



9th European Forum on Eco-Innovation

Financing the eco-innovators

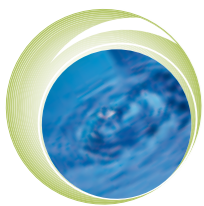
Case studies

Monday 29th to Tuesday 30th

November 2010

Plaza Hotel, Brussels

Access to finance is essential for the start up and growth of businesses in general and particularly for the development and successful exploitation of eco-innovation in Europe. However, there are many challenges faced by financial actors and small and medium-sized enterprises (SMEs) in this domain.



The case studies brought together in this booklet focus on the experiences of private enterprises, financial institutions and business intermediaries in eco-innovation financing. They demonstrate how eco-innovative entrepreneurs in Europe – principally SMEs and other entities looking for funding to grow in their markets – have managed to obtain and apply financing to develop real market opportunities.

Their experiences are intended to demonstrate current trends and best practice in areas such as harnessing public/private interactions for financing various stages of the innovation process. They also show the importance and relevance of the various actors involved: the financial actors that provide funds – such as banks, investment funds and agencies running financial programmes; eco-innovators – principally SMEs and other entities looking for funding to grow in their markets; policy makers; potential customers; and business intermediaries such as consultants and facilitators that are key to match demand and supply of available funds.

These case studies are intended to help share best practice and to form the basis of a constructive process to improve opportunities for eco-innovation as the key to the future prosperity and environmental health of Europe.

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ASSOCIAZIONE IBAN

GTIF: how to be successful by a cross-border Investment Forum

Brief description

The GREEN TECHNOLOGIES INVESTMENT FORUM - GTIF, organised by IBAN Association (Italian Business Angels Network) and the Swedish Business Region Goteborg AB provided a unique chance during which investors and entrepreneurs coming from Italy and Sweden matched. It took place in Milan on 11 February 2010.

Eleven “green” companies, selected by a panel of experts, pitched their activities to qualified investors, Business Angels, Seed and Venture Capital Funds. During the event, Italian and Swedish keynote speakers presented the strengths, weaknesses and opportunities of their national clean-tech markets.

All participating companies were given a marketplace area where they met investors during and after the event.

Target Audience

Business Angels, VCs, Banks, Regional Development Agencies, Technology Parks, Incubators.

Keywords

Matching – Networking – Cross border investments

Completed or Ongoing?

Completed

Organisational background:

IBAN is the Italian National Association focused on the development and growth of the Business Angels phenomena in Italy.

Contact

Paolo ANSELMO
ASSOCIAZIONE IBAN
Italian Business Angels Network
Via Borgonuovo, 5
20121 Milano – Italy
Tel: +39/02.89011207
presidenza@iban.it
www.iban.it

General Description

The financial and industrial downturn of these last months and the slump in prices of oil have had a deep global impact on investments in the so-called clean-tech sector. This shrinkage has affected the overall investment industry value chain, starting from the construction of new big system installations, to seed and venture capital.

In addition, the potential of the European Equity investment market is still under development and successful investments in knowledge based businesses will be one of the key factors of economic growth development. For these main reasons, thanks to previous experiences in the implementation of European co-funded Projects, IBAN Association in co-operation with the Swedish Region Goteborg AB, decided to promote a specific cross-border matching event during which seed and early stage knowledge based clean-tech companies presented their businesses to venture capital investors.

The main goal of this cross-border approach is underlined by the fact that, nowadays, the spread of innovation and the equity finance opportunities are not only local based. Co-operation is therefore needed and best practices should be shared, especially in the EU market area.

The solution provided did not imply a specific business model, but an innovative integration of different established solutions and ways of working and thinking. In this sense, the major barriers during the development and implementation stages of the project were linked to the different cultural approaches in terms of entrepreneurship between Italy and Sweden. In particular, there were different approaches to venture investors by entrepreneurs – different financial and technological environment.

The implementation of the Investment Forum did not require many resources. The business model, in fact, forecasts a strong relationship between local public sponsors, institutions and specialised press.

