CHALLENGES, OPPORTUNITIES AND THREATS ON THE FUTURE OF PLASTICS

1ST SYMPOSIUM OF PLASTICS ATHENS 19TH MARCH 2010

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- Plastics Converting in EU - business
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EuPC History

Created in 1989 on the initiative of six national plastics processing associations, **EuPC** was formed after the dissolution of Eutraplast and AEC. **EuPC** was set up to influence the EU decision-making process of regulations affecting its industry.

In **1995**, **EuPC** started to adapt its organisational structure in order to represent effectively the **market interests** of the European plastics converting industry. The association needed to focus its activities more on market development without losing the issues management and the common problems affecting plastics converters such as Health, Safety and Environment, Raw Materials and Trade and Communication.

In December 2001, a new structure with 3 market divisions: *Packaging, Building & Construction, Automotive & Transport*.

Since May 2002, an enlarged European network with new national plastics associations from new EU countries as members & observers.

Since 2005, integration of existing sector groups under the **EuPC** Umbrella, and a clear split between **EuPC INPA** and **EuPC SERVICES CVBA.**

June 2006, setting up of the **Senior Executives Forum** for introducing more senior industrial participation into the **EuPC agenda** and the relaunch of the **National Plastics Associations** Directors platform.


EuPC
European Plastics Converters
PIF
FIPIF
Plast-och
kemiföre-
tagen
EPA
PLASTINDUSTRIEN
Plastics
IRELAND
BPF
NRK
IVK
AGORIA
fedichem
GKV
MMSZ
ASPAPLAST
LA PLASTURGIE
SPCA
APIP
FETEP
UNIONPLAS
BPCA
PAGEV
AHPI

Our Mission Statement

Create a good trading environment for plastics converters in Europe

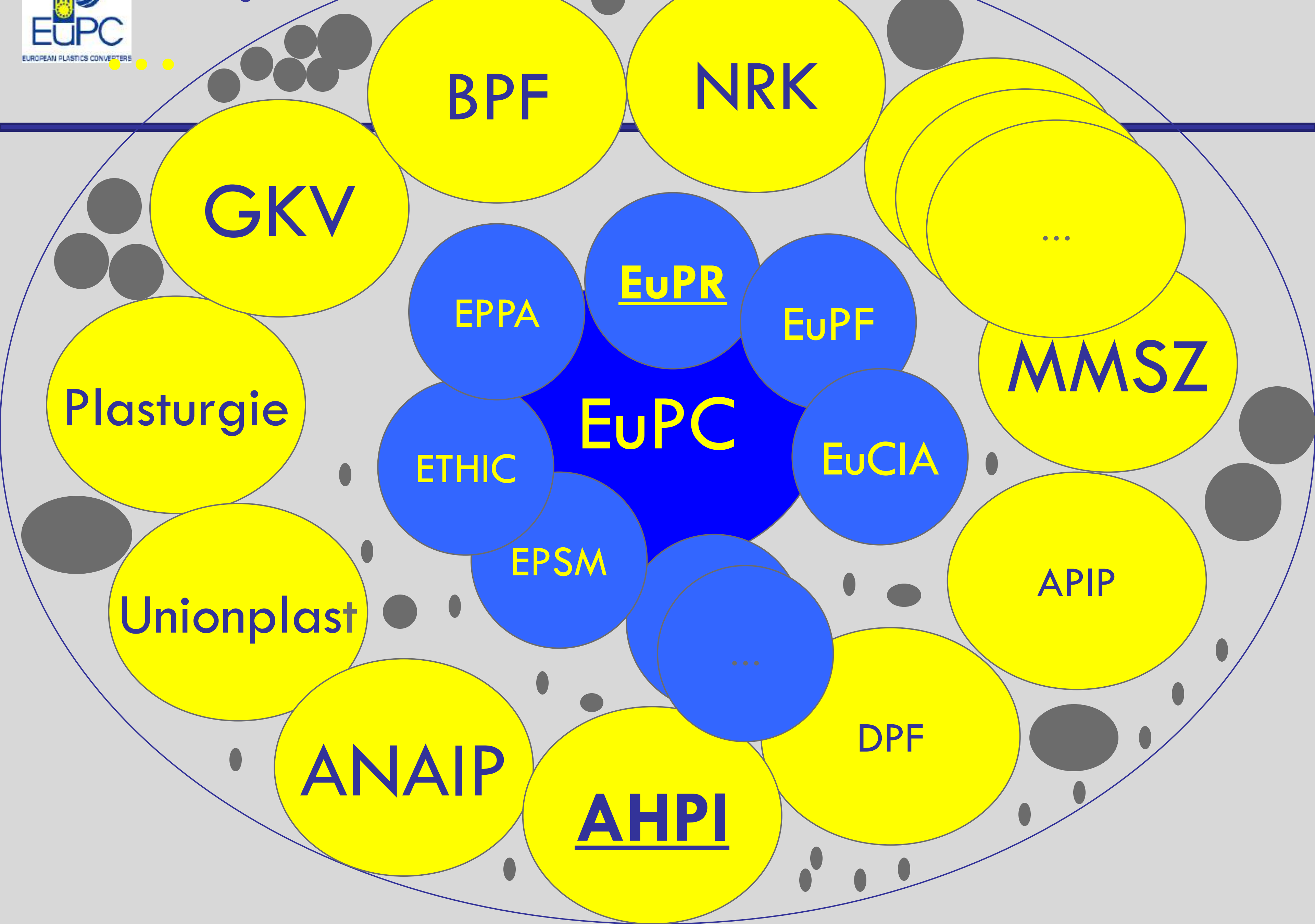
European Plastics Converters

Over 50,000 companies

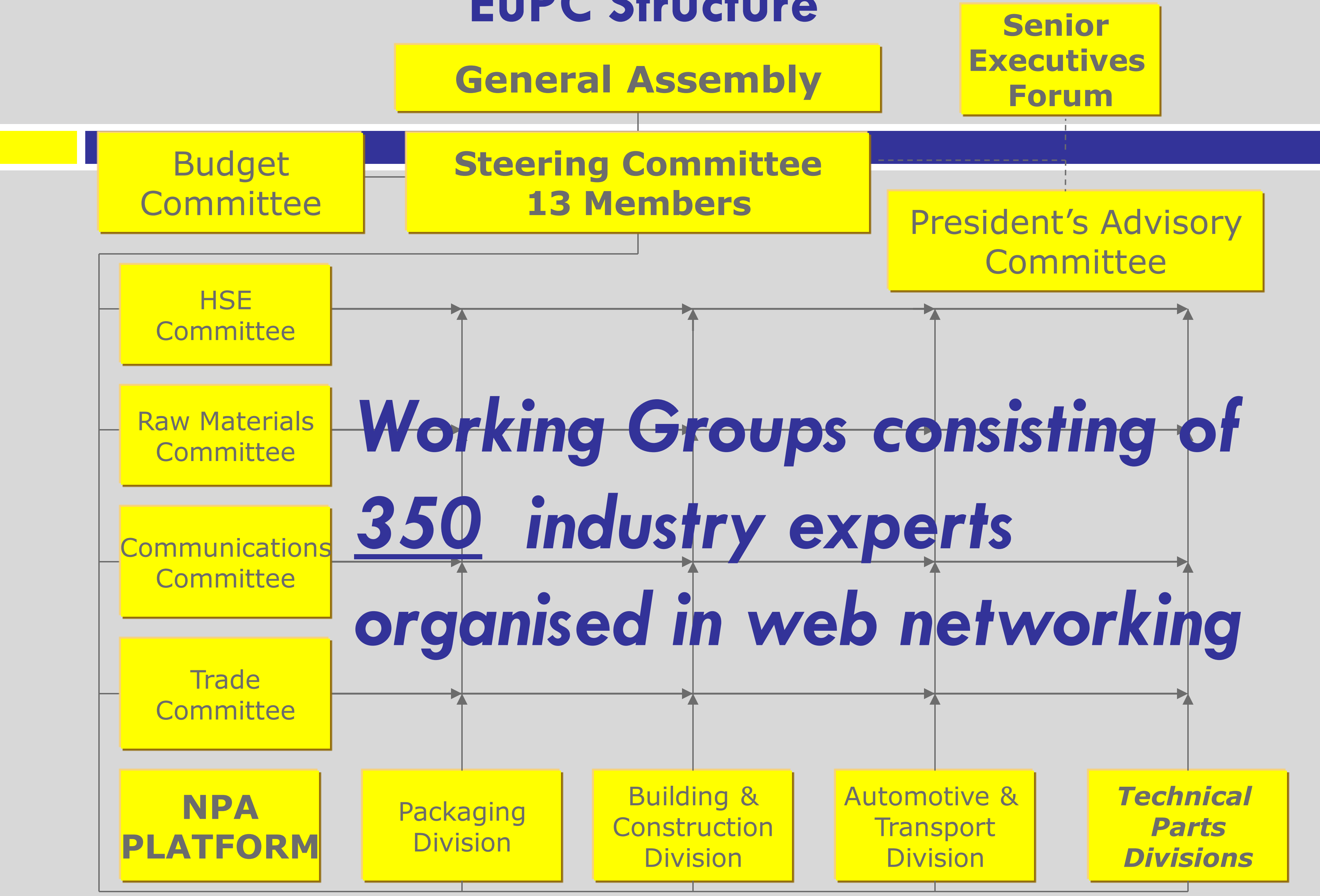
More than 1.7 million employees

More than 40 million tonnes of plastics

Linking The Plastics Network



EuPC Structure



What’s Plastics converting?

Raw Materials:

- Virgin plastics;
- Recycled plastics;
- Bio-plastics
- …

Plastics Converting

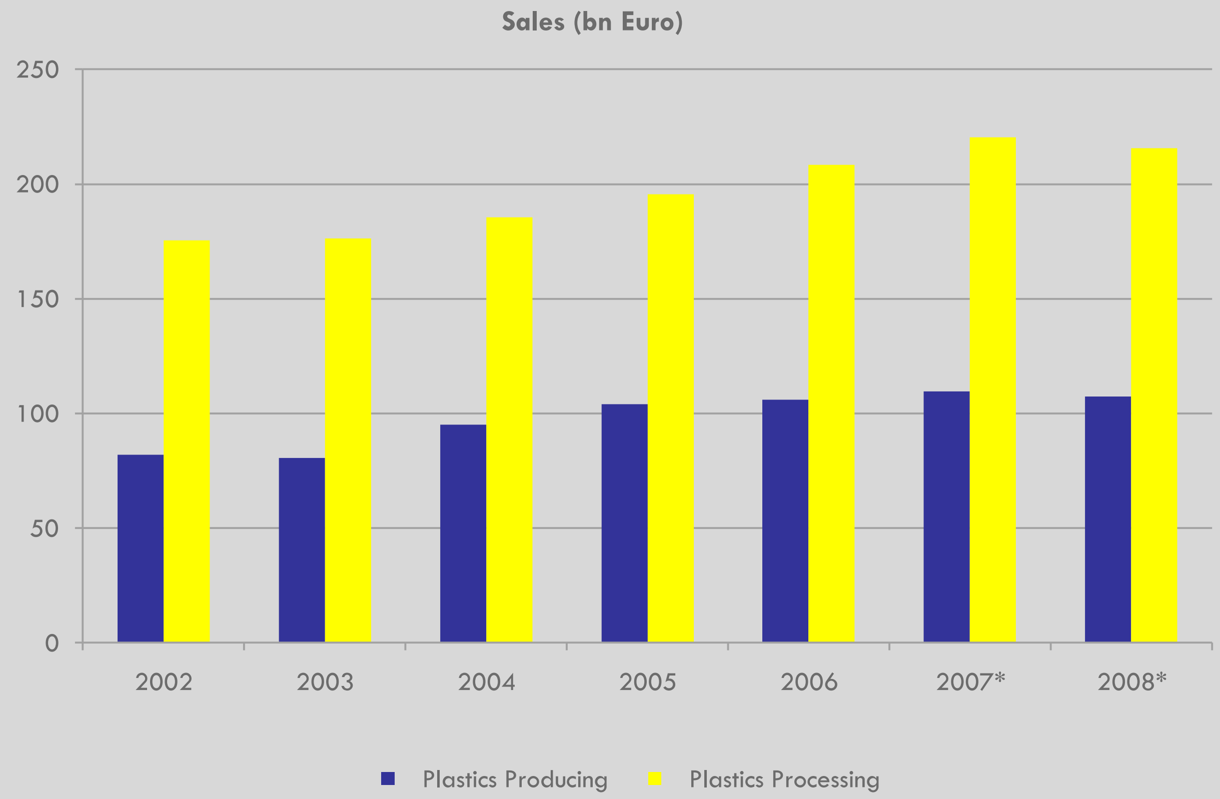
- Extrusion ;
- Calendaring;
- Blow moulding;
- ….

