

# European Territorial Cooperation – CENTRAL EUROPE Project **ACT CLEAN**

Access to Technologies and Know-How on Cleaner Production in Central Europe

## Transnational Agenda

**Impulses for improving framework conditions  
for SME in implementing  
Cleaner Production in Central Europe**

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# 1 Executive Summary

This Transnational Agenda is based on major findings and outcomes of the ACT CLEAN project. It complements the “Synthesis report on barriers & incentives” and the “Synthesis report on SME needs regarding access to and transfer of environmental technologies”. The ACT CLEAN Transnational Agenda aims to provide impulses for improving framework conditions supporting Small and Medium Enterprises (SME) throughout Central Europe (CE) in implementing Cleaner Production (CP) processes. The Agenda mainly elaborates recommendations in the three following major fields of action chosen by project part-

ners: **networking, awareness and financing**. The recommendations are addressed to various types of actors involved in Cleaner Production promotion and enhancement within the SME sector and include a broad scope of activities. The Agenda is complemented by an outline of national level-actions required for implementation of the recommendations. The ACT CLEAN network joins representatives from policy, business and research from eight Central European countries, namely Austria, Czech Republic, Germany, Hungary, Italy, Poland, Slovak Republic and Slovenia.

## 2 Objective and Relevance

The following policy recommendations refer to public and private incentives for the introduction of Cleaner Production innovations in SME in Central Europe. These are guided by the acknowledgment that SME are the **“backbone” of the economy** and a key source of **economic growth, dynamism and flexibility** in advanced industrialized countries as well as in emerging and developing economies<sup>1</sup>. In ACT CLEAN partner countries SMEs account for at least 98,2% (Slovenia) to up to 99,9% (Italy) of the enterprises in the business sector. Moreover, they provide from 35,5% (Czech Republic) to up to 71,25% (Italy) of the GDP and from 53,6% (Slovenia) to up to 81% (Italy) of the business sector employment constituting thus the **dominant form of business organization**.

ACT CLEAN is inspired by the fact that many SME in Central Europe have **difficulties in fulfilling legal obligations** established under EU legislation that concern the promotion of Cleaner Production as a means to achieve a better environmental balance. By this is meant the application of such technological,

organizational and other solutions that help to make industrial production processes less burdensome to the environment, in terms of e.g. the consumption of resources and energy or the production of waste and hazardous substances.

The SME performance regarding CP is of crucial relevance for several purposes: On one hand, legal compliance is a precondition for their own competitiveness and **economic well-being** in the single market. On the other hand, since they make up the clear majority of all enterprises (not only) in Central Europe, their performance has a significant collective **impact on the environment-related policies** at EU and national levels. Furthermore, environmentally friendly technologies and management systems can bring benefits to the individual SME themselves. They can **increase their environmental performance, boost profits** of the entrepreneurs by **reducing costs and increasing sales**. Furthermore, they **support compliance** with environmental norms and standards as required by EU directives and regulations.

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1 Organization for Economic Co-operation and Development (OECD). 2006: Financing SMEs and Entrepreneurs. Policy Brief.

The ACT CLEAN Transnational Agenda will focus on **three main fields of activity, namely:**

- *Networking*
- *Awareness*
- *Financing*

These fields of activities were selected for the following reasons: In order to benefit from Cleaner Production and to meet the respective national and EU requirements by implementing existing and further developing new CP production processes and products, SME have first of all **be aware** of those possibilities. Since many of them still struggle or even fail to respond to national or EU requirements it is also of great importance that the public authorities take visible actions through educational and **networking activities** to provide SME with technological and managerial know-how. Actions should also be taken that simplify the obtaining of **financing** for CP related actions in order for SME to grow and prosper, and thus contribute to creating employment and economic growth.

The Transnational Agenda is thus structured as follows: The **first part** portrays the ACT CLEAN project in general, giving some information on its major goals,

funding and project partners. The **second part** states the objectives of the document as well as an overview of the methodology used. The pivot of the report is to be seen in the **third part**, which outlines various policy recommendations for fostering the development and deployment of CP within European SME. It will provide important insights into the already mentioned three core fields of activity.

Each of these fields of activity will contain a similar structure, allowing for a transparent insight on the key issues for policymakers as follows: Firstly a **basic introduction** will be made, that will allow for a more structured approach to the recommendations to be discussed. A **definition of the relevant terms** as well as **their importance** for the recommended course of action will follow before introducing the **policy recommendations**. This will be provided by their **detailed description** along with the presentation of some **good practice examples**. Each section will be concluded with a reference to the actual **addressee institutions**, responsible for taking the recommended actions. At the end of the document, a table provides an overview of national actions to be taken in order to implement the Transnational Agenda.

## 3 ACT CLEAN Policy Recommendations

Given the important potential that Cleaner Production holds and recognizing that its implementation within the SME requires a broad spectrum of actions that will engage governments, the European Union and private organizations at all levels, the ACT CLEAN partners have selected the three already mentioned main fields of activity (networking, awareness and financing) whose promotion can help **secure the integration and enhancing of CP** within SME in Central Europe.

The following recommendations will point out the need of the incorporation of the Cleaner Production into a **sustainable public policy** and highlight the therefore relevant actions.

### 3.1 Facilitating Networking Activities

The role of networking in the business world is focused on building and maintaining **interactions among key players**, which creates **synergetic effects** that allow not only them individually but also the entire economy to **grow and develop**. This chapter will therefore deliver recommendations, guidelines and principles that will allow policy makers to enhance networking between key players in the field of Cleaner Production in CE. Three focal points will be highlighted, including:

- *The importance of knowledge transfer networks and collaboration networks*
- *The harmonization of standards and norms on international and European level*
- *The improvement of the policy-industry dialogue*

### 3.1.1 Strengthening Knowledge Transfer Networks and Collaboration Networks

In order to emphasise the meaning of networking for a single organisation as well as the entire economy's prosperity, the ACT CLEAN Transnational Agenda will first of all recommend a course of policy actions for creating and fostering **Knowledge Transfer Networks and Collaboration Networks**.

#### *Why is this important?*

In order to understand why Knowledge Transfer Networks (KTN) and Collaboration Networks (CN) are of such an importance especially for SME it is first necessary to define the KNT and CN as terms that will be used along within this section. According to some of the most widespread definitions, the term “**network**” can be interpreted as “those contacts between individuals, groups, or organizations, as well as between collectives of organizations”<sup>2</sup>, which have **combined their talents and resources**.

One of the main driving forces for an organization to be a part of such a network is that this membership can provide them with their most important source of **lasting competitive advantage**, namely **knowledge**. The key to obtaining long-term competitive advantage is, however, not to be found in the mere administration of existing knowledge, but in the ability constantly to generate new knowledge moving on to new products and services<sup>3</sup>. That indicates why firms, especially SME, should nowadays seek to base their activity increasingly on **knowledge seeking and knowledge creation**<sup>4</sup>. This is one of the main incentives for them to get more and more involved in different kinds of networks.

The ACT CLEAN Transnational Agenda concentrates on KNT and CN as the two most common specific types of networks from which the European SME can

benefit. In this context, the term “**Knowledge Transfer Network**” is defined in literature as “a signification of people, resources and the relationships among them, who are assembled in order to accumulate knowledge for the purpose of creating value”<sup>5</sup>. On the other hand, the **Collaboration Network** will be understood as “a coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conception of a problem”<sup>6</sup>.