The innovative approach of the GTIF Investment Forum involved setting up a specific marketplace in which entrepreneurs, investors and trade operators could come together to establish networking opportunities. One of the most important things to recognise, in the venture capital market, is that investors do not join a new business only with equity finance, but also, and

this is particularly true for Business Angels, with competences, key contacts, past experience. The events are designed to ensure the right investors are matched with the right entrepreneurs.

Outcomes

The GTIF Forum can be considered a great success. The event managed to bring different actors from the financial supply chain together to tackle various economic and social needs. The project benefited from the cross-border dimension of the event, and the input of a qualified foreign partner with a particular expertise in clean-technologies (i.e. Region Göteborg). In addition all selected companies that pitched to investors had the possibility to obtain a free of charge financial check-up by an important Italian Bank Group, that is setting up a specific Energy desk on behalf of its investing strategy.

In summary, the Forum adopted a multi-level business model that brought together: matching; networking; cross-border links; and specialised financial and technological partners. Positive feedbacks received at the end of the Project convinced the organisers to continue along the path of segmentation and specialisation of investment opportunities and to have an open mind approach in terms of establishing key co-operation relationships in Europe, sharing innovation and different added values.

BIOLASE

From patents to plants

Brief description

Early stage start-up ventures

Keywords

Biologic Sludge reduction; early stage start-up

Completed or Ongoing?

Ongoing

Organisational background:

Biolase S.p.A. ("Biolase"), headquartered in Milan, Italy, and founded in March 2010 holds a unique patented technology (patent pending) named CSR (Chemical Sludge Reduction) which can address what is currently the major concern of the wastewater treatment industry: the disposal of excess sludge, its ecological footprint and rising costs.

Contact

Giorgio Padula
Biolase
Viale Ortles, 22/4
20139 Milano Italy
Tel: +39 3497268755
Giorgio.padula@biolase.it

General Description

Driven by both the regulation and the general behaviour which are calling for less invasive wastewater management, the need and costs for excess sludge disposal are already very significant (costs can be up to 50% of wastewater treatment companies cost base) and expected to increase in the coming years. Biolase's technology can reduce the amount of sludge to be disposed by up to 90% in volume and most importantly it can deactivate the sludge bacterial components enabling a cost effective disposal.

The CSR technology is the result of 8 years of intense research and testing; it can retrofit existing plants and relies on simple yet unique mechanical and chemical processes that require mainly standard chemical reactants and very limited supervision for a fast and easy integration in existing wastewater treatment plants. In addition, the CSR technology can treat sludge from a wide range of both civil and industrial plants; it is clean, with no emission; it is a low temperature operation; it does not require large capex investments upfront of course depending on the situation.

In a large market representing several billions euro and with very limited competing offers available, Biolase aims at becoming a leading innovator in the sludge treatment arena, dramatically changing the wastewater ecological footprint. Biolase is currently working with its first customer – a multi-utility based in the Lombardy region in Italy – on the development of their first full scale installation which will be operational in early 2011. Biolase is also in talks with other potential customers which have demonstrated a strong interest in the CSR solution and specific agreements will be developed starting in 2011.

Biolase top management includes:

- Giorgio Padula, Co-founder, President and CEO. Mr. Padula is an experienced professional with both strong management skills and technical expertise in the chemical industry. He holds a degree in Chemical Engineering and a masters in Energy Management from the University of Genoa, as well as a Master in Business Administration from the Bocconi University in Milan. Mr. Padula held various managerial positions within Montedison, McKinsey&Co, Value Partners and A.T. Kearney. Before joining Biolase he was the COO of Ansaldo Sistemi Industriali - Patriarch LLC.
- Michele Montemurro, Co-founder and CTO. Mr. Montemurro is an experienced Researcher and recognised expert in the wastewater treatment industry. After graduating as a Chemical Engineer, he started his career as a Researcher and Director of Laboratories at SNIA BPD Colleferro. He then joined SNIA Casa as Technical Director before holding the position of Director at IBLA. He also held the COO position in several medium sized companies.

