

The GRECO Initiative

Reshaping the way to do business: Focusing on environment while making profits



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Green competitiveness is about using an environmental focus to reshape the way to do business. The issue is moving towards the concept of "opportunity" for reinforcing companies' capacity to learn and apply new knowledge.

The Regional Activity Centre for Cleaner Production (CP/RAC) which promotes sustainable patterns of production and consumption, has launched the **GRECO Initiative**.

This innovative initiative focuses on boosting **green competitiveness** in the Mediterranean Region, by enhancing the visibility of the financial opportunities generated by investing in the environment. Due to the importance of this initiative, it was announced by the Minister of Environment, Ms. Cristina Narbona, in January 2008.

100 successful examples of Mediterranean companies which have introduced eco-efficient techniques show how huge the untapped potential is for making money while producing green.

The GRECO Initiative has already a great background in research and in actions, and it has encouraged the CP/RAC to get further in this line of action.

Keywords: Green competitiveness, cleaner production, profits, financial opportunities.

L'Initiative GRECO

La compétitivité verte implique de repenser la façon de faire des affaires en se focalisant sur les aspects environnementaux. L'idée est de se rapprocher du concept d'« opportunité » pour renforcer la capacité des entreprises à apprendre et appliquer de nouvelles connaissances.

Le Centre d'Activités Régionales pour la Production Propre (CAR/PP) qui promeut des modèles durables de production et de consommation, a lancé l'**Initiative GRECO**.

Cette initiative innovante s'attache à encourager la **compétitivité verte** dans la région méditerranéenne, en améliorant la visibilité des opportunités financières générées en investissant dans l'environnement. Cette initiative, de part son importance, a été annoncée par le Ministre de l'environnement, Mme Cristina Narbona, en janvier 2008.

100 exemples réussis d'entreprises méditerranéennes ayant introduit des techniques éco-efficaces montrent l'énorme potentiel, inexploité, que représente la production écologique pour générer des bénéfices.

L'initiative Greco s'appuie déjà sur une vaste expérience en recherche et actions, et cela a encouragé le CAR/PP à faire des progrès dans ce sens.

Mots clés : Compétitivité verte, production propre, bénéfices, opportunités financières.

El Proyecto GRECO

La competitividad verde está relacionada con la aplicación de un enfoque medioambiental para una nueva forma de hacer negocios. El reto está en promover el concepto de « oportunidad » para reforzar la capacidad de las empresas de aprender y aplicar nuevos conocimientos.

El Centro de Actividad Regional para la Producción Limpia (CAR/PL), que promueve modelos sostenibles de producción y consumo, ha lanzado **el Proyecto Greco**.

Este innovador proyecto se centra en estimular la competitividad verde en la región mediterránea, mejorando la visibilidad de las oportunidades económicas generadas por la inversión en el medioambiente. Dada la importancia del proyecto, éste fue anunciado en enero de 2008 por la ministra de Medio Ambiente, doña Cristina Narbona.

100 casos de éxito de empresas mediterráneas que han introducido técnicas ecoeficientes demuestran el enorme potencial sin explotar que tiene la producción ecológica para generar beneficios.

El Proyecto Greco ya tiene un importante fondo de investigación y amplia experiencia, lo cual ha animado al CAR/PL a seguir dedicando esfuerzos a esta línea de acción.

Palabras clave: Competitividad ecológica, producción limpia, beneficios, oportunidades económicas.

Not cost but opportunity

The way companies perceive the environment has changed: it is no longer an issue of 'cost', but rather of 'opportunity'. It is a matter of reinforcing the companies' capacity to learn and encouraging them to apply good practices and the best available techniques so as to become more competitive and environment-friendlier at the same time.

