

Industrial symbiosis Best practices in the European Union

Eionet webinar on Resource efficiency 02.12.13

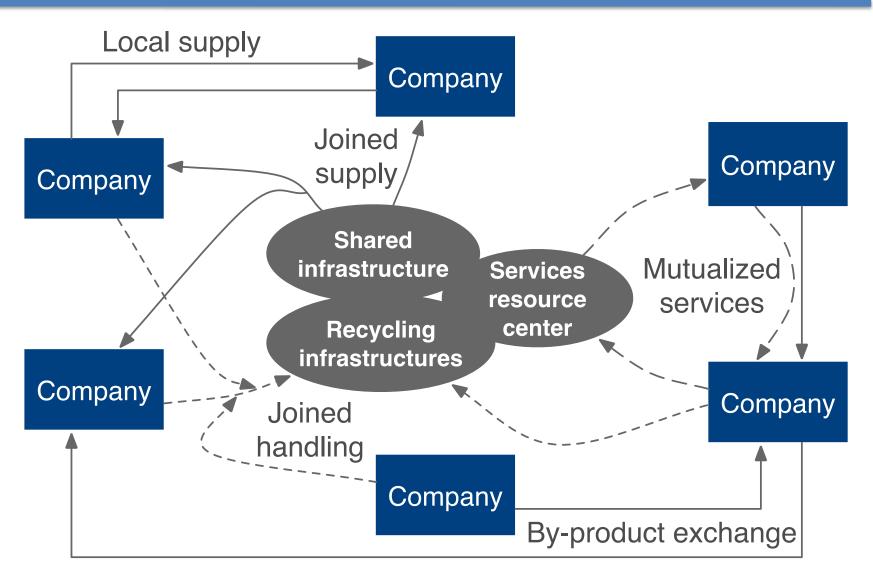
Guillaume Massard
Scientific director – Sofies SA

+41 22 338 15 24

+41 78 625 27 51

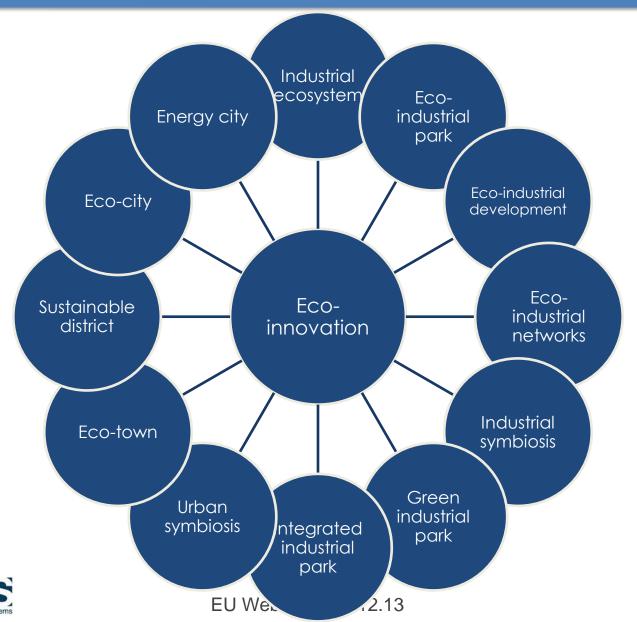
guillaume.massard@sofiesonline.com

What is industrial symbiosis?





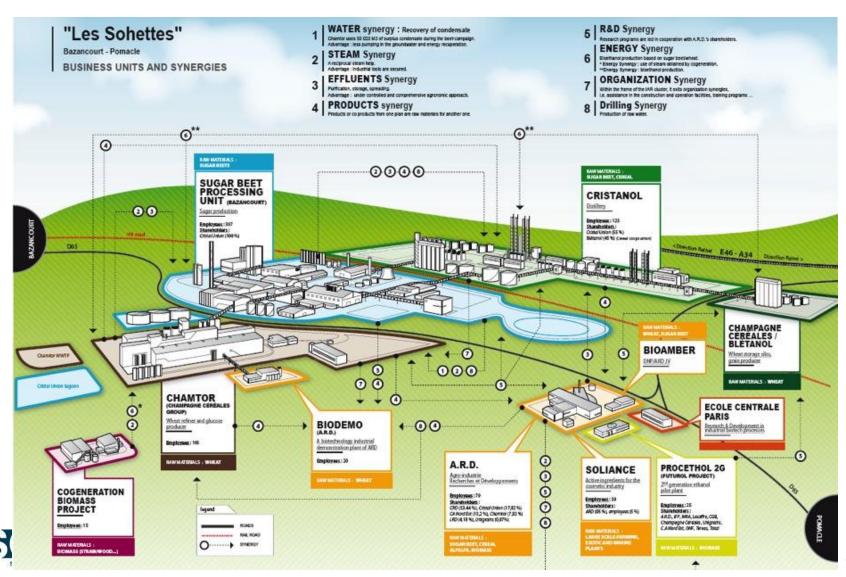
What is industrial symbiosis?