DESSO

Euro C2C Carpet Chain
New Carpet Recycling Services BeNeLux,
UK, France and Germany

Brief description

Closed loop Manufacturing converting used carpet back into raw materials for carpet industry reducing the use of virgin crude oil based raw materials.

Keywords

Closed Loop Carpet Manufacturing, Cradle to Cradle®

Completed or Ongoing?

02/06/2010– 02/06/2013 (36 months)

Contact

Marco van Bergen
Desso, The Netherlands
E-mail: rdaelmans@desso.com
Tel: +31 (0) 416 684 100
www.desso.com

General Description

At present, large quantities of scrapped carpet end up in the waste processing industry. As a Cradle to Cradle® Company, DESSO acknowledges its responsibility to safeguard valuable raw materials and has therefore initiated the DESSO Take Back™ and recycling programme in six European countries (Benelux, France, Germany and the UK). With this programme, DESSO aims to divert carpet from either landfill or incineration by taking back used carpet material, which will subsequently be reprocessed using the most superior technologies and turned into raw material for new carpets. As of 2013, DESSO has committed to take back at least 16Kton carpet waste annually from the market.

- Cradle to Cradle® design is about creating continuous cycles of both biological and technical 'nutrients'. This means that products are made from positively defined materials that are safe for humans and environment and are easy to disassemble, in order to create new products. The annual contract carpet consumption in the EU is over 400Kt/year, and a substantial amount thereof is either sent to landfill or incineration. To safeguard these 'nutrients', DESSO has set itself the target to take back and process 4% of this amount annually by 2013.
- DESSO is committed to take back at least 16Kton carpet waste from the market. 50% of this amount will be dispatched to material recycling in the DESSO Refinity® Pilot Plant. Refinity® is an innovative separation technique enabling the yarn and other fibres to be separated from the carpet backing. This will reduce the need for virgin materials by 8000 tonnes, with the other 8000 tons being derived from landfill.
- The Refinity® pilot plan will be used for sorting and separating of carpet waste into light and heavy fractions. The light fractions will be pure enough to be depolymerised from nylon 6 into Caprolactam. The heavy fractions will be recycled in road surface applications.
- Previous industry attempts at setting up carpet collection and recycling programmes have been unsuccessful. DESSO's innovative approach will overcome the barriers of low volumes or high exploitation costs, and its Cradle to Cradle® strategy ensures that all activities have ecological, social and economic benefits. For DESSO, the funding from the European Union will play a key role in helping to accelerate this process.

EIM

Business/ earning models to scale up eco-innovations by SMEs

Brief description

This session focuses on the financial economic issues of the various business models for eco-innovations used by SMEs

Target Audience

Investors, entrepreneurs, government

Keywords

Finance, business models, eco-innovation

Completed or Ongoing?

Ongoing

Organisational background:

EIM Business & Policy Research (EIM B.V.) is an independent research and consultancy organisation based in the Netherlands with about 70 regular employees and forms part of the Panteia Group. EIM Business & Policy Research has been carrying out policy research on enterprise issues for more than seventy-five years. EIM provides its clients with the information and analysis necessary to develop, monitor and evaluate their policies. In addition EIM offers advice and assistance when implementing such instruments and policies.

EIM's clients include international, national, regional and local authorities, employers' organisations, trade unions, umbrella organisations, trade associations, banks and others.

EIM specialises in the following types of projects:

- Policy analysis, case studies, sector analyses
- Feasibility studies, evaluations, monitoring, benchmarking
- Management and analysis of statistical data sets and economic models
- Business impact assessments, and administrative burden studies
- Managing large international projects.

Contact

Coen Bertens
EIM
Bredewater 26
Tel: +31 793430200
cbe@eim.nl
www.eim.nl

General Description

So far few studies have dealt with the issue of business models, in particular the earning models, in eco-innovations. EIM recently started a research project on this issue financed by both the Dutch Ministry of Infrastructure and Environment and Agentschap NL.

This study sets out to answer the following questions:

- in what way are business/ earning models of eco innovations different from 'regular' innovations?
- what kind of business/ earning models are successfully used by small and medium sized companies to scale up their eco-innovations?
- in what way do funders stimulate eco-innovations and what is the role of the business models in this process?
- which policy opportunities are connected with business models for eco innovations? How can governments stimulate these business models?

