



In the Mediterranean

Global Forum on Green Industry Initiative EI CAIRO-28th May-



GOBIERNO MINISTERIO
DE ESPAÑA DE MEDIO AMBIENTE



Generalitat de Catalunya
Government of Catalonia
Department of the Environment
and Housing



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Objectives

GRECO (Green Competitiveness)

- Integrate environmental challenges in all corporate decisions
- Increase business competitiveness and environmental benefits



1. Promote and Transfer to private sector Cleaner Production Techniques
2. To encourage and support the maximum number of businesses in:
 1. Adopting techniques and good practices
 2. Integrating the environment in their strategic objectives
3. Involve the governmental authorities to back Green Competitiveness



Strategy

The 100 Med Clean Report (100 Med Clean Files)

- Under the GRECO (**Green Competitiveness**) Initiative program, CP/RAC has collected and analyzed 100 successful case studies available from companies in the Mediterranean Region that have implemented successful cleaner production solution.
- 176 different CP solutions were identified and analyzed
- Profitability and Environmental benefits increased



Strategy

Disseminating information regarding CP techniques given emphasis to the experiences contained in the Med Clean Files

1. This will be done inter alia through:
 1. The 100 Med Cleans Report Publication
 2. National Congress
 3. Networking Events
 4. Web Portal & Auto Audit Project
 5. Annual Report & Award
 6. Local Antenna
2. Given technical assistant to SMEs : how to introduce the best CP solution
3. Financial assistance to SMEs
4. Promoting public-private partnership for green competitiveness

The project will last 5 years



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What it is?

Finding business opportunities through Cleaner Production

The 100 Med Clean Report

- The report is based on the analysis of 100 cases studies available from companies in the Mediterranean countries that have implemented successful cleaner production solutions
- 176 different CP solutions were identified and analyzed
- Profitability and Environmental benefits increased

- Reduction techniques at source



COST



ROI

- Recycling techniques at source



COST



ROI

- The interrelation between CP investments, environmental benefits and profitability, depend on:
 1. The nature of the CP introduced
 2. The Type of Product
 3. The Sector

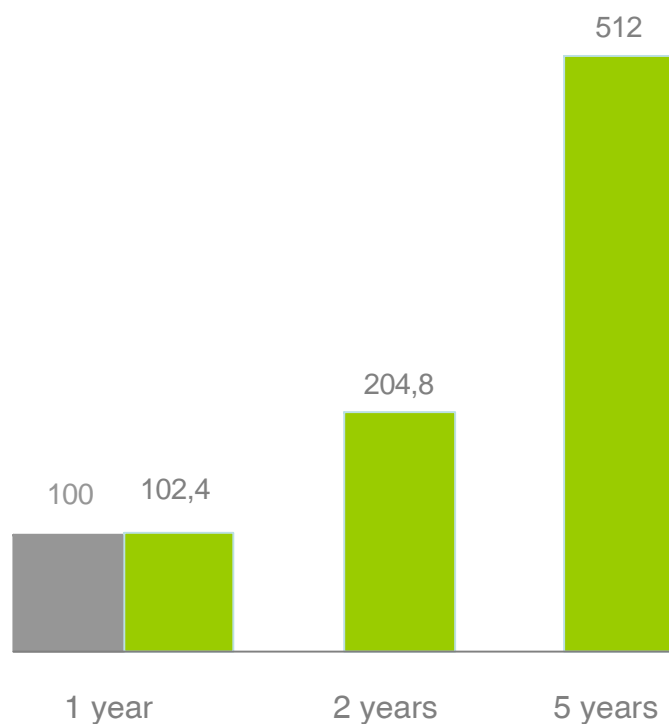
The aim is to increase the number of cases