These types of networks are vital to the success of business and can be also better used by European SME acting in the field of Cleaner Production. The current management literature<sup>7 8 9</sup> posits that these organizational forms can best **meet the requirements of the “new economy”**, such as customer-orientation, tailored solutions and minimized costs and time und thus driving **positive business results** for all of the parties involved. Furthermore the openness and richness of networks are believed to **foster a fertile environment** for the creation of entirely new knowledge, while also **accelerating the innovation rate**<sup>10</sup>. Accordingly, a successful firm will be expected to position itself as the hub at the centre of overlapping networks, stimulating **rewarding research** collaborations among the various partner organizations rather than try to monopolize the returns from innovative activity and forming exclusive partnerships<sup>11</sup>.

These benefits can only be achieved because of the nature of KNT and CN networks, which give the participants the chance to connect, communicate and collaborate in a productive, secure and effective manner. The KTN and CN are responsible for **enhancing, shaping and managing (new) collaborations** between key players, starting with researchers and scientists and moving on to companies and financial institutions. This is particularly true for SME since they often lack the human and financial resources needed to maintain an extensive enough set of connections by themselves. The two types of networks thus offer enterprises **greater business opportunities**, help

2 Seufert, A., Von Krogh, G.; Back, A.: Towards Knowledge Networking. In Journal of Knowledge Management 3 (3), 1999, p. 4.

3 Von Krogh, G.; Venzin, M.: Anhaltende Wettbewerbsvorteile durch Wissensmanagement. In: Die Unternehmung 49 (6), 1996, p. 417-436.

4 Seufert, A., Von Krogh, G.; Back, A.: Towards Knowledge Networking. In Journal of Knowledge Management 3 (3), 1999, p. 6.

5 Ibid., p. 9.

6 Roschelle, J.; Teasley, S. D.: Construction of shared knowledge in collaborative problem solving. In C. O'Malley (Ed.), Computer-supported collaborative learning, 1995, p. 69-97.

7 Cunningham, C., Tynan, C.: Electronic Trading, Interorganizational Systems and the Nature of Buyer-Seller Relationships – The Need for a Network Perspective. In International Journal for Information Management, 13(1), 1993, p. 3-38.

8 Shapiro, C., Varian, H.R.: 1999. Information Rules: A Strategic Guide to the Network Economy.

9 Wigand, R.T.; Picot, A.; Reichwald, R.: Information, Organization and Management, 1997.

10 Seufert, A., Von Krogh, G.; Back, A.: Towards Knowledge Networking. In Journal of Knowledge Management 3 (3), 1999, p. 9.

11 Ibid., p. 8.

their businesses grow and broaden horizons, enable them to create new products, to expand their knowledge, and to find new ideas and pastures.

Literature states that the greater the diversity of experts and fields involved in a network, the greater can be their effect on the participants. This is why the transnational networks that cut across geographical boundaries are of such a great importance for the European SME. As a **successful example** in this field can be named the **ACT CLEAN project** itself, bringing together experts from eight countries.

### *What can be done?*

Since networking has been a part of the common business environment for quite some time now, it is obvious that well performing clusters and networks exist at regional and national levels. However, they are often unknown to the public and SME and accordingly hard to find. In order to promote such already existing networks, it will first be necessary to **evaluate and classify** those, using different **indicators** such as subject area and geographical range of activities. One promising way to promote these networks will then be the creation of a **common database and a target group oriented communication campaign**. This will not only benefit local or national SME but will also offer foreign SME the chance for access to new knowledge and markets. The participation of foreign SME can further be enhanced by offering information in different languages.

**Chambers of commerce** take a crucial role in driving these processes. Their involvement in linking potential business partners in the field of Cleaner Production is in some countries like Italy described as being in general unsatisfactory, with the exception of some more active chambers. An essential condition for the good functioning of the chambers is a **developed dialogue** between them, the public authorities and the industrial associations. A good example of a well functioning dialogue can be seen in Austria. The chambers not only benefit their own member SME but through close cooperation with foreign chambers they can also better coordinate relevant policies at cross-border level. This could either be achieved through **yearly meetings** of representatives or through the organization of **fairs** in different member states. There is also great potential for the chambers of commerce to learn from **other countries' experience** by inviting foreign experts, specialized in Cleaner Production

topics and coming from different areas (such as NGOs, politics, education), to serve as lecturers and advisors in that particular field.

A further focal point with respect to improving the networking of key players in the field of Cleaner Production could be the **National Cleaner Production Centres (NCPC)**. The NCPC were created in order to ensure the administrative implementation of the Cleaner Production Programme of the United Nations Industrial Development Organization (UNIDO). They were established to deliver services to business, government and other stakeholders, in order to assist those with the implementation of CP methods, practices, policies and technologies and to act as public advocates for CP. Although they are well established in most of the partner states, the range and intensity of their activities differ to a huge extent – going from lack of existence in Italy to a good structured and organized NCPC in Austria. In Italy, however, other institutions such as universities, research centres, regional agencies, business and financial institutions promote technology transfer, innovation and Cleaner Production as well as support networking in these fields.

An alternative and promising way to bring key actors and stakeholders in the field of Cleaner Production together for the sake of knowledge exchange would be to concentrate on **students and young graduates**. It is therefore essential to link universities, research institutions, companies and other authorities through organizing **summer schools**, fostering the involvement of master students, interns and trainees at research organizations and enterprises. The European Marie Curie Actions and Erasmus Programme could in this regard be named as **good practice examples**.

### *Who is responsible?*

The task described in this section could be best covered by **regional development agencies** when it comes to the evaluation, promotion and funding of networks, chambers of commerce as well as **NCPCs. Universities, universities of applied science and other higher education institutions** are seen by the ACT CLEAN partners as being very well suited to take appropriate actions for knowledge exchange between students and enterprises. Furthermore, the **European institutions** should increase their support for networking and linking various actors engaging in Cleaner Production and environmental friendly technologies.

Let us look at some **good practice examples** concerning networking that have been gathered from ACT CLEAN project partners during the course of the project:

**Austria: ÖkoProfit Network:** participants are SME as well as public institutions, consultants and research institutions; all benefit from sharing knowledge and experience in the field of CP, <http://graz.ecoprofit.com/>.

**Czech Republic:** Financing mechanism for introduction of CP from savings ([www.enviros.cz](http://www.enviros.cz) and [www.empress.cz](http://www.empress.cz)) links SME and providers of Energy Performance, Contracting Services and Monitoring and Targeting experts; Local Authority CP project in Liberec links SME, local university, local consultants and local government, [www.kraj-lbc.cz](http://www.kraj-lbc.cz).

**Germany: The Production Integrated Network (PIUS)** connects significant number of companies with consultant experts, promotes Cleaner Production, cooperation and knowledge transfer among SME, [www.pius-info.de/en/index.html](http://www.pius-info.de/en/index.html).

**Poland:** Cleaner Production has been developed since the mid-1990s by the Federation of Scientific-Technical Associations NOT ([www.programcp.org.pl/polccp.htm](http://www.programcp.org.pl/polccp.htm)) and the Central Mining Institute ([www.gig.eu](http://www.gig.eu)). The carrying out of ACT CLEAN is a contribution to the implementation of the Environmental Technology Action Plan (ETAP) being coordinated in Poland by the Ministry of the Environment. This Ministry also supported the establishment in the Central Mining Institute of the National Contact Point (NCP) for Implementation of Eco-efficient Technologies and Management Systems ([www.actclean.gig.eu](http://www.actclean.gig.eu)) as another step for providing access for SMEs to European Cleaner Production technologies and best practices through the transnational network of NCPs.

The **National Movement for Cleaner Production** promotes Cleaner Production and environmental technologies within Polish industrial sector as well as gives opportunity for sharing knowledge and experience between its members, [www.czystszaprodukcja.pl/geneza\\_powstania.php](http://www.czystszaprodukcja.pl/geneza_powstania.php).