We will look at single companies in both business to business markets and business to consumer markets, but also at more complex models of cooperating companies.

Outcomes

This session consists of a presentation of the preliminary results of an ongoing study and of the remaining research activities. Different aspects concerning the questions mentioned above are discussed with the participants. The aim of this session is to gain a better insight in the factors/ aspects that determine a successful business/ earning model to scale up eco-innovations. These factors imply both decisions/ choices of entrepreneurs and government policy. Case studies are part of the study but are part of the remaining research activities.

INTESA SANPAOLO

A large set of solutions to support companies investing in ecoinnovation and sustainable business.

Brief description

Intesa Sanpaolo has developed a wide range of financial solutions to support companies investing in renewable energies and ecoinnovations. Moreover, the Bank has promoted new initiatives to ease the dialogue between investors and innovative companies in the Energy and Environment fields. All this has been achieved since it is the company's opinion that there are substantial opportunities to profit from investments in sustainability, energy efficiency and adaptation to climate change.

Target Audience

Companies, financial institutions

Keywords

Investments – Investors – Start Ups – Financial products

Completed or Ongoing?

Ongoing

Organisational background:

Intesa Sanpaolo S.p.A., is one of the leading banking groups in the Eurozone, with a market capitalisation of 30.01 billion euro and 19.9 million customers in Italy and abroad.

Contact

Cristina Piai – Paola Laiolo
Intesa Sanpaolo S.p.A.
International Regulatory
and Antitrust Affairs
Square de Meeus 35
1000, Bruxelles
Tel: +32 2 6400080
Cristina.piai@intesasnpaolo.com
paola.laiolo@intesasnpaolo.com
www.intesasnpaolo.com

General Description (Context/Action):

In order to support Italian companies and public administrations in addressing climate change and boosting renewable energies the Intesa Sanpaolo Group has since 2006 offered a **specific pipeline of financial products and services**. These financial products cover up to 100% of the investment with a loan period of up to 15 years. The aim is to promote energy savings and the use of eco-compatible systems, such as hydroelectric, wind, solar thermal panels, photovoltaic installations, biomass and co-generation.

- **Participation, as equity investors or internal advisors, in energy and environmental projects** is another primary business objective for the Intesa Sanpaolo Group. As an example, the company has invested in Novamont SpA, an Italian chemical company which develops a new generation of products made from renewable raw materials of agricultural origin.

1. Through its Corporate and Investment Banking Division, Intesa Sanpaolo has recently organised a **StartUp Initiative in the Clean Tech field**. This initiative is designed to bring start-ups and investors closer through focused training, seminars and business games.

- Through **Intesa Sanpaolo Eurodesk Spri**, our dedicated structure in Brussels, we assist companies in accessing EU funds for R&D and technological innovation, with special focus on energy and environment. We also take active part in some projects funded by the EC, i.e. two projects under the Energy Efficient Buildings European Initiative (E2B) and the new Europe-China Clean Energy Centre (EC2). Intesa Sanpaolo Eurodesk will contribute to these projects by exploiting the long expertise of Intesa Sanpaolo in analysing and understanding financing needs, defining business models and assessing the commercial potential of new technical solutions.

- Moreover, our Bank is committed to **take environmental risk into account in the credit assessment process**. In this regard, in 2006 the Intesa Sanpaolo Group adopted the Equator Principles, a set of guidelines established by the International Finance Corporation to ensure that the projects we finance are socially responsible and reflect sound environmental management practices.

Outcomes (Environmental, social, economic impacts):

What is the impact on carbon emissions/waste/recycling/water consumption etc.?

Through our 'green' financial products we help customers to purchase more efficient homes and appliances and invest their deposit in climate-friendly ways. Moreover, by incorporating formal environmental risk management procedures into our lending policies our bank operates as a driver of sustainability in the private sector, since companies have more reason to pursue environmentally and socially sound solutions.

What is the main strength of this approach?