Semi-finished Products

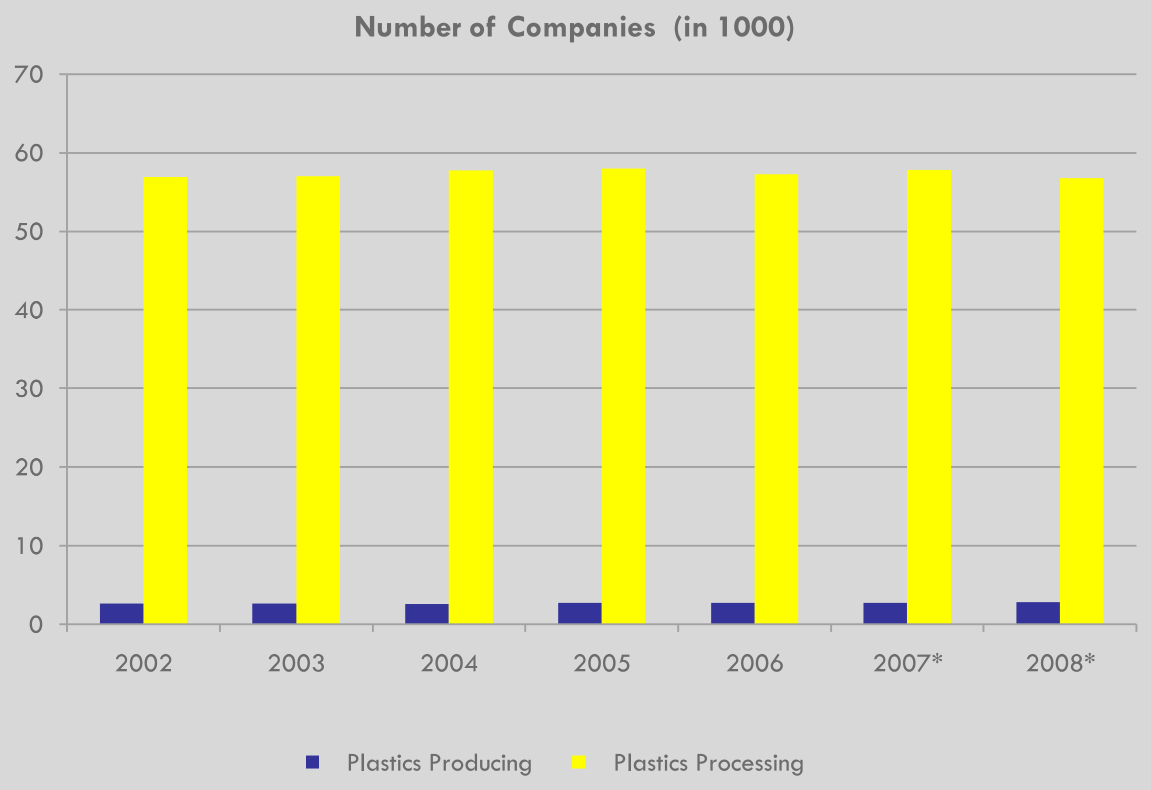
- Agriculture Films;
- Car Bumpers;
- Bottles;
- ….

Turnover of more than €300 Billion per year

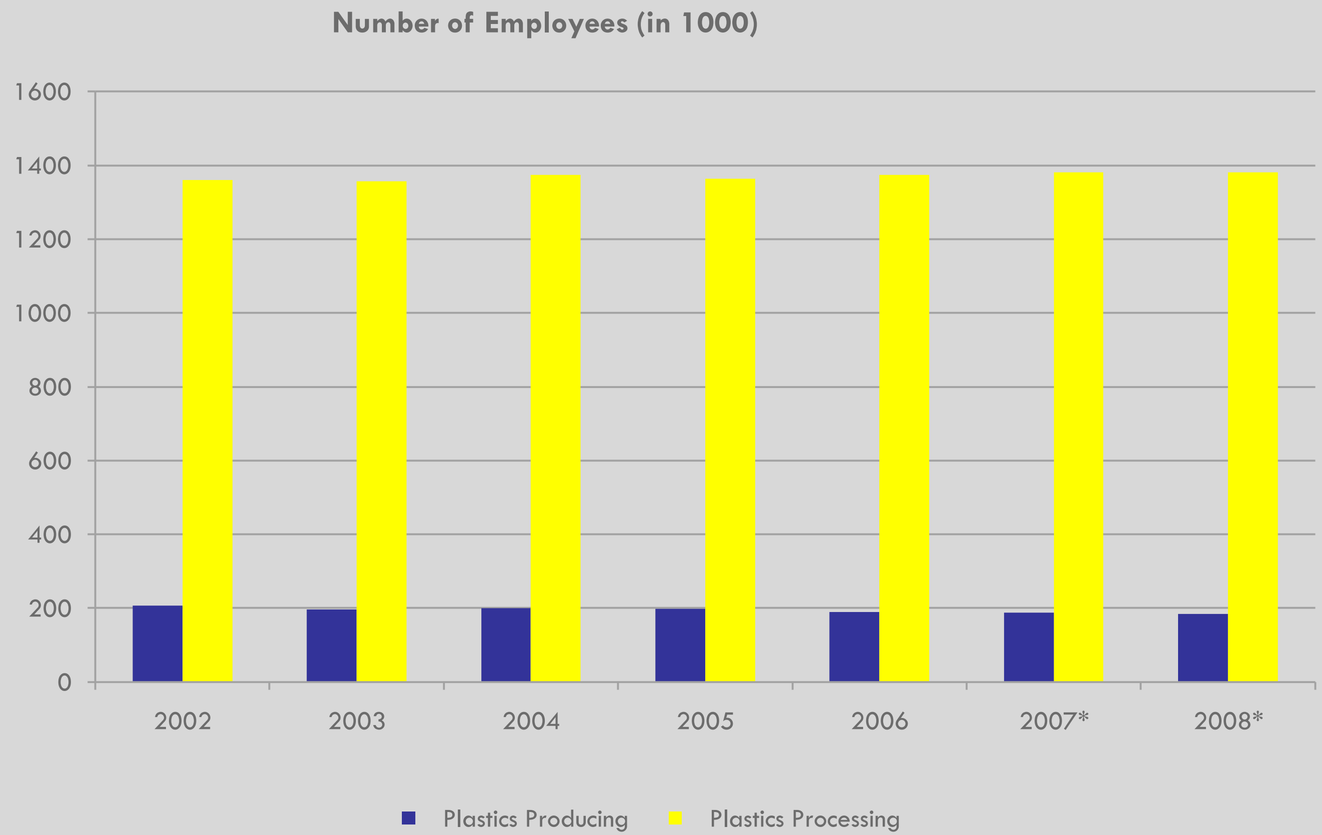
The European Plastics Industry



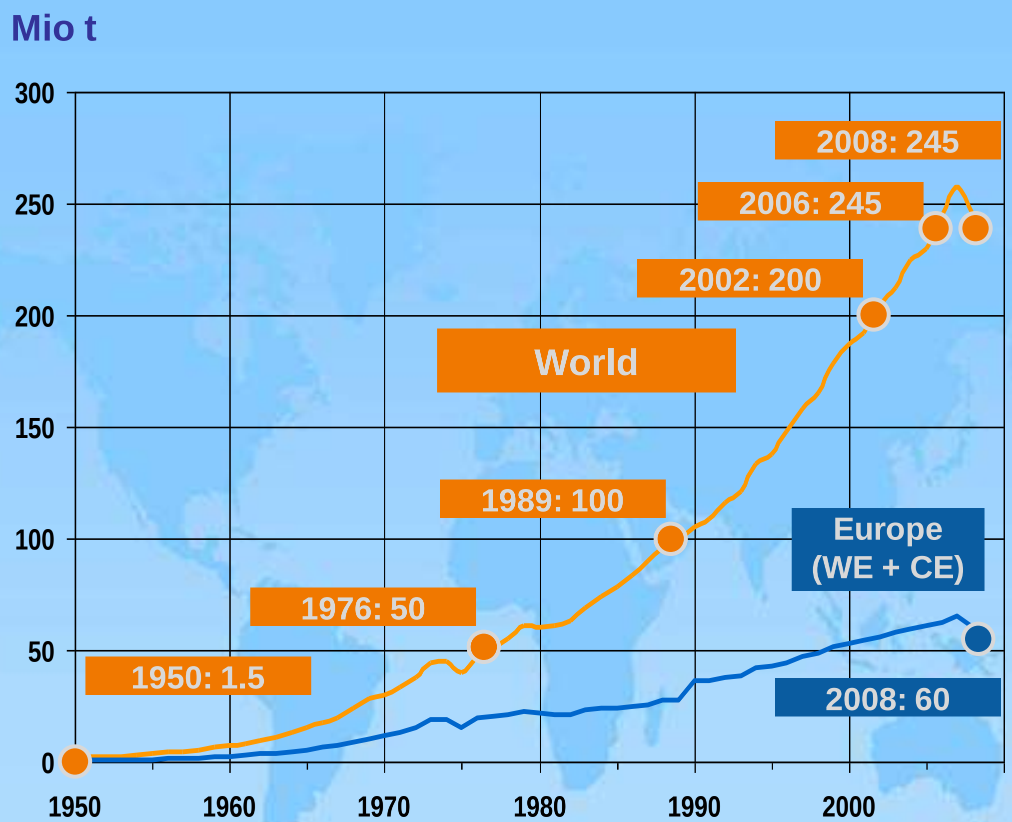
Number of Companies (SMEs) in the EU



Employment in Europe



Plastics production fell for the first time in 34 years due to the financial crisis



Includes Thermoplastics, Polyurethanes, Thermosets, Elastomers, Adhesives, Coatings and Sealants and PP-Fibers. Not included PET-, PA- and Polyacryl-Fibers

Production fell back from 260 to 245 million tonnes per year

Plastics production ramped up from 1.5 Mio t in 1950 to 245 Mio t in 2008

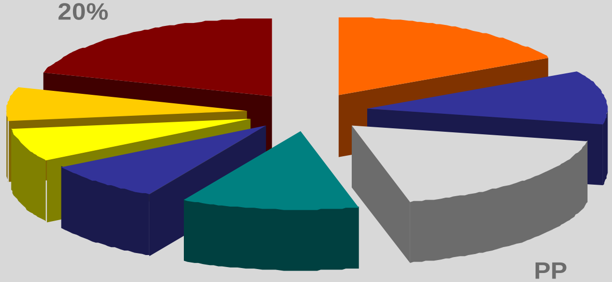
Average Annual Growth Rate (CAGR) has been about 9.0%

Source: PlasticsEurope Market Research Group (PEMRG)

