

Climate Change Challenges and Opportunities for the Chemical Industry

Brussels, 27/10/08



Introduction

Who we are

- Grupo Ecoindustria is a group of companies specialized in environmental services, mainly for industrial facilities
- We offer in-depth knowledge of
 - Industrial processes, their emissions, minimization strategies and associated costs.
 - All aspects of environmental regulation
 - Designing, implementing and operating a corporate environmental strategy
- The nature of the relationship that we have with our clients is usually of a partial outsourcing, including operation.



Introduction

Who we are

- Our work for Regional and Local Authorities is mainly related to environmental policy analysis and formulation, basically in aspects concerning industrial activity
 - Strategic analysis of new regulation
 - Support on the design and formulation of new environmental regulation
 - Ecotax design
 - .../...
- We are currently advising the Department of Industry of the *Generalitat de Catalunya*



Catalan Government

- The Catalan Government aims to have a society more competitive and more sustainable.
- Organizationally-speaking the relevant units are, on one hand, the Environment and Housing Department and on the other, the Industry, Enterprise and Universities one.

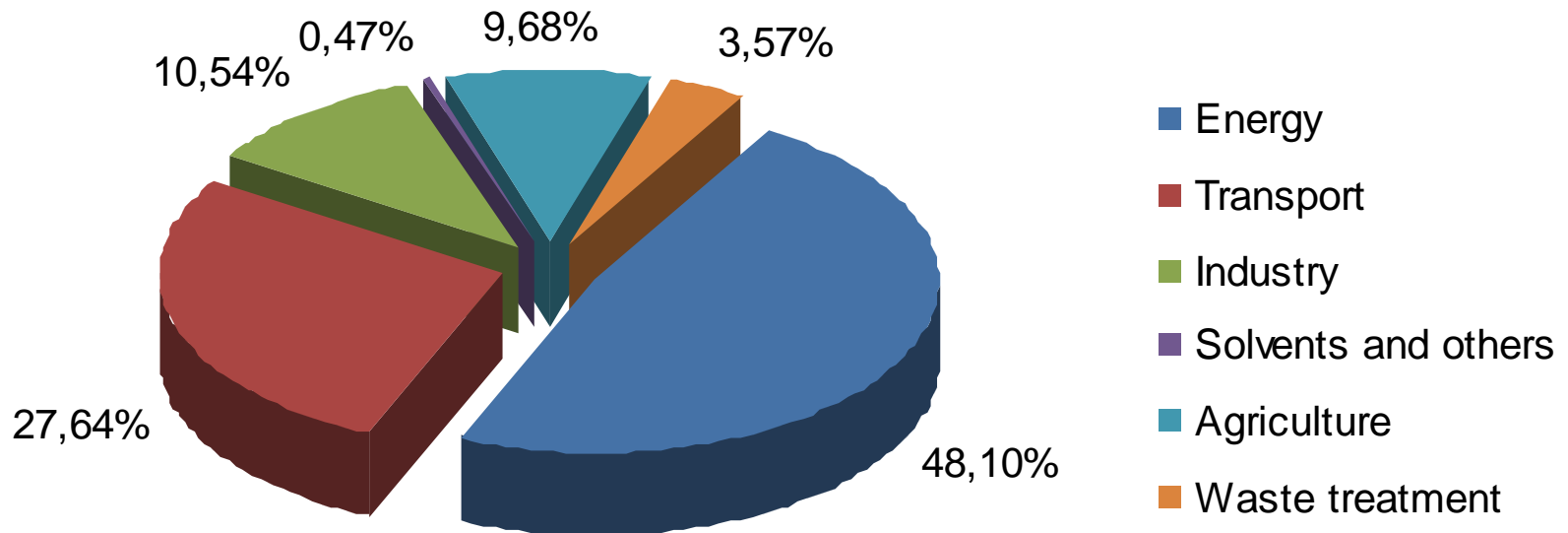


Relative Importance of Catalonia

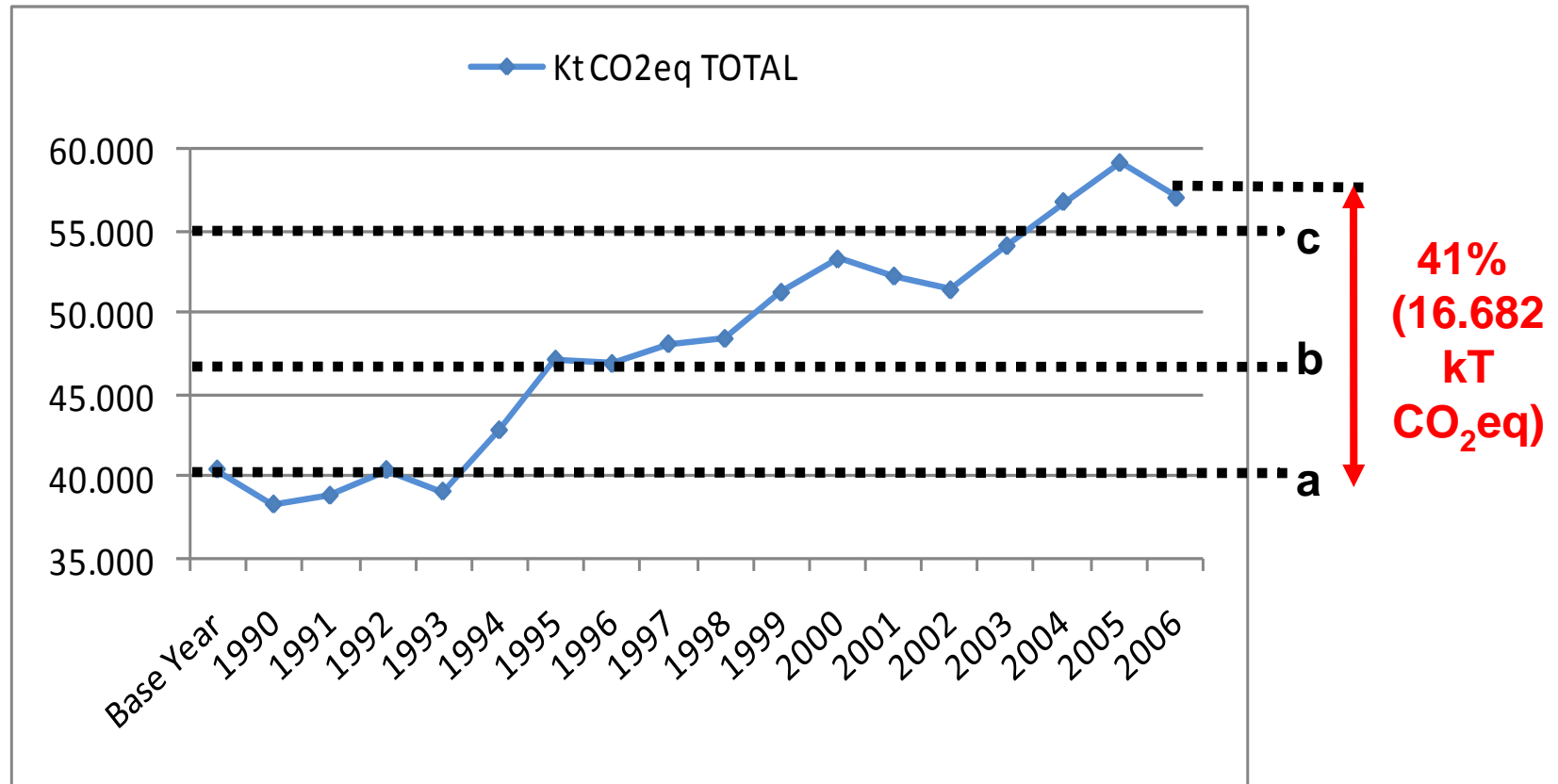
	Catalonia	Spain	EU27
Surface:	32.114 km ²	6,3%	0,7%
Population:	7,2M	16%	1,5%
GNP:	195.250M€	20%	1,5%
Installations EC2003/87:	186	18,2%	1,7%EU25
Total emissions: (kT of CO ₂ eq)	59.262	13,4%	1,1%
Diffused emissions: (kT of CO ₂ eq)	39.190	15,2%	1.3%