Since there is a high degree of interdependency and complexity in financing climate change and environmental technologies, we have decided to develop an integrated approach, putting forward a set of solutions to target the different stakeholders involved in the eco-business (start ups, SMEs, large companies, families, public authorities, Universities and research centres,...).

What is of particular interest or innovative about this approach?

Intesa Sanpaolo Eurodesk and Intesa Sanpaolo Start Up Initiative represent two innovative bank means to ease and boost the dialogue among the financial, entrepreneurial and academic world. The involvement of a bank in EU funded R&D projects gathering universities, research centres, companies, provide a valuable platform for discussion, exchange of information and best practices. Training and preparing high tech start ups to deal with potential investors, acting as a super partes actor able to co-ordinate the energies of all the stakeholders involved, represent an innovative role for a traditional financial institution.

How do you evaluate if you have been successful? What evidence do you have?

The pipeline of financial products to finance energy efficiency and sustainable investments has been much appreciated by Italian companies, particularly SMEs, and we received plenty of requests for funding. The Start Up initiative scheme has been such a success that Intesa Sanpaolo has already organised five editions in 2010, with different thematic focuses.

What kind of feedback did you have and how will this change your project in the future?

In order to improve the support of companies investing in eco-innovations, we believe it will be important to adopt a long term and policy-driven strategy, agreed upon by different stakeholders and based on a mix of subsidies, venture funds and small and flexible financing instruments. Public private partnerships involving institutional, technical, financial and social stakeholders are probably the right scheme to build synergies and leverage resources.

PROTECTOR

Converting rendering by-products into added value natural products and resources

Brief description

A Swedish-Hungarian SME company has developed an innovative zero-emission animal by-products recycling technology for added value conversion of waste materials into high grade natural carbon products by integrated pyrolysis and biotechnological means. The PROTECTOR ecoinnovation (2009-2012) is first industrial application of the EU projects (<http://www.3ragrocarbon.com/3r-project-references>).

Target Audience

Financial investors, animal by-product rendering industry, low input and organic horticultural farming, authority, policy makers.

Keywords

Pyrolysis, carbon, soil biotechnology

Supporting info

[Http://www.3ragrocarbon.com](http://www.3ragrocarbon.com)
<http://www.terrenum.net/ecoprotector/>

Completed or Ongoing?

Ongoing

Organisational background:

Pyrolysis and zero emission carbon-refinery international knowledge, RTD and engineering centre.

Contact

Mr. Edward Someus
 Terra Humana Ltd.
 Szechenyi str. 59.
 H-1222 Budapest
 Tel: +36 20 201-7557
 edward@terrenum.net
[Http://www.3ragrocarbon.com](http://www.3ragrocarbon.com)

General Description (Context/Action):

Phosphorus is an essential, critical and limited nutrient in crop production with no alternative substitutes. Today agriculture relies on phosphorus fertilizers mostly processed from mined phosphate rock which is contaminated with Cadmium and Uranium heavy metals. A non-renewable resource, it takes 10-15 million years to form and current known reserves are likely to be depleting within decades. The quality of phosphate rock is continuously declining: the concentration of P₂O₅ in mined P rock is decreasing; and the concentration of associated heavy metals is increasing.

The goal of this approach was...

The added value upgrading and valorisation of food/agro industrial organic by-products into safe and useful soil amendment products by integrated thermal and biotechnological zero emission recycling means, primarily used in the horticultural industry for safe vegetable productions.

What resources were required?

The PROTECTOR project is based on proven, transferable and adapted applied scientific research and industrial engineered development results from the EU FP5-FP6 RTD projects and targeting the ECOINNOVATION first industrial demonstration of the solid state fermentation and formulation component.

Which barriers did you encounter during development and implementation stages?

Two years own pre-financing is needed for the pilot plant implementation, while most of the costs are coming up in year 1.

Did the solution imply new organisational or business models?

Development of investor oriented business model and strategy is required for the wider utilization of the PROTECTOR technology.

Did the approach lead to new ways of linking providers and beneficiaries?

The PROTECTOR technology provides a new perspective and technological solution both for the waste generators (slaughterhouses, rendering industry) and agricultural producers who can use the recycled product (P fertilizers) as an environmentally friendly agriculture resource.