**Central Europe: PREPARE (Preventive Environmental Protection Approaches in Europe)** – an informal, independent European network of experts in the field of cleaner production and sustainable development with members coming from research institutions, administration, governments, industry, and international organizations. It stands for joint development of new ideas and initiatives in the area of cleaner production, sustainable products and systems; exchange of information and dissemination of knowledge and skills; as well as for stimulation of innovative R&D projects and cooperation between research, administration, industry, and international organizations.

The EU uses networking and linking of various types of organizations as a policy instrument for spreading and promoting CP and environmentally friendly technologies. These actions can still be better

promoted, particularly within micro enterprises that typically do not maintain many contacts not related to their core business.

The **Enterprise Europe Network (EEN)** supports SME through expert and consultant assistance; the range of ENE's activity includes search for financing, evaluating with EU and national regulations, finding business and project partner, [www.enterprise-europe-network.ec.europa.eu/about/mission](http://www.enterprise-europe-network.ec.europa.eu/about/mission).

**Eureka** was established by the EU as a network for market-oriented research and development organizations from various sectors (industry, research centres and universities). Eureka activities include promotion of eco-innovations and clean technologies through providing financial and technical assistance, [www.enterprise-europe-network.ec.europa.eu/index\\_en](http://www.enterprise-europe-network.ec.europa.eu/index_en).

### 3.1.2 Harmonizing Standards and Norms

The next focal point that will be highlighted in the following section is the **harmonization of standards and norms** on transnational level.

#### *Why is this important?*

The International Organization for Standardization (ISO) defines a **standard** as “a document, established by consensus and approved by a recognized body that provides, for common and repeated use, rules, guidelines, or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.”<sup>12</sup> According to a recent survey there are approximately 175 organizations that are engaged in preparing standards at the international level, with the ISO and the International Electrotechnical Commission (IEC) alone contributing 85% of the international standards<sup>13</sup>. On the other hand a **norm** is referred to as a „a voluntary behavior that is prevalent within a given reference group“<sup>14</sup>.

Standards and norms serve as reference documents that are used in the context of contracts or international trade and on which such commercial transactions are based that require a considerable level of technical expertise and technology, and are used by industrialists as commonly accepted definitions that help to **simplify and clarify the contractual relations between economic partners**<sup>15</sup>. Furthermore, standards and norms are of crucial importance when implementing ambitious environmental goals.

A major advantage of the harmonization of norms and standards would certainly be the **enabling and disburdening of transnational cooperation** both at policy and at business level. It will **support business extension** towards international markets as well as to the Single Market by helping organizations have a clearer view of what the requirements in a foreign country of interest are. This will enable enterprises to fulfil foreign markets' criteria more easily and effectively. This is particularly true for SME who often lack personnel and financial resources as well as expert knowledge in this area. On the other hand such harmonization also enhances **European-wide cooperation**

between countries and governments by allowing them to better work together on setting equal standards.

One field making visible the sense and importance of such cooperation with participation of European partners is the formulation of ISO standards by the International Organisation for Standardisation (ISO). ISO has just published the IWA 9 “Framework for managing sustainable development in business districts”.

#### *What can be done?*

Since our industry society relies to a huge degree on standards and most of the existing ones differ widely among countries, it is no surprise that **unique national standards cause technical barriers to cross-border trade and business activities in the CP sector**. Rather than having distinctive standards in individual countries it would therefore be a lot more beneficial to harmonize these at an international level. Furthermore an additional effect of such measures will also be the improvement of **customer's confidence**.

ACT CLEAN partners also suggest going one step further, i.e. towards an **intensified cooperation** between countries even after a certain harmonization of standards has taken place and support their implementation in other countries to which these standards could be successfully transferred to. A good way of doing that will certainly be the offering of good practice examples to member states inexperienced in this field. These **good practice examples** should refer not only to the implementation of those norms and standards but also to their usage in their state of origin.

#### *Who is responsible?*

Regarding the nature of the harmonization process we address first of all **non-governmental organizations such as the German Institute for Standardization (DIN) or the Association of German Engineers (VDI)**. The Polish Central Mining Institute (GIG) as representative of the **Polish Committee for Standardization (PKN)** in ISO's Technical Committee (TC) 207 “Environmental management” participated, for instance, in the development of IWA 9 for global use in the framework of ACT CLEAN's networking activity.

12 International Organization for Standardization: [www.iso.ch/infoe/](http://www.iso.ch/infoe/). Accessed 01.09.2011.

13 Deshpande, S.; Nazemetz, J.W.: Global Harmonization of Standards, 1995.

14 Matthew Intereis. On Norms: A Typology with Discussion. In: American Journal of Economics and Sociology, Volume 70, 2011, p. 424.

15 Deshpande, S.; Nazemetz, J.W.: Global Harmonization of Standards, 1995.

Coordination on the **European level** – then obviously supported by European institutions – can also be very beneficial by offering even more countries the option of implementing equal standards and norms.

As an existing scheme with that kind of purpose can be named the following:

#### 2010-2013 Action Plan for European Standardization

The plan defines EU priority actions in the areas of standardization policy, research as well as visibility and awareness. This action plan supports promotion of EU standardization initiatives. [http://ec.europa.eu/enterprise/policies/european-standards/standardisation-policy/implementation-action-plan/index\\_en.htm](http://ec.europa.eu/enterprise/policies/european-standards/standardisation-policy/implementation-action-plan/index_en.htm)

The European Commission stresses the need of integrating environmental dimensions in standardization processes. Standards which take environmental requirements into account for the whole life cycle can contribute to improving the environment. Standards might also lead to significant cost reduction and more competitive advantages.

<http://ec.europa.eu/enterprise/policies/european-standards/standardisation-policy/policy-activities/environment/>

In a proposal announced on June 1, 2011, the European Commission stresses that European standards should support SME and consumers both, belonging to categories of those most affected or most concerned by standardization.

[http://ec.europa.eu/enterprise/policies/european-standards/standardisation-policy/policy-activities/environment/index\\_en.htm](http://ec.europa.eu/enterprise/policies/european-standards/standardisation-policy/policy-activities/environment/index_en.htm)

### 3.1.3 Improving the Policy-Industry Dialogue

The third recommendation of the chapter “Networking” focuses on the improvement of the policy-industry dialogue.

#### *Why is this important?*

The policy-industry dialogue is of particular importance in issues, where varying interests are in conflict, like in the case of Cleaner Production.

The policy-industry dialogue is one of the focal points that ACT CLEAN partners considered to be of high importance, when it comes to addressing CP

issues. It is important to note that the **positive influence** of this approach has also been identified by previous research, concluding that policy making benefits from including non-governmental policy analysts in learning processes<sup>16</sup>. It is a structured interactive and proactive process aimed at creating sustainable strategies<sup>17</sup>. Finally, it leads to a **dialogue-based decision-making** that will make decisions on CP more accepted and thus easier to implement. It offers both parties a view on the **respective rights and obligations** of the other one, which by itself leads to a better understanding of the other party’s position. Thus, the policy-industry dialogue is of great importance especially when it comes to transformation strategies, which require aligned work and efforts.

16 Stigson, P.; Dotzauer, E; Yan, J.: Improving policy making through government–industry policy learning: The case of a novel Swedish policy framework, 2008.

17 Kaptein, M.; Van Tulder, R.: Toward Effective Stakeholder Dialogue. In: Business and Society Review, Vol. 108 (2), 2003, p. 203–224.

### *What can be done?*

A promising way to foster the dialogue between policy-makers and the SME population is for instance the **exchange of good practices** about the instruments to be used. An example in this regard is Technopole in Bologna of Emilia Romagna in Italy, where different research centres located in this region have created laboratories on specific fields, to do research and development for industries, giving a large spectrum of stakeholders, like young graduates, foreign scientists and entrepreneurs, the chance to meet and learn from each other.