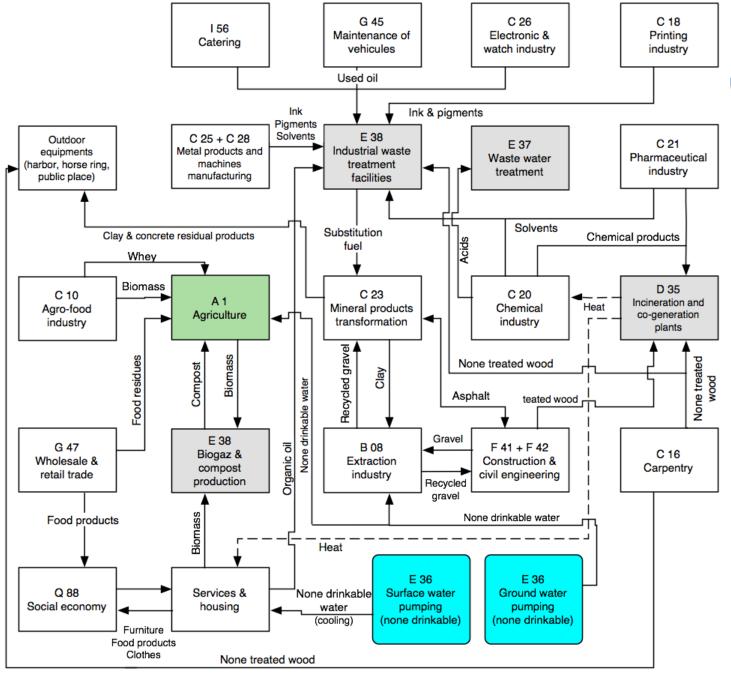




Case studies

Pomacle-Bazancourt





What is industrial symbiosis?

Industrial symbioses offer an innovative resource management approach for companies wishing to reduce their environmental impacts while securing their resource supply and strengthening their economic competitiveness















Who are the actors involve in industrial symbiosis?





Who are the actors involve in industrial symbiosis?

Diversity of support mechanisms for industrial symbiosis and eco-industrial park in Europe

National programs

Regional initiatives

Local initiatives

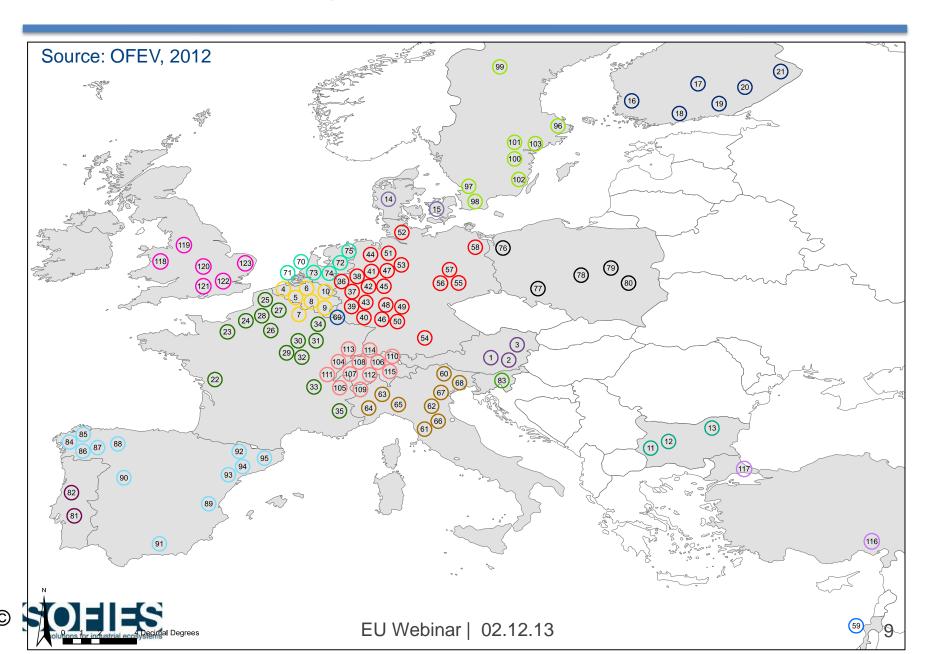
- 1. NISP (UK)
- 2. Zero-emission park initiative (Germany)
- Environmentally Equipped Industrial Area (Italy)
- National waste management plan (Portugal)