Demand by converters in EU27+NO/CH fell by 7.5% to 48.5 million tonnes in 2008

Breakdown per country

and by plastic type



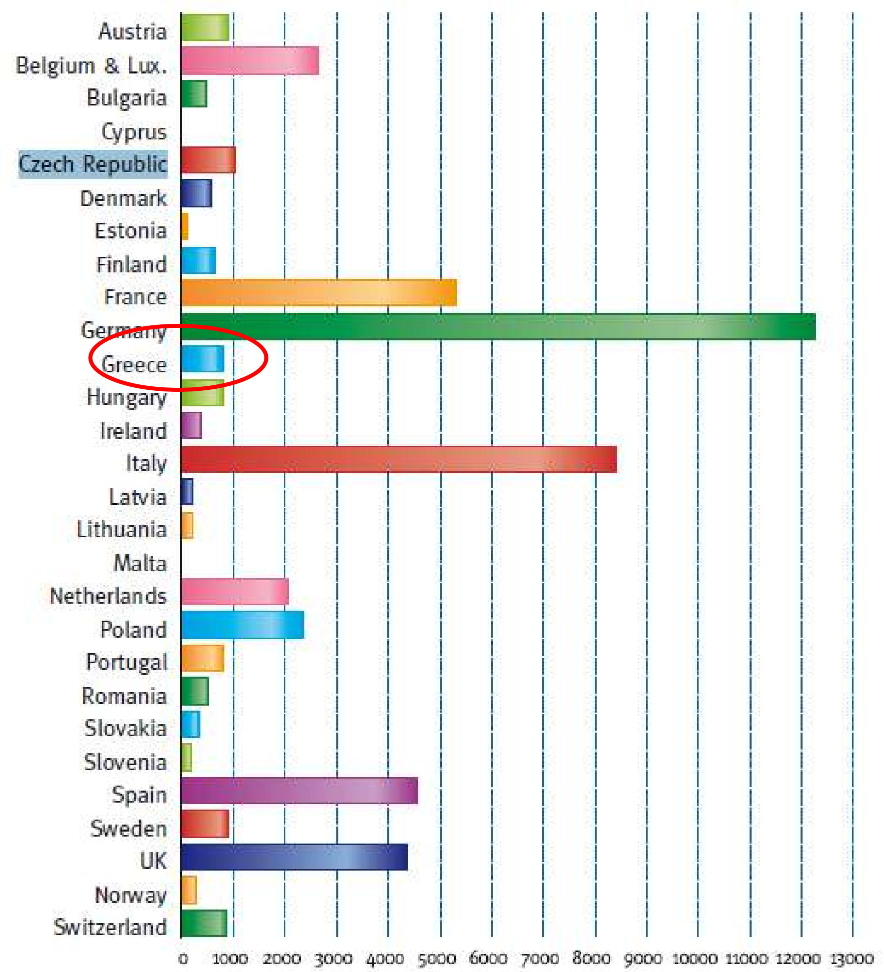
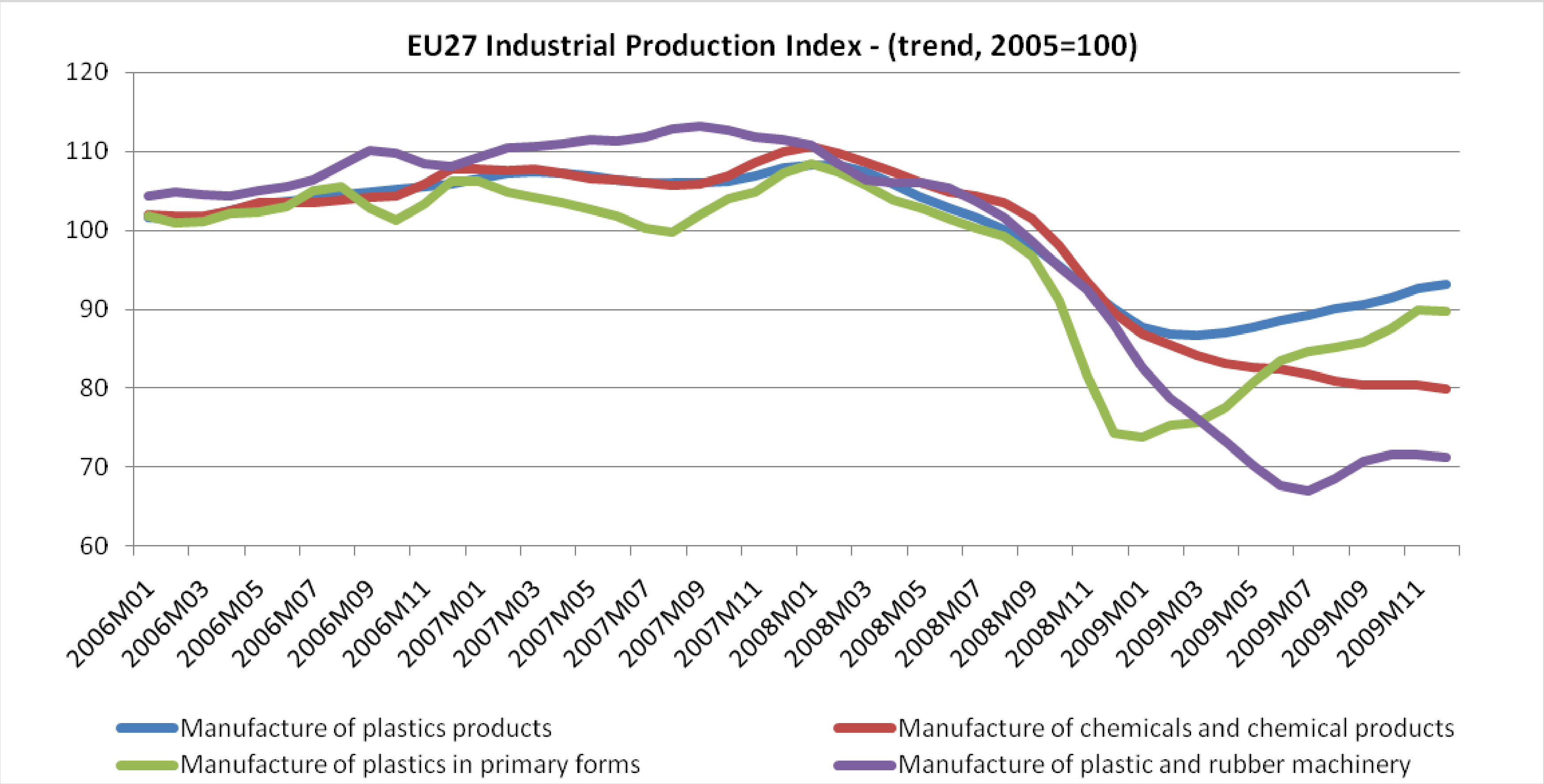
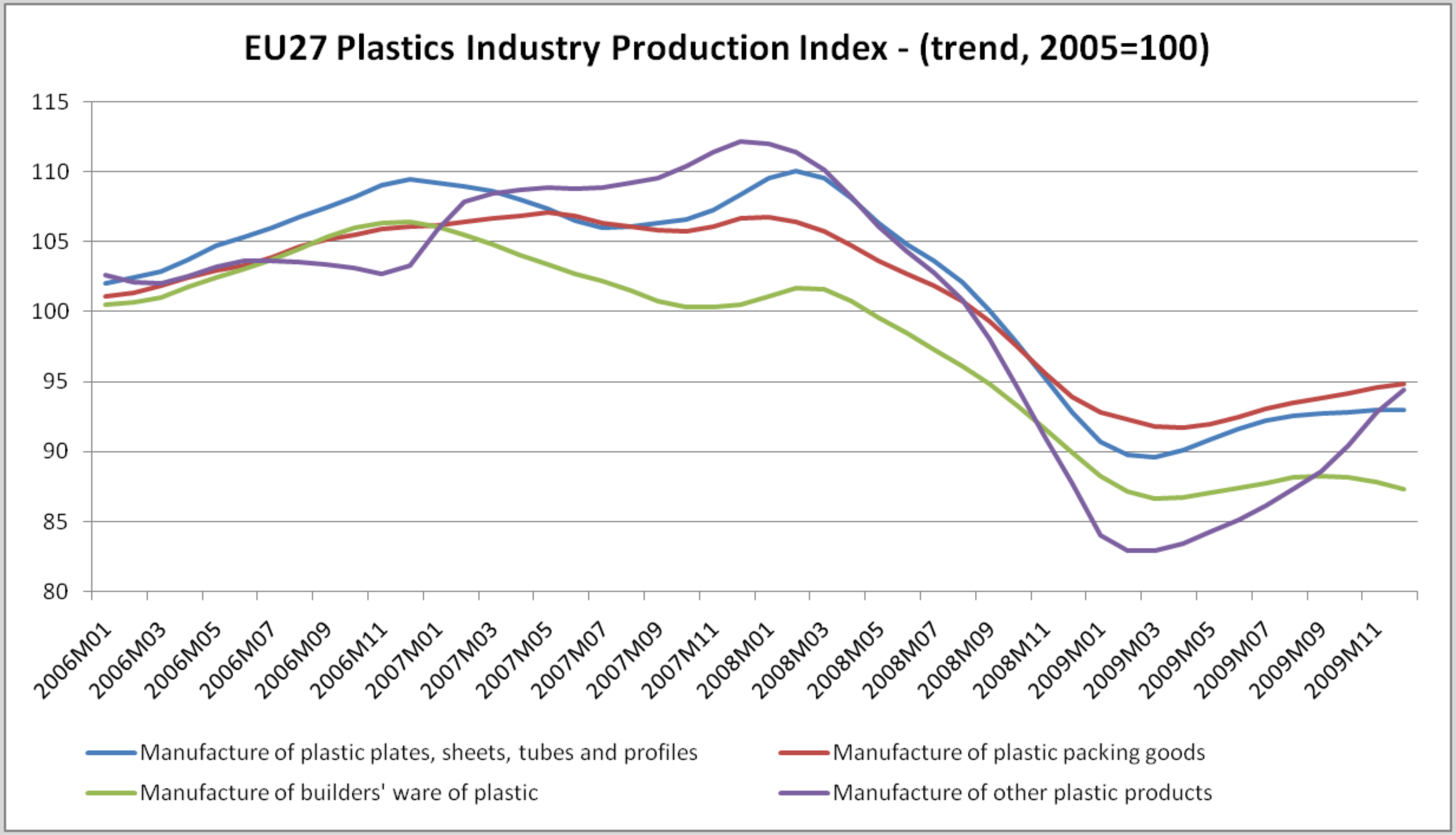


Figure 4. Plastic demand by converters: breakdown by country in Europe (k tonnes/year)

EuPC Business Tendency Survey



Source: Eurostat



Source: Eurostat

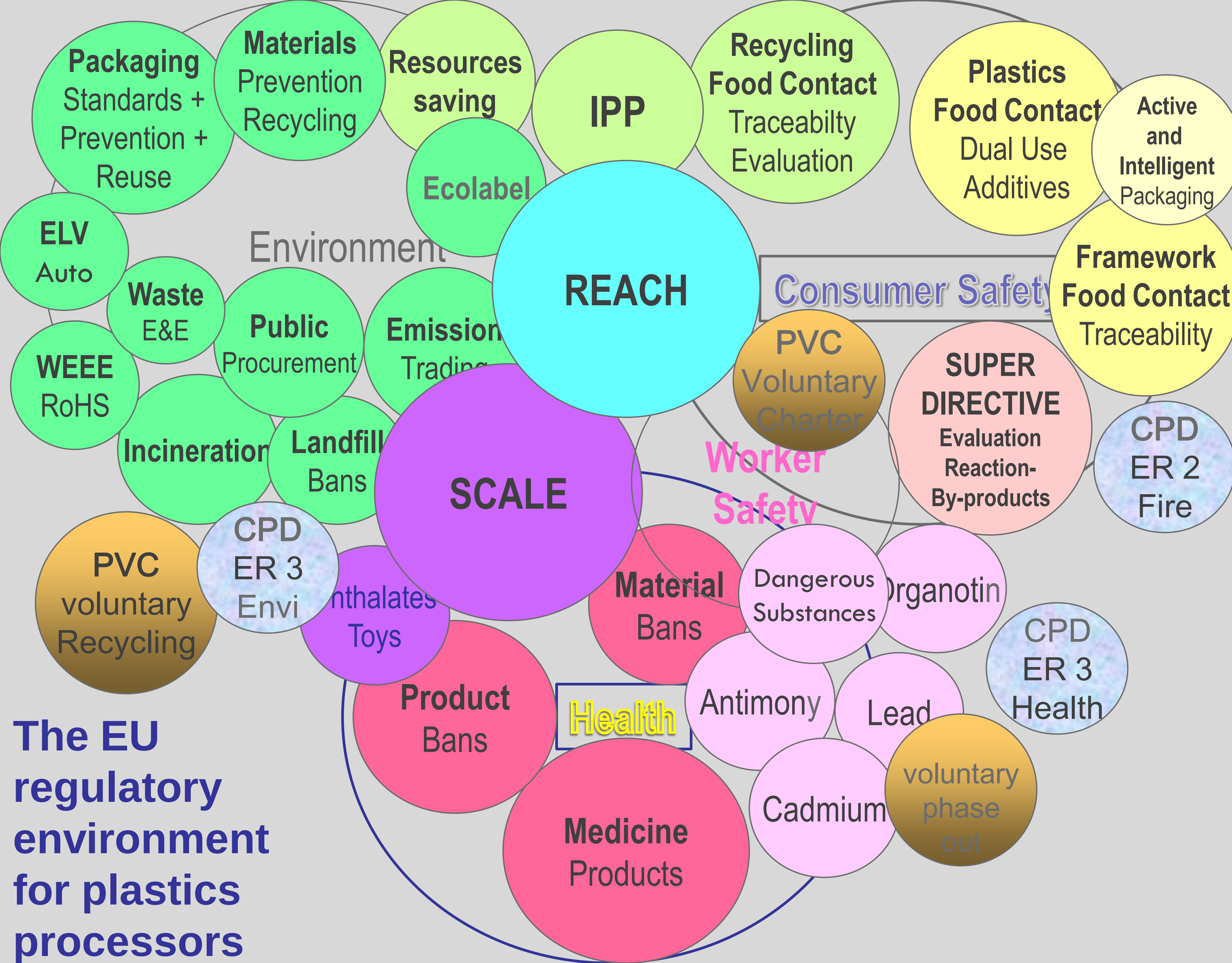
Quartly surveys on-line per country

Q1 2010	Overall Economic Situation	Packaging Industry Consumer Goods	Packaging Industry Industrial Goods	Building & Construction	Automotive Industry	Consumer Goods Market
How would you describe the general economic situation in your industry?	↓	↓	↓	↓	↓	↓
Which turnover do you expect for this quarter, compared to the preceding one?	N/A	↑	↑	↓	↑	↓
How would you describe the situation regarding the export?	N/A	↓	↑	↓	↑	↓
How will your prices evolve?	N/A	↑	↑	↓	↑	↓
How will your earnings be?	N/A	↓	↓	↓	↓	↓
Which evolution in raw material prices do you expect?	N/A	↑	↑	↑	↑	↑

EU legislation

Challenges for converters

The EU regulatory environment for plastics processors



Current Advocacy Activities

- WEEE Directive
- RoHS Directive
- Draft Directive on Combating late payment in commercial transactions

RoHS (1)

- The RoHs (the **R**estriction **o**f the use of certain **H**azardous **S**ubstances in electrical and electronic equipment) Directive is under legislative recast in the European Institutions;
- The original Directive came into force on of 27 January 2003;
- Deadline fixed by the EP to table amendments was 10 March 2010;
- The Parliament Plenary vote should take place in May 2010.
- MEP Ms. Evans (rapporteur) has highlighted three key issues:
  - Extension of the scope of the Directive beyond what has been foreseen by the European Commission;
  - The Rohs Directive should be complementary to the REACH Regulation; and
  - **A call to ban three additional (groups of) substances, namely PVC in EE applications, halogenated flame retardants, including TBBP-A**.
- The European Commission, on the other hand, affirmed that the evidence concerning the substitutes of the proposed banned substances is not complete.

RoHS (2)

- 3 key elements at stake:
  - Safety of consumers;
  - SME's impact;
  - Recycling.

- and of course the loss of our markets… and employment

Draft Directive on Combating late payment in commercial transactions – "Introduction"

- Directive 2000/35/EC was adopted to combat late payment in commercial transactions between businesses or between businesses and public authorities.
- **There is overwhelming evidence that, despite the entry into force of Directive 2000/35/EC late payment in commercial transactions is still a general problem within the EU;**
  - In addition, there is also evidence in a number of Member States of unjustifiably long contractual payment periods in transactions involving public administrations.
- **Despite Directive 2000/35/EC, many businesses, in particular SMEs, do not charge interest when entitled to do so**.