Once a dialogue has been initiated, it will be beneficial to make use of the outcomes, for example through formulating **joint action plans**. A prominent example for such an action plan based on an intensive policy-industry dialogue on the European level is the **Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan** announced by the Commission's Communication COM(2008) 397 in 2008. This plan is built on a core set of activities aimed at improving the energy and environmental performance of products and foster their uptake by consumers, e.g. through eco-design, eco-labelling, or the promotion of green public procurement. Another Commission Communication that can be examined in the con-

text of policy-industry dialogue is "**Small, clean and competitive – a programme to help small and medium-sized enterprises comply with environmental legislation**" (COM (2007) 379) that launched an action plan directly addressed to SME. The plan supports sustainable and eco-efficient production processes, good business practices within the SME sector, through the following policy actions improving regulations, decreasing administrative burden related to economic activity as well as offering financial means, education and information.

A major problem that can be addressed in the context of the policy-industry dialogue is **low SME participation** in EU programmes and transnational collaboration. For instance, the funds that SMEs receive from the "Cooperation" section of the 7th Framework Programme are below the EU target of 15%. (e.g. 7,8% for the KBBE sector [food, agriculture, fisheries, biotechnology]). Consequences are a merely modest contribution of SME to innovation and accordingly smaller growth and weaker competitiveness of the SME sector [EuropaBio, 2010]<sup>18</sup>. This is particularly true for SME acting in the field of Cleaner Production as stated by the ACT CLEAN partners during the course of project.

Let us look at the recent development of EU policies and SME in this context:

**2010 strategy for smart, sustainable and inclusive growth Europe 2020:** The strategy recognizes improving the conditions in which SME function as an important task for European sustainable growth.

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF>

**An Integrated Industrial Policy for the Globalisation Era: Putting Competitiveness and Sustainability at Centre Stage** As one of seven flagship initiatives of the above mentioned strategy, this document acknowledges that the creation and growth of SME will be supported by measures making it easier for them to access credit, and helping them to internalize innovation as one of key actions for European industrial competitiveness.

[http://ec.europa.eu/enterprise/policies/industrial-competitiveness/industrial-policy/index\\_en.htm](http://ec.europa.eu/enterprise/policies/industrial-competitiveness/industrial-policy/index_en.htm)

18 EuropaBio. Improving SME participation in the EU Framework Programmes, 2010: [www.europabio.org/positions/general/2010-06\\_SMEparticipationinFPs.pdf](http://www.europabio.org/positions/general/2010-06_SMEparticipationinFPs.pdf). Accessed 21.07.2011

### *Who is responsible?*

Given the complex challenge of organising, managing and maintaining this policy-industry dialogue, its organisers need a thorough knowledge of the specific interests and capacities of the various spheres to be connected here as well as a good overview of the existing and lacking communication structures between them. Therefore, it seems reasonable to entrust this task to the leaders and experts on both sides – **ministries** and their **specialised agencies** on one hand, and **chambers** and **business organisations** on the other.

## 3.2 Improving Awareness of Cleaner Production solutions

Situation **awareness** is defined as the perception of the elements in the environment and current situation, the comprehension of their meaning and the projection of their status in the near future<sup>19</sup>. In order to be able to adopt and implement CP solutions, it is indispensable for SME to be aware of their existence as well as of the market opportunities and benefits, which may arise from their usage. The goal of this chapter will be to offer different methods that can evoke and raise the awareness of SME for environmental issues and market potentials of CP-innovations. In this respect, the ACT CLEAN partners have prioritized three instruments, namely:

- *Training Programmes on CP-Innovation and Sustainability*
- *Legislation, Green Public Procurement and Eco-labelling*
- *Integrated Management Systems and Corporate Social Responsibility*

### 3.2.1 Developing Training Programmes on CP-Innovation and Sustainability

The most important measure to evoke and raise the **awareness** of the business sector when it comes to environmental issues is to provide the key stakeholder with the **relevant information**. Hence this section will concentrate on questions regarding why and how best to inform and train the target group on CP-innovation and sustainability.

#### *Why is this important?*

Educational programs support regulatory and economic policy instruments, for example, by helping officials responsible for the implementation of a certain

policy, to better understand what drives the related development patterns. Thus, this is a promising way to condition the **effectiveness and costs of policy actions** taken to support CP-innovation and sustainability.

In particular, one should be aware of the crucial role **public authorities and agencies** have in putting innovative developments on track that may initially look costly and uncertain to their market impact, but that are definitely desired by the policy side. For this phenomenon, CP-innovation is a prime example. Given the sometimes troublesome work of convincing and connecting hesitant players, regional business development agencies should be equipped with the best available information and sound argumentation. They must display a comprehensive understanding of the issue at hand and should be able to respond to every partner by catering to their specific interests in an easy and pragmatic way.

**Different groups of actors within the business sector**, in particular multipliers, require a differentiated training approach. There are three **groups** the ACT CLEAN partners would like to address in the context of awareness, namely:

- *Personnel of banks*
- *Consultants*
- *Craftsmen and other intermediary persons working in and with SME*

Why the **personnel of banks** as a target group is of such an importance for the sustainable, eco-innovative and CP business, can easily be explained by their significant role within the business sector. The difficulties that SME often encounter in their dealings with banks have been widely described in literature. As a reason for this, one can identify with bank personnel, too, a lack of awareness for the significance of CP-innovative investment projects, and more generally speaking, for the need to broaden the view for new, innovative financing models transcending the rather short-term oriented business perspective that banks still tend to pass on to their employees.

Another important target group stated by the ACT CLEAN partners are **consultants** in the field of technology, business development and sustainability. Their role is very important given the above-mentioned lack of specialised knowledge with SME personnel beyond their core business. Accordingly, consultants can have crucial influence on SME business decisions, e.g. investment priorities. Here, of course, the consultants' own experiences, attitudes and preferences come into play. Also, it seems,

<sup>19</sup> Erlbaum, L.: Situation awareness: analysis and measurement. Crc Pr Inc, Mahwah. 2000, pp.5-6

many of them tend to hold similarly, risk-avoiding views as many bank officers. This is particularly true for business consultants and auditors, whose focus on financial and legal aspects of business tends to leave little space for the specificities of innovation in the field of Cleaner Production. Customized training programmes aiming to raise that target group's understanding of Cleaner Production technologies, risks and opportunities could **change such prevalent attitudes** which often fail to see the particularities of innovations and are therefore a stumbling block for the introduction of CP.

**Craftsmen** and other **intermediary persons** working in and with SME are seen as important multipliers. Their importance for SME is due to their high credibility, their knowledge of the specific needs of SME and the good position they hold for the practical demonstration of innovative CP technology solutions. Providing training courses for this target group will enable them to inform SME even better and more systematically about innovative solutions; given their technological background and hands-on way of working, craftsmen will probably be easier to convince of the benefits of CP-innovation than other groups, not least with regard to the tangible issues of material and resource efficiency.

### *What can be done?*

There are several kinds of training schemes appropriate for the above-mentioned target groups. Trainings on environmentally relevant and CP issues can be conducted via **short-term trainings** (1–2 days) for SME personnel. **In-house trainings** held on SME premises by external experts could be realized over a longer period as the experts would come to the companies regularly. The precise subject of the trainings should be defined mutually by the partners.

Another form of training could be **work shadowing programs** between two countries or regions: the more experienced region could send experts to the less experienced region several times in order to report about experiences in their region. In the following, representatives from the less experienced region could also visit their counterparts in order to observe their production processes directly in situ.

