promotion initiatives are currently funded in part or in full from public sources. Compliance promotion activities by environmental regulators may be funded by annual subsistence fees paid by permitted facilities (which exist only in a few OECD countries like the UK and Ireland) or by government grants, which are getting fewer and smaller due to the current severe budget constraints. In addition, compliance assistance is widely viewed by environmental enforcement authorities as a non-core activity. Governments in many OECD countries doubt whether an enforcement authority should become involved in this work in the first place. It is often believed that private businesses should request compliance assistance from consulting companies or trade associations on a commercial basis or refer to relevant business support organisations which receive government support. On the other hand, there are positive examples of increasing importance of compliance promotion in the regulator's scope of activities: in the era of across-the-board budget cuts, this functional area is the only one within the Irish EPA where funding is increasing.

There is more public money available for programmes to encourage SMEs to go beyond compliance and adopt green technologies and management practices in the context of broader green growth strategies. However, there are problems associated with public funding: the often short-term nature of support makes

longer-term programmatic sustainability difficult, while administrative procedures can absorb significant time and resources of non-profit organisations that implement such initiatives.

The source of funding ultimately depends on a number of factors:

- The type of services being delivered – contribution from participating SMEs is appropriate they receive clear commercial gains from the assistance;

- The delivery institution – trade associations often charge businesses cost recovery fees for compliance audits, assistance with EMS implementation, training of environmental managers and similar services, while non-profit organisations usually do not;

- The availability of public funding for promoting compliance and green business practices (for example, it is substantial in Scotland and Ireland but has recently been drastically reduced in the Netherlands and the US); and

- The willingness and ability of SMEs to contribute. The dilemma with having businesses pay for information and technical assistance is that small businesses may not be able to afford the fees (and often feel that the provision of environmental help and support should be free) but are suspicious of free services, particularly when they are provided by government agencies.

It may be worthwhile to deliver support to SMEs free of charge to increase awareness and participation initially, whereby address the existing information gap, and once the audience is more engaged, move toward a fee-based system. Stepped approaches to funding, based on the level of participation and/or size of the participating business, are also worth considering.

Having support from more than one funding source provides greater security for the sustainability of business greening initiatives. For example, the regional Performance Bretagne Environnement Plus (PBE+) programme in France is funded jointly by the Regional Council, the central government, private sector business organisations, and a grant from the European Commission. This has allowed it to provide environmental information, guidance and technical assistance to businesses since 1994.

3.8 Measuring success of promotional activities

There are few formal monitoring and evaluation procedures associated with promotional initiatives, and almost all are focused on outputs rather than outcomes and impacts. For example, the evaluation of web-based assistance tools has focused on the rate of access to the guidance materials but not on the change of behaviour by the beneficiaries of the guidance. This is not surprising given that positive impacts on the environment or improved compliance with environmental regulations are quite difficult to assess.

The use of web-based support and hard-copy publications is generally measured by the number of unique visits and requests for the guidance materials, while types and frequencies of help-line enquiries are logged by staff. In many initiatives the assumption is made that positive output indicators (e.g. a high number of SMEs participating in the scheme) translates into positive outcomes.

Where there are attempts to assess outcomes, this is mostly done through anecdotal or statistical surveys to evaluate whether businesses find specific methods of assistance helpful and how they change their behaviour as a result. Anecdotal assessments rely on surveys of parties receiving advice or guidance but are subject to non-response bias (i.e. the results of those who responded may be significantly different from those who did not respond). Statistical evaluations allow the generalisation of evaluation results to a larger audience (e.g. all SMEs in a sector or all users of a compliance assistance tool). However,

statistically valid surveys (by mail, phone or internet) require significant upfront planning in identifying and selecting study participants as well as a relatively large number of respondents, which makes them substantially more expensive than anecdotal assessments. Surveys also run a risk of misreporting by businesses.

Direct observation can also be used as an evaluation method, if only for direct assistance tools such as workshops, audits or personalised help desk advice. It may be possible to assess the participants' understanding of regulations before and after the workshop. Another option may be to visit small businesses to see if they have implemented the practices recommended by the guidance they had received. However, this method is also quite costly and offers only anecdotal evidence of programme effectiveness.