Outcomes (Environmental, social, economic impacts):

The PROTECTOR is a zero emission process which provides carbon negative and resource saving product applications.

The main strenghts of the PROTECTOR technology are:

- Zero emission environmental performance,
- meets all strict and comprehensive environmental US/EU norms and standards beyond the year 2015,
- provides a broad range of high value output products with market demanded performance,
- revolutionary technical solution for the rotary kiln sealing provides totally closed and totally safe technology,
- energy self sustainability and
- high economical waste valorisation rates with short return on investment.

The Terra Humana Ltd core profile is coal and carbon recycling and reuse, for which it has developed an innovative thermal recycling treatment system for high temperature 850°C carbonisation of the phosphorous rich bone meal and integrated to innovative Solid Substrate Fermentation Technology. The added value upgrade of the waste to plant available mineral nutrient product is achieved by integrated thermal and biotechnological means. The production and use of animal bone char mineral for a biotechnological solid carrier is a highly innovative carbonisation method and product. The patented PROTECTOR carbonization technology is the only known technology which is capable of carbonising organic material up to 850°C material temperature. The end product is specifically manufactured for biotechnological adaptation purposes, while pyrolysis gas-vapour by-product is reformed by catalytic conversion to clean bio-fuel energy.

The technology provides a cost effective, energy efficient and safe solution for the utilisation of the rendering by-products and generates wide range of market oriented product, while offering high ROI.

A detailed authority permit test investigation was carried out (from 2005 to 2008) by different independent and accredited departments from the Soil and Plant Protection Authority under EU legislation for safe food vegetable production. The PROTECTOR product successfully received a full scale application permit for open field and greenhouse vegetables cultivation in conventional, low input and organic system. Both the technology and the product have been successfully permitted and tested.

START GREEN VENTURE CAPITAL

Brief description

Managing Partner of Start Green Venture capital (Start Green). Objective of Start Green: to commercialize cleantech by providing 'Smart Seed Capital' to early stage companies. This by create accelerators, guide growth and avoid barriers. Lessons of eco-innovations from a Venture Capital perspective.

Target Audience

Entrepreneurs, policy makers and financial institutes.

Keywords

Seed Capital, Venture capital, Clean tech

Organisational background:

Start Green Venture Capital is a specialized Venture Capital firm, which provides Smart Seed Capital to early stage clean tech companies.

Contact

Coenraad de vries
Flevolaan 41
The Netherlands
Tel: +31(0)35 6958120
Mobile: +31622608923
Coenraad@startgreen.nl

www.startgreen.nl

General Description

Finance and guide early stage clean tech companies in their growth path to the market.

The goal of this approach was...

Structure a fund that could combine financing with business development and provide the small companies with the essential support, network and equity to develop IP to first products.

What resources were required?

Funding of institutional investors, government support (Dutch ministry of Economic affairs) and good team with knowledge of business development of small companies.

Which barriers did you encounter during development and implementation stages?

Getting funded was difficult (early stage companies are for most institutional to risky), for the investments it is also very difficult to arrange bank financing, even after commercial products are ready for the market. Lots of ideas and IP but hard to find good entrepreneurs. EU is really lacking behind on entrepreneurship. Due different legislation in EU countries there is in many case not a large home markets (if you start in smaller EU country).

Did the solution imply new organisational or business models?

On the funding site: creative structures, institutional financiers which courage and hard work.

Did the approach lead to new ways of linking providers and beneficiaries?

We need entrepreneurs to solve a big part of the environmental problems. This because universities are not capable of commercialize IP/Knowledge and large corporations can but wont do is because new products usually harm their current market positions. This beside the problem that bigger systems are built on paradigms which will not easily recognize a new innovation. So to speed the necessary clean mass consumption we need ENTREPRENEURS! And SEED financing to support them.

Outcomes (Environmental, social, economic impacts):

What impact did it have on carbon emissions/waste/recycling/water consumption etc.