The following **good practice examples** concerning training programmes on CP innovation and sustainability have been gathered from the ACT CLEAN project partners:

**Italy: ECCELSA Project** – Environmental Compliance Based on Cluster Experiences and Local SME-oriented Approaches, [www.eccelsalife.it](http://www.eccelsalife.it).

**Czech Republic:** Seminars on sustainability of Ministries of Industry and Environment, ACT CLEAN seminars; Activities of the Czech Chamber of Commerce.

**Poland:** A Program of Cleaner Production Schools was developed by the Federation of Scientific-Technical Associations NOT ([www.programcp.org.pl/polccp.htm](http://www.programcp.org.pl/polccp.htm)) and the Central Mining Institute ([www.actclean.gig.eu/en/Eco-management/Cleaner-Production.html](http://www.actclean.gig.eu/en/Eco-management/Cleaner-Production.html)), within which hundreds of CP projects were implemented in enterprises and other organizations.

**Germany:** The Center for Resource Efficiency and Climate Protection (VDI-ZRE) for example offers throughout 2011 seminars on “Resource Efficiency Consultant Qualification” for consulting engineers, energy/business consultants and advisors as well as employees in SMEs, [www.vdi-zre.de/ueber-uns.html](http://www.vdi-zre.de/ueber-uns.html).

**Austria: ÖkoProfit** – seminars on sustainability and eco-efficient management, “Train the Trainer” Program, [www.cpc.at/oeko/oe\\_1-2-1\\_e.htm](http://www.cpc.at/oeko/oe_1-2-1_e.htm).

**Capacity-building seminars** within the action plan “Small, clean and competitive – a programme to help small and medium-sizes enterprises comply with environmental legislation”. These seminars support creating connections between environmental experts of business organizations, [http://ec.europa.eu/environment/sme/toolkits/training2010\\_en.htm](http://ec.europa.eu/environment/sme/toolkits/training2010_en.htm).

**Trainings for promotion of environmental technologies** organized for the Environmental Technologies Action Plan, [http://ec.europa.eu/environment/etap/etap/about\\_en.html](http://ec.europa.eu/environment/etap/etap/about_en.html).

### *Who is responsible?*

The key players responsible for the organization of the mentioned three types of trainings will be the **business associations** both **at national** and **at regional level**, together with the relevant chambers of commerce. Educational activities are also provided at the EU level though these tend to aim rather at specialists; however, **governments** can gather their expertise at national and/or EU level in order to create pools of consultants that provide information for enterprises according to their specific needs.

### **3.2.2 Strengthening Legislation, Green Public Procurement and Ecolabelling**

This section of the Transnational Agenda discusses the impact that legislation has on the behaviour of SME, as well as the question why it is important to take legislative actions in two particular fields, namely Green Public Procurement and Eco-labelling.

#### *Why is this important?*

An effective policy instrument to influence or link organizations and in particular SME for a **desirable purpose** is legislation. If properly implemented and enforced, it allows the member states and other policy actors such as the European Union to take **direct influence on the behaviour** of SME, through imposing obligations or providing incentives for environmentally-friendly behaviour.

The European Union has currently 27 member states with varying legislation systems. Legislation often sets requirements and incentives for SME, which are not only different across regions and countries but sometimes even conflicting with each other. This and frequent changes to legislation lead to **difficulties for SME** to keep track with relevant legal requirements and to comply with them. This is particularly true when an involvement of SME in a given process is either requested or inevitable or both.

Based on the priorities defined by the ACT CLEAN partners, this Transnational Agenda focuses on two sections – Green Public Procurement and Eco-labelling – that were identified as having great potential with respect to the role of legislation. We look at both fields from a double perspective: on one hand, regarding national legislation, concerning the actions that need to be taken by the national legislators in or-

der to make CP more attractive to SME; and on the other hand, with the aim of highlighting the importance of transnational cooperation between states for the purpose of implementation international agreements and European legislation in those fields.

#### *What can be done?*

An important tool for enhancing SMEs' readiness to act in a more CP oriented-way, is the active use of **Green and/or Pre-Commercial Public Procurement**. Promoting green public procurement (GPP), pre-commercial public procurement, product placement and price policy can stimulate the demand side – both public and private – for CP-innovation, e.g., they can **push demand** – not least by winning new potential customers – and at the same time **raise the general public's awareness** as a backdrop for innovative policies. Even though there are to a certain extent European guidelines when it comes to green public procurement within the member states, there still can be observed huge differences across the European Union as to their implementation.

A more **harmonized legislation regarding the GPP implementation** in this area would certainly open **new possibilities for foreign SME** to take part in tenders. On the other hand **guidelines**, setting higher CP standards for participating organizations, would necessarily lead to a more CP-related approach. It should be taken into account that differing and frequently changing legislation make difficulties for SME to keep track and comply with legal requirements. Existing online-tools such as e.g. GreenLex ([www.greenlex.hu](http://www.greenlex.hu)) in Hungary, developed during the ACT CLEAN project and Innovationsradar ([www.itb-hessen.de/innovationsradar](http://www.itb-hessen.de/innovationsradar)) in the German federal state of Hessen help SME in orientation about changing legal constraints.

Moreover, a certain way to influence SME activity in this respect will be to create **economic incentives for implementing CP** and/or acting accordingly as part of the legislation. However, such economic incentives would need to be of a considerable scale, i.e. be sizable enough in order to effectively stimulate SMEs' behaviour. (see also 3.3).

The second very important factor is the role of **eco-labelling**. Since 1978 when the German "Blaue Engel" (Blue Angel) first appeared, there has been a constant growth in the number of national (and international) eco-labels. The following table shows the launching of national eco-labels in selected ACT CLEAN partner countries.

There are a couple of **weaknesses** connected to the **eco-labelling system** in its current state. First of all, there are country specific criteria that have to be fulfilled in order for an organisation to be awarded the eco-label, which in most of the cases are of a very different nature in the different member states. In addition to that, national and European eco-labels often exist in parallel in one member state, setting nevertheless different requirements and prompting companies to consider which one of them to choose. There is also the question of the **meaning and importance** of national eco-labels for SME that act internationally. For instance, a Slovakian eco-label will probably not be well known in Italy and vice versa. This easily leads to **confusion** not only among business organisations, in particular SME, but also among customers concerning the different criteria. Likewise, it is difficult to assess exactly how popular is a national eco-label abroad, or the other way round, how popular is a foreign national eco-label in the domestic market.

**Table 1: International chronology of the introduction of eco-labels**<sup>20</sup>

Country	Name	Year
Germany	Blauer Engel/ EU Eco-label	1978/1992
Austria	Das Österreichische Umweltzeichen/ EU Eco-label	1991/1992
Italy	EU Eco-label	1992
Czech Republic	Ecologicky	1993
Poland	Eco-labelling System	1994
Slovak Republic	Environmentally Friendly Product	1996

**European Eco-label** is a voluntary scheme, which promotes market products and services that are kinder to the environment by awarding them the uniform logo. By the end of 2010, 1152 EU Ecolabel licences were issued in 22 groups of products and services,

[http://ec.europa.eu/environment/ecolabel/menus/about\\_en.htm](http://ec.europa.eu/environment/ecolabel/menus/about_en.htm)

**The Energy STAR** is a voluntary specific label, identifying appliances that meet certain standards regarding energy efficiency. It was originally set up in the USA. In 2001 the EU signed an agreement with the US Environmental Protection Agency to introduce the Energy Star in Europe as well, thereby recognizing each other as Partner in the ENERGY STAR programme. This allows potential partners in the European Union to sign up through the European Commission as the agency responsible for the EU ENERGY STAR,  
[http://ec.europa.eu/energy/efficiency/labelling/energy\\_star\\_en.htm](http://ec.europa.eu/energy/efficiency/labelling/energy_star_en.htm)

[www.label-online.de](http://www.label-online.de) – **Europe's largest online database on eco-labels and quality labels** guides you through the label jungle by providing consumers, companies and stakeholders with expert information and evaluations of more than 400 eco-labels, CSR codes and selected management standards and certification systems.