Draft Directive on Combating late payment in commercial transactions – B2B Articles

- Article 4
  - When interest for late payment becomes payable in commercial transactions in accordance with Articles 3 and 5 and unless otherwise specified in the contract, the creditor is entitled to obtain from the debtor any of the following amounts:
    - (a) for a debt of less than EUR 1 000, a fixed sum of EUR 40;
    - (b) for a debt of EUR 1 000 or more, but less than EUR 10 000, a fixed sum of EUR 70;
    - (c) for a debt of EUR 10 000 or more, a sum equivalent to 1% of the amount for which interest for late payment becomes payable.
- Article 6
  - A clause which excludes interest for late payment shall always be considered as grossly unfair
- Article 8
  - Member States shall provide that the seller retains title to goods until they are fully paid for if a retention of title clause has been expressly agreed between the buyer and the seller before the delivery of the goods.

Conclusion on legislation

Plastics converters in the EU have to comply with a heavy burden of EU legislation.

Difficult economic situation is not making things easier for SMEs

Need to refocus the attention of all politicians that the European Union needs to maintain a competitive manufacturing industry in order to keep our welfare

Need for innovation in plastics

Let us dream together

Opportunities for converters

EuPC innovation projects with EU funding

EU-funded Projects

Currently, EuPC is involved in several projects including:

- Pegasus
- EUCertPlast
- EUPlasVoltage
- Natex
- Woody
- BioStruct
- Plastigreen
- Polymer REACH
- iPOLYCOND

Project Objectives

- To develop a new and innovative methodology for automotive SMEs:
  - Delivering integrating engineering and new processing concepts specifically (but not exclusively) for plastic moulded components.
- To provide enhanced capabilities for SMEs to design a new generation of sustainable knowledge-based services/products.
- To deliver a working demonstration of the above

The research leading to these results received funding from the European Community's Eco-Innovation Programme under grant agreement (PEGASUS)

Project Objectives

- Develop a European certification scheme for post-consumer plastics recycling in order to:

  - Achieve the recycling of more material
  - Fulfill REACH requirements for recyclers

- This will ultimately lead to an increase in the tracability, competitiveness and transparency of recyclates.

The research leading to these results received funding from the European Community's Eco-Innovation Programme under grant agreement (EUCERTPLAST)

Project Objectives

- Promotion of the use of natural fibers in structural applications, where traditional materials are currently used – hemp and flax natural fibers are therefore used
- Make the shift from resource- to knowledge- intensive industry through the development of high-tech technical textiles
- Innovative developments in various areas: fiber preparation, yarns manufacturing, fabric architecture, polymer selection and modification, processing, joining technologies, design of parts using CAD/CAE tools, etc.

The research leading to these results received funding from the European Community's Seventh Framework Programme under grant agreement No 214467 (NATEX)

Project Objectives

- Development of new composite structures from renewable materials such as wood
- Development of innovative technologies and processes
- Application of innovative materials in an eco-sustainable manner

The research leading to these results received funding from the European Community's Seventh Framework Programme under grant agreement No 210037 (WOODY)

Project Objectives

- Development of eWBC, the next generation of advanced wood-based composites that can be used in demanding, high value technical applications
- Development of cost-efficient materials and processes for eWBC to clear the way for theses resource efficient and sustainable materials
- Development of training materials in order to implement the knowledge achieved into the companies

The research leading to these results received funding from the European Community's Seventh Framework Programme under grant agreement No 214714 (BioStruct)

Project Objectives

- Create new skills that are both readable and attractive
- Strengthen this readability and attractiveness by creating a new certification recognised at European level
- Understand, through practice and testing, the European Credit Transfer and Accumulation System (ECTS)

The research leading to these results received funding from the European Community's Leonardo da Vinci Programme under grant agreement No 117048 (PLASTIGREEN)

Project Objective

- Development of an e-learning platform and training materials for the European ***polymer*** industry to learn and understand how to manage their obligations under **REACH**

Lifelong Learning Programme

Education and Culture DG

The research leading to these results received funding from the European Community's Leonardo da Vinci Programme under grant agreement No Polymer REACH)

Project Objectives

- Develop training materials and resources for the benefit of European plastics converters,

  to increase their knowledge base and understanding of conductivity of plastics

Education and Culture DG
Lifelong Learning Programme

The research leading to these results received funding from the European Community's Leonardo da Vinci Programme under grant agreement No iPOLYCOND)

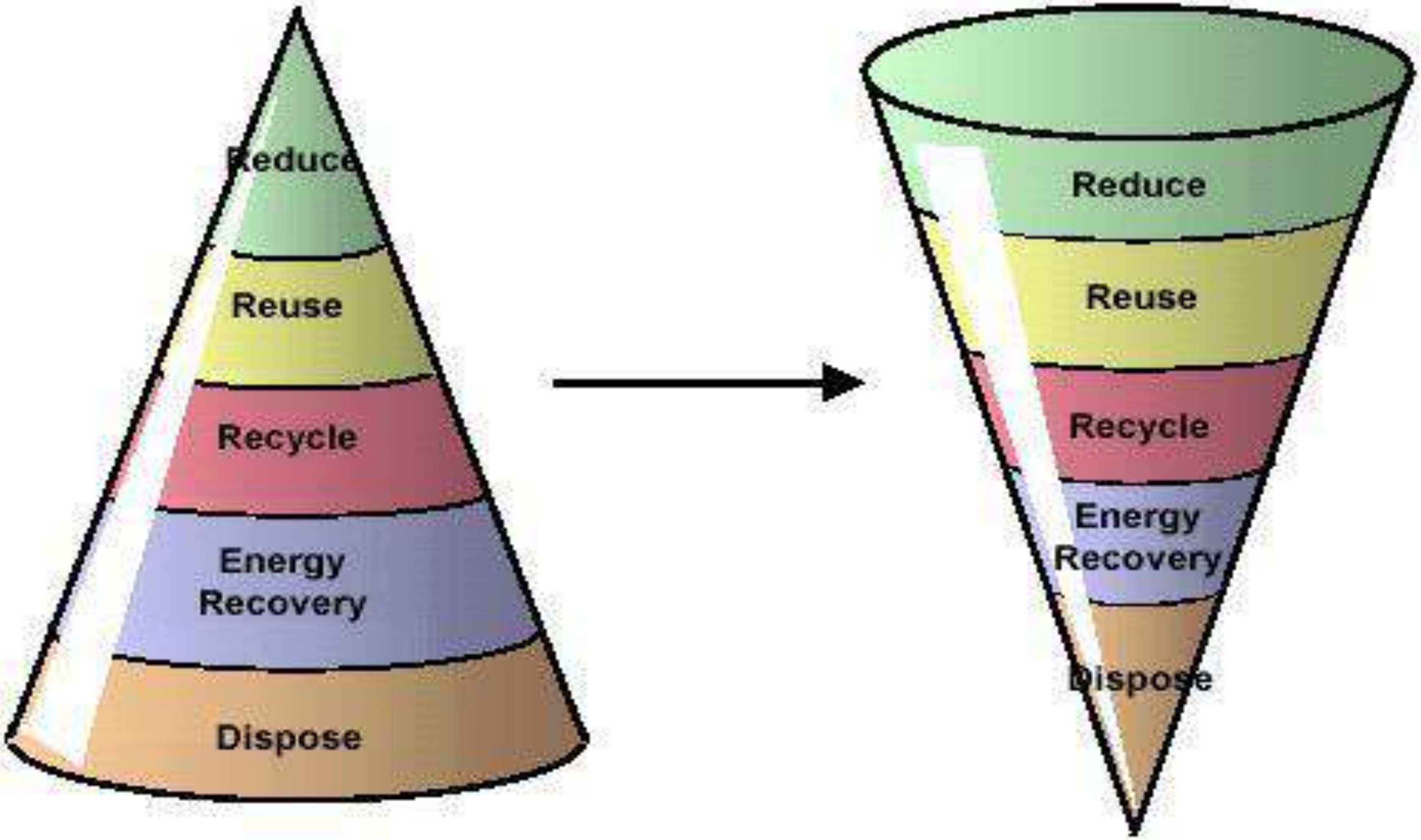
The Environmental « societal » and global Trade : Threats for our industry