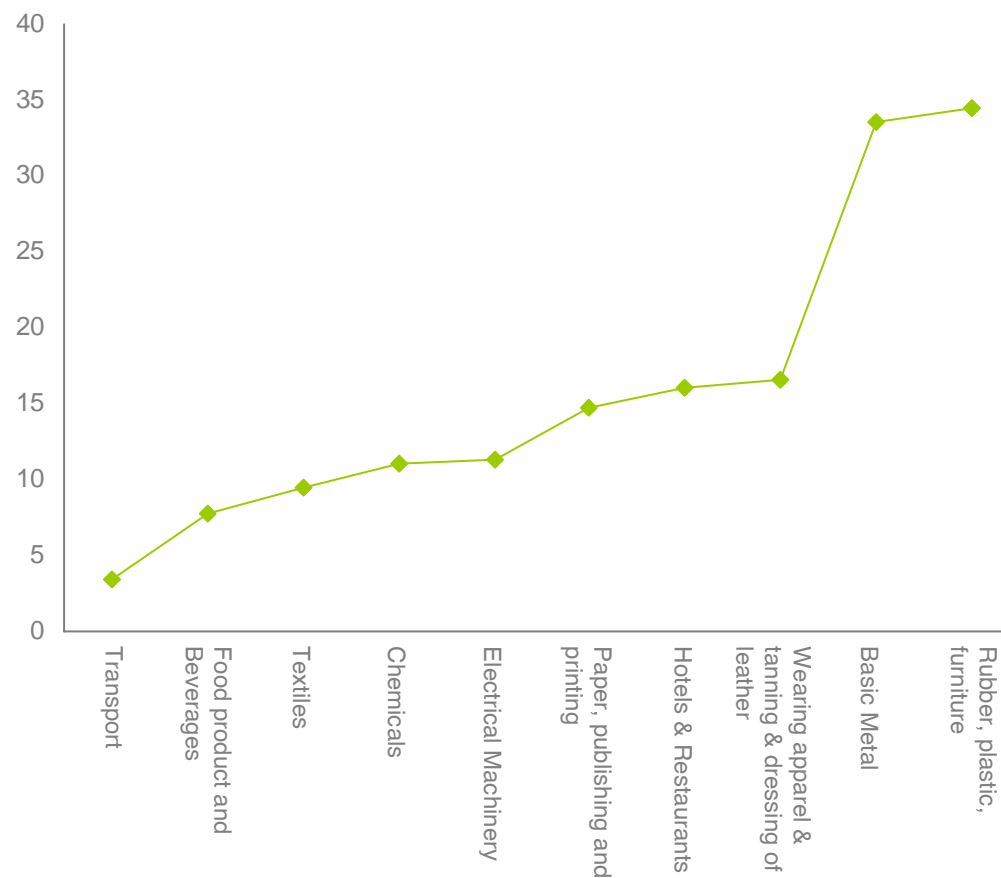
Results

In the majority of the cases was common to see short payback periods and high internal rates of returns