The CP/RAC is triggering green innovation and competitiveness and creating the conditions for an emerging market for green technical innovation and applied techniques for cleaner production. On the evidence of case studies of successful enterprises of this kind, the GRECO Initiative was launched. This initiative aims to create the conditions for cleaner production to be implemented in Mediterranean companies. Spain's Minister of Environment, Ms Cristina Narbona, announced the launch at the 15th Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, held in Almeria, Spain, from 15 to 18 January 2008.

The GRECO Initiative raises the international community's awareness of

the large economic benefits a company can obtain by implementing good environmental practices and the best available techniques. Surprisingly enough, most of the time only small investments are needed for the company to make large profits and confer significant benefits on the environment. Introducing cleaner production (CP) in an enterprise can be achieved by one of the following methods, or a combination: conserving raw materials; saving and optimising the use of energy, water and resources; eliminating hazardous raw materials; and reducing the quantity and toxicity of all emissions and waste, at source, during the production process.

Today, some of the Mediterranean region's most serious pollution problems are abusive water consumption and excessive energy and chemical inputs in the production processes. Most of the Mediterranean companies that were examined in the case studies referred to below have been particularly successful in addressing these problems by investing in CP technology tools. It was observed that this waste processing and recycling technology is used for the most part preventively rather than retrospectively.

Environmental & financial benefits

A Turkish textile enterprise made €193,223 in annual savings by installing a heat exchanger to recover heat from the process. It invested only €10,556 and this was paid back in less than one month.

A Lebanese potato crisp production company reduced water consumption by 18 m³/day and had financial benefits of €3,285. The investment was €5,703, paid back in one year and seven months, and there were long-lasting profits.

A Croatian dairy company invested €15,000 and obtained a total of €115,000 in annual savings by reducing the amount of drinking water and minimizing wastewater. The investment was paid back in less than two months.

100 Successful examples

The CP/RAC has recently published 100 Med Clean¹ case studies of Mediterranean enterprises, with the aim of identifying the financial benefits these companies have achieved by introducing environmental practices and eco-efficient techniques. These studies are an invaluable resource for demonstrating that companies that introduce CP measures always make profits.

The 100 cases have been analysed in a report that will be published shortly, entitled *Green opportunities in the Mediterranean: Finding business opportunities through cleaner production*. The report shows that recycling usually implies higher costs because using more expensive CP technologies means lower returns on investment. On aggregate, 60% of the interventions focused on reducing inputs such as water, raw materials or energy resources, 30% on waste processing and only 10% on recycling.

The report also identifies a majority of CP cases in which companies generate, through small investments, important benefits in both environmental and financial terms. Nearly all the CP interventions generated substantial economic savings for the Mediterranean companies, with relatively low payback periods and substantial profitability and returns on investment. As an illustration, many technological interventions involved payback periods shorter than one month and requiring €0 investment. Moreover, 50% of the 176 investments made by companies in CP technologies recorded payback periods of less than six months. A Spanish company obtained annual savings in the first year that were 25 times higher than its initial €41,312 investment.

The interrelation 'CP technological investments/ environmental-impacts/ payback' was found to depend on the type of CP alternative introduced, the type of product and the subsector concerned. In prospective terms, the best



technological interventions could thus be tailored to these findings.

Among CP types of alternatives introduced by Mediterranean companies, those found recording relatively higher levels of profitability were: first, good housekeeping and organisational measures; second, alternative production inputs, gas and heat recovery and recycling systems (with annual savings of €1,581,964 the first year,

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from an initial investment of €219,081); and third, energy saving measures and organic material recovery and recycling systems. Those recording substantial but relatively lower levels of profitability were: alternative processes (€2,768,431 of annual savings on aggregate from initial investments of €1,990,422); alternative components

¹ A Med Clean is a case study developed by the CP/RAC. It includes information about the company that introduced cleaner production, the actions it performed and the environmental and financial benefits it obtained.

34 companies that introduced specific energy-saving measures have had a total CO₂ emission reduction of 56,459 tons

and machinery; inorganic material recovery and recycling systems; water recovery systems and wastewater segregation; energy savings through boiler efficiency; material and water circuit recovery and recycling systems; and alternative designs and other water saving technologies. This does not, of course, imply that companies should disregard methods that offer 'lower levels of profitability'.