10 new clean tech companies with innovative and sometimes breakthrough technology in renewable energy, small wind, PV performance, Green/Biogas and building systems.

What is a main strength of this approach?/How does it make things better?

Besides the environmental benefits it also creates jobs and stronger SME networks. It also enhance the local knowledge-circles (Universities and research institutes).

What is of particular interest or innovative about this approach?

Combinations of institutional funding and knowledge to guide and support entrepreneurial clean tech invention.

How did you judge if you had been successful? What evidence do you have?

10 participations, first market entry with 4 new products and request from institutional funders to set up new growth funds.

Why would you recommend this approach?

Because of the combinations of environmental improvement and job creation (economic -improvement).

What kind of feedback have you had and how will this change your project in the future?

Start small, and then with some success upscale. Look for good people combined with IP and only for commercial valuable IP.

WHEB Ventures

Pioneers in European Clean Technology Investing for profit in the cleantech market

Brief description

WHEB Ventures is a pioneer among the cleantech VC firms in Europe. Our investors include the European Investment Fund, Hermes GPE, a US public sector pension fund of funds, a bank and a variety of American and European family offices. Very few European cleantech specialist VC firms have been in business long enough to be investing their 2nd fund as we currently are.

Target Audience

Any cleantech firm in revenue with high growth potential looking for funding. Also of course potential fund investors who wish to invest in the cleantech segment.

Keywords

Cleantech Investment

Supporting info

www.whebventures.com

Completed or Ongoing?

Ongoing since 2002

Organisational background:

- Team with 20 years of pioneering activity in the cleantech sector.
- Blue chip venture capital (post seed stage) and expansion capital experience.
- Industrial and entrepreneurial track records.
- Award winning technology commercialisation track record.
- Extensive government policy advisory work (UK, Germany and EU).

Contact

Joerg "George" Spierling
Maximilianstraße 36
80539 München (Munich)
Germany
Tel: +49 (89) 122 2808 20
joerg@whebventures.com
www.whebventures.com

General Description (Context/Action):

WHEB Ventures is a privately owned investment fund with offices in London and Munich. The investors of the fund are seeking high financial returns by taking equity stakes in private companies. The WHEB Ventures investment team identifies such high growth potential companies in the cleantech sector across Europe and makes equity investments as minority or majority shareholder.

WHEB Ventures is currently investing from its second fund which has a size of 125M Euro. The fund invests between 5 and 7M Euro per company and achieves its financial return by exiting these investments after 5-7 years either via trade sale or IPO.

WHEB Ventures makes investments in the following sectors:

- Renewable energy generation (e.g. bio-fuels, solar, wave/tidal, wind)
- Energy efficiency and storage
- E-mobility
- Smart grids and smart meters
- Innovative "green" Materials
- Sustainable Industrial efficiency
- Chemical-free agriculture
- Waste Collection, Recycling, Waste Treatment
- Water Filtration, Water Flow technologies, Water Treatment, Water Usage efficiency

WHEB Ventures believes that the only way to attract meaningful investments in the sector is by offering high financial returns. We do not believe that a "philanthropic" investment approach in green technologies is sustainable and can offer high impact.

We apply the same philosophy when we make our investments. The companies we invest in must offer services and products that offer an economic benefit to their customers and not just an ecological benefit. For example we would not invest in a manufacturer of a "green" consumer product that is eco-friendly but is more expensive and has lower performance than its comparable "dirty" alternative.

The goal of this approach was...

Offering investors superior financial returns while making ethical investments in the sustainability segment.

What resources were required?

- Patient investors with a strong belief in the sector
- A very experienced team that can identify the best growth stage investments across Europe
- A team with the ability to offer hands-on assistance to the portfolio companies
- A great network of people in the industry

Which barriers did you encounter during development and implementation stages?

- Finding the right people for the investment team
- Finding investors
- Finding the right target companies to invest in
- Finding good management teams to lead the portfolio companies
- Changing legal and commercial framework
- Dealing with a market place of exceedingly global nature

Did the solution imply new organisational or business models?

