

ORALDO DE TONI – EMCEF

Workshop on Chemical risks

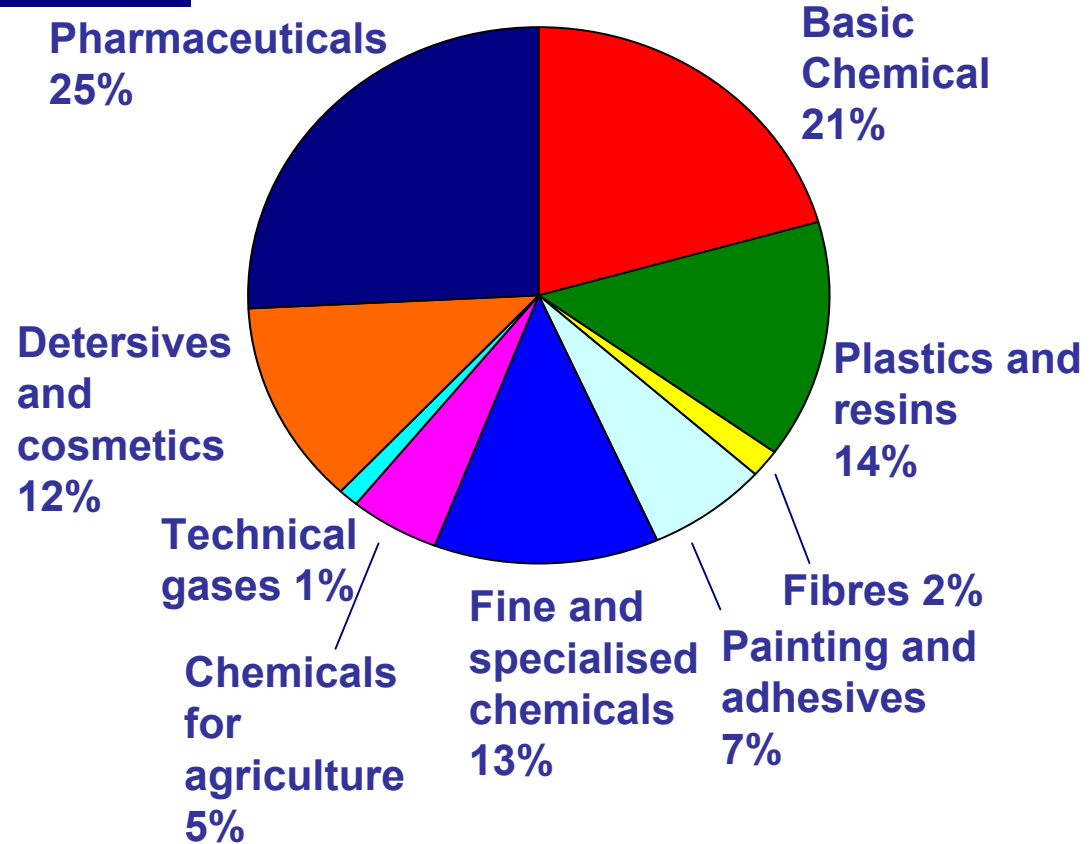
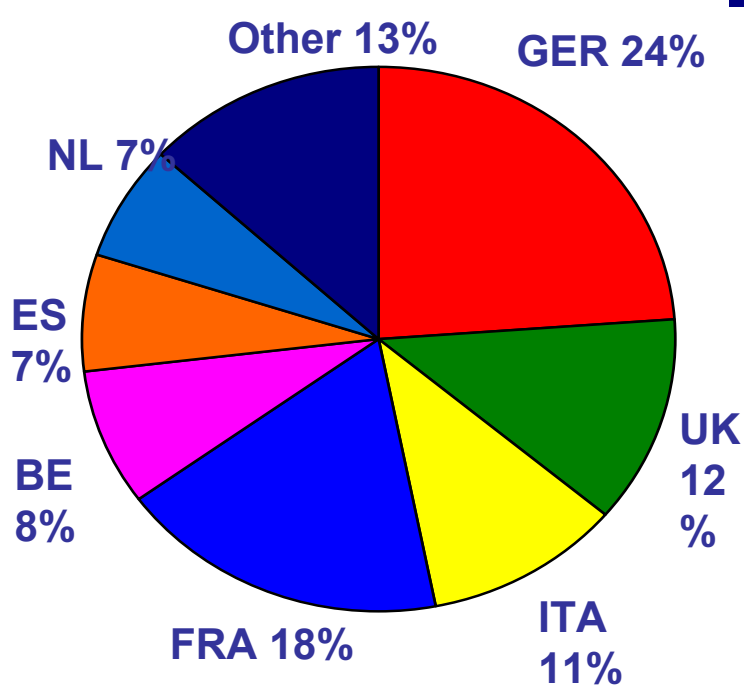
Seville June 16-18 2002