Waste management

Marine litter

Global Trade

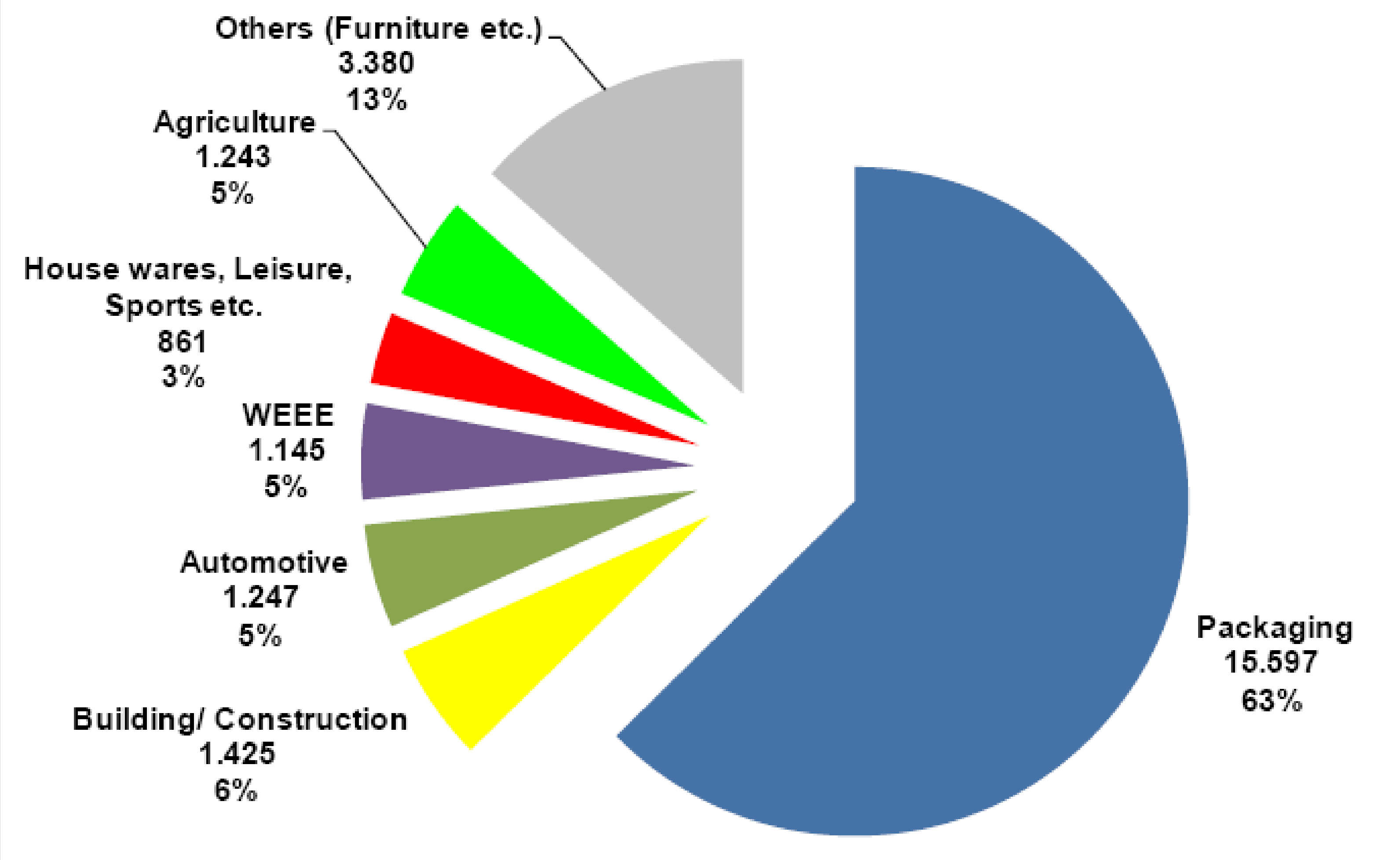
EU WASTE FRAMEWORK DIRECTIVE



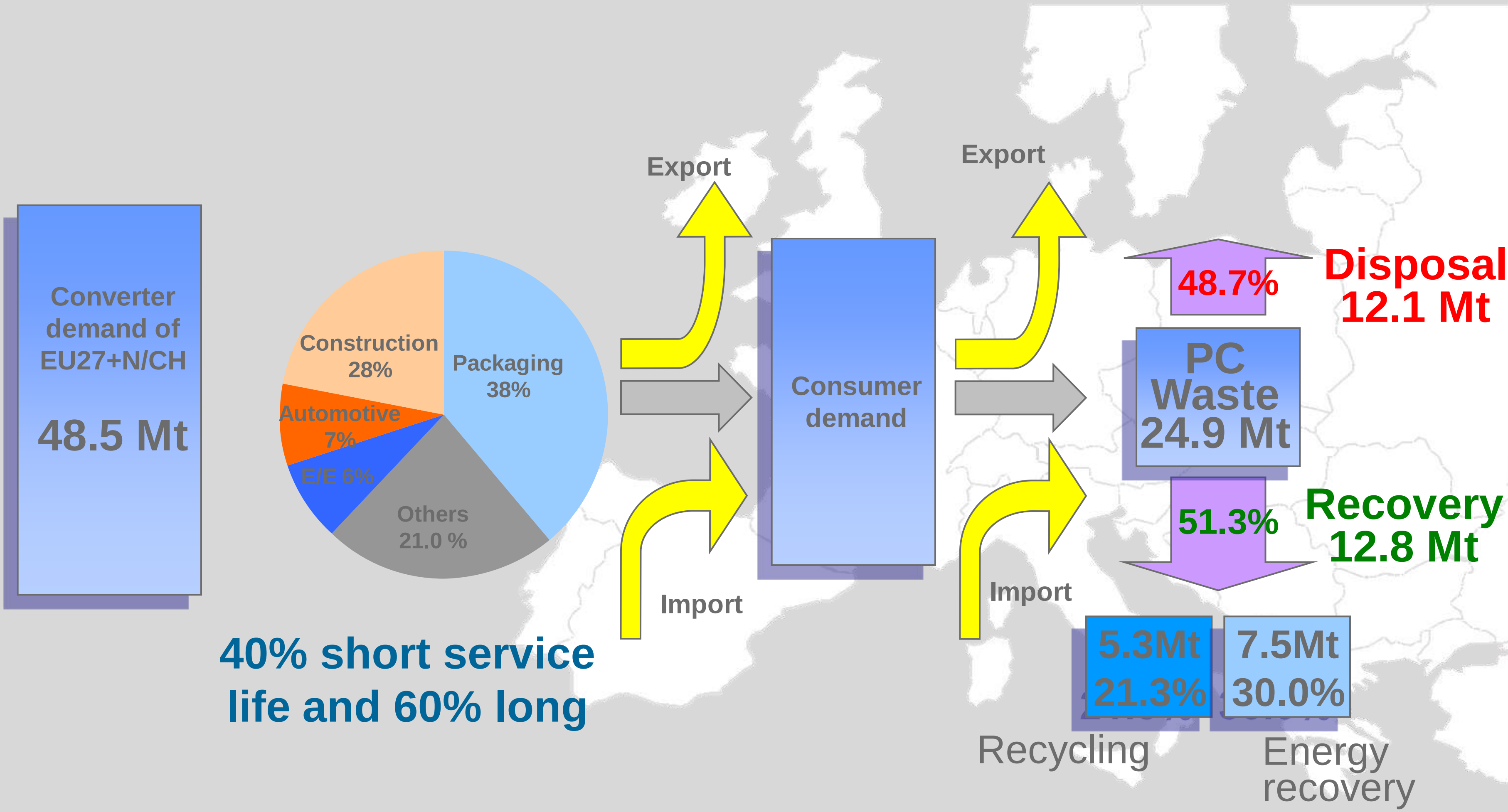
SOME TARGETS IN EU WASTE LEGISLATION

		min recovery	min recycling	collection rate
Packaging	**2008**	**60%**	**55%**	
Cars	**2015**	**95%**	**85%**	**100%**
Electronics	**2006**	**70%**	**50%**	**min 4 kg per habitant per year**
Batteries	**2011**		**50% to 75% (efficiency)**	
	2012			**25%**
	2016			**45%**
Tyres	**2006**	**0 landfill of tyres**		
Biowaste diverted from landfills	**2006**	**reduction to 75% of the 1995 level**		
	2009	**reduction to 50% of the 1995 level**		
	2016	**reduction to 35% of the 1995 level**		
New targets (WFD)	**2015**	**Separate collection: at least paper/metal/plastic/glass**		
	2020	**50% household waste**		
	2020	**70% construction and demolition waste**		

Total post-consumer plastic waste by application EU27 + 2 2008



Recovery reached 51% in 2008 …and is increasing



EU27+NO/CH 2008

Despite the progress - the same 9 countries remain at the top and the same 18 below 40%

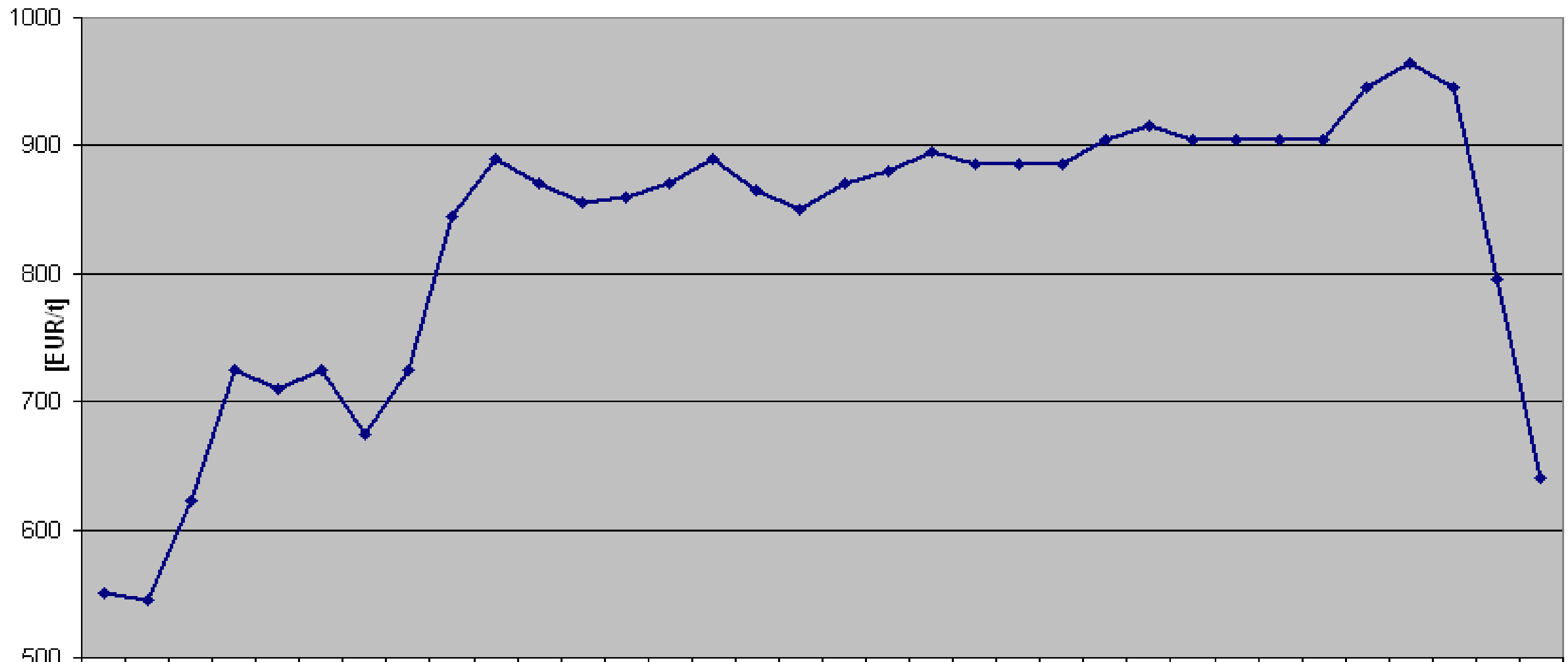
Waste is a valuable resource for our industry!

What is plastics recycling?

Threats to recycling: Prices plummet

Recycled PE, nature for Film Extrusion [avg. Price]

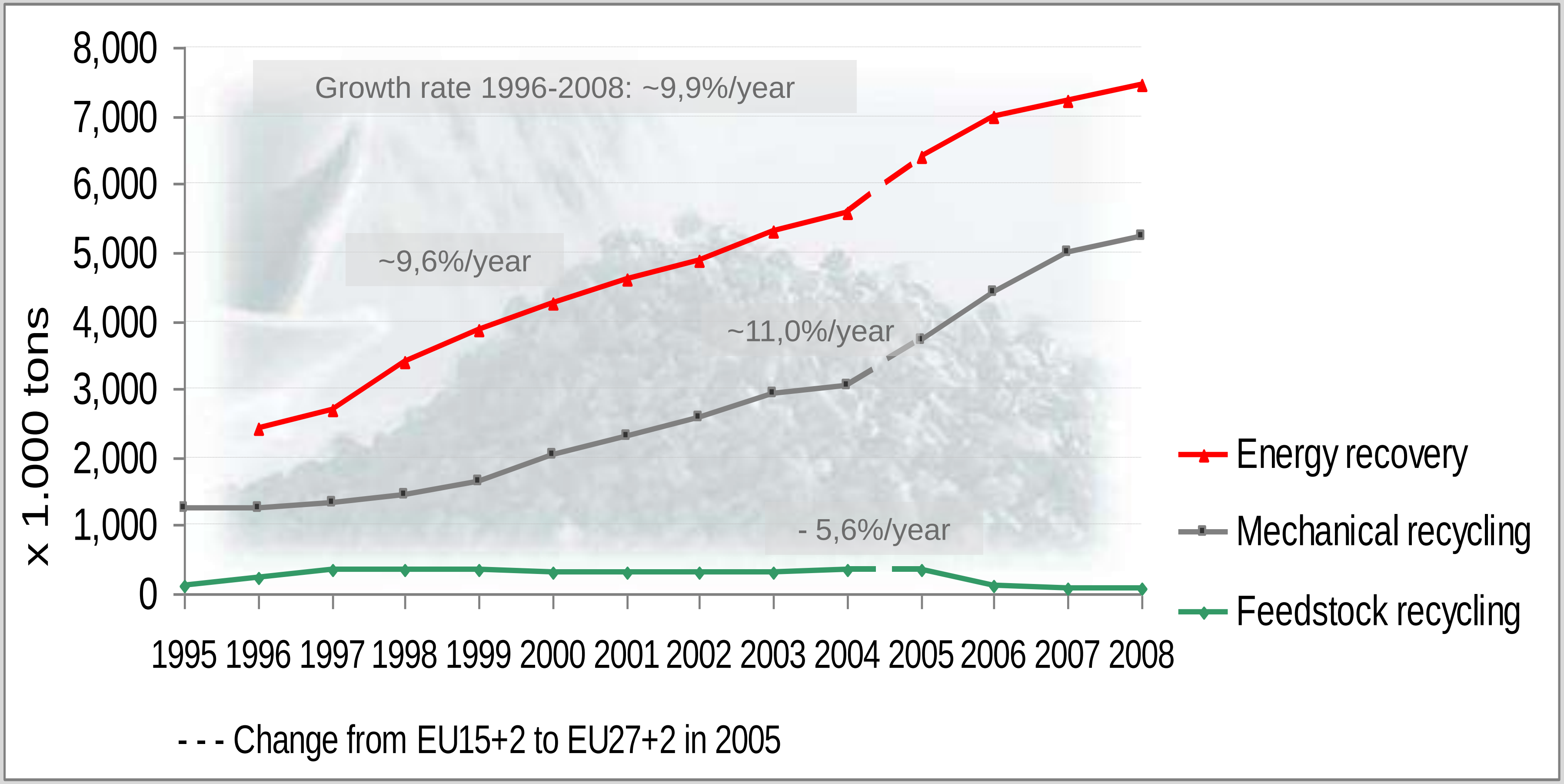
Source: KI Kunststoffinformation, Bad Homburg



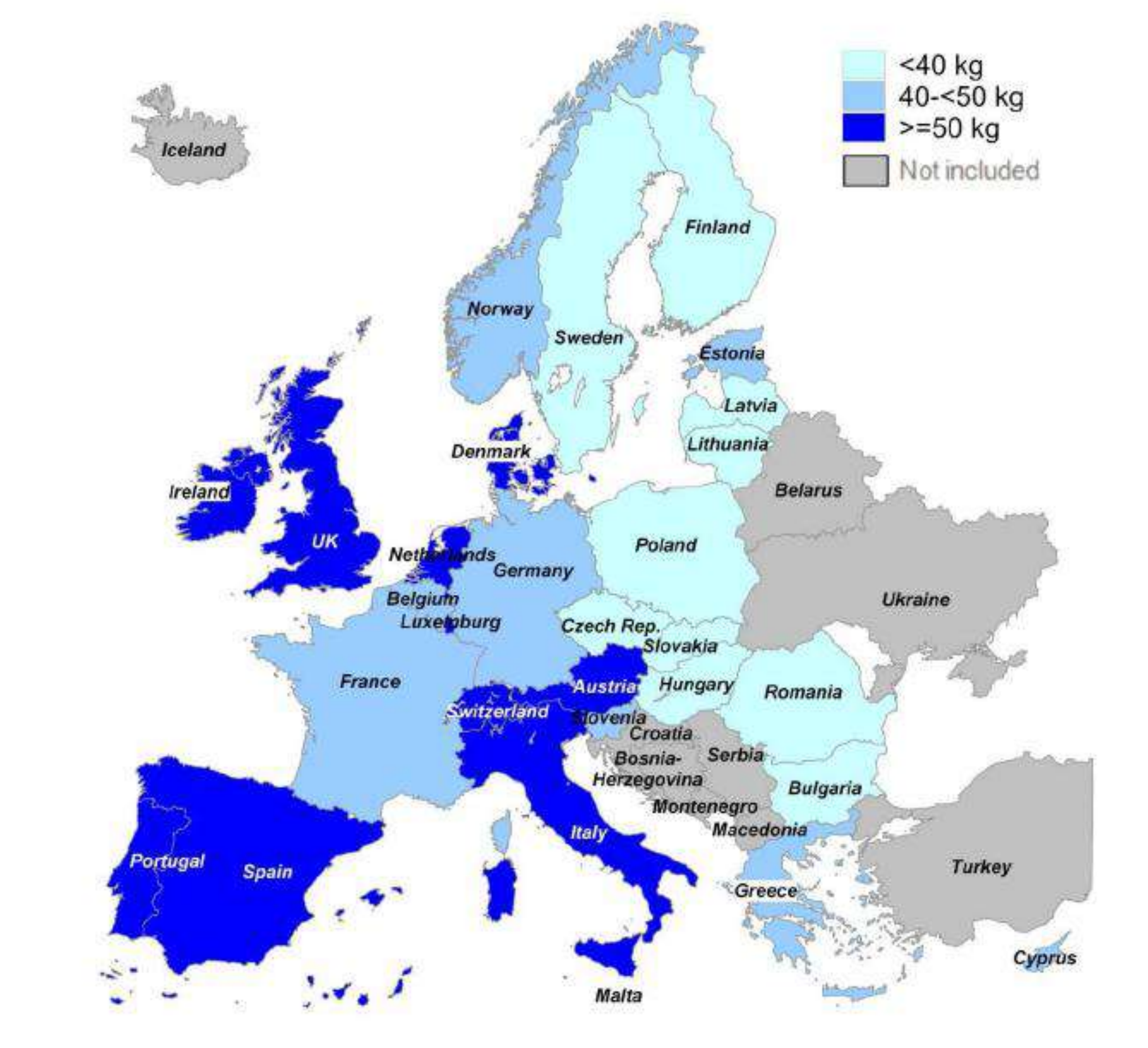
	Jun-04	Aug-04	Oct-04	Dec-04	Feb-05	Apr-05	Jun-05	Aug-05	Oct-05	Dec-05	Feb-06	Apr-06	Jun-06	Aug-06	Oct-06	Dec 06	Feb-07
Regranulat [EUR/t]	550	545	623	725	710	725	675	725	845	890	870	855	860	870	890	865	850