- Yes, one had to pair classical private equity investment experience with the market understanding of a developing sector
- Significant education of investors was needed to attract them to such a concept

Outcomes (Environmental, social, economic impacts):

- Through our investments we have assisted in the creation of hundreds of jobs
- Our investments are screened by third party organizations for "eco friendliness"
- Our companies are feeding tax money back to their respective governments across Europe

ZENIT

Helping SMEs address EU climate policy – ZIM Programme and EMO Project

Brief description

Assistance and funding for SMEs in (eco)innovation projects

Target Audience

All organisations which support SMEs in the area of environment, e.g. consultants, chambers of commerce, technology centres, researchers in universities and institutes, public bodies, ministries, approval and authorisation bodies, utilities, programme planners and administrators, sectoral organisations, multipliers, and SMEs.

Keywords

SMEs, funding, environment, business development

Supporting info

www.zim-bmwi.de
www.emo-net.de
www.zenit.de
www.nrw-europa.de

Completed or Ongoing?

Ongoing

Organisational background:

ZENIT is a public-private partnership founded in 1984, which is specialised in consulting services in the areas of innovation and technology for SMEs and other organisations in North Rhine-Westphalia, Germany.

Contact

Peter WOLFMAYER
 ZENIT GmbH
 Bismarckstrasse 28
 D-45470 Mülheim an der Ruhr
 Tel: +49-208-30004-31
wo@zenit.de
www.zenit.de

General Description (Context/Action):

The support which SMEs require is two-fold. Support in the shape of access to information, advice, contacts, technologies, etc., i.e. non-financial support, is only one side of the coin. Financial support, e.g. access to loans, grants, subsidies, guarantees etc. is equally important.

In the framework of its NRW.Europa project within the Enterprise Europe Network, ZENIT supports the innovation and technology process through provision of early-stage information, mediation of partnerships, technology transfer, help with R&D proposals, as well as assistance in sourcing funding and finance.

Since 2008, ZENIT has also played an instrumental role in advising enterprises on the ZIM Programme of the German National Government (Ministry of Economics and Technology). This “Central Innovation Programme” offers support to SMEs in their innovation endeavours, including eco-innovation. The objective is to stimulate innovation and to co-fund innovative projects as an investment in the future and in a non-bureaucratic way. Concretely, ZIM aims to strengthen the competitiveness of SMEs by encouraging more market-oriented R&D, support enterprises by bearing part of the technical and economic risk connected to R&D, enhance co-operation between business and science and initiate more experience in networking, with foreign partners too, and finally to generate results with good market potential. Each project is awarded up to 350.000 Euro, with a total programme budget up to 2013 of 325 million Euro.

ZIM comprises three pillars, one of which is the Network Support Module (NEMO). EMO (Energy-optimised Modernisation of Industrial Furnaces) is an example of such a network. It comprises eight SMEs and ZENIT as Network Manager. Why EMO? The idea was launched during discussions on funding opportunities between an SME and NRW.Europa in the context of EU emission trading. Since 2005, operators of large-scale plants such as industrial furnaces must by law participate in the European Union Green-

house Gas Emission Trading System (EU ETS) and are thus keen (or obliged) to introduce measures to reduce their environmental impact. The SMEs in the EMO Network have at their disposal the skills needed to implement such measures, from automation to process control to mechanical engineering, as well as maintenance and service, and thus can offer a complete service package to such plant operators.

Outcomes

NEMO networks are a specific type of cluster with a new way of linking different types of expertise and of offering services in the marketplace. Particularly interesting in the case of EMO is its holistic approach to the energy-optimised modernisation of industrial plants, its flexible adaptability to client requirements, the ensured deployment of state-of-the-art technology and, most significantly, the overall reduction of energy consumption of at least 25% (less fuel, less nitrogen oxides, less CO2 emissions). Such a positive impact on the environment reflects the success of the approach, which is also substantiated by similar NEMO projects, such as RAIN, where the focus is on material saving in the metal industry.





Contact information

Directorate-General Environment
Unit Life Environment and Eco-Innovation
Tel: +32 (0)2 296 48 88
<http://ec.europa.eu/environment/etap>
Contact: Env-technology@ec.europa.eu

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