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1. The chemical sector in Western Europe

European chemical production by country and by product group



Source: CEFIC

Germany is leader in Europe for the chemical sector with the 24%, followed by France with 18%, UK and Italy both with half of the German production.

Within the sectors, the pharmaceuticals rank at the first place with the 25% of the production, followed by chemistry with 21%, plastics and resins 14%, fine and specialised chemicals 13%, deteratives and cosmetics 12%.

A comparison between the manufacturing and chemical industries trend

Average rates 1990-2000

Chemistry Industry

Germany	2,3	1,6
France	3,4	1,6
Italy	1,4	0,6
UK	2,9	1,3
EU (15)	3,2	1,8
USA	2,0	3,9

Cumulative growth

1980-2000 1990-2000

Germany	53,0	25,8
France	93,3	39,7
Italy	47,2	14,4
UK	93,1	33,5
EU (15)	88,0	37,6
USA	55,7	22,4

Source: ISTAT, OCSE, ESCIMO

The growth of the chemistry is higher than the manufacturing industry (years 1999-2000)

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The structure of the extra EU trade by sectors

Value in millions of Euro and percentage

	Export		Balance	
	2000	%	2000	%
Organic, inorganic, Fertilisers and fibres	43 725,3	34,8	8 260,1	15,8
Plastics	10 848,6	8,6	3 746,6	7,2
Painting, adhesives	8 485,7	6,7	4 970,1	9,5
Cosmetics	9 312,2	7,4	6 446,8	12,3
Detersives	3 432,1	2,7	2 154,4	4,1
Fine and spec. chemicals	18 290,8	14,6	8 112,6	15,5
<i>Chem. except pharmaceut.</i>	<i>94 094,7</i>	<i>74,8</i>	<i>33 690,6</i>	<i>64,4</i>
Pharmaceuticals	31 480,2	25,2	18 629,6	35,6
CHEMISTRY TOTAL	125 574,9	100,0	52 320,1	100,0

Source: elaboration on EUROSTAT data

The main exported products (extra EU), for the year 2000 were; pharmaceuticals; organic, inorganic, fertilisers and fibres, cosmetics, fine and specialised chemicals.