ACT CLEAN recommends identifying success factors for the acceptance of labelling systems across Central Europe. An improvement of the **European Eco-label** is also requested. In this regard it will be essential to make sure its requirements are equally implemented by each member state. However, it could also be considered whether not one European eco-label would be enough since this would

help **guaranteeing an equal quality for products and services**, regardless of their country of origin, if there are equal criteria in all member states. Certainly, such an alignment of criteria would have to be oriented towards the highest existing standards this way favouring certain existing national labels as benchmarks (for example the German *Blaue Engel*).

<sup>20</sup> Landmann, U.: Nationale Umweltzeichen im Zuge der Globalisierung von Wirtschafts-, Umwelt- und Sozialpolitik. Analyse und Perspektiven von Umweltzeichenprogrammen, 1999.

### *Who is responsible?*

The various actions discussed and recommended in this section, will have to be implemented under differing responsibilities. For instance, the creation of Cleaner Production standards within the green public procurement and of economic incentives for SME falls within the competence of the **(sub-) national governments**. However, these will have to cooperate with **European institutions** with a view to EU-wide policies and policy instruments including financial instruments and GPP measures. In addition, a **twinning approach** could be undertaken, when it comes to implementing European guidelines, offering less “experienced” member states the opportunity to learn from the more “experienced” ones.

On the other hand, the **national governments** are responsible for comprehending the national and European criteria of the different eco labels while the **European Union** should care for setting higher standards, promoting and making sure of the equal implementation of the criteria of the European Eco label.

With respect to improving Green Public Procurement activities, **national governments** should explore opportunities for expanding GPP by various levels and sectors of public administration in their countries. Particularly, the problem of existing barriers that limit or prevent SME from participation in public procurement should be addressed. Likewise, it should be also highlighted the role of the **European Union** in setting common standards and introducing transnational promotion elements. ACT CLEAN acknowledges and supports the recent EU initiatives to strengthen GPP in member states (see the box on the page 19). Joint actions should be taken with the member states when it comes to addressing the problem of the low participation of SME in GPP activities.

The following **good practice examples** concerning GPP have been gathered from the ACT CLEAN project partners during the course of the project:

**Germany:** Within construction project tenders, sustainable criteria have been mandatory since 2010, [www.bmu.de/produkte\\_und\\_umwelt/umweltfreundliche\\_beschaffung/doc/](http://www.bmu.de/produkte_und_umwelt/umweltfreundliche_beschaffung/doc/) and [www.beschaffung-info.de](http://www.beschaffung-info.de)

**Czech Republic:** Green public procurement is promoted by governmental degree No. 465/2010. Energy Audits are mandatory (Act No. 406/2000; Declaration 425/2004.) Pricing policy on produced electricity promotes renewable resources of energy.

**Poland:** According to the “Guidelines for Member States to set up Action Plans on Green Public Procurement” the Polish Public Procurement Office prepared the “National Action Plan for the implementation of green procurement for 2007-2009”; in June 2010 it presented the next plan for 2010-2012.

**Slovakia:** The “**National Action Plan for Green Public Procurement for 2007-2010**” gave SME new opportunities to sell eco-efficient products and CP-technologies. Also, public promotion and increasing awareness of GPP positively affected innovative SME.

**Slovenia:** The “**National Action Plan for Green Public Procurement 2009-2013**” gives priority to environmentally friendly products and services. Government offers a series of seminars and workshops on green procurement for public administration and general public.

**European Union and Green Public Procurement:** Through the Communication “Public procurement for a better environment” (COM (2008) 400)), the EU introduced a set of guidelines how GPP can strengthen innovation in environmental technologies, products and services. Also, the EU proposes creation of EU-wide common GPP criteria and indicators which can monitor progress of GPP policy, [http://ec.europa.eu/environment/gpp/index\\_en.htm](http://ec.europa.eu/environment/gpp/index_en.htm)

**EU Code of Best Practices for Member States** presents good practice examples how to increase SME access to public procurements, [http://ec.europa.eu/internal\\_market/publicprocurement/docs/sme\\_code\\_of\\_best\\_practices\\_en.pdf](http://ec.europa.eu/internal_market/publicprocurement/docs/sme_code_of_best_practices_en.pdf)

### 3.2.3 Promoting Integrated Management Systems and CSR

Both Integrated Management Systems (IMS) and the Corporate Social Responsibility (CSR) are considered to be of great importance for Cleaner Production.

#### *Why is this important?*

Integrated Management Systems are management systems that integrate all of an organization's systems and processes into one complete framework, enabling an organization to work as a single unit with unified objectives. One well-known type of IMS are environment-related management systems such as EMAS. In turn, Corporate Social Responsibility is defined as a concept where companies integrate social and environmental aspects into their business activities in collaboration with other parties on a voluntary basis.

Apart from the general assets such as improving environmental performance, those aspects of IMS and CSR can be of particular importance for SME that help to make internal processes more efficient in terms of costs and time, freeing capacities and enabling employees to acquire new knowledge.

#### *What can be done?*

To **improve the current situation** with regard to IMS and CSR, ACT CLEAN project partners recommend improving the state support system for a combined implementation of IMS and CSR in SME. So far what we observe among the member states is a usually separate implementation. This leads **to a general underperforming** of SME, mostly due to complicated and time consuming procedures.

Let us look at some already existing **good practice examples** concerning Integrated Management Systems and Corporate Social Responsibility that have been gathered during the course of the ACT CLEAN project:

**Slovakia:** The **ACT CLEAN National Report** emphasizes the need for implementation of Integrated Management Systems by SMEs. External support with this process is often necessary because most SMEs do not have enough own knowledge capacities.

**Czech Republic:** The **ACT CLEAN National Report** suggests that implementing Integrated Management System in SME is a future desired trend. This process should be based on properly implemented Corporate Social Responsibility. Current experience from Czech Republic indicates that IMS and CSR (often implemented in a simplify way) can support SME to focus on ecologic, social or economic standards.

**Poland:** The **Responsible Business Forum** promotes Corporate Social Responsibility among Polish business sector. It also supports for exchanging ideas and information on CSR and related topics. To achieve sustainable development in regional scale by permanent improvement of quality of environment, quality of life, pollution prevention and conservation of natural resources the integrated model of Regional Environmental Management System (REMAS) was developed and then initiated between 2002-2010 in over 100 communities and counties of pilot Silesia region thanks financial incentives, [www.actclean.gig.eu/en/Eco-management/description-of-remas.html](http://www.actclean.gig.eu/en/Eco-management/description-of-remas.html).

Regarding the use of Integrated Management Systems, the ACT CLEAN partners also recommend the **exchange of experience** on how to promote IMS within a member state. This could be achieved for example through a **bilateral exchange** between a country with no or a small experience in IMS (e.g. the Czech Republic and Poland registering “only” 25 EMAS organisations each) and a member state with an already larger record (like Austria with 281 and Germany 1393)<sup>21</sup>.

In this regard it is important to note that companies often do not see a visible effect coming out of their efforts to act by CSR standards and implementing IMS, since there often are problems with administrative and bureaucratic efforts (like in the Czech Republic). It is hence significant to **simplify the administrative procedures and to provide administrative incentives** like simplified permitting procedures and less frequent (site) controls.