**Total Savings for each 100 € invested
(EUR)**



**Payback period
(months)**





Results

Those solutions found recording higher levels of profitability

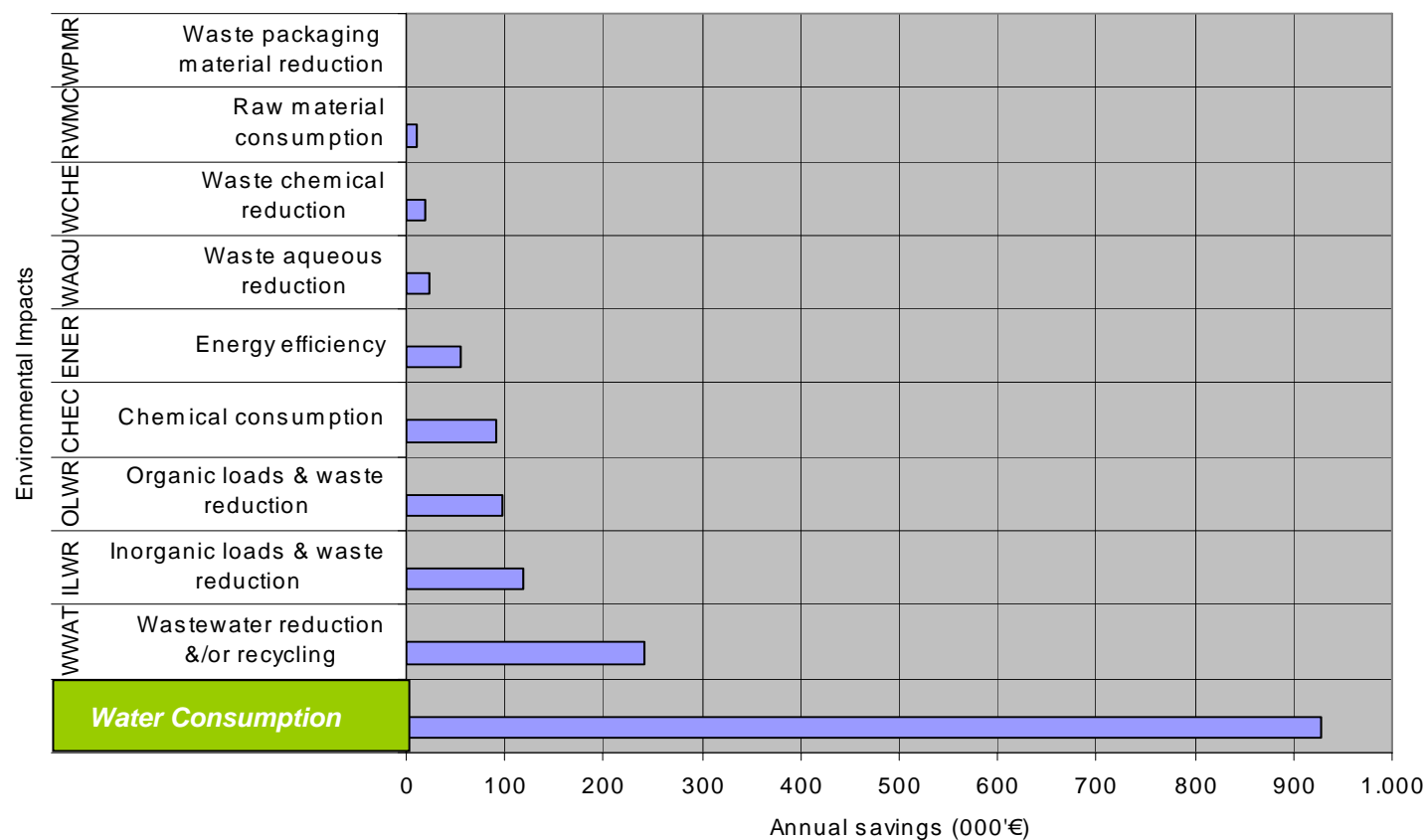
- Good House keeping and organizational measure
- Use of alternative production resources, gas & heat recovery and recycling systems:
- Energy saving measures and organic material recovery and recycling systems.



Results

Good House Keeping and Organizational Measures

GRAPH II.14
Good Housekeeping & Organisational Measures GHOM)





Example

Cleaner production assessments in a car battery manufacturer's

- There were number of pollution problems at the facility
- Nineteen pollution prevention opportunities were detected

- The company has already implemented many of the low/no cost recommendations

- Stop washing plates immediately:
 - Environmental benefit:
Reduction of wastewater