The structure of the extra EU trade by geographical areas

Year 2000 – Euro in millions and percentage

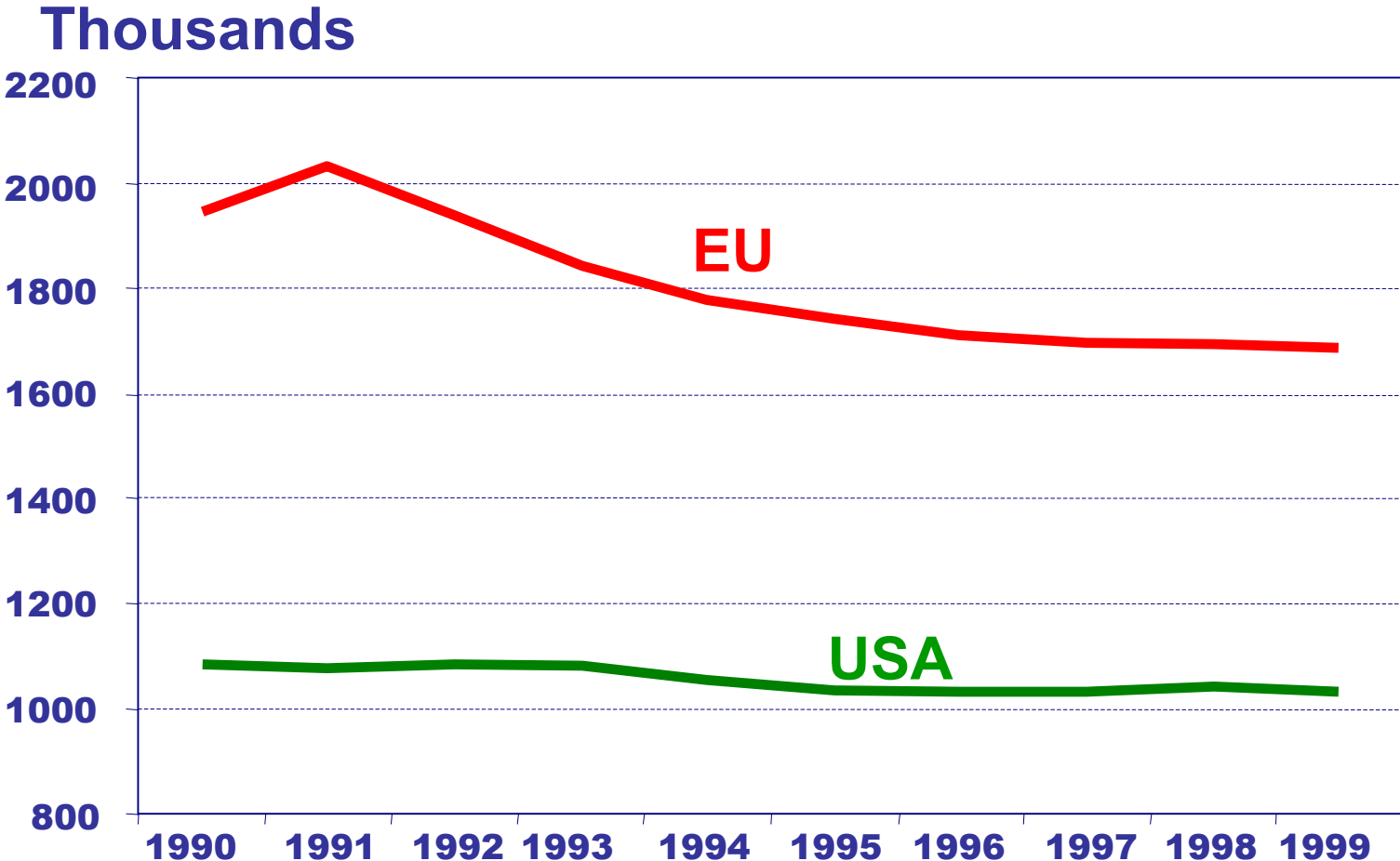
	export		import		balance
	mIn euro	%	mIn euro	%	mIn euro
USA	33 975,1	27,0	25 940,6	35,4	8 034,6
ASIA	23 748,7	18,9	14 636,0	20,0	9 112,7
China	2 309,8	1,8	2 797,8	3,8	-488,1
Japan	8 186,4	6,5	6 170,8	8,4	2 015,6
TOTAL	125 574,9	100,0	73 254,8	100,0	52 320,1

Source: elaboration on EUROSTAT data

The main trading flows are towards **USA, ASIA, China and Japan**

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Number of employees comparison between EU and USA



Source: CEFIC, ACC

In USA the number of employees has been constant during the last decade, while in EU it decreased of about 300,000 units

