

Recycling of C&DW in Europe

Interforum 2009, Zaragoza

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FIR - an introduction

- Fédération Internationale du Recyclage
- Established 1991, seat in Brussels
- National members are: Belgium, Czech Republic, Germany, Italy, The Netherlands, Spain, Cyprus
- Partner in EPRA: European Platform for Recycled Aggregates



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FIR – an introduction

- Goals of FIR:
 - To represent the interest of the recycling industry of Construction- & Demolition Waste (C&DW)
 - To increase the recycling rate in Europe
 - To improve the quality of recycling
 - To improve the exchange of knowledge inside and outside FIR



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FIR – an introduction

- Involvement of FIR in Europe
 - Waste Framework Directive
 - “End of Waste” Working Group
 - Task Group DGEnterprise Recommendations on C&DW
 - Meetings with Commission, Members of Parliament,
 - Liaison to CEN TC154 and TC351
 - Follow up of relevant developments
 - Through EPRA



Why C&DW recycling

- We need to manage the waste
- Saving of natural resources
- Saving of landfill space
- Less emissions, for instance CO₂

→ Recycling contributes to sustainable development



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RESULTS OF AN LCA STUDY

Item	Recycling scenario	Landfill scenario
Energy input (MJ)	1318	1495
Use of primary resources (kg)	758	1.894
Landfill use (m ³)	-	1.26
Emissions (in g.)		
SO ₂	55.76	79.36
Pb	1.85 E-03	2.32 E-03
CO ₂	228860	254794
CH ₄	0.91	1.76

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Recycling within the EU

Country	C&DW Mton/a	% to rec	
Belgium	15	75	
Cyprus	1	5	Incl.soil
Cz.Rep.	6	50	
Germany	70	80	
Greece	5	5-10	Incl.soil
Italy	52	10	
Netherl.	31,4	75	95 incl. reuse
Spain	14,3	35	?

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Recycling rates in the EU

Data European Topic Centre

	2004	2005-6
Austria	60,2	59,5
Belgium	67,5	
Cyprus	0,7	
Czech Rep.	17	23
Denmark	94,1	94,9
Estonia	92,7	94,9
France	62,3	
Germany	83,6	86,3
Hungary	3,1	15,5
Ireland	85,2	79,5
Latvia	64,6	45,8
Lithuania		59,7
Netherlands	97,8	95,1
Norway	61	
Poland		28,3
Spain		13,6
UK	74,6	64,8

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Recycling within the EU

- Annual C&DW production according to European Topic Centre: 850 million tonnes (=1.8 ton/capita) and +/- 60% recycling
- Estimation by FIR 2007: 380 million tonnes (=0.8 ton/capita) and <30% recycling



Recycling within the EU

Main bottlenecks felt	
Belgium	Use in concrete must slowly developing
Czech Rep.	Little demand, no requirements supporting the use of recycled aggregates
Germany	<ul style="list-style-type: none">• End of waste• Strong competition primary aggregates• Lack of consistent preference of authorities to use recycled aggregates

Recycling within the EU

Main bottlenecks felt	
Italy	<ul style="list-style-type: none">• Landfill/quarry competition• End of waste• Bureaucracy
Netherl.	<ul style="list-style-type: none">• End of waste• Recovery as escape• Little uptake in concrete
Spain	<ul style="list-style-type: none">• Illegal landfilling• Landfill/quarry competition

Recycling within the EU

How can Europe support recycling?

Belgium	No specific demands
Czech Rep.	By increasing the demand of recycled aggregates
Germany	<ul style="list-style-type: none">• Create conditions that prefer the use of recycled aggregates• Clarify that REACH does not apply

Recycling within the EU

How can Europe support recycling?

Italy	By setting recycling targets
Netherl.	<ul style="list-style-type: none">• Stronger use of the Waste Hierarchy• Do not let “recovery” be an escape route for recycling
Spain	<ul style="list-style-type: none">• Illegal landfilling• Landfill/quarry competition

The European Strategy

THE EUROPEAN WASTE STRATEGY

EUROPE IS TO BECOME A
RECYCLING SOCIETY



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What does Europe do?

- New Waste Framework Directive
- Raw materials initiative
- Sustainable Production and Consumption Action Plan
- Lead Market Initiative
- New Construction Product Regulation



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Raw Materials Initiative

- Reliable and undistorted access to raw materials and greater efficiency in the use of resources
 - Access to raw materials on the world market
 - Sustainable supply of raw materials
 - Reduce the consumption of raw materials



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Sustainable consumption and production action plan

- Sustainability along the economic growth of a competitive EU
 - Leaner production
 - Ecodesign
 - Labeling of products
 - Green Public Procurement



Lead Market Initiative

- A proposal for fostering markets with high societal and economic value
- Urgent and coordinated actions to be developed
- Six markets identified, amongst which:
 - Recycling market
 - Construction market



Construction Product Regulation

- CPR regulates how to express performance of construction products in relation to essential characteristics
- New basic work requirement: sustainable use of natural resources
 - Works must be designed to ensure the use of environmentally compatible raw and secondary materials
 - Recyclability of the construction and materials after demolition