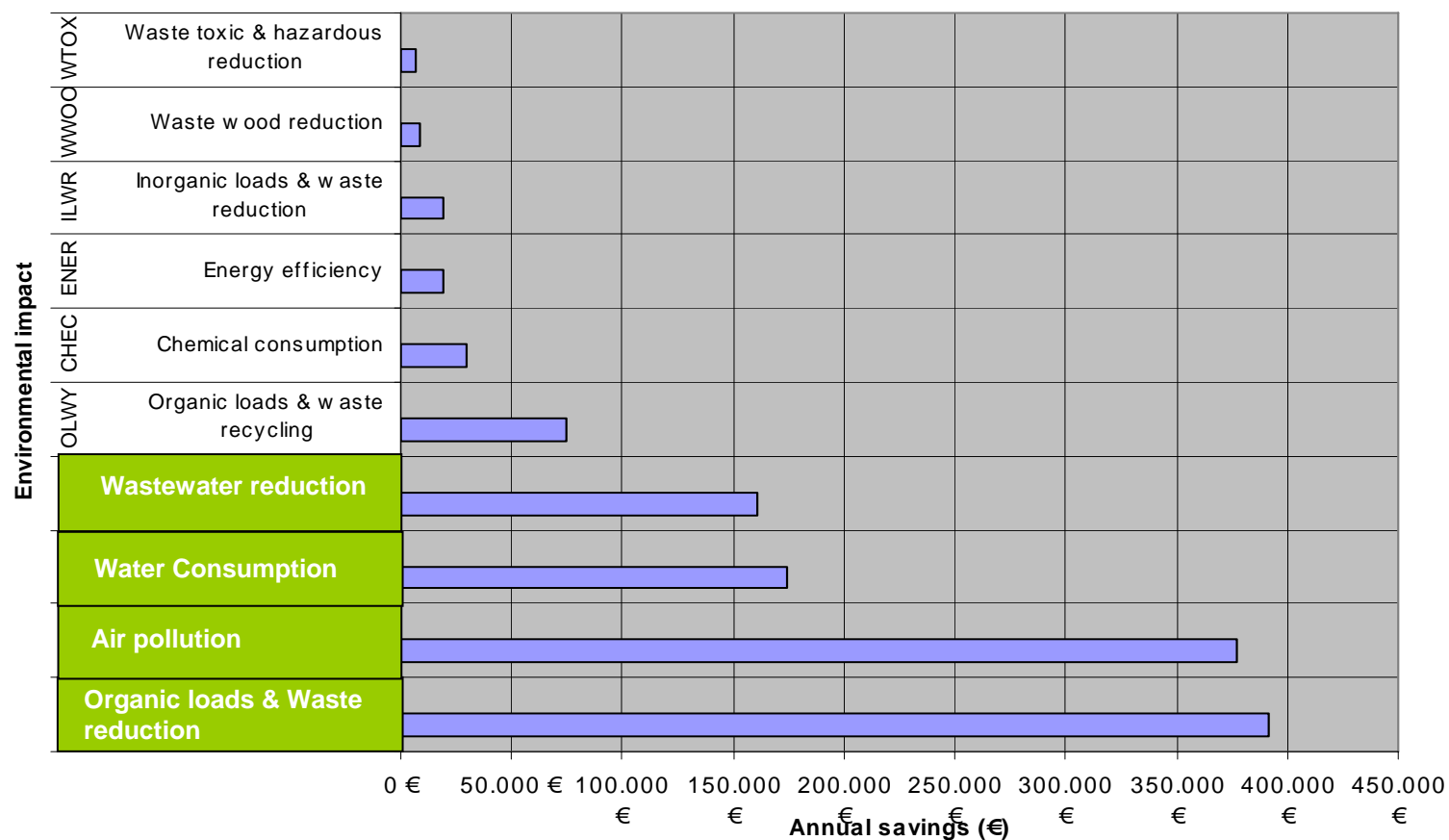
INVESTMENT € 0 SAVINGS €125.000



Results

Use of alternative production resources

GRAPH II.17
Use of Alternative Production Inputs (UAPI)





Example

Reduction of the cost by 47% in a Edible oil Egypt company

- There were number of pollution problems at the facility
- Decided to make a cleaner production assessments to identify actions

- Five pollution prevention opportunities were identify during the audit process

- Use of liquid caustic soda:
 - Environmental benefit:
Reduced losses of caustic soda, levels of corrosion & better working conditions.