Distribution of chemical employment in the main European Countries

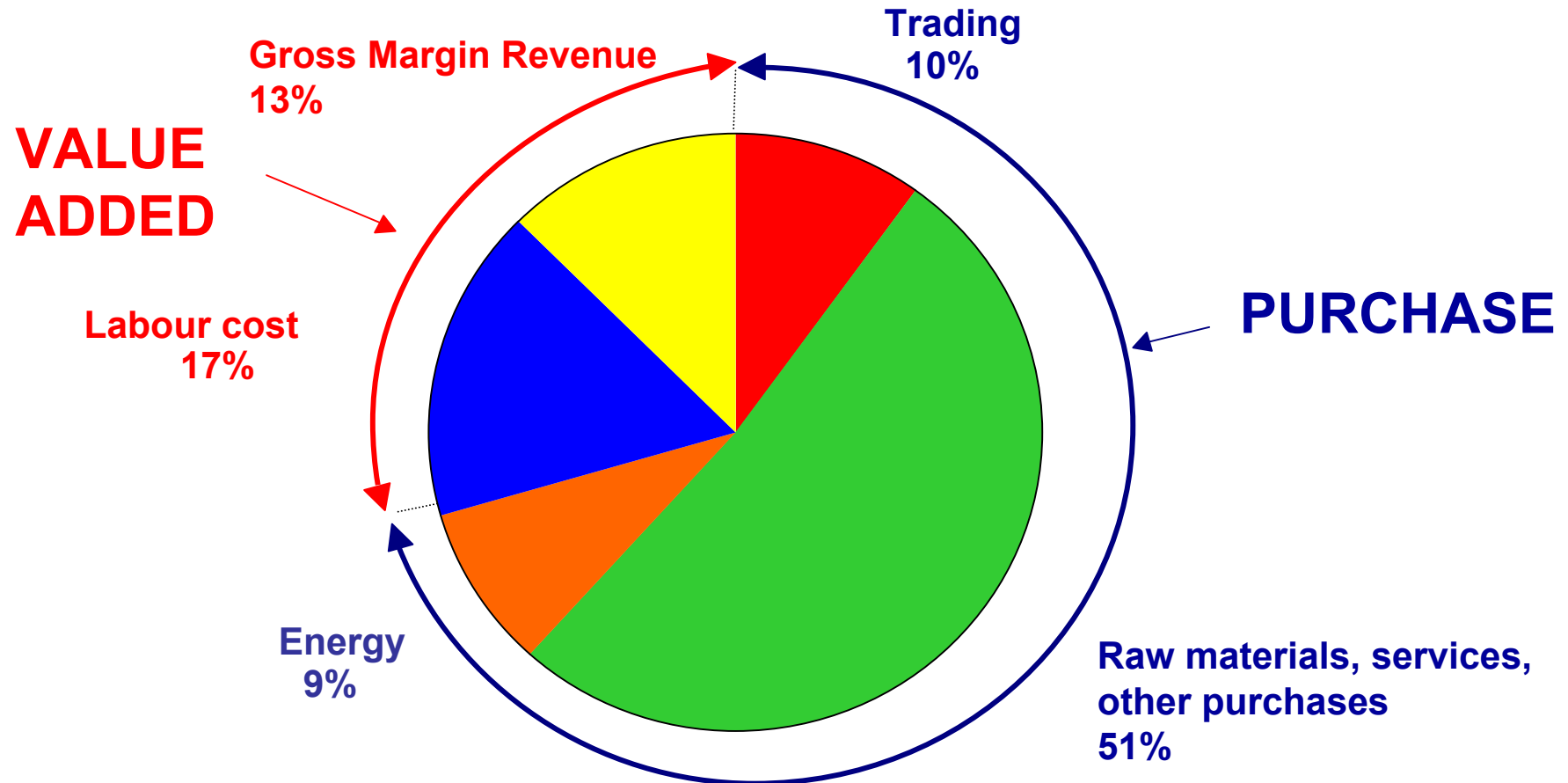
Year 1997 – percentage

	Germany	France	United Kingdom	Italy	EU (15)
Basic chemicals	43,8	27,5	30,0	27,9	34,0
Plant and other chem. for agric.	0,9	2,6	2,4	0,9	1,8
Paints, inks, enamels	9,2	6,9	10,7	8,1	8,3
Pharmaceuticals	21,8	32,5	26,1	33,9	27,3
Detergents and cosmetics	10,2	18,9	16,2	13,4	13,4
Other products for industry	9,2	10,5	12,5	10,4	11,6
Fibres	4,8	1,0	2,1	5,5	3,6
Total	100,0	100,0	100,0	100,0	100,0

Source: EUROSTAT – SBS database

In the major European Countries, the chemical employment is mainly focused on basic chemicals, followed by pharmaceuticals, detergents and cosmetics and the other products for industry

Costs structure of the European chemistry



Source: CEFIC

Energy and the purchase of raw material and services draw on the 60% of the cost structure, while labour cost only on the 17%

EFICCO Energy - Sustainable development, Seville, 16-18 June 2002

New chemical plants

(survey of 2000 – may 2001)