	Apr-07	Jun-07	Aug-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
Regranulat [EUR/t]	870	880	895	885	885	885	905	915	905	905	905	905	945	965	945	795	640

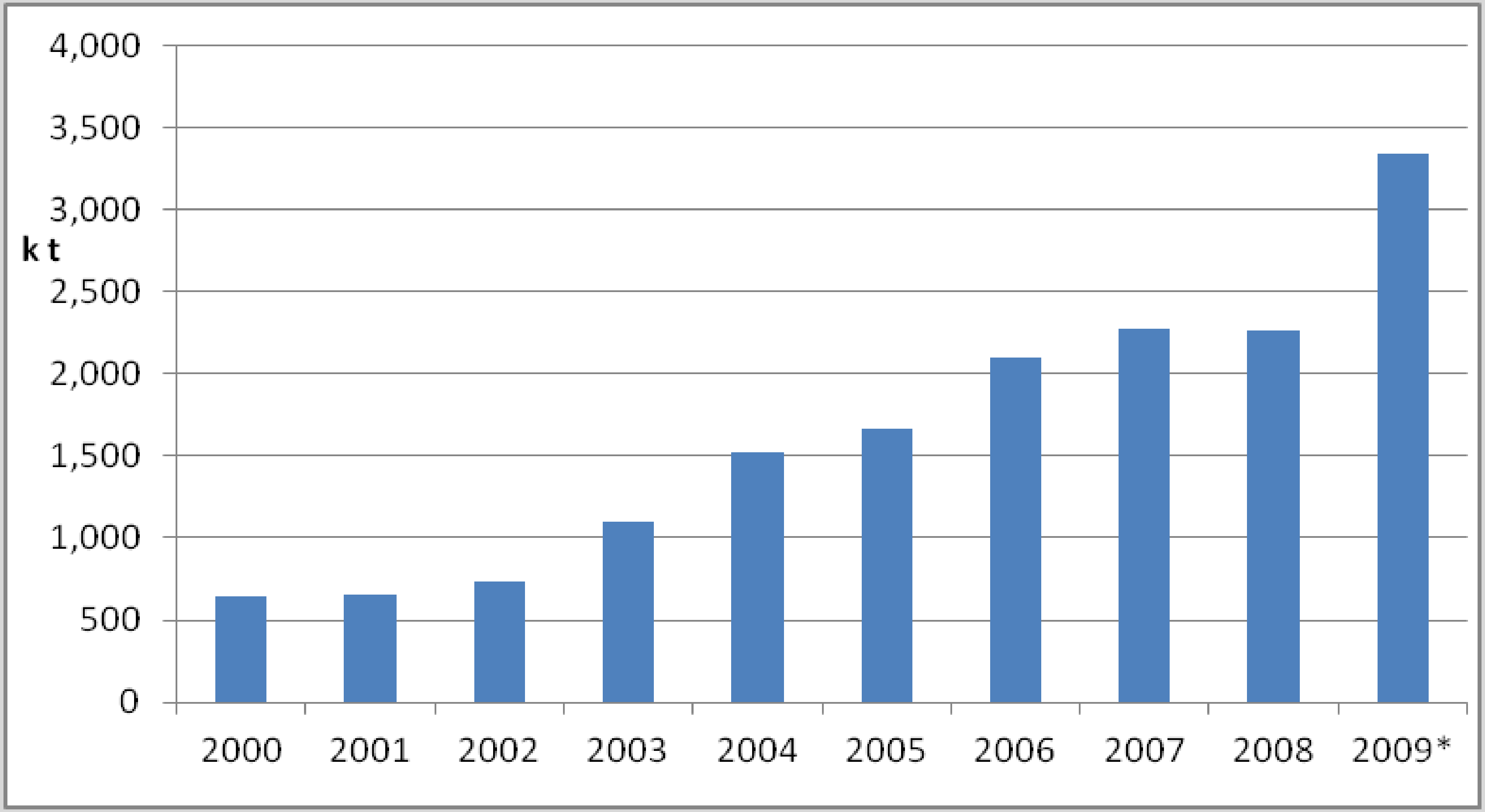
Slowing growth of recycling and energy recovery



Total generation of post-consumer plastic waste by country 2008 (in kg/capita)

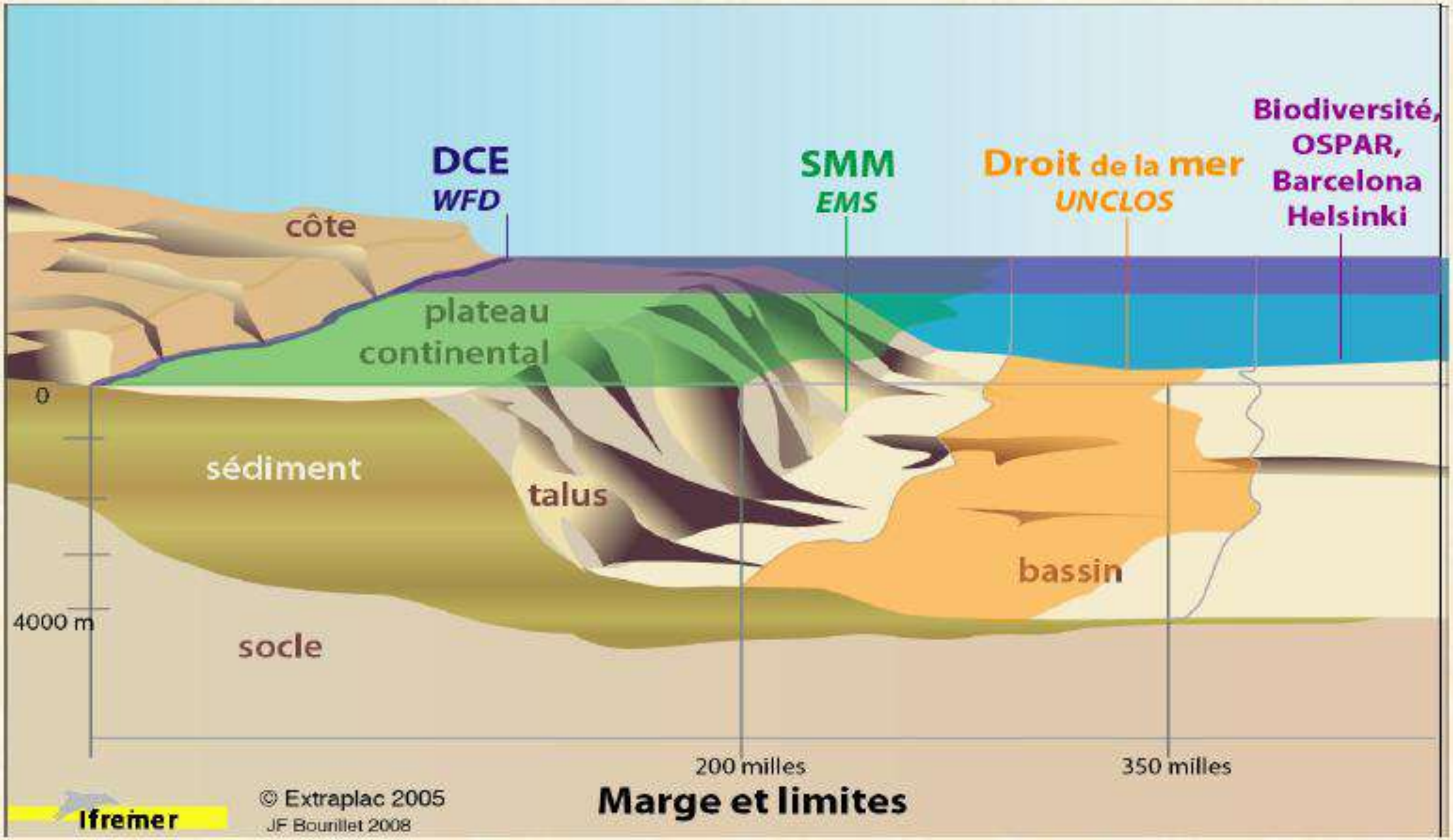


Stop the Plastics Waste Export

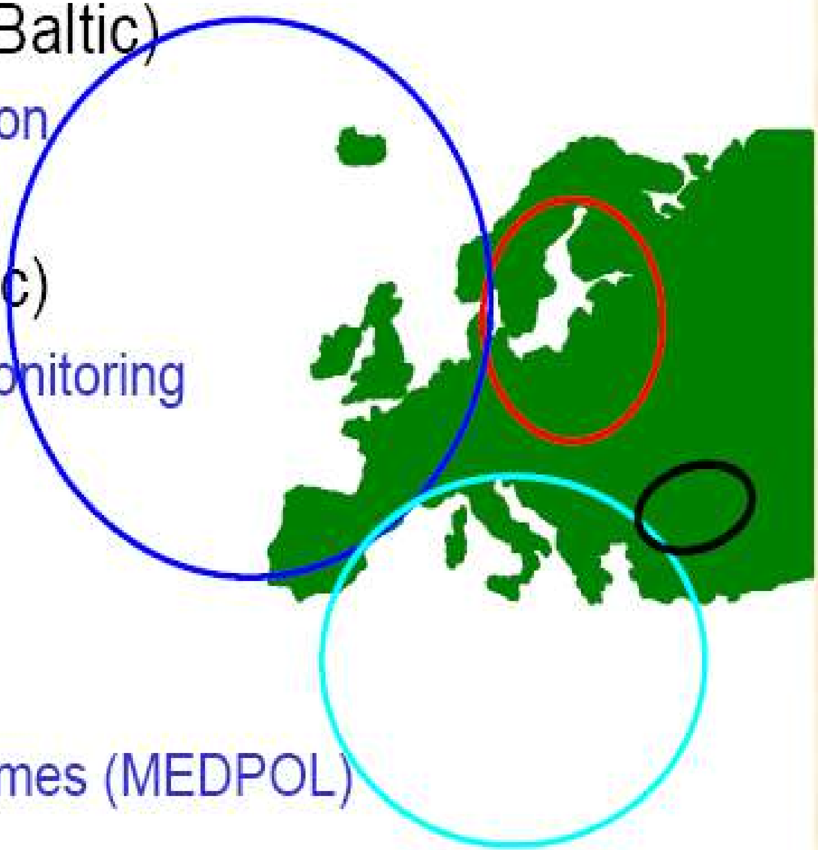


Source: Eurostat

Zone d'application ***Directive Cadre Stratégie pour le Milieu Marin***



- Helsinki Convention,HELCOM(Baltic)
  - Baltic marine environment protection
- OSPAR Convention (NE Atlantic)
  - Environmental assessment and monitoring
  - Programmes and strategies
- Barcelona Convention
  - Mediterranean action plan
  - Research and monitoring programmes (MEDPOL)
- BLACK SEA Convention (Bucarest)
  - Protection of the Black Sea