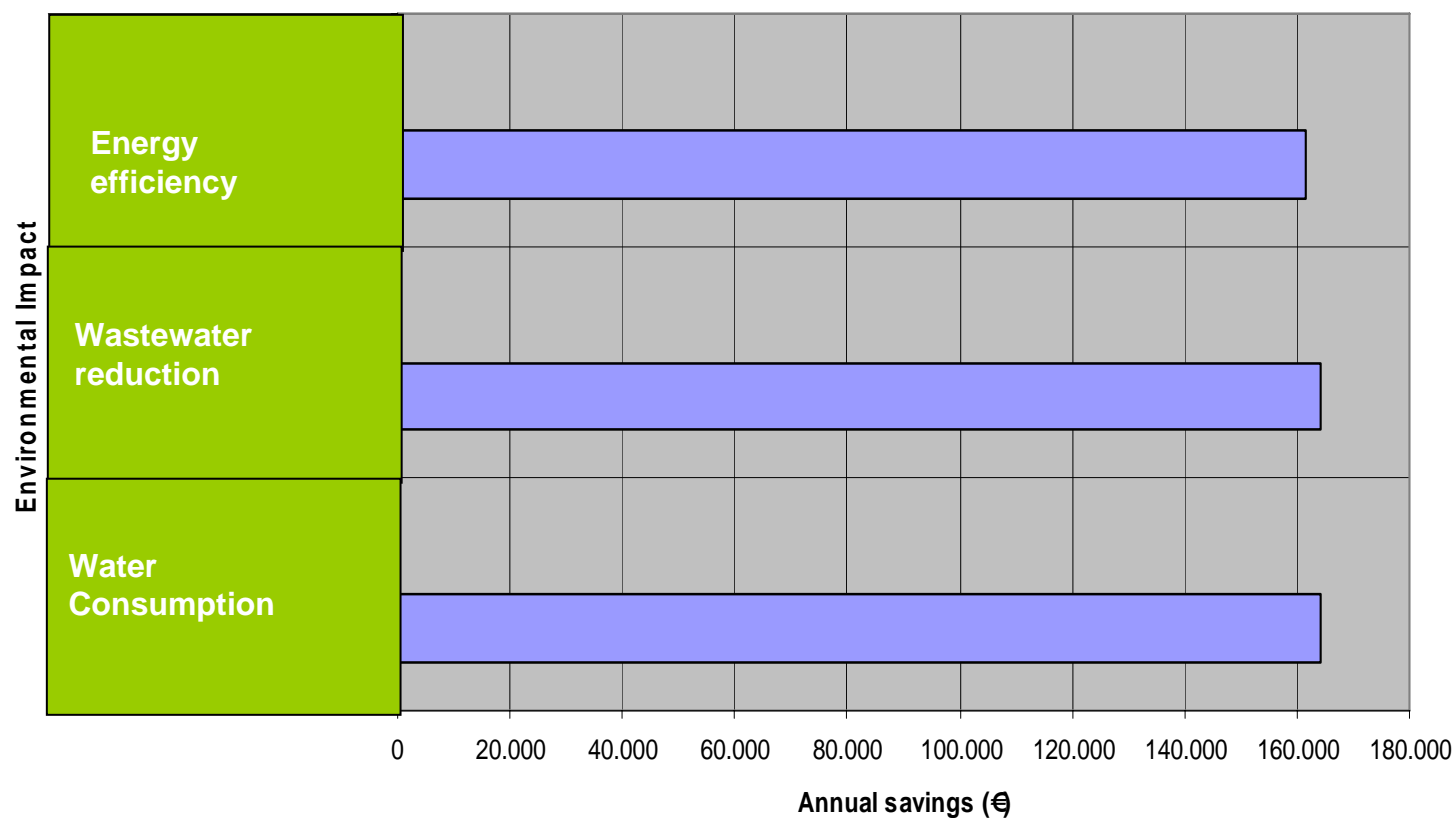
INVESTMENT € 0 SAVINGS: €75.000



Results

Energy saving measures




GRAPH II.20
Energy Saving (other) (ENSO)





Example

Reduction of water & energy consumption in a dairy Croatia industry

- The main aspects to improve were:
 -  in drinking water
 -  of the pollutant load
 -  of energy consumption

- The factory implemented 4 measures to achieved water and energy saved objectives:

- Environmental Benefits: Inter alia, savings of steam by 904 t/year and heat energy of 500.000 KWh/year

INVESTMENT €31.051 SAVINGS €328.008



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The aim is to disseminate GRECO INITIATIVE in the Mediterranean Region

- ***Publish the REPORT*** that demonstrates how a company can increase profitability while investing in environment: " **Green Competitiveness in the Mediterranean: Finding business opportunities through cleaner production**".
- ***GRECO Congress***: The objective is to disseminate the GRECO report results among private and public sector in the Mediterranean Region, including financing support to SMEs (IFC) and visibility in the media.
- ***The DIGITAL PLATFORM***: Provide access to relevant information.



The aim is to disseminate GRECO INITIATIVE in the Mediterranean Region

- ***The PR*** activities: create the necessary networking over the country that will give to SMEs higher access to information on green competitiveness
- ***Auto- Audits***: integrated in the Digital platform, will provide SME`s relevant information for implementing CP solutions.
- ***Technical Assistance Workshops***: capacity building by sector
- ***The Antenna*** (local expert) will be hired in each country to give services to SMEs and keep promoting the initiative.



Action Plan

The aim is to disseminate GRECO INITIATIVE in the Mediterranean Region

- Biannual Contest will take place to highlight the most innovative and successful case
- The efforts will be recognized given the companies visibility in the countries
- The winner will be published on the ***GRECO ANNUAL REPORT***

- Share successful cases with others and motivate new comers

- ***Free Audit and the best environmental technique implementation***



Action Plan
GRECO AUTO AUDIT PROJECT

GOAL:

To develop a new and innovative “User Friendly” “Online System”, to help Mediterranean SMEs to drive, at no cost, their Cleaner Production Auto-Audits as a way to contribute to their autonomous efforts on implementing CP solutions.