The US Small Business Environmental Home Page contains a database of performance measurement tools developed by different state compliance assistance programmes.[18] It contains examples of the following types of tools: methods of tracking the number of attendees at events, surveys to measure customer satisfaction after attending an event or receiving assistance, surveys to determine quality of service provided and/or request suggestions for improvement, as well as detailed programme evaluation.

The US National Steering Committee of Small Business Environmental Assistance Programs has recommended a set of core performance measures to evaluate programme effectiveness. The suggested outcome measures include "number of small businesses indicating an increased understanding of regulatory requirements" and "number of small businesses indicating they made a change (i.e. adopted at least one recommended process change or best management practice) after working with the programme". The US EPA has over the years experimented with several outcome indicators of environmental compliance assistance (Box 6).

Box 6. US EPA compliance assistance outcome indicators

The US EPA has substantial experience in measuring outcomes of environmental compliance assistance to demonstrate the effectiveness of preventing non-compliance. Until recently, it counted the number of regulated entities reached through two compliance assistance mechanisms: direct compliance assistance provided by the EPA personnel through on-site visits, workshops, training programmes, and distribution of guidance documents; and assistance provided through sector-specific, web-based Compliance Assistance Centers.

For both categories of assistance, the EPA measured (prior to FY 2009) three types of intermediate outcomes: *increased understanding of regulatory requirements; implementation of improved environmental management practices; and reduction of pollution* as a result of EPA assistance.

The information for these indicators was collected in two ways. For regulated entities receiving direct assistance, the results were either observed or determined in response to direct questions from the assistance providers about the outcome of the EPA assistance. For regulated entities receiving on-line assistance, the results were obtained from post-assistance voluntary surveys. In both instances, the results amounted to self-assessment and were not statistically valid.

Since FY 2009, after the US Office of Management and Budget challenged the value and analytical soundness of the Agency's compliance assistance indicators, the EPA has been tracking only one compliance assistance outcome indicator: percentage of regulated entities receiving direct (person-to-person) EPA compliance assistance that report improved environmental management practices as a result of this assistance. The remaining measure does not capture the value of compliance assistance provided in other forms than during site visits (guidance documents, workshops, websites, etc.).

Source : Mazur, 2010

[18] www.smallbiz-enviroweb.org/Measurement/Tools.aspx

Money saved for businesses as a result of activities to promote environmental compliance and good practices can be an important outcome indicator. Several programmes in the studied countries that conducted environmental audits measured identified savings but seldom followed up with SMEs to see whether the recommended changes had actually been implemented. An interesting study of economic benefits of the web-based NetRegs service (described in Section 3.2, Box 2) was recently conducted in the UK. It concluded that NetRegs enabled British SMEs to save an estimated GBP 58 million each year, on average GBP 2,600 per business (Box 7).

Box 7. Economic Evaluation of the Benefits of NetRegs to SMEs in the UK

A method based on the International Standard Cost Model was used to measure the value of NetRegs' benefits to businesses. The benefits of NetRegs to SMEs occured in two ways: ***search benefits*** (the reduction in time and expenditure to gain the information provided), and ***compliance benefits*** (the reduction in the time and costs spent complying with regulations).

This value was defined as the difference between the environmental regulatory burden on businesses with and without NetRegs, The survey questionnaire asked the respondents to consider the nature of the regulatory burden for their company and to quantify it. They were then asked to estimate the extent of the reduction in the regulatory burden directly attributable to the use of NetRegs information in relation to both employee time savings and business expenditures.

The economic value of NetRegs was calculated by adding the time and costs savings:

- The time savings value was calculated by dividing the total time saved by managers and professional staff as a result of using NetRegs, and then multiplying their time savings by the average salary for those groups;
- The costs savings is the sum of the reported savings in capital and operational costs as well as resource savings.

The average economic value of using NetRegs to the 465 SMEs surveyed was GBP 2,615 per year. The mean economic value varied significantly by frequency of visits to NetRegs: those businesses that used the website more frequently derived more cost savings.

Source : Eftec, 2008.