AVERAGE amount of litter in stomachs of fulmars from the north sea

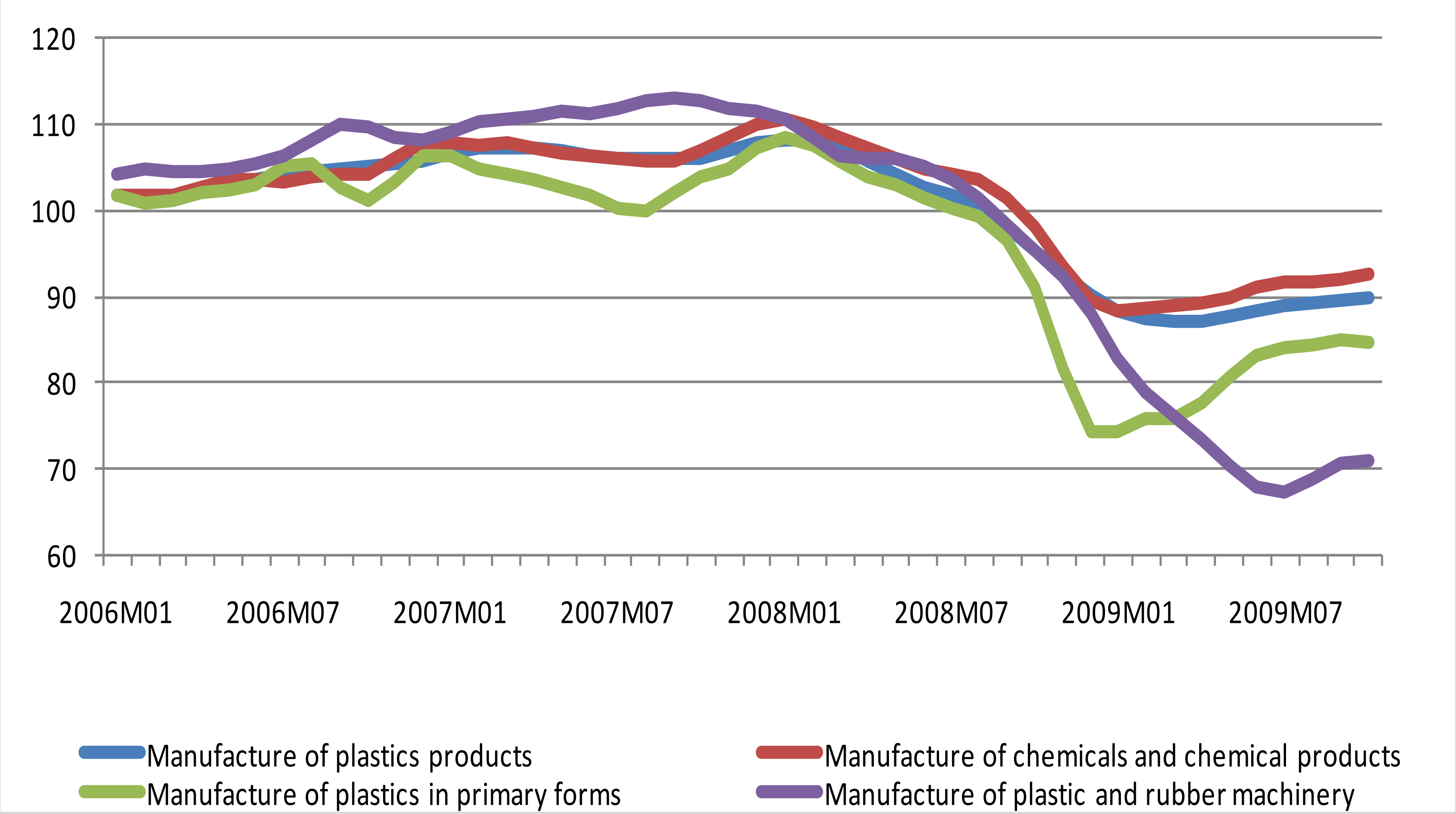
Scaled to human size, stomach levels of litter is certainly to be considered harmful and immediate action will be taken.

Our 10 Workprogrammes

- WP 1 Marine Litter and Education at school
- WP 2 Toxins and plastics in the sea
  - Ecotoxicological and human health aspects of marine litter
- WP 3 Consequences of micro plastics on fish
- WP 4 Portual plastics waste management
  - Fishing for litter campaign
- WP 5 Regulations & Inspections
- WP 6 Plastic / garbage soup
- WP 7 Communication
- WP 8 Information programmes for shippers
- WP 9 EU Charter for pellets loss
- WP 10 Management ,evaluation and monitoring

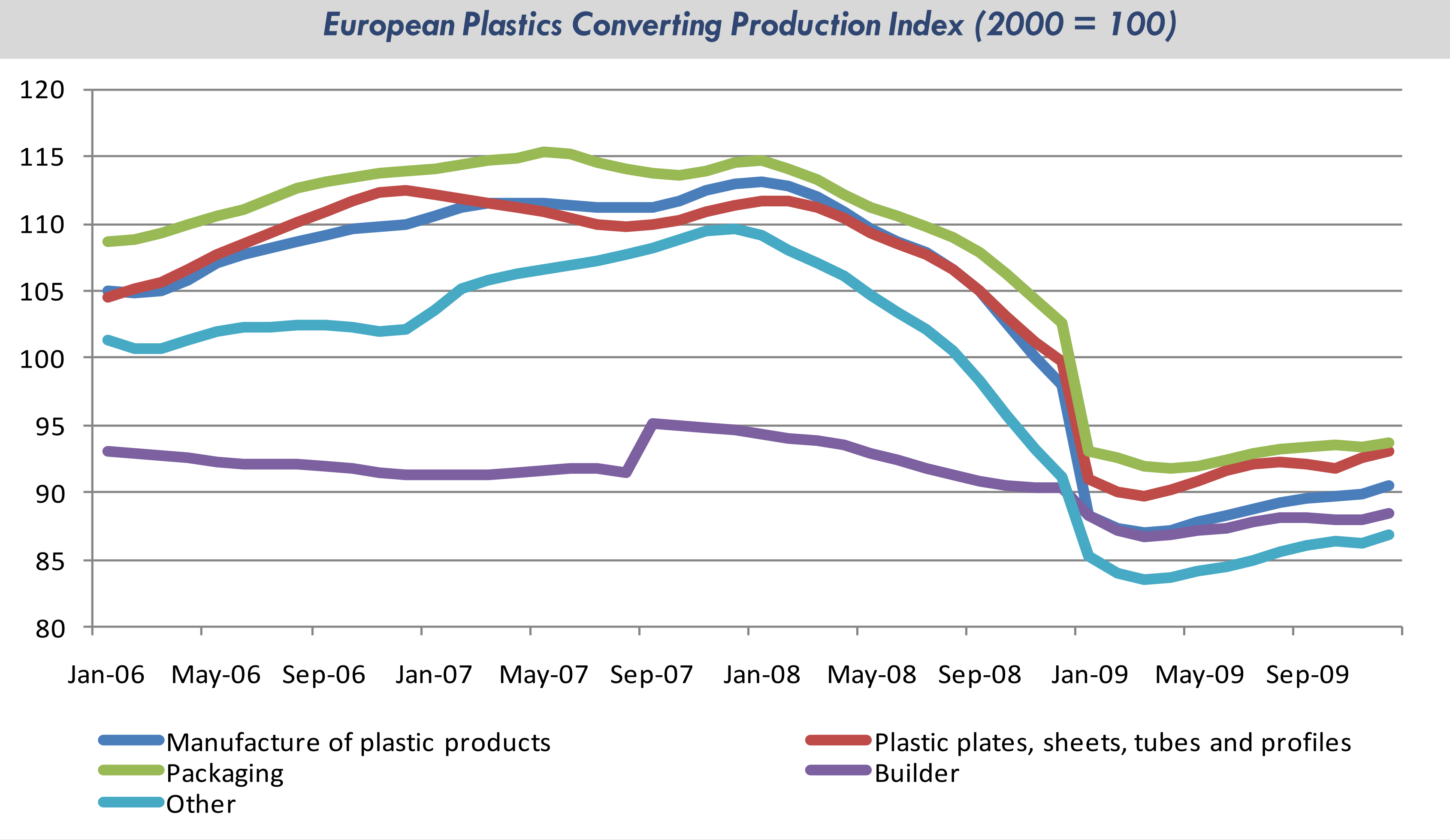
Production Suffered in 2009

European Manufacturing Production Index (2000 = 100)



Source: Eurostat

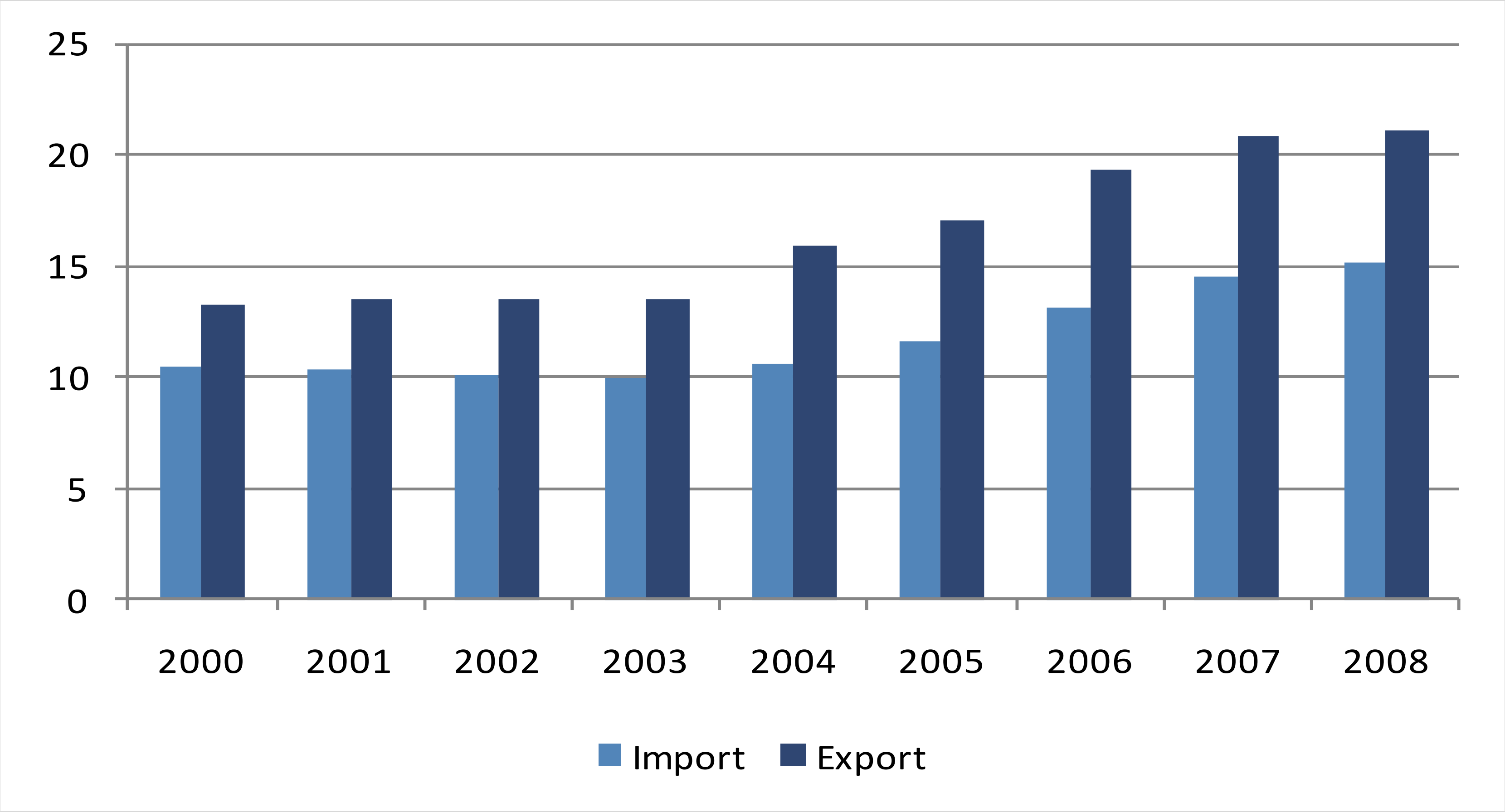
Some markets more than



Source: Eurostat

EU plastics converters still a net Exporter Sector but for how long?

European Plastics Converting – Trade (billion €)



Source: Eurostat

Top Partners

European Plastics Products Top Trading Partners (2008)

Rank	EU27 Export	M€	%
1	USA	2,556	12.2%
2	RUSSIA	2,436	11.6%
3	CHINA	1,122	5.3%
4	NORWAY	1,118	5.3%
5	TURKEY	1,007	4.8%
6	UKRAINE	789	3.8%
7	JAPAN	528	2.5%
8	AUSTRALIA	448	2.1%
9	CROATIA	438	2.1%
10	BRAZIL	421	2.0%
	Other	10,171	48.4%
	Total	***21,034***	***100%***

Rank	EU27 Import	M€	%
1	CHINA	4,701	31.1%
2	USA	2,397	15.8%
3	SWITZERLAND	2,084	13.8%
4	TURKEY	926	6.1%
5	JAPAN	783	5.2%
6	ISRAEL	562	3.7%
7	SOUTH KOREA	419	2.8%
8	TAIWAN	415	2.7%
9	MALAYSIA	335	2.2%
10	INDIA	262	1.7%
	Other	2,239	14.8%
	Total	***15,122***	***100%***

