PRESOURCE
PROMOTION OF RESOURCE EFFICIENCY IN SMES IN CENTRAL EUROPE

Innovative financing instruments for eco-innovation in Central Europe: Policy Recommendations

The EU project PRESOURCE aims at increasing resource efficiency, especially in small and medium-sized enterprises (SMEs) in Central European countries by identifying opportunities for improving and financing investments in eco-innovation. A particular focus of the project lies on innovative funding models such as crowdfunding, future funds, contracting schemes and equity financing. Through its development and promotion of the PRESOURCE Financial Guide and the Advanced Cost Benefit Analysis within the six participating countries - namely Austria, Italy, Hungary, Poland, Germany and the Czech Republic - PRESOURCE helps translate the added value of eco-innovation and resource efficiency measures into the language of capital providers.

1. The challenge of financing eco-innovation in Central Europe: key findings of the PRESOURCE project

- Lack of financial knowledge and internal know-how regarding suitable financing instruments for eco-innovation in SMEs in Central Europe[1]
- Lack of evaluation schemes that translate the added value of eco-innovation and resource efficiency measures in SMEs into monetary terms
- Lack of dynamic approaches to facilitate enterprise cost-savings by including changes to the commodity prices, e.g. integration of fluctuating prices for energy and precious metals due to global crises
- Considerable regional differences in Central European countries with respect to availability of tailor-made financing instruments for eco-innovation in SMEs[2]
- Barriers in regulatory framework conditions, such as double taxation for business angels or delays in the stimulation of law amendments
- Risky eco-innovations as seen from the capital providers' perspective due to significant capital requirements, highly perceived risks of market failure and a long investment duration

2. Current status of eco-innovation financing in Central Europe

SMEs are the backbone of the European economy. However, they often have serious problems in realising the necessary investments in eco-innovations to exploit their full potential for increased resource efficiency. Investments in eco-innovation are often only perceived as "environmental protection" and not as a profitable investments towards decreasing costs and resource dependency. Furthermore, SMEs are often unaware of their resource consumption and associated costs, such as the real costs of non-product outputs and the related (cost) reduction potential.

The evaluation of economic and environmental added value of eco-innovation - and resource efficiency measures in particular - is tied to a perceived high level of uncertainty regarding economic feasibility on the part of capital providers. Existing cost benefit approaches are not comprehensive enough to adequately assess environmental benefits and translate them into monetary values. Therefore, improved cost benefit approaches which more adequately consider environmental benefits are needed.

In addition, further innovative financing instruments could better support the uptake of eco-innovation investments in SMEs. There is a significant lack of knowledge in Central Europe regarding tailored financial instruments (relevant actors, investment criteria, etc.) and in particular regarding know-how on innovative funding models and related economic and social potential. Moreover, there are considerable regional differences with respect to the availability of various public and private funding instruments.

Finally, matchmaking tools and events for SMEs and capital providers are still rare, especially interactive formats in the field of eco-innovation, e.g. eco-investment-roundtables.

1 This observation corresponds with the findings EIM/Oxford research: http://ec.europa.eu/environment/ecoap/pdfs/0211_final_report_eco_innovation.pdf" p. 44 et seq.
2 Ibid.p.81 et seq.

3. Possible measures for addressing eco-innovation financing challenges

The following outcomes are based on expert interviews:

- "Enterprise stories" as validated good practice examples in financing should be promoted.
- Eco-innovation added value should be translated into the "language" of relevant capital providers through advanced cost benefit approaches, including managerial, economic and environmental indicators for the better transfer of technological knowledge and environmental impacts into economic terms[3].
- Easy-to-use tools for SMEs should be developed to show that real amortization periods may often be very short, e.g. through dynamic cost benefit analyses integrating changes in prices for resources such as energy or water. These tools should be developed in cooperation with relevant capital providers.
- Innovation funding models should be transferred and implemented in further European countries, e.g. by promoting good practice cases and transnational workshop formats on new financing schemes for eco-innovation that may close the gap between public and private funding instruments.

4. Supportive tools and channels to foster financing eco-innovation

- Advanced matchmaking tools and tailored events for SMEs as well as for multipliers and intermediaries should enable them to meet relevant capital providers in the region.
- The Resource Efficiency Atlas (www.resourceefficiencyatlas.eu) should be further developed as a one-stop-shop for SMEs and capital providers regarding news, good practice examples, networking and project initiatives in the field of eco-innovation in Central Europe.
- Roadshows on innovation funding models in Central European countries with particular focus on eco-innovation should be conducted to reduce the information asymmetry for SMEs.