The underlying issue with measuring the effectiveness of compliance assistance and other green business promotion initiatives is that it is extremely difficult to demonstrate a causal link between most instruments and quantifiable environmental outcomes. For instance, the US EPA explored a decade ago such outcome indicators as "number of operators that have changed regulatory status or risk category" as a result of compliance assistance (US EPA, 2002), but did not use them in programme evaluation because of the analytical challenge of showing the cause-and-effect relationship. Cost-effectiveness of individual instruments is also difficult to measure because different methods are effective for different firms. In addition, the impact of certain support tools is often not visible for several years, which further complicates monitoring and evaluation of promotion programmes to improve businesses' environmental behaviour.

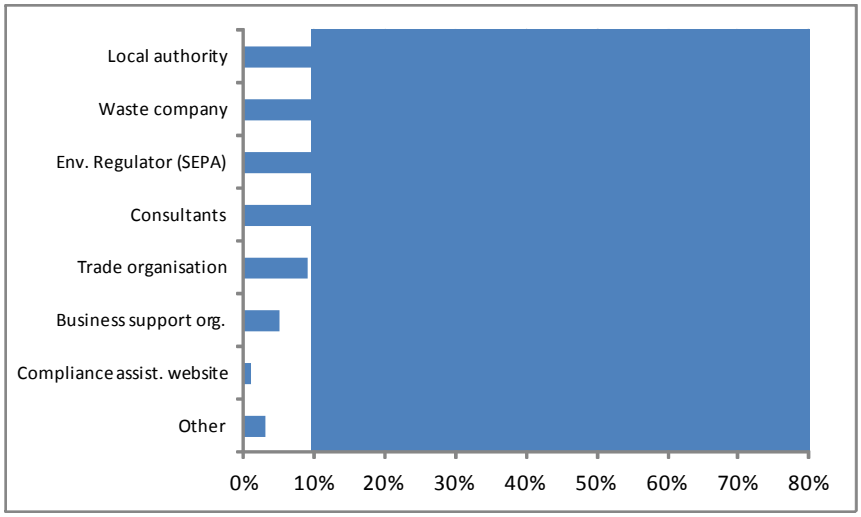
4. INSTITUTIONAL ASPECTS OF GREENING SMALL BUSINESSES

Small businesses get environmental advice and guidance from a multitude of sources, including regulatory agencies, local authorities, special business support organisations, trade or professional associations, consultants, banks and accountants, other business owners and even personal networks (which is especially true for micro-businesses). This chapter discusses the role of individual actors and emphasises the importance of strengthening the capacity of different governmental and non-governmental institutions to provide environmental information and advice as well as the value of institutional partnerships in engaging the regulated community of small businesses.

4.1 Role of different actors in environmental outreach to SMEs

A survey of Scottish businesses (NetRegs, 2009) found that organisations that businesses managers contact most often to discuss environmental issues are the local authority and the waste company, followed by the environmental regulator (Figure 4). Less than 15% of businesses tend to turn to consultants, trade bodies, business support organisations or a compliance assistance website. These results are similar to those obtained by another UK research (SNIFFER, 2008), which concluded that SMEs looking for information on environmental issues would most likely contact the local authority in the first instance, followed by trade associations, the internet, and professional advisors.

Figure 4. Sources of environmental guidance for SMEs in Scotland



Source: NetRegs, 2009

National environmental authorities may or may not have regulatory competency over a share of the SME community, but they are not the primary interlocutors of small businesses. However, they have a responsibility to coordinate the efforts of other public and private actors to promote green behaviour of SMEs.

4.2 Capacity building within environmental authorities and local governments

While some environmental enforcement authorities have reservations about their role in compliance assistance (as mentioned in Section 3.7), others see developing the ability of their staff to understand the nature and needs of the SMEs that they regulate as a priority area in improving SME compliance. The number of initiatives to build the capacity of officers to regulate SMEs is rapidly expanding.

The Scottish EPA has a special Advice and Engagement Unit, which has three key functions:

- Training of staff of SEPA and partner organisations (e.g. Scottish Enterprise, a business support organisation). SEPA staff training programmes on promoting compliance and resource efficiency are becoming mandatory rather than optional;

- Better integration of advice into the Agency's core compliance monitoring and enforcement activities; and

- Improved "signposting" – the crucial function of providing businesses with references to direct operators of multiple non-governmental programmes promoting different aspects of green business[19]. Inspectors have checklists and reminders to refer operators to appropriate assistance providers as part of their compliance monitoring routine.