WEST EUROPE	106	EAST EUROPE	29
Germany	22	Russia	11
France	19	Czech Republic	6
United Kingdom	15	Poland	5
Netherlands	13	Rumania	4
Spain	8	Hungary	2
Belgium	7	Serbia	1
Sweden	6		
Finland	5	ASIA	121
Italy	4		
Turkey	3	MIDDLE EAST	84
Switzerland	2		
Norway	1	OTHER COUNT. AMERICA	40
Portugal	1		
USA	59	REST OF THE WORLD	30

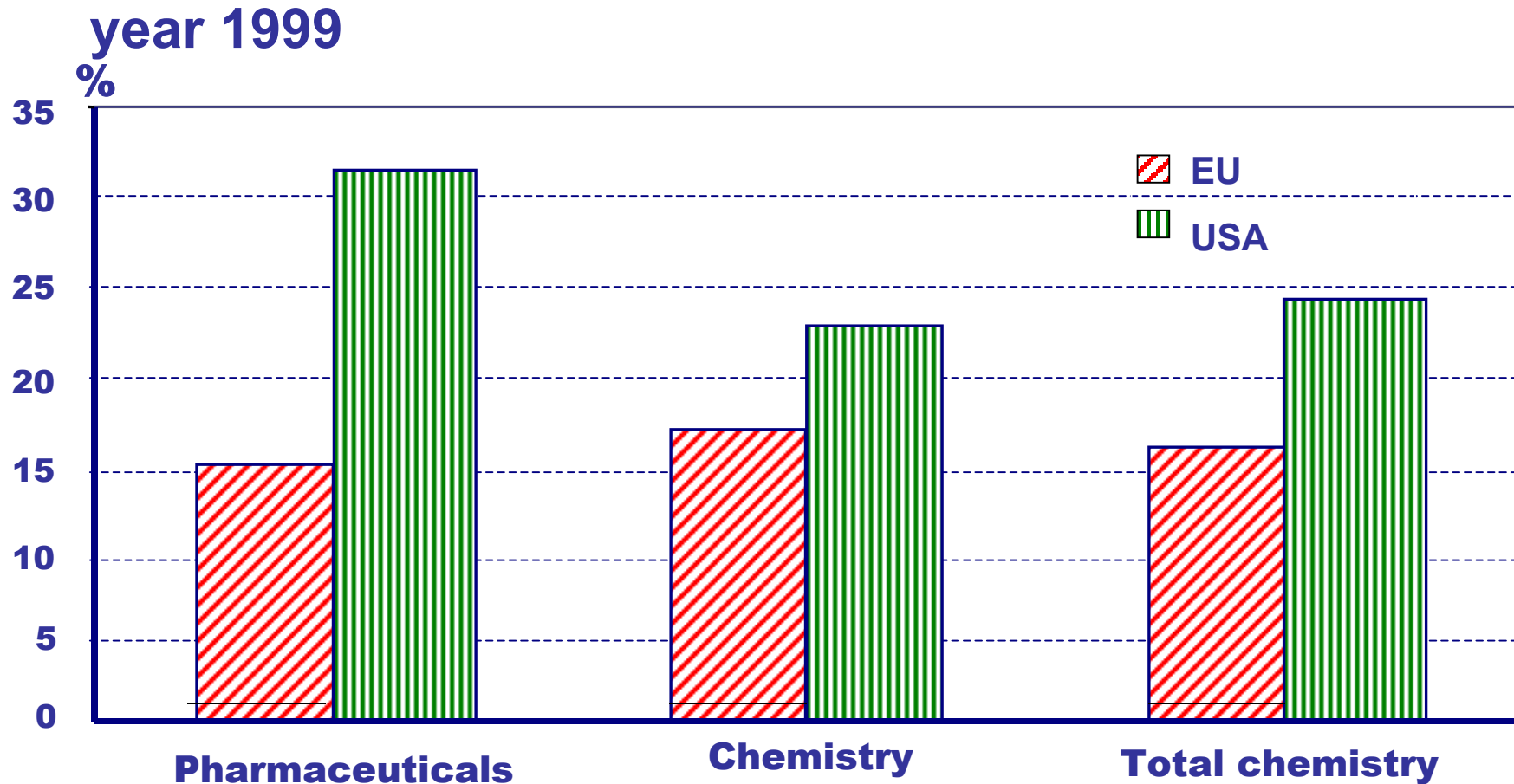
TOTAL PLANTS 469

Source: ECN

The new plants built between September 2000 and May 2001 are 469: 106 are in West Europe (22 of them in Germany), 121 in Asia and 84 in Middle East