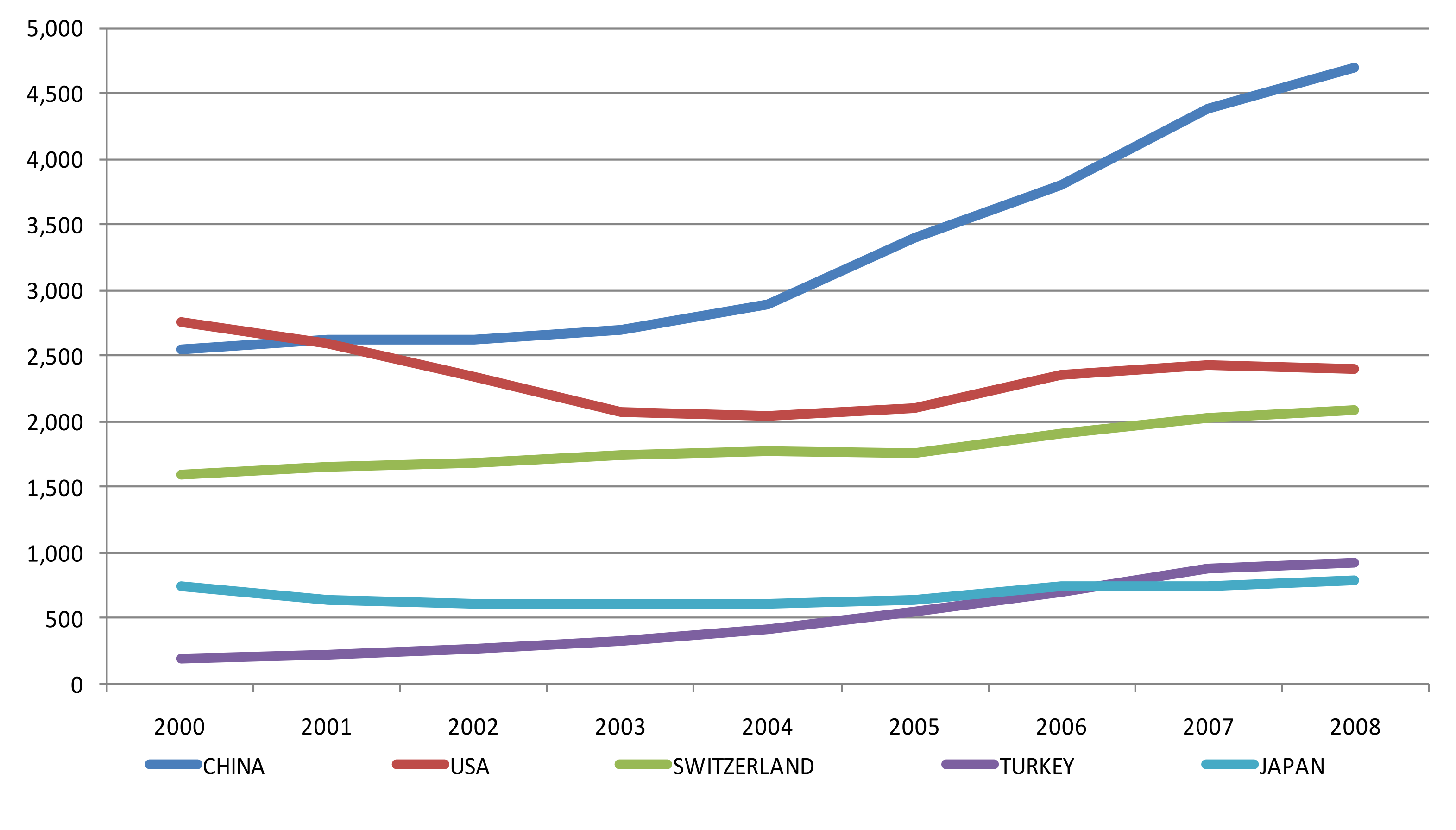
	EU27 Exporters	M€	%
1	GERMANY	3,499	23.1%
2	UK	2,417	16.0%
3	FRANCE	1,498	9.9%
4	ITALY	1,251	8.3%
5	NETHERLANDS	1,169	7.7%
6	BELGIUM	1,023	6.8%
7	SPAIN	752	5.0%
8	AUSTRIA	488	3.2%
9	SWEDEN	438	2.9%
10	POLAND	428	2.8%
	Other	2,160	14.3%
	Total	***15,122***	***100%***

Rank	EU27 Importers	M€	%
1	GERMANY	7,779	37.0%
2	ITALY	2,439	11.6%
3	FRANCE	1,951	9.3%
4	UK	1,469	7.0%
5	BELGIUM	1,028	4.9%
6	NETHERLANDS	891	4.2%
7	POLAND	840	4.0%
8	AUSTRIA	829	3.9%
9	SPAIN	742	3.5%
10	SWEDEN	728	3.5%
	Other	2,337	11.1%
	Total	***21,034***	***100%***

Source: Eurostat

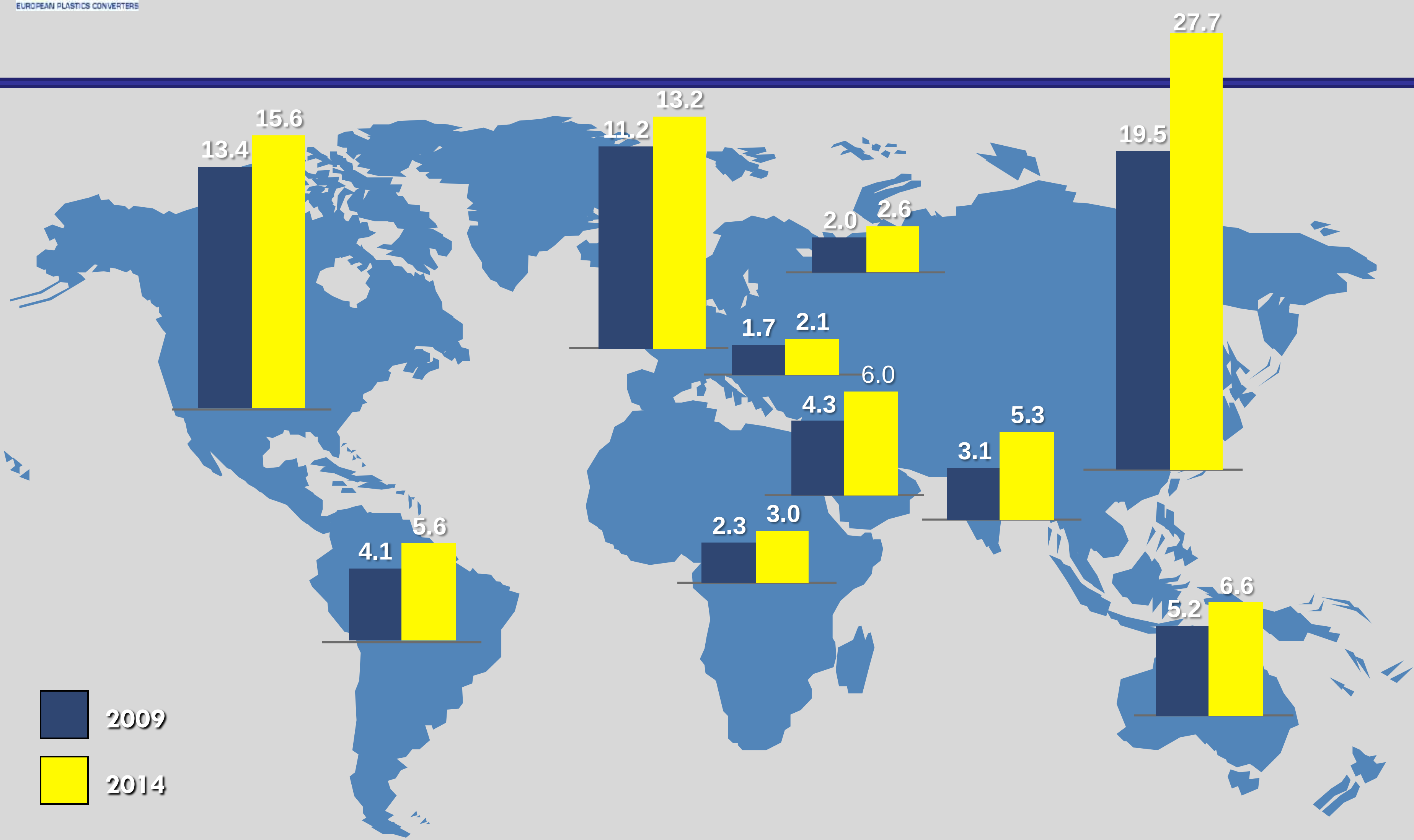
China, the future European Converters??

European Plastics Converting Top 5 Import



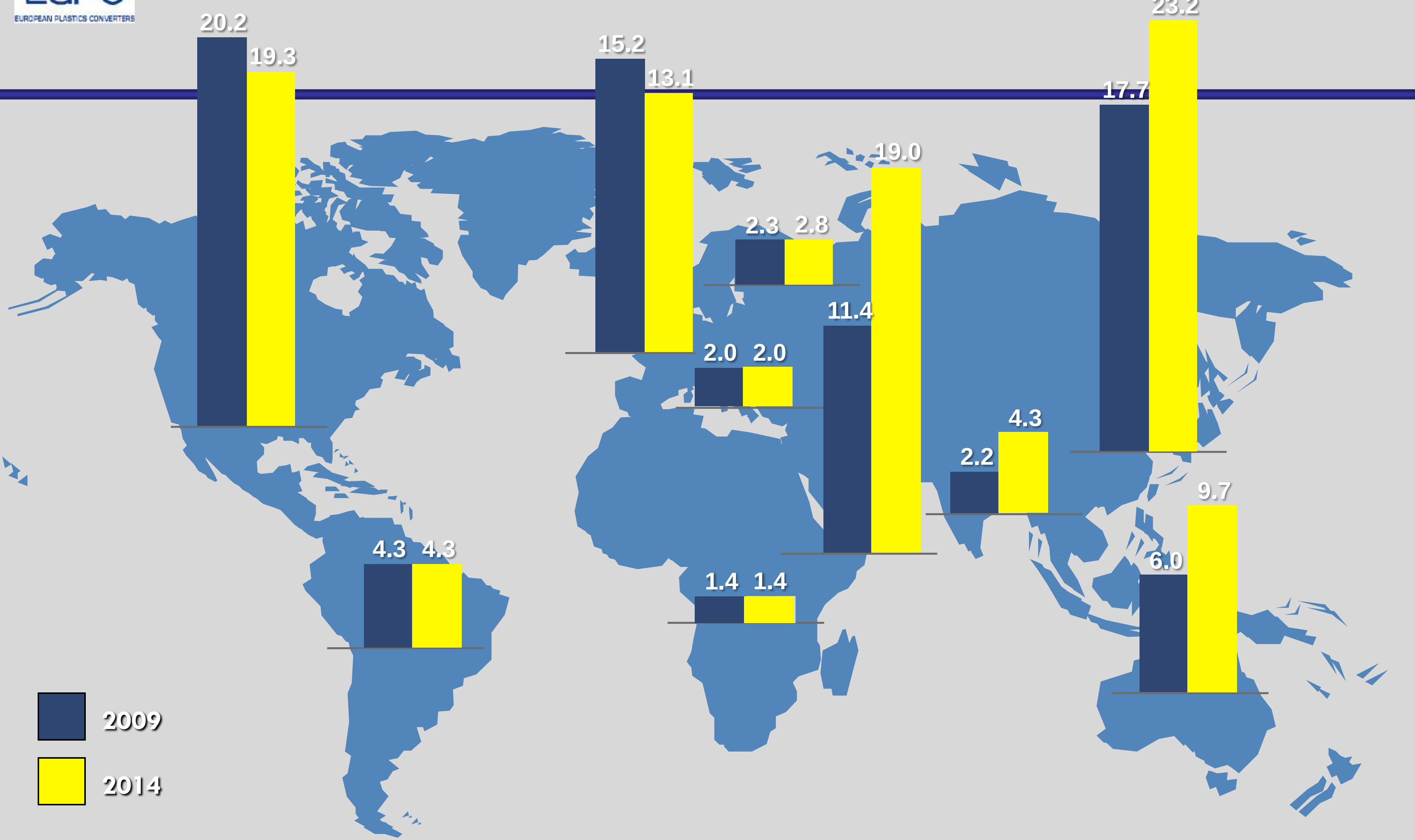
Source: Eurostat

Domestic Demand PE, Million MT



Source: CMAI

Global Polyethylene Capacity Growth



*including hypothetical capacities

Source: CMAI

Anti-Dumping (2009)

Case	Product	Countries concerned	Publication	Subject
R441	PET film	India	10 January 2009	Imposition of definitive anti-dumping duties on imports of PET film originating in India
AD420	Synthetic fibres of polyester (PSF)	China, Korea, Saudi Arabia and Taiwan	21 May 2009	Imposition of definitive anti-dumping duty on imports of PS staple fibres originating in China , Korea and Saudi Arabia and terminating the AD proceeding against Taiwan
AD545	Polyethylene terephthalate (PET)	Pakistan Iran U.A.Emirates	03 September 2009	Notice of initiation of a AD and AS proceeding concerning imports of PET originating in Iran, Pakistan and the United Arab Emirates
R484	Polyethylene terephthalate film (PET film)	India	09 September 2009	Notice of initiation of a partial interim review of the AD measures applicable to imports of PET film originating in India
C 307/39	Continuous filament glass fibre products	China	17.12.2009	Notice of initiation of an anti-dumping proceeding concerning imports of certain continuous filament glass fibre products originating in China

Anti-Dumping (2010)

Case	Product	Countries concerned	Publication	Subject
R492	Polyethylene terephthalate film (PET film)	Israel	06 January 2010	Review of definitive AD duties on imports of PET film originating in India, and extending those duties to imports of that product consigned from, inter alia, Israel) for the purposes of determining the possibility of granting an exemption from those measures to one Israeli exporter,
R496	Polyethylene terephthalate (certain) (PET)	Republic of Korea	25 February 2010	Notice of initiation of a partial interim review of the AD measures applicable to imports of certain PET originating, inter alia, in the Republic of Korea
R490	Polyester staple fibres (PSF)	Republic of Korea	05 March 2010	Notice of the expiry of certain anti-dumping measures (18 March 2010)

Priority Activities 2010

- European Parliament & Commission **advocacy** networking
- Meetings with the European **Investment Bank**
- **Plastics Industry Confidence Indicator** Survey
- EuPC **Trade** defence instruments and Economic Reports
- European Plastics **Innovation** Platform and Innovation Days
- Building an EU project around **Marine littering**
- Develop the Plastics **REAChClub** to help converters in their legal obligations www.reachclub.eu
- Energy Efficiency project **EUPLASTVOLTAGE**
- Vinyl 2010 towards **Vinyl 2020**

Our proposal for the EU Institutions

- Enhancing **access to financing** for SMEs in Europe
- Improving the cash flow of European businesses and tackling the issue of **late payments**
- **Boosting innovation** by providing a more favourable environment
- Making environmental policy an integral part of the **Recovery Plan** in Europe
- Providing incentives for **energy efficiency** and **use of recycled plastics** – related measures
- Recasting public procurement and **green PP guidelines**

Conclusions

one material...

a thousand possibilities

But we all need to work together to defend the future of our plastics industry in Europe