5. Successful innovative financing instruments

The following instruments were identified during project implementation:

Against the background of declining willingness among public authorities to increase leverage of public funds and rising capital requirements for private banks (e.g. in the course of the Basel III regulations), innovative financing instruments seem to be a promising way of addressing the market gap between public and private capital. Moreover, they are an important piece of the puzzle for complementing the financing options for SMEs when it comes to realising eco-innovation projects.

Main advantages of innovative financing instruments:

- Tailor-made financing schemes
- Smaller scaled investments
- Transparent and easy-to-handle instruments
- Visibility of eco-innovation investments (e.g. crowdinvesting activities)
- Transferability to other countries and regions (e.g. equity financing schemes, micro-mezzanine funds)
- Basis for follow-up-investments as well as better house bank ratings
- Low minimum financing volumes

The following is a selection of relevant innovative financing instruments for eco-innovation:

- **Contracting**, a well-established financing instrument in Austria, Germany and Italy, is an alternative way of undertaking eco-innovation investments especially if SMEs lack funds. In Central European countries, energy performance contracting is already used in combination with municipalities. However, it is applied rather rarely among SMEs because Energy Service Companies (ESCOs) often consider it a high market risk in the industry sector. A new innovation funding model on a "no cure - no pay" basis was implemented in the Czech Republic and successfully piloted in industrial enterprises. The funding scheme was developed by ENVIROS in 2004-2006 under the name MT/ESCO within the context of the EMPRESS project, which was funded by the Global Environment Facility (GEF) and managed by the United Nations Environment Programme (UNEP). The scheme has proven beneficial for the uptake of eco-innovation implementation but its wider application in enterprises is limited due to the aforementioned problem of clients' business risk. In other countries such as Poland, Energy Performance Contracting is expected to become increasingly popular as public funding (EU grants) become more limited in coming years. However, improvements in the regulatory framework for this and other innovative financing mechanisms are indispensable.
- A further innovative funding model which plays an increasingly important role for financing eco-innovation projects – at the moment especially in Germany and Austria – is **crowdfunding**. Crowdfunding is particularly attractive for lenders given the small minimum investment amounts and simple processing. By spreading investments

3 Within the project an exemplary scheme was developed. For further information please visit www.resourceefficiencyatlas.eu.

across different projects the risk for an individual investor is lower and investors can build up portfolios with different crowdfunding allocations. However, in the beginning crowdfunding was perceived as competition to traditional bank loans. Recent criticism in this regard has brought about the development of new regulations for deposit protection and transparency. In this context, the European Crowdfunding Network (ECN) plays a key role in developing common quality standards, composing guiding principles and promoting good practice examples in Europe.

- The so-called **seed fund**, a joint public and private funding model in the Czech Republic, was introduced to explicitly support start-ups and growing businesses with innovation potential in the form of venture capital investments. This primarily involves investments that are of almost no interest, neither to banks due to associated levels of risk nor to traditional venture capital funds due to the small scope of investments. In addition to being financial resources, seed funds also provide necessary know-how for further development and company management.
- Another good practice example for innovative financing instruments is the Czech programme "**FINESA**", operated by the Česká spořitelna bank (www.csas.cz), which offers risk-sharing contracts for energy efficiency and renewable energy projects. The bank offers investment credits with a guarantee of up to 50% provided by the International Finance Corporation (IFC). The scheme results in easier access to finance, as the guarantee enables the bank to make credits available to a higher number of projects. Additionally, IFC provides technical assistance in the preparation of projects.
- In Germany, the innovative funding programme "**Micro Mezzanine Fund Germany**" (www.mikromezzaninfonds-deutschland.de) was established by the German Ministry for Economic Affairs and Energy in 2013 to provide innovative start-ups with mezzanine capital. The Micro Mezzanine Fund Germany contains a total fund volume of 35 billion euros and can provide each start-up with up to 50,000 euros. Mezzanine capital can be either structured as debt or preferred equity. Due to the fact that mezzanine capital is legally seen as economic equity, it enables start-ups to additionally receive debt financing, for example from banks. The Micro Mezzanine Fund Germany is managed by the NBank (investment and promotion bank of Lower Saxony) and the managed capital is provided by the ERP (special assets of the German Federal Government) and the ESF (European Social Fund).
- In Poland, innovative financing instruments of eco-innovation are at the initial stage of market maturity. This is largely due to the popularity of public grants, which are less risky and less expensive sources of innovation funding for SMEs. Between 2000 and 2009 Poland had the second largest increase in public spending as a % of GDP in the EU and the fourth largest among all OECD countries. In order to mobilise private investment in eco-innovation, in 2004 the National Centre for Research and Development in partnership with the National Fund for Environmental Protection and Water Management initiated the **GEKON programme** (www.ncbir.pl). The programme supports eco-innovation pertaining to unconventional gas technologies, energy efficiency, clean energy sources as well as waste and water management.