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Gross Margin Revenue Comparison between EU and USA



Source: CEFIC

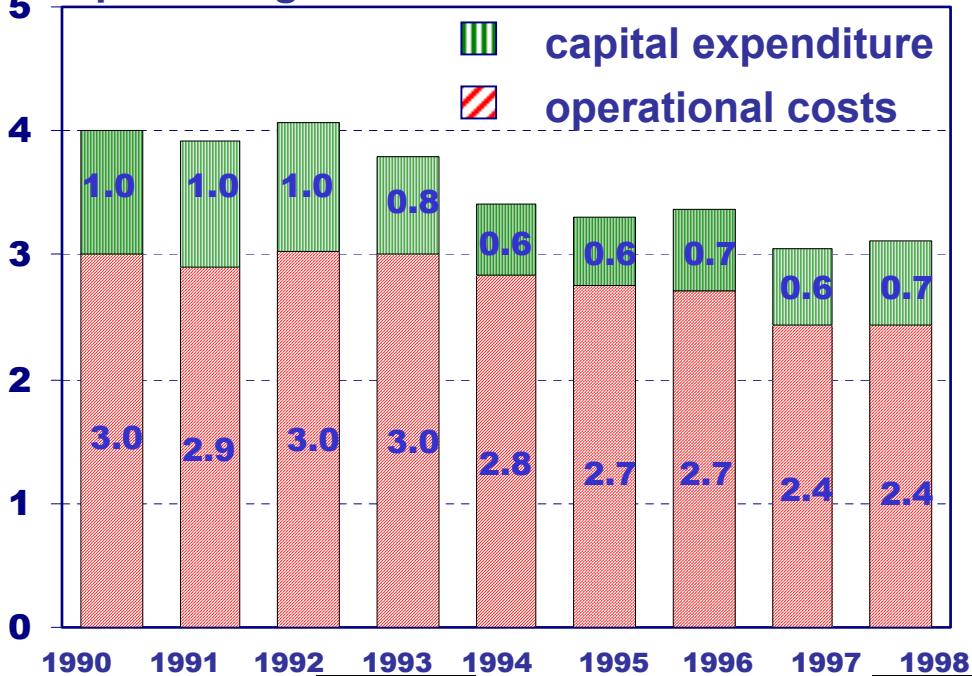
In 1999 USA gross margin revenue was superior of 9 points to the EU one