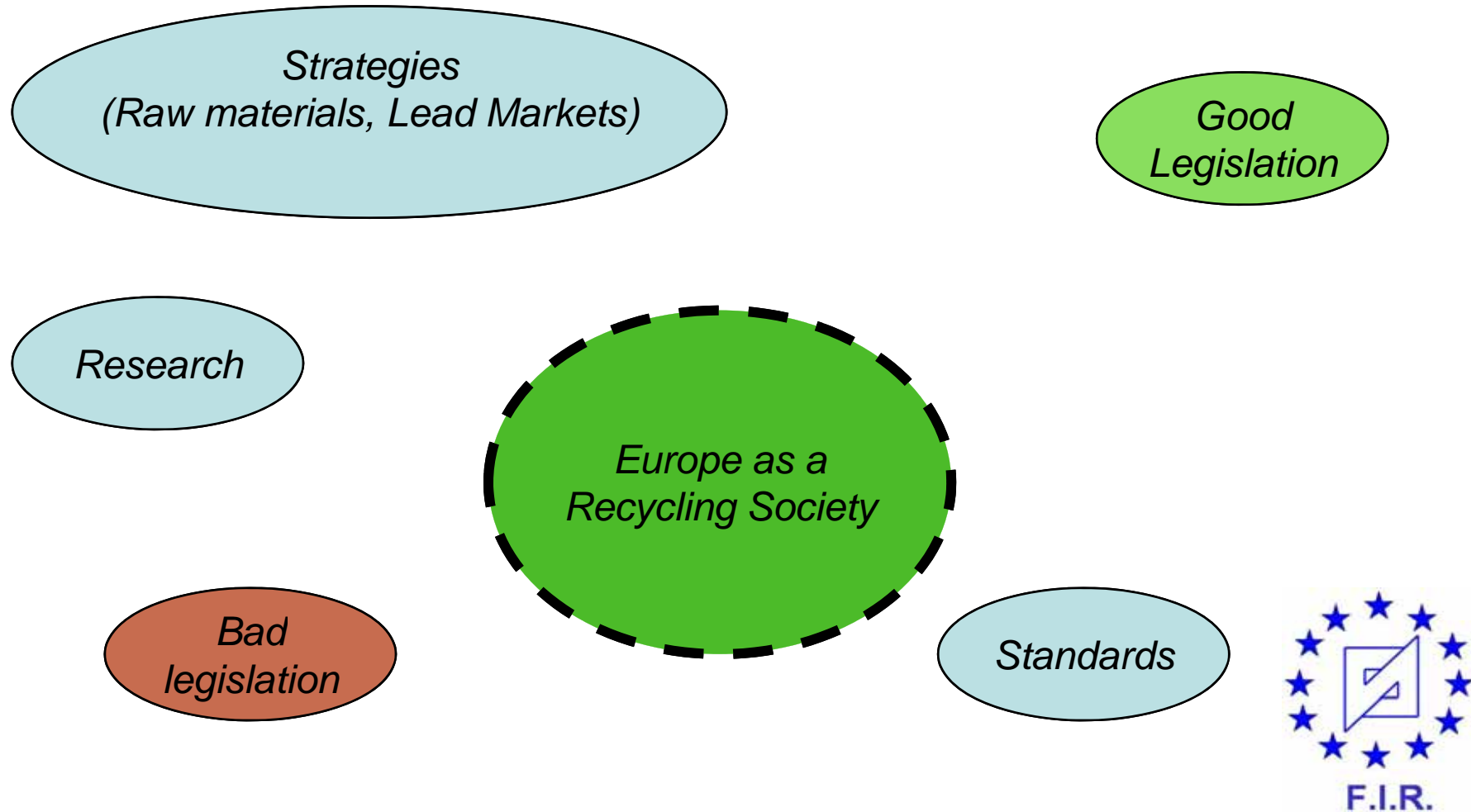


New waste legislation

- New Waste Framework Directive
 - Stick to Waste Hierarchy
 - Recycling/recovery target: 70% C&DW in 2020
 - End-of-waste criteria, amongst others for aggregates
 - Definition of byproduct



Does Europe support recycling ?



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Does Europe support recycling?

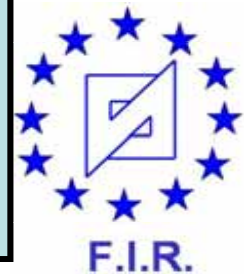
*European policy
and legislation*

Member States with high recycling rates

- *Keep high recycling rates*
- *End of Waste*
- *Out of REACH*
- *New technologies and applications*

Member States with low recycling rates

- *No illegal dumping*
- *Proper landfills*
- *Enforcement*
- *Good control of waste*



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Does Europe support recycling?

- Recycling targets are not clearly defined
 - What is C&DW
 - What is recycling
 - What is backfilling
- End-of-waste criteria are not yet there
 - Current proposals not practical



Does Europe support recycling?

- REACH: a serious threat
- Landfill Directive may work out negatively
- Construction Product Regulation offers some help
- New initiatives promising, yet no solid measures



Conclusions

- Growing European interest in recycling
- Poor insight into what is actually happening
- Recent initiatives promising, firmer approach needed though
- Revised Waste Framework Directive is a good start, but:
 - Proper end of waste criteria are needed
 - Proper targets, no backfilling