In environmental terms, some interesting lessons can also be drawn. In one third of the cases, the reduction in water consumption was achieved mainly by introducing measures for good housekeeping and organisational technologies. Correspondingly, the reduction in the consumption of chemical inputs was also found to be due, in one third of the cases, to the introduction of alternative inputs and processes. And where the consumption of energy inputs was reduced, technological issues were again responsible, in this case for 42% of the reduction. In the case of wastewater being decreased and/or recycled, it was the use of alternative processes that contributed to 41% of this positive environmental impact.

Green competitiveness patterns also seem to depend on the nature of the product lines and subsectors in which companies develop their productive activity. The biggest profits achieved by the introduction of CP in production processes were recorded by companies from the electrical machinery, food products, transport equipment, chemicals and textile sectors. Independently of the companies' financial profitability records, the highest

CP investments were recorded by companies in the base metals, chemicals and electrical machinery sectors. And in terms of positive and diversified environmental impacts from introducing CP technologies, the most impressive results were achieved by companies from the food products, electrical machinery and base metals sectors.

Among the cases analysed, those from Spain, Croatia and Turkey recorded the largest CP investments (€5,132, €1,644,878 and €3,302,005, respectively). The largest profitability from the introduction of green competitiveness was recorded by companies from Bosnia Herzegovina, Egypt, Israel and Tunisia, (with second year returns on investment of 409.6%, 435.2%, 269.1% and 549.3%, respectively).

The analysis of CO₂ emissions showed that 34 companies that introduced specific energy-saving measures have had a total CO₂ emission reduction of 56,459 tonne. Their total energy-related economic saving came to €2,018,421, with an average payback period of only one year. The potential of energy efficiency in the Mediterranean is huge, both for reducing CO₂ emissions and for making large profits.

An Egyptian company producing edible oil carried out several energy-saving measures and many process-optimisation changes. The company's total investment reached €13,500 and the annual energy-related economic saving was €174,888, with a payback period of less than a month. That meant not generating 5,346 tonne of CO₂ per year.

56,459 tonne CO₂ reduced =
over €2 million profits.

GRECO actions

Lines of work and specific activities have been defined for the GRECO Initiative, together with the Mediterranean business sector, establishing the paths to be followed in the coming years.

Through the GRECO Initiative, it has been possible to create partnerships with other Cleaner Production Centres in the Mediterranean region. GRECO has been presented in relevant forums, where representatives from the companies in the Med Clean case studies explained how they introduced cleaner techniques or good practices in their companies and described the financial benefits. Some of these forums were: the 15th Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols (Spain), the Clean Equity Forum (Monaco), the 3rd International Forum on Systems for Environmental Performance Verification (France), Expo CO₂ (Spain), the BusinessMed Annual Meeting (Egypt), and the OECD-UNEP Conference on Resource Efficiency (France).

To create a favourable atmosphere for CP to spread in the Mediterranean, financial institutions have been introduced to the GRECO Initiative, with a view to designing a financial instrument for the Mediterranean that will help small and medium-sized enterprises (SMEs) implement CP.

To ensure widespread implementation of CP in the region, the CP/RAC has involved the Mediterranean business sector since it started planning the GRECO Initiative. As a result, a collaboration agreement was signed between the CP/RAC and BusinessMed (the Union of Mediterranean Confederations of Enterprises), the workshop Towards Sustainable Development (Egypt) was organised with BusinessMed, and the GRECO business plan was presented during Business Med's annual meeting. One outcome of this cooperation between the CP/RAC

and BusinessMed is a network of contacts with the business sector with whom technical methods will be developed.

Finally, the GRECO Initiative is carrying out several roadshows in the Mediterranean, to create favourable conditions for CP to spread in the region. One of these roadshows has been conducted in Turkey, where a variety of stakeholders presented their experiences of green competitiveness.