Catalonia CO₂ Emissions Key Figures

Year 2006: 57.019 kT of CO₂ Emited



Deviation analysis



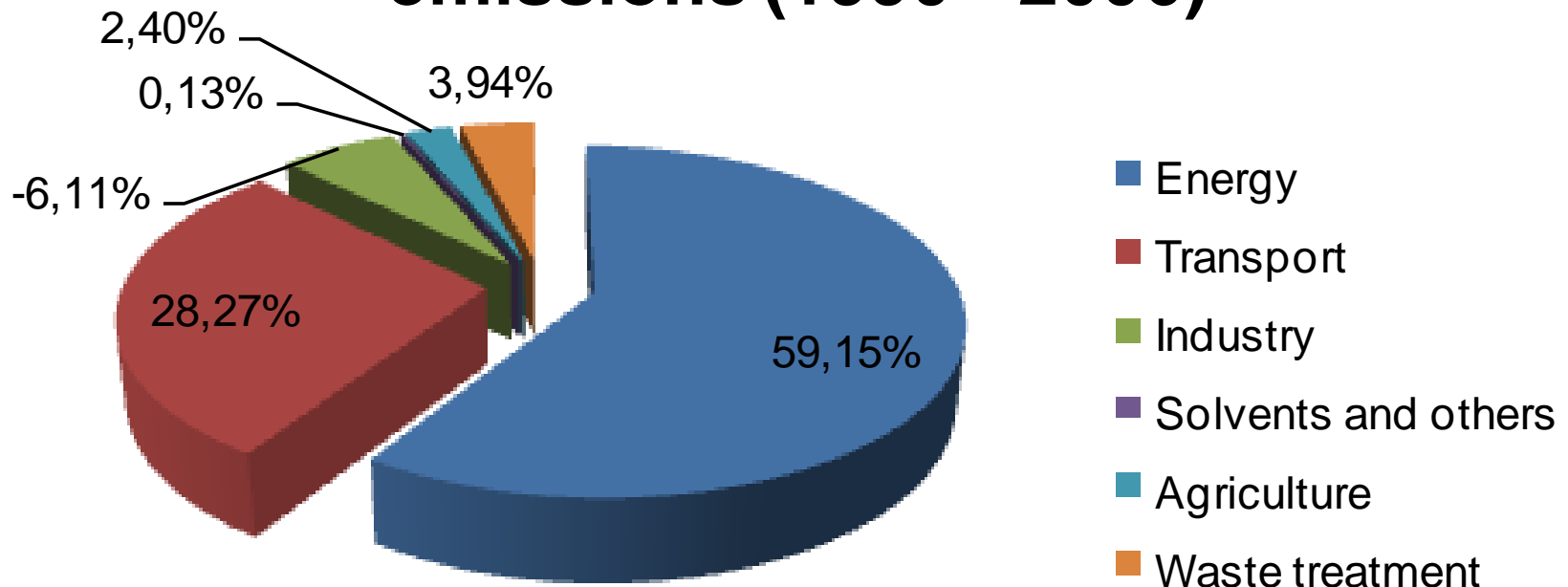
a. Base year

b. Spain's commitment for the 2005-2007 period: Base year + 15%

c. Spain's commitment for the 2008-2012 period: Base year + 37%

Deviation analysis

Relative increase of CO₂eq emissions (1990 - 2006)



Measures planned in Catalunya

Catalan Plan for the Climate Change Mitigation 2008-2012

- Approved 07/10/2008
- Catalan contribution proportional to its share of the Spanish commitment
- Programs basically focused in diffuse sectors but also including measures for D2003/87 installations.
- Global cost: 196,1 million € / year.
- The Plan was prepared with public participation. Not all the sectors participated in the same degree.



Objectives Catalan Plan against Climate Change

- Limit the growth in the diffuse emissions to 37% in the period 1990-2012 by specific programs in the following sectors
 - Agricultural
 - Home use and construction
 - Services
 - Industry not covered by the EC 2003/87
 - Waste management
 - Transport and mobility
- The Plan is calculated assuming a natural growth of 2% p.a. in the CO₂ emissions that are offset by the programs previously mentioned



Catalan Chemical Industry

- The Catalan Chemical Industry covers the sector's whole spectrum and is specially important in the following fields
 - Fine Chemicals. Catalan sites have global relevance in a very competitive marketplace
 - Petrochemicals and oil refining, Centered around the Tarragona complex and very relevant at Spanish



Implications 20/20/20

- Due to the lack of an uniform, global framework, the 20/20/20 strategy introduces higher relative operational costs (specially, energy) in all the industrial sectors.
- The Chemical Industry is an energy-intensive one, competes in a global marketplace and is very sensitive to any cost increase that it's not borne by its competitors and, therefore, reduces its competitiveness.
- This is specially true in the case of the Catalan Chemical Industry



Implications proposed modification EC 2003/87

- Ceasing the free allocation of CO₂ credits and lowering the threshold to 10,000 tons per installation would seriously affect the Spanish Industry.
- Studies from the sector, assuming 100% auction of CO₂ credits and an average resulting price of 35€ per Ton, evaluate the direct job loss at 25% of the total employment of the affected companies, without considering indirect and down-stream job losses.
- The reasons for the downsizing would be that some sectors, although applying the Best Available Techniques, have sizeable emissions and, hence, costs. The combination of auction and 35€ would force them out of the market.