The US EPA has over the years established an extensive network of thousands of public and private compliance assistance providers in different states and industrial sectors. The EPA Office of Compliance has provided technical and financial support to compliance assistance providers which include federal and state regulators, trade associations, as well as universities, non-profit organisations and consulting firms. In an effort to help encourage better communication around the country between the EPA and state technical assistance programs, a National Steering Committee (for the state Small Business Ombudsman and Small Business Environmental Assistance Programs) and a National Compliance Advisory Panel (for the state compliance advisory panels, or CAPs) have been formed. Through these coordinated efforts, state programmes are able to tackle issues relevant to their purpose and share information to help avoid duplication of effort[20]. Each state CAP reviews and renders advisory opinions on its state's assistance programme, ensures that information affecting small businesses is written in a clear and understandable style, and serves as an information bridge between small businesses and the state's environmental regulator. Some states (such as California, New Jersey and Pennsylvania) have a separate, high-level compliance assistance office (OECD, 2009).

In countries where local authorities play an important role in regulating small businesses, it is essential that national environmental regulators engage local authorities so that they in turn engage the SME community. The Local Authority Prevention Network is a key component of the Irish EPA's efforts to build capacity in local authorities for the promotion of resource efficiency and waste prevention at the local level. Since 2008, 17 local authorities out of 34 have been actively pursuing resource efficiency programmes in partnership with businesses, public organisations and communities, with the EPA's support.

Local authorities in small neighbouring communities may benefit from pooling resources for compliance promotion activities. This could be one of the functions of inter-municipal environmental agencies (also known as joint environmental services) – a model increasingly used in several European

[19] In a similar effort, the Irish EPA has developed a "Green Who?" guide for businesses on green supports on offer.

[20] States commonly receive federal grants for compliance promotion activities but use them in accordance with their own priorities.

countries (e.g. in the Netherlands, Sweden and the UK) for local inspection and enforcement programmes. Ireland represents an example of horizontal collaboration between local authorities in providing compliance assistance: each local authority has an environmental awareness officer who participates in a national network.

4.3 Involvement of trade associations and other business groups

Businesses recognise the potential value of increased engagement between regulators, business organisations and trade associations. On a strategic level, business and trade organisations have well-established communication channels and, therefore, a good understanding of common barriers faced across the regulatory system and the approaches that best meet their members' needs. They are also in a good position to provide regulators with practical support in designing regulatory approaches to address sector-specific needs.

In promoting green behaviour of small businesses, working in partnership with business groups can be particularly useful as many SMEs do not respond to outreach activities conducted by a regulator due to suspicion and fear. Business support organisations and trade associations have a role to play in "signposting" different web-based information and guidance sources and communicating their usefulness for small businesses given SMEs' reluctance to proactively seek such information on the internet. Feedback from businesses groups is extremely useful in developing and improving compliance assistance programmes.

Trade associations can help small businesses to improve profitability through environmental management, e.g. by developing marketing and promotional materials which a business could use to display to its customers its "green credentials" and practices. For example, the Green Business Network – a Scotland-wide organisation with fee-based membership of about 250 companies – helps its members (mostly SMEs) to find green suppliers, to develop growth opportunities on the basis of good environmental performance.

Business organisations can also have a role in providing sector-specific technical assistance to companies introducing green practices. This role in France is played by 21 Technical Industrial Centres (www.reseau-cti.com) covering 32 industry sectors (primarily dominated by SMEs), working with support from different business organisations and funded through fees paid by businesses. However, they face strong competition from private service providers. When a private sector market for environmental assistance services becomes strong enough, it makes sense for business support organisations to phase out direct assistance and keep signposting as the only promotion function.

At the same time, there are certain constraints in engaging trade associations in promoting green practices among SMEs. Firstly, many membership associations are focused more on defending their members' interests in the design of regulatory requirements and much less on providing them with environmental information and guidance . Secondly, according to a UK-wide survey (NetRegs, 2009), only 15% of SMEs use trade associations to discuss environmental issues, with by far the highest use rate among farms and construction firms as a distant second. This shows the need to both use trade associations with an already established SME audience and try to engage other sector groups in more active environmental outreach. Finally, in the case of very small businesses, the use of trade associations may be unfeasible since the majority do not belong to any such association.