PTUC's 6th European Summit
development, Seville, 16-18 June 2002

Environmental performances of the European chemical industry

Environmental investments

In percentage on sales

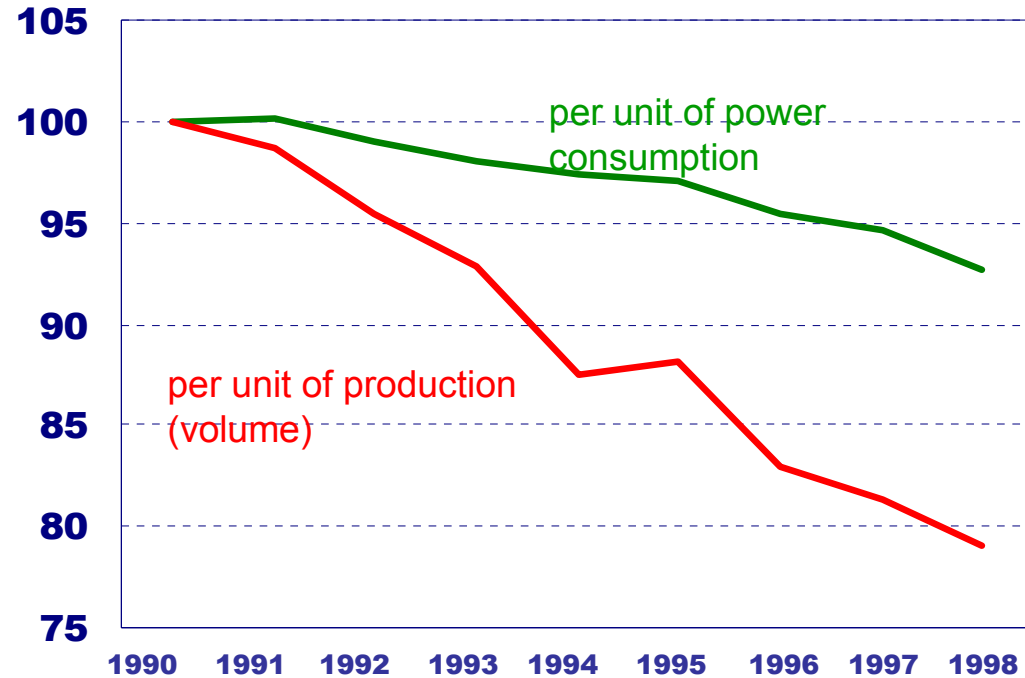


Source: CEFIC

The environmental investments (both capital expenditure and operational costs) decreased in the last decade

CO₂ Emissions

Index 1990=100



And so did CO₂ emissions (both per unit of power consumption and per unit of production)

Structure of the European chemistry according to enterprises' dimensions

Year 1996 – Percentage distribution per number of employees

	Total industrial sectors			Chemical industry		
	Enterprises	Employees	Turnover	Enterprises	Employees	Turnover
0-9	81,2	15,2	7,0	68,1	3,5	3,0
10-49	14,9	20,4	14,2	19,2	8,2	6,2
50-249	3,1	19,9	19,6	8,6	16,3	19,1
SME	99,2	55,5	40,8	95,9	28,1	28,4
250 and more	0,8	44,5	59,2	4,1	71,9	71,6
Total	100,0	100,0	100,0	100,0	100,0	100,0

Source: EUROSTAT – SME database

The enterprises having from 0 to 250 employees are the 95.9% of the total of all the chemical industries and have 28.1% of employees and 28.4% of the turnover.

This picture of 1996 is confirmed and developed in the projections of 2001

2. The achievements of the trade unions

Since the 70s the achievements of the trade unions concerning safety, health and environment were originated from our mobilization initiatives with the aim of supporting:

The achievements of the trade unions

- Environmental surveys for the sake of the workers and population health;
- Epidemiological surveys for the sake of the workers that have been exposed to chemical, physical and biological agents;
- The constitution of joint committees for the proposal and management of safety, health and environment care;
- Until the current European regulation that decrees the workers representative for safety, health and environment care.

3. International agreements

- Together with international agreements we also managed the occupational consequences of the chemical substances dangerous for the environment.

International agreements

- In particular the Montreal protocol on CFC and HCFC which represented a milestone concerning the ending of some productions which were dangerous for the ozone in the ionosphere and concerning the sector restructuring criteria, which were supported by the research of new technologies and products in the applications of the cold chain and in particular for food industry.

4. The voluntary initiatives and the participations of the workers and Unions

- We are currently at a turning point between the need to re-launch companies' voluntary initiatives for sustainable development and on-going improvements in the area of health and safety and the environment, and strong impetus from European institutions and NGOs relating to the introduction of community regulation based exclusively on directives and controls.

The voluntary initiatives and the participations of the workers and Unions

- Furthermore, the lack of increased awareness of topics in the area of health, safety and the environment, starting with the top management in a company, runs the risk of seriously endangering the possibility of establishing policies which will lead to on-going improvements in the workplace.

The voluntary initiatives and the participations of the workers and Unions

- We note that this problem occurs where there is no system for managing health and safety and the environment. This shortcoming is often linked to a lack of management systems for quality and total quality in technologies and production.

The voluntary initiatives and the participations of the workers and Unions

- This is a reference framework which is seen more clearly in many small and medium sized companies. They do not have the technical capacity or management systems for health, the environment and quality and this is why they turn to external consultants to get them to define application of procedures deriving from legal obligations.

The voluntary initiatives and the participations of the workers and Unions

- But, as we know, these methods of managing risk assessment do not improve awareness and prevention in the areas of health and safety and the environment.

The voluntary initiatives and the participations of the workers and Unions

- We pushed the enterprise system (enterprises and their Associations), to go beyond the legislation based on orders and control, even with some agreements, suggesting the way of a continuous improvement through the EMAS regulation, but also with the sharing of the Responsible Care approach which was promoted by the industry.