6. Policy recommendations

Based on the research findings of the PRESOURCE project the following recommendations for policy decision-makers can be formulated:

- **Joint investment readiness criteria and matchmaking tools should be developed by SMEs and capital providers to foster the uptake of eco-innovation implementation.**
- **Transparency through Europe-wide quality norms and standards should be increased. Europe-wide cooperation and mutual exchange on innovative financing schemes should be fostered (such as the European Crowdfunding Network www.europecrowdfunding.org).**
- **Mutual learning and information exchange should be initiated, enabled through matchmaking tools and brokerage events, roadshows, etc. to enable capacity building as regards energy and resource efficiency and related improvement possibilities in SMEs.**
- **One-stop shops should be established to inform enterprises about suitable funding instruments, capital providers and required conditions to enable in-house capacity building and eliminate information asymmetry for SMEs.**
- **A "market place of regional funding sources for eco-innovation" should be created as a co-working space for enterprises and capital providers supported by advisory expert groups in order to match supply and demand.**
- **Traditional and innovative financing instruments should be bundled, e.g. public, private and innovative schemes such as crowdfunding and banks should cooperate to satisfy demand.**

Innovative financing instruments: Success stories

1000x1000.at – Austria

The 1000x1000 crowdinvesting platform went online in March 2012 and can be considered the first crowdinvesting platform in Austria, providing equity-based crowdfunding. Unlike platforms like Kickstarter and Indiegogo, which only act in a reward-based mode, the equity-based crowdfunding investors receive an entitlement to participate in the profits and asset value of the company. However, the invested funds are venture capital and investors lose should a project fail. The 1000x1000 platform is based on three main pillars:

- Ideas for new projects or companies applying for crowdfunding
- Services covering the assessment of new projects or the support for realising mature ideas
- Capital, stating the basis for successful crowdfunding coming from interested investors.

An example of a successfully funded eco-innovation is the company Woodero. Woodero GmbH produces unique wooden tablet cases with additional innovative functionalities. Both the production of the cases as well as the material are 100% Austrian. Through crowdfunding on www.1000x1000.at Woodero raised 166,300 euros from 175 investors.

B.A.U.M. Zukunftsfonds - Germany

B.A.U.M. Zukunftsfonds is an innovative financing instrument that activates private capital to foster efficiency projects. In line with the acquisition of a cooperative share (100 euros), investors provide the B.A.U.M. Zukunftsfonds a loan for the remaining amount (min. 1,000 euros). Typically, the loan has a binding period of five years with an annual yield of 4 %. With this capital the B.A.U.M. Zukunftsfonds invests in energy-efficient facilities in SMEs, public institutions, cities and communities (summarised as end-users) such that the end-users save a certain amount of energy and pay less to the energy supplier. Throughout the term of the investment agreement the return of the energy savings is transferred to the B.A.U.M. Zukunftsfonds, who passes it on to investors as the interest rate. Alternatively, a part of the cost savings may immediately be paid back to end-users as a kind of rent for the space necessary to install the efficiency enhancing technologies. Thereby, the end-users realise cost savings from the beginning. At the end of the contract, the end-users may buy the facilities for a symbolic value allowing them to continue profiting from the energy savings. There is no possibility of a subsequent contract. Instead, the B.A.U.M. Zukunftsfonds attempts to save as much energy as possible to get high returns for savings and then withdraw from the investment.

The Climate and Energy Fund– Austria

The Climate and Energy Fund was brought to life in 2007 by the federal government to support the implementation of its climate strategy in the short, middle and long term. The owner is the Republic of Austria, represented by the Environmental Ministry and the Ministry of Infrastructure. The governmental strategies for research and technology, environmental protection and energy provide the basic essentials reflected in the programmes of the Climate and Energy Fund. Sustainability and efficiency are important cornerstones for all measures. The overriding factor common to all actions is the requirement to reduce national greenhouse gas emissions as quickly and sustainably as possible.

The sponsorship strategy of the Climate and Energy Fund law is oriented towards three target areas:

- Research and development in the area of sustainable energy technologies and climate research
- Boosting projects in public local and regional transport, environmentally friendly goods transport and mobility management
- Boosting projects that support the market penetration of sustainable energy technologies relevant to climate

From 2007 to 2013 a promotion volume of 847 million euros was implemented and in 2014 a further 141.5 million euros were budgeted. In doing so, the Climate and Energy Fund set the goal to achieve a broad effectiveness of its initiatives: Building up the model regions and demonstration projects thereby promises a high multiplication effect, achieved with a comparatively small outlay. Since its launch the Climate Fund has supported around 70,000 projects in Austria. Promotional efficiency is a central leadership goal of the Climate and Energy Fund management:

Imprint

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