The proposed modification of EC 2003/87

Exemptions and regulatory costs

- The latest proposal also opens the door to the possibility that some sectors can be offered “free credits” if it’s shown that there is a risk of carbon relocation
- The procedure could be complicated and generate important hidden verification costs
- This figure would be applied by the Commission in all the EU to specific sectors



The problem

How we act in other fields

- When we want to reduce discharges to, for instance, a river, we set limits for the relative, or absolute, concentrations of certain parameters considering the water course's actual state and the one we want to achieve
- We set these limits taking into account what can be reasonably expected of a properly run facility (BAT's)
- But, we don't auction the right to pollute because our priority is to clean up the water course and that comes first

We are solving a local problem with local solutions which are applied in a global, uniform and coherent procedure



The problem

Climate Change

- We are facing a global problem, which constitutes an imminent danger, it's real and its effects can seriously harm our environment and our society
- We have established a series of schemes and controls that only affect manufacturing facilities based in the EU
- As a society our consumption patterns haven't changed and we don't discriminate goods and services coming from regions not making any effort on GHG reduction.

The problem

Climate Change

- We are acting locally to solve a global problem
- We are not considering the possibility to establish a benchmark on the use of scarce resources (i.e., energy) or the emission of certain contaminants (i.e. CO₂), like we have done with the IPPC
- We are increasing costs to certain players in the global marketplace
- The costs being increased can be more relevant than the transport ones needed to take a good, or product, from a market not reducing GHG to another one that does.

In this case, we are rewarding unsustainability

The Challenge and The Opportunity

The Challenge

- In the next years, the Chemical Industry's Challenge is going to be surviving in an increasingly crowded, hostile and globalized market
- One of its key cost elements, energy, is going to have a different cost, depending whether you are based, or not, on the EU
- But our main challenge as a society, to reduce climate change to levels that can be sustainable, does not seem that it's going to be met. We are only acting locally.



The Challenge and The Opportunity

The Opportunity

- Nowadays, our world is faced with the need to rebuild our global financial system. As you know, one of the problems found was that the supposed watchdogs and verifiers were an interested party to certain policies. So, if we oversimplify, we could say that it was more interesting to certify the model than to challenge it. We were rewarding unsustainability
- All that will cause (it's already doing so) worldwide soul searching and making everyone consider the up-to-now unthinkable but it will create an unique opportunity. In addition to the measures being discussed, a global solution to a global problem (Climate Change) could be proposed and defined. It's doubtful that such an opportunity will come again
- Now it's the time to focus our efforts so that the European solution to Climate Change becomes part of a global solution to a global problem. If a result in this direction is not achieved, the competitiveness of our Chemical Industry will suffer a lot without achieving clear and meaningful results in the climate change field.



And in the meanwhile?

Be Coherent

- All these thoughts are great ideas, but what do we do in the interim?
- We should try to be coherent to
 - The hard fact that we are implementing a local strategy for a global problem
 - The unintended consequence that we are establishing an economic penalty to facilities that are based in a sustainable society
 - The need to avoid the danger of carbon relocation.
- We shouldn't forget that the ETS is a tool to reduce emissions (if everyone is playing) at a low cost. It doesn't reduce "*per se*".



A provisional coherent strategy

- Free CO₂ credits for the emissions within the values set by the Best Available Techniques
- The abovementioned credits would be transferable only in the case of an emission reduction achieved through technical improvements and not for the ones generated by downsizing
- If we want to reduce CO₂ generation we should focus also our efforts in the big consumers of electricity and not on ensuring that electrical power is more expensive for everyone.
 - If the electrical power is produced within the proper BAT values, we shouldn't penalize it
 - If the downstream consumer uses a non-BAT compliant value of electrical power per unit manufactured, then we should act and penalize.

Thank you for your time and attention!!

Juan Grau Rahola

jgrau@grupoecoindustria.com

+34 934 150 990