5. The regulatory system

- Since the 60s and 70s the European Commission have defined the Directives on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations.

The regulatory system

- The Directives concerning production import and export have been continuously updated and modified.
- Since 1981 an authorisation method for the production and the commercialisation of the new chemical substances has been introduced.
- But this is not enough : we believe that there is a need for further protection of workers, consumers and environment.

The regulatory system

This are the reasons why of the proposal for a Commission's White Paper on the strategy for a future Chemical Policy:

- because there is a difference among the new substances and the ones existing before 1981
- because there is a severe regulation for the new substances that creates obstacles in terms of innovation
- because there is a virtual lack of regulation for the existing substances
- because the resources of the member countries are scarce.

6. The objectives of the new policy

- To have a unique system for new and existing substances
- To guarantee a high level of protection for the human health and environment
- To regulate the internal market of chemical products
- To maintain the competitiveness of the chemical industry
- To face the problems of the SMEs.

The objectives of the new policy

- But we believe that the important role of the human factor in the use and application of chemical substances is still missing in the proposal.
- The issues concerning rights and responsibilities of the chemical industry – the downstream users

The objectives of the new policy

Industry's rights and responsibilities:

- the final users must execute tests and inform the authorities in case of utilisation other than the one foreseen by the producers
- producers and final users must make the risk assessment
- avoid the duplication of tests on animals
- maintain the property rights on the results of the tests

The objectives of the new policy

The issues which remain open following the second round of working groups launched by the Commission in September 2001 on the various aspects of the White Paper are:

- in general, the REACH system which should include or recognise data relating to voluntary and global initiatives set up by the OECD chemicals program

The objectives of the new policy

- *in the «testing, registration and evaluation» working group, the following questions remain:*
 - determination of a basic system to evaluate hazards;
 - the REACH system which should apply to substances other than the polymers available on the European market in quantities greater than one tonne per year;
 - the Commission should encourage the creation of consortia for collective registration.

The objectives of the new policy

- *In the «risk assessment» working group, the main issue is:*
 - Priorities for risk assessment which should cover protection of human health and the environment and minimise the use of animal testing;

The objectives of the new policy

- *In the «risk management and authorisation» working group, the questions cover:*
 - Risk assessment which should be the basis for each regulatory action and the authorisation process which should be limited to CMR substances (categories 1 and 2) and POPs.
 - The risk management system which should be stimulated by identifying the uses of the registration and evaluation process.

The objectives of the new policy

- *In the «substances of very high concern» working group, the issues relating to:*
 - The substances of very high concern which should be given priority on the basis of the evaluation of the level of potential hazard;
 - PBT and VPVB substances which should be considered within an accelerated process for the management system for scientific risk assessment;
 - Substances and chemicals which are suspected of being endocrine disruptors and skin-sensitisers to be considered within an accelerated management system of scientific risk assessment.

The objectives of the new policy

- *In the «classification and labelling» working group, the question of:*
 - The list of substances in industry which should be limited to substances available on the market.
- *In the «substances and products» working group, questions of:*
 - The REACH system, to be applied only to substances presented on the market or to those which are part of preparations.

The objectives of the new policy

- *In the «information through the supply chain» working group, the main question is:*
 - Definition of the use and the scenario for exposure which will be defined in a comprehensible manner to facilitate communication right the way down the supply chain.

The objectives of the new policy

Generally EMCEF maintains that chemistry and the basic science of chemistry are part of our everyday life.

Sustainable development and safe use of chemicals are and should be key objectives of the new European chemicals policy.

The objectives of the new policy

The white paper is an essential framework for improved protection of human health and the environment, while maintaining the competitiveness of the EU chemical industry through ongoing innovation of products and technology. It is necessary to improve transparency of regulations relating to chemical products throughout the EU and to allow public access to information which must be developed and used at government and industry level.

The objectives of the new policy

The objective of a sustainable policy for chemical products must be safe use of substances through their entire life cycle.

Exclusion on the basis of intrinsic properties makes it impossible to evaluate risks and does not take into account risks linked to alternatives.

All elements of the international community should come to an agreement on a global chemicals policy in order to protect the population and the environment.

Companies which produce, use and import chemical products should assume more responsibility.

7. Some ongoing initiatives

- HSE
- Green Paper on PVC
- Sustainable development