Steps ahead

Apart from strengthening and further developing some of the activities above, the GRECO Initiative will continue to carry out concrete action according to its Business Plan, involving the relevant stakeholders in the Region.

Some of the activities included in the Business Plan are carrying out **technical assistance workshops**, addressed to industrialists of specific sectors, to show the environmental benefits and profits from introducing CP in an industry; by facilitating SMEs' application of CP mechanisms. Workshops will improve the understanding of green competitiveness, to create a favourable climate for SMEs to engage in the process with the understanding that in addition to contributing to the environment, financial gains will also be achieved.

Roadshows will be conducted in Mediterranean countries during 2008 and 2009, for disseminating the results of GRECO and establish partnerships with relevant stakeholders among decision-makers, government authorities, multilateral organizations, and the private sector.

CP/RAC will engage the private sector companies from the 20 Mediterranean countries that have been successful in the implementation of clean technologies, the government and financial institutions to participate actively in the workshops; will assist countries in the design of policies, to develop a systematic approach to train

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SMEs, and will promote institutional capacity building in this sector.

The preparation of a **GRECO Annual report**, compiling the activities carried out related to the Initiative during the year, analyzing the technological, economic and environmental data related to the implementation of cleaner production on the basis of the elaborated Med Clean Files; identifying the technical intervention, investments, payback periods, annual savings and environmental impacts from the companies; and providing scientific and institutional support to developing country institutions and officials responsible for promoting better technological interventions at the industrial level, to contribute to the environment by highlighting the economic benefits resulting in new green competitiveness opportunities.

As a follow-up to the contacts already established between CP/RAC and financial institutions, the Centre will work further with them in order to design a **financial instrument** for GRECO, which will create a framework for enabling implementation of cleaner production in Mediterranean SMEs. The strategy will be to implement a pilot project which will identify a set of 20 successful SMEs with a government from one of the Mediterranean countries and the agency representing the private sector. The CP/RAC will also present the components of the pilot and launch its implementation. Initial contacts have been established with the International Finance Corporation (IFC) to participate in the process, and to create a financial mechanism to facilitate SME's access to CP, to promote its dissemination throughout the Mediterranean Region and choose SMEs in other countries for the application of more pilots.

CP/RAC will develop the scheme of an **award**, in order to encourage companies in the Region to put in practice good housekeeping or other cleaner techniques. SMEs that applied green technologies will be monitored and evaluated by their environmental impact and economic benefits, and the

results will be compiled in an evaluation report which will recognize the most noticeable initiative between the case studies submitted and assessed. The strategy will be: to monitor (on a yearly basis) the implementation of green technologies of new SMEs in the sector and evaluate their environmental impact, and economic benefits; to recognize their effort, RAC/CP will give exposure to those companies in the countries where they belong to, and the best ones will be nominated for the award; each year the award will be published in the annual report to motivate new comers and share the successful case with others so that they can benefit and learn more about the implementation of CP mechanisms.

Conclusions

The CP/RAC's 100 examples of Mediterranean companies that have introduced good practices and eco-efficient techniques show how huge the untapped potential is.

Developing, disseminating and implementing environmental techniques throughout the Mediterranean region could increasingly become a real green competitiveness win-win strategy for all Mediterranean partners.

Some of the main aims of the GRECO Initiative are listed below:

- Improve the understanding of green competitiveness.
- Facilitate the development of private-public partnerships around green competitiveness.
- Foster the generation, dissemination and transfer of CP, through technical assistance.
- Promote the green competitiveness of Mediterranean SMEs.
- Increase awareness of cleaner production and foster environmental awareness among government and companies.
- Further develop GRECO by evaluating green competitiveness in the Mediterranean enterprises, monitoring their action and awarding the most notable initiative.
- Provide access to relevant information and receive feedback from Mediterranean private and public entities. ■