Action Plan **GRECO AUTO AUDIT PROJECT**

METHODOLOGY

- Using a Decision Tree System on line, the entrepreneur can be driven to do its CP solution and take the appropriate actions to improve the business and achieve good environmental impacts.
- The Decision Tree will drive the seeker to choose different possibilities to go.
- Each solution will end on an attached “Work Instruction” on what to do and how to do it.
- Actions taken within the area of “Good Housekeeping Measures” were found to be the most interesting in terms of Investments vs. Payback rate and have been addressed as “First to Act” in the implementation of this Program.



Action Plan
GRECO AUTO AUDIT PROJECT

Methodology; Example # 1

Step # 1:

☐ Audit On

- Water Savings
- Material Recovery and/or Saving
- Energy Savings
- **Good Housekeeping Measures**
- Alternative Product Designs
- Alternative Processes



Methodology; Example # 1

Step # 2:

☐ Audit On Good Housekeeping-Measures

- Processes
- **Systems**
- Warehouses
- Heat & Cool
- Energy
- Gas Emissions
- Waste Treatment
- Furnaces
- Safety & Health
- Vehicles



Methodology; Example # 1

Step # 3:

☐ Audit On Good Housekeeping Measures Systems

- **Cooling Water**
- **Process Water**
- **Information Systems**
- **Power Supply**
- **Heating Systems**
- **Chemical Systems**
- **Air Conditioning Systems**
- **Waste Treatment Systems**
- **Illumination Systems**



Action Plan
GRECO AUTO AUDIT PROJECT

Methodology; Example # 1

Step # 4:

☐ Audit On Good Housekeeping - Measures Systems - Cooling Water

- o Pipe Lines
- o Valves
- o Drains
- o Tanks



Action Plan
GRECO AUTO AUDIT PROJECT

Methodology; Example # 1

Step # 5:

- ☐ **Audit On Good Housekeeping - Measures Systems - Cooling Water - Pipe Lines**
 - **Layout Review: Work Instruction Number WPLR/0001/09**
 - **Existing Real Cases**



Financing, Fundraising & collaboration agreements for implementation

Design financial instruments to facilitate SMEs access to Cleaner Production

- Audit → Fundraising/ Auto audit
- Implementation of CP solutions through soft loans (IFC)

Two Mediterranean organizations

- UMCE-BusinessMed: Union of Mediterranean Confederations
- ASCAME: Association of Mediterranean chambers of Commerce and Industry



Conclusions

OPPORTUNITIES

We face a positive situation due to the increasing importance of the environmental world wide agenda (Presidents like Obama/ Sarkozy...) and the initiative:
“Barcelona Process: Union for the Mediterranean”

CHALLENGES

- Absence of Awareness in Industries/Institutions.
- Lack of Political / Governmental Commitment.
- Lack of Financing / Economical Incentives.



Next Steps

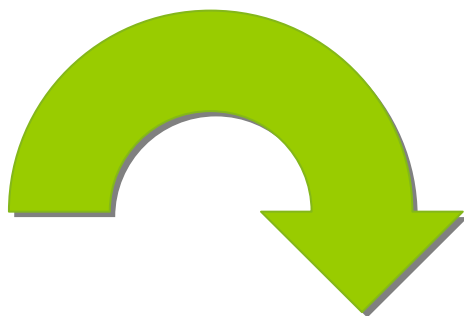
- Publication of the 100 Med Clean Cases
 - GRECO INITIATIVE Report :
 - Brand Registration among Mediterranean Region
 - Business Plan agreed for the next 5 years
 - Morocco and Egypt National Congress
 - PR & Communication tools
 - Brochure for small and medium companies
 - A Summary of the Greco Initiative Report addressed to SME`s
- **Greco Initiative Web site: Its on going**
 - **National Congress: Tunisia and Turkey on second half 2009**
 - **The first GRECO award**



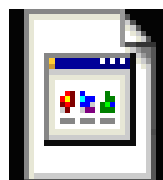
Closing

There is a “green” opportunity we can't lose.....

Thinking GLOBAL



Increase the **economic growth** in the countries while
decreasing **environmental impacts**.



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