Companies willing to improve their environmental performance may want to create partnerships among themselves outside the framework of trade associations. The general term used for such arrangements is "eco-industrial networks". An eco-industrial network is more than an informal association of companies: it is intended to be a lasting arrangement in which participating businesses share

environmental and cost-effectiveness information. Eco-industrial networks vary greatly in scale and purpose: some may simply share information on new technologies, legislation or training opportunities; others may create functional links among participating companies (e.g. waste management facilities). Such networks are often managed by steering committees which include representatives of national and local government authorities.

Ireland's SMILE Resource Exchange (Saving Money through Industry Links and Exchanges, www.smileexchange.ie) is one such network. It a free service for businesses that encourages the sharing and exchange of resources in order to reduce costs and help the environment. Based on the concept "one's waste could be another's resource", businesses have opportunities to identify potential partnerships through networking exchange events and an online exchange facility. This service is funded by the Irish EPA, Cork County and City Councils, as well as county and city enterprise boards. Eco-industrial networks are also quite popular in Canada, Germany and a few other OECD countries (O'Regan and Moles, 2009). In addition, environmental trade fairs and exhibitions are important venues for networking between small businesses.

A network can also bring together business support organisations. The Enterprise Europe Network (EEN) funded by the European Commission brings together close to 600 member organisations, including chambers of commerce and industry, technology centres, universities and development agencies. Focusing on eight industry sectors, it promotes partnerships between public and private organisations as well as SME associations in order to raise SMEs' awareness of their environmental impact, existing and new environmental legislation, and the benefits of environmental management systems (Miller, 2011).

4.4 Emerging role of banks and insurance companies

Most SMEs have frequent interaction with accountants, banks and insurance companies and rely on them as credible sources of information. These communication channels provide opportunities for using respective institutions both to disseminate information and to exert pressure on SMEs to pursue environmental improvements to achieve greater business success. Accountants may verify simple environmental audits, banks may require an environmental checklist for loan approval, and insurers may demand a statement of environmental risk identification and control. Banks and insurers can also offer better loan or insurance policy conditions to businesses with green credentials.

In the context of the economic and financial crisis, it has been difficult to work with banks on "green credit" issues because of the restricted access of SMEs to bank loans in general. Still, there are several positive initiatives. At the international level, the United Nations Environment Programme has published high-profile policy documents to promote sustainability in the banking and insurance sectors (UNEP, 2011, 2012). On the ground, the Royal Bank of Scotland follows the Equator Principles guidelines for assessing environmental and social risks of project finance transactions[21]. The Irish EPA has started discussions with the Irish Insurance Federation to try to make sure that insurance companies introduce environmental requirements for their clients, although this process is at an early stage. Similarly, insurance companies in Korea are considering the differentiation of insurance premiums depending on the level of environmental risk.

The Environment Agency (England and Wales), in its 2009 pilot "Common Ground" initiative on water management in the farming sector, reached out to organisations that have frequent contact with farmers, including banks and accountants, to enable the latter to communicate regulatory requirements and environmental messages to farmers. The expectation was that passing on information to farmers would

[21] The Equator Principles are a credit risk management framework for determining, assessing and managing environmental and social risk in project financing (www.equator-principles.com).

offer these banks and accounting firms with a competitive advantage of being able to provide value added services to their clients[22]. Again, it has so far been difficult to make such partnerships common practice.

OECD countries may learn some lessons from emerging economies in using financial institutions as a lever in improving businesses' environmental performance. For example, China's Ministry of Environmental Protection (MEP) and the China Banking Regulatory Commission jointly announced in 2007 a *"green credit" initiative* (which had earlier been successfully tested in Jiangsu province) under which environmental performance of loan applicants must be taken into account by the bank. Under this initiative, loan applicants with poor compliance records have to pay higher interest rates, and serious violators should be denied credit. The MEP has created a database of 15 000 environmental violations and made it available to commercial banks (OECD, 2009).

[22] Environment Agency, personal communication, October 2011.

5. MAJOR FINDINGS AND RECOMMENDATIONS

Regulatory simplification. There is a marked trend in the studied countries to simplify environmental regulatory requirements for small and medium-sized enterprises. This simplification generally involves replacing bespoke permitting with standardised requirements (e.g. general binding rules) for specific activities with low environmental risk that are practised by a large number of operators and employ similar technologies. *Rules that require operators to notify, or register with, the competent environmental authority before engaging in an activity are preferable* in terms of the regulator's knowledge of the regulated community and control over its potential environmental impacts. Collaboration between environmental and non-environmental regulators through joint or delegated inspections in selected sectors, along with introducing elements of compliance self-assessment by operators of low-risk facilities, contributes to the reduction of the administrative burden on small businesses and improves the efficiency of compliance monitoring.