#### *Who is responsible?*

**National, regional and local administrations** can induce a more frequent implementation of IMS and CSR in SME by setting financial and administrative incentives like e.g. a tax relief for a certain period for SME introducing IMS or CSR in an SME. In parallel, **SME** can strengthen CSR on their own, too. To start with, CSR does not need to be realised completely at a single blow. Basic measures such as setting and respecting ecologic, social or economic standards for the whole enterprise can be a promising first step towards a CSR culture within European SME.

The private sector and end-consumers have a significant role as well: requirements for IMS and CSR measures within a company set by the demand-side within supply chains, in the retail sector and by end consumers are strong incentives for implementing IMS and CSR.

## 3.3 Improving the Financial Framework

Financial and economic incentives play a major role for SME in terms of decision making with regard to significant investments in Cleaner Production innovation. Attractive financial incentives support the setting up and expanding of SME operations, and putting valuable resources into new staff or production facilities<sup>22</sup>. This chapter on financing issues in the context of fostering CP in Central European countries will therefore focus on three specific groups of instruments and measures that may help to meet SME financial needs and improve their financial basis, in order to increase their willingness to invest in Cleaner Production solutions:

- *Improving access to capital for SME*
- *Speeding up decision-making procedures for financial public support programmes*
- *Developing innovative financing instruments*

### 3.3.1 Strengthening Access to Capital for SME

The ACT CLEAN Transnational Agenda will describe what possibilities there are for policy makers as well as for private economic players to offer European SME an extended range of possible sources for capital and thus help them to **expand and/or to innovate their business further**. The goal is to improve SME access to capital that they need to invest in environmentally friendly CP technology.

#### *Why is this important?*

A lot of reasons can be named why SME should be granted easier, less bureaucratic and faster access to capital. First of all, **SME tend to hold only small – if any – own capital assets**, which for investments of any kind makes them more dependent on bank loans than larger enterprises. At the same time, due to that weak financial basis, they often have difficulties in providing **securities**. In the case of planned investments with a longer return-on-investment period, such as in case of Cleaner Production investments, banks are even more hesitant to lend money due to their habitual short-term business planning and risk aversion.

21 EMAS statistics for 30.06.2011. European Commission, Environment, [http://ec.europa.eu/environment/emas/documents/articles\\_en.htm#statistic](http://ec.europa.eu/environment/emas/documents/articles_en.htm#statistic). Accessed 09.09.2011.

22 Organization for Economic Co-operation and Development (OECD). 2006 Financing SMEs and Entrepreneurs. Policy Brief.

An additional, quite paradoxical, barrier can be the fact that the **investment sums** requested by SME as a rule are not very large and accordingly, dealing with these applications will not spawn high revenues for banks. So, apart from their general doubts about the return of credits, banks may shy away from engaging in small investments altogether. There obviously are discrepancies between this rather simple and traditional attitude of many banks on one hand, and the comprehensive and usually long-term policies as conceived by the policy level and implemented by public administration.

As one attempt at **bridging this gap** of views and expectations, governments have funded special financing lines e.g. for environment-related investments with the banks only managing the handing out of public money. But here, too, cooperation has often not been optimal since banks feel awkward playing a “public” role. So, even when SME managers overcome their likewise conservative habits and come to consider CP-related investments as a measure beneficial for their companies, the environment and society – which often is a complex process of its own, see the chapter on “awareness” – they cannot be certain to get the needed financial support from their banks.

In any case, the policy level remains crucial for overcoming the market failure and for acquainting all players involved with the **long-term perspective** necessary for this type of investments, as well as for promoting and supporting a public-private business culture.

### *What can be done?*

ACT CLEAN recommends the following tools to be applied or extended in order to improve the access to capital for SME:

- **Public-private risk sharing**, *developing and fostering market incentives for bank loans, guarantees, venture capital, private equity, business angels; in this context also the recommendation for early market support to overcome existing market failure for investments in CP and reduce risks for investors investing in CP-related R&D projects, e.g. innovation vouchers are an easy-to-implement support scheme for early market support (external financing). For specific financing instruments*

*and programmes, a joint transnational approach in the region could create a critical mass necessary for creating a market that is attractive enough for private investors.*

- **Economic and market incentives** *such as tax release programmes for Cleaner Production innovation activities within SME (internal financing)*
- **Public-Private Partnerships (PPP) Economic and market incentives** *such as tax release programmes for Cleaner Production innovation activities within SME (internal financing)*
- **Public-Private Partnerships (PPP)**

Fitting to this, at European level, a public-private partnership (PPP) policy was strengthened by the European Commission’s Communication – “**Mobilizing private and public investment for recovery and long term structural change: developing Public Private Partnerships**” [COM(2009) 615]. According to this document, PPPs can be used for supporting innovations, research and development as well as other tasks related to sustainable development. In this context, PPPs are important measures that provide for private actors’ participation in funding public services (as an additional source of capital) as well as taking responsibility and risks of socially important investments. Some **good practices** exist here that have been already applied in several countries, e.g.

**Austria: ÖkoProfit** is a well established and well functioning example of private-public partnerships which act for cleaner and more efficient production. This initiative was developed in Graz by local government, businesses and research sector. Ökoprofit is active on international level, through partnership with at least five European cities, [www.interreg3c.net/sixcms/detail.php?id=&template=projects\\_item\\_floater&\\_project=512&\\_map24sid=&\\_searched=&\\_currfloaterlang](http://www.interreg3c.net/sixcms/detail.php?id=&template=projects_item_floater&_project=512&_map24sid=&_searched=&_currfloaterlang).

### *Who is responsible?*

The recommendations contained in this section cover a spectrum of different tools which require the interference of the public hand such as **ministries** at national level and **European institutions** and **agencies** at international level. Moreover, the target group for these financial related policy recommen-

dations are **private financing institutions** such as **banks, investors, venture capitalists** and **business angels**.

The following **good practice examples** concerning public and market incentives for improved access to capital of European SME have been gathered by the ACT CLEAN partners during the course of the project:

**Slovakia:** The **Government Office** developed a state aid scheme to support SME that focus on investments projects and research in the field of environmental protection.

**Slovenia:** SME improving energy efficiency can be granted exemption from payment of environmental taxes. Also the acquisition of environmentally friendly products is a reason for tax relief.

**Germany:** (UBA/BMU); ERP-environment and energy efficiency for investments in Germany (BMW/KfW)

**Czech Republic:** **Czech Moravian Guarantee and Development Bank** program for SME – No cure, no pay arrangement for introduction of CP, [www.empress.cz](http://www.empress.cz)

**Poland:** In Poland a lot of eco-innovative projects are financed by the National Fund for Environmental Protection and Water Management (NFOSiGW, [www.nfosigw.gov.pl](http://www.nfosigw.gov.pl)) as well as by the 16 Voivodship Funds for Environmental Protection and Water Management and by the Polish Agency for Enterprise Development (PARP) in the framework of Poland's Operational and Regional Operational Programs.

**EU level:** The **European Investment Fund** (EIF) plays an important role in the EU financial support for eco-innovation activities of SME. A role of the fund is investing in venture capital and growth funds, mezzanine funds that support SME as well as offering guarantees and credit enhancement through securitization to improve the lending capacity of SME, [www.eif.org/what\\_we\\_do/index.htm](http://www.eif.org/what_we_do/index.htm).

**EU level:** The **Competitiveness and Innovative Framework Programme** (CIP) is an EU financial instrument aimed to improve access of SME (including start-ups) to finance. The major goal of the programme is to increase funding possibilities in the field of innovation, (<http://egnos-portal.gsa.europa.eu/business-support/financial-aids>).

### 3.3.2 Speeding Up Decision-Making Procedures for Public Support Programmes

The following section will concern the improvement of public support (funding) programmes.