Sectoral approach to promotional activities. While environmental regulations tend to refer to activities (which may or may not correspond to a specific economic sector), efforts to promote compliance with them are usually sector-based because businesses (particularly SMEs) respond primarily to messages adapted to their sector. *The sectoral approach to outreach is part of a larger customer service perspective that environmental regulators should adopt in their relationship with small businesses.* Environmental enforcement authorities should work to strengthen their own staff's capacity to regulate and advise small businesses in specific sectors.

Adaptation of tools to SME needs. The government's environmental outreach to SMEs includes compliance promotion and larger efforts to encourage green business practices. *The instruments of such outreach should be carefully tailored to the nature and needs of small businesses.* For example, environmental management systems with varying degrees of complexity and low on paperwork as well as sectoral green label schemes are more likely to be attractive to small businesses than formal ISO 14001 certification.

Using business arguments and business partners. Packaging the information and formulating the right message is crucial for the effectiveness of these tools. *Business benefits of improved environmental performance (in terms of increased efficiency and competitiveness) should be the main "selling point" of environmental outreach to SMEs.* While government bodies are the dominant source of environmental information for SMEs, they should *work in partnership with trade associations and business support organisations to elaborate and disseminate environmental guidance*, which would add to its credibility. Governments may also provide assistance with the creation of eco-industrial and similar business networks promoting green business behaviour.

Packages of information-based tools. Choosing the right delivery mechanism for environmental compliance and good practices guidance is also very important. The rapid expansion of web-based guidance, an undoubtedly modern and cost-effective communication tool, does not yet correspond to the preferences of SMEs. Only a small minority of SMEs rate the internet as their favourite way of receiving environmental information. This is why *in the short and medium term online tools need to be complemented by other, more traditional instruments such as paper and electronic mailings, brochures and workshops.* Guidance should be concise and *clearly distinguish between legal requirements and good practices* in order to avoid over-compliance of small businesses.

Importance of market signals. Providing operators with information on environmental regulatory requirements and good practices is insufficient to make SMEs act upon it. Market incentives are needed to increase the demand for environmentally friendly products and services. Governments can exert direct supply chain pressure by *developing and widely communicating green public procurement policies as well as by encouraging large firms to work with their SME suppliers on improving their environmental performance*. Indirect incentives such as green certification and eco-label schemes also contribute to an increased demand for green business practices. On the supply side, there are numerous precedents of OECD governments introducing favourable loan policies and tax privileges to SMEs willing to invest in green technologies. The challenge is to build on these financial incentives, which have so far been offered primarily by public financial institutions, to *engage private banks and insurance companies in encouraging good environmental performance of small businesses*.

Need for initial public funding. Long-term outreach and incentive programmes are more likely to lead to increased environmental compliance and overall greening of small businesses. With all the difficulty of providing public funding for such initiatives at the time of budget austerity, *government support is essential at the initial stage of engaging SME-dominated sectors in green transformation*. Government money may be used for information provision (to close the information gap affecting SMEs) and incentive schemes (to lower market barriers for green technologies). In the second phase, financial support could be reduced and channelled through trade associations and business support organisations, gradually increasing the share of fee-based environmental services to small businesses.

Development of performance indicators. There are some positive examples in the studied OECD countries of measuring the effectiveness of environmental assistance programmes. Indicators of financial savings for small businesses resulting from such programmes send a particularly powerful policy message. However, there is a difficult dilemma between anecdotal surveys, which are cheaper but do not cover a representative sample of businesses, and statistically valid assessments, which are very labour- and time-intensive. Measuring success of promotional initiatives is also challenging in terms of establishing a strong causal link between individual instruments and changes in SMEs' environmental behaviour and the likely substantial time lag between the two. *Notwithstanding these issues of analytical soundness of outcome indicators of environmental assistance, governments should use them, however sparingly, to justify the need for public funding for the promotion of green transformation of small businesses.*

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