#### *Why is this important?*

The well-known proverb stating that “**time is money**” is perhaps even more relevant for SME than for larger enterprises. Given their usually limited capacities – leading to habitual multi-tasking – and rather short production cycles, many smaller companies cannot afford checking complicated policies or programmes; likewise, their employees rarely have the time to attend seminars or conferences or actively search information in existing databases etc. In these circumstances, any additional activity – such as e.g. CP-related investments – means a major effort already regarding only the technical side; under no circumstances will SME managers want to dedicate themselves to unnecessary paperwork. Exaggerated bureaucracy is practically universally named by SME (not only) in the Central European countries as a major obstacle to obtaining public funding for investments on their part.

As indicated above, due to the problems that may arise from a purely business-related approach to Cleaner Production, **Public Support Programmes** are of crucial importance for prompting and supporting initiatives of SMEs in this field, possibly over a longer period of time. Therefore, political and administrative authorities that want SMEs to take action, should themselves take every possible measure to facilitate the procedures of application and decision-making regarding approval, funding or implementation. If information can be spread that authorities are actually helpful in these matters rather than erecting barriers, this may encourage other SMEs to engage in implementing Cleaner Production in their production processes.

#### *What can be done?*

From the perspective of the ACT CLEAN project partners, the policy level should first of all concentrate on **more transparent and faster decision procedures** in order to remove obstacles for many SMEs applying for participation in financial aid schemes. These postulates should be honoured by improving communication and information, decreasing the burden (time- and paper-wise) of bureaucratic and legal procedures [EuropaBio, 2010]. This is particularly important given that applying for European funding schemes often seems to be too complicated for many SMEs, which is why they often resign from applying altogether even if topically they would qualify for funding [UPEAPME, 2010]<sup>23</sup>. Such a **simplification policy** should among other things also concern the navigation of EU websites as well as websites of the national authorities dealing with European financial aid and dedicated to financial assistance<sup>24</sup>.

Those authorities developing public support programmes should also bear in mind that companies usually plan within a 5–10 years horizon; therefore, the **continuity of funding programmes** is one key criterion for investment.

#### *Who is responsible?*

**EU institutions** are responsible for developing framework policies and common principles for better access to public support programmes (particularly those established on the EU level). However, **national governments** have primary responsibility for their implementation. In many cases, also regional governments and **local administration** contribute to the process of implementation. **National authorities** should moreover create conditions for a uniformization of application procedures for European, national and, if possible, other programs for SME. **Business organizations** should advise public institutions for developing mechanisms of support delivery more suitable for SME.

23 European Association of Craft, Small and Medium-Sized Enterprises (UEAPME). 2010. UEAPME position on the upcoming revision of the Environmental Technologies Action Plan (ETAP) and towards the Eco-Innovation Action Plan. Position Paper.

24 EuropaBio. 2010. Improving SME participation in the EU Framework Programmes [www.europabio.org/positions/general/2010-06\\_SMEparticipation-inFPs.pdf](http://www.europabio.org/positions/general/2010-06_SMEparticipation-inFPs.pdf). Accessed 21.07.2011.

### 3.3.3 Creating Innovative Financing Instruments

This final section will concentrate on the importance and need of innovative financing instruments. Good practise examples such as the concept of revolving funds or chemical leasing will be presented.

#### *Why is this important?*

The development of alternative innovative financing instruments can help **prevent market failure**. This can stem from hesitance of the market to accept new products that, as happens often with environmentally friendly products, are initially – before an economy of scale sets in – costly in production and thus incur high market entry costs. Alternative and effective financing instruments may attract private investors; moreover, they may offer an alternative to classical bank loans given the aforementioned often difficult attitude of house banks.

#### *What can be done?*

The described task could be achieved through development and support of innovative financing instruments. One promising concept in this context are so called **revolving funds** as the “set up for specified purposes with the proviso that repayments to the fund may be used again for these purposes.”<sup>25</sup> For the EU, revolving funds are relatively new instruments of providing financial support for SMEs. A revolving Holding Fund operates e.g. within Jeremie (Joint European Resources for Small and Medium-sized Enterprises Initiative) and is managed by the European Investment Fund. The Holding Fund works as an umbrella fund, for which SMEs are final beneficiaries and the member states act as intermediaries<sup>26</sup>. In the case of the EU regional support programmes, for instance, revolving funds can use financial means repaid by initial beneficiaries (for exam-

ple SMEs) to support the next ‘wave’, thus leveraging the effect of EU financing means. Long-term experience of NEFCO<sup>27</sup> with its Facility for Cleaner Production, operated in the Baltic States, should be studied. Furthermore, there have been already successfully operated revolving funds using EU regional financing support programmes to finance investments in the field of energy efficiency in Estonia and Latvia.

Another promising innovative financing instrument is the so-called **chemical leasing** where the customer pays for the benefits obtained from the chemical, not for the volume of used substance itself. In this way, the customer avoids buying more amounts of chemical than he actually needs for his production, like is often the case in traditional business models<sup>28</sup>. The use of chemical leasing can significantly contribute to sustainability through resource efficiency and at the same time bring a couple of economical advantages. Thanks to this, an increase in sells is not an advantage for producers who instead seek economic interest in lowering consumption and cooperation with buyers. Chemical leasing pilot projects have been successfully realized in Austria since 2002. Currently, the first pilot initiatives are under implementation in Germany by the German Federal Environment Agency<sup>29</sup>.

#### *Who is responsible?*

The fields of action referred to in this section lie in the competence of **national governments, EU institutions** as well as the **financing institutions** and regional **multipliers**. Equally important is the participation of sectoral business associations that can provide knowledge on specific technological issues.

The following **good practice examples** concerning innovative financing instruments have been gathered from the ACT CLEAN partners during the course of the project:

25 Merriam-Webster, [www.merriam-webster.com/dictionary/revolving%20fund](http://www.merriam-webster.com/dictionary/revolving%20fund). Accessed 21.07.2012.

26 European Investment Fund, Jeremie. A new way of using EU Structural Funds to promote SME access to finance via Holding Fund, [www.eif.org/news\\_centre/publications/Jeremie\\_leaflet/jeremie\\_leaflet\\_2011\\_en.pdf](http://www.eif.org/news_centre/publications/Jeremie_leaflet/jeremie_leaflet_2011_en.pdf). Accessed 21.07.2011

27 Nordic Environment Development Fund. [www.nefco.org/files/NEFCO\\_CP115X210\\_lores\\_09092010.pdf](http://www.nefco.org/files/NEFCO_CP115X210_lores_09092010.pdf). Accessed 20.08.2011.

28 UNIDO, BiPRO, [www.chemicalleasing.com/sub/concept/payment.htm](http://www.chemicalleasing.com/sub/concept/payment.htm). Accessed 23.09.2011

29 German Federal Environment Agency.2011. Chemical Leasing -Example for resource and material efficiency. Background materials for the workshop on 06. June 2011 in Berlin.

**Czech Republic:** Revolving Fund of the Ministry of Environment: financial assistance through loans and grants for projects which have a positive impact on the environment and sustainable development.

**Poland:** The National Fund for Environmental Protection and Water Management (NFOSiGW, [www.nfosigw.gov.pl](http://www.nfosigw.gov.pl)) and the 16 Voivodship Funds for Environmental Protection and Water Management hand out preference loans and grants for projects that have a positive impact on the environment and sustainable development.

**Germany:** Stimulating role of High Tech Gründerfonds: [www.high-tech-gruenderfonds.de](http://www.high-tech-gruenderfonds.de) as well as a positive example from Saxony: Sächsischer Technologie Gründerfonds: [www.tgfs.de](http://www.tgfs.de).

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