- Cleantech
 Ostergotland
 (Sweden)
- Eco-zoning, Wallonia (Belgium)
- 3. Randstad (Netherlands)

- 1. Kalundborg (DK)
- 2. Dunkerque (France)
- 3. State of geneva (CH)
- 4. Relvao (Portugal)
- 5. Prato 1st Industrial Macrolotto (Italy)
- 6. Knapsack (Germany)
- 7. ...



International survey on eco-innovation in industrial parks



International survey on eco-innovation in industrial parks

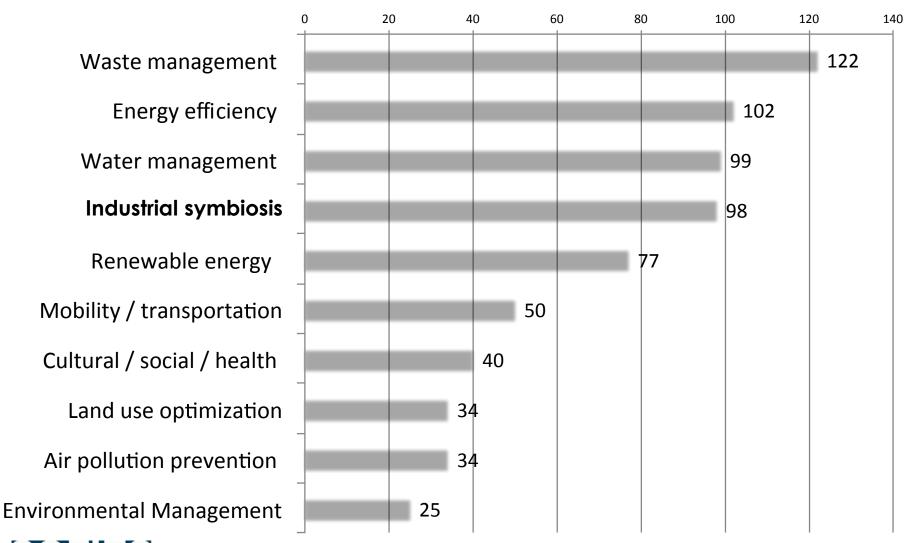
Source: OFEV & Sofies, 2012

	k 001103, 2012	Identified	Non-detailed	Detailed as case study			
		total	total	total	industrial	combined	urban
	Austria	4	1	3	2	0	1
	Belgium	10	3	7	6	1	0
	Bulgaria	2	1	1	1	0	0
	Denmark	5	2	3	0	2	1
	Finland	9	4	5	5	0	0
	France	19	5	14	13	0	1
	Germany	40	15	25	24	1	0
	Ireland	2	2	0	0	0	0
European countries	Italy	18	9	9	7	2	0
	Luxembourg	1	0	1	0	1	0
	Netherlands	16	9	7	7	0	0
	Poland	6	1	5	4	1	0
	Portugal	7	5	2	1	1	0
	Slovenia	1	0	1	1	0	0
	Spain	15	3	12	9	3	0
	Sweden	11	4	7	1	5	1
	Switzerland	22	14	8	7	1	0
	United Kingdom	14	9	5	4	1	0
Non- European countries	Australia	8	4	4	4	0	0
	China	20	7	13	7	6	0
	India	12	6	6	6	0	0
	Israel	2	1	1	1	0	0
	Japan	28	20	8	8	0	0
	South Korea	7	0	7	6	0	1
	Turkey	3	1	2	2	0	0
	United Arab Emirates	2	0	2	0	0	2
	United States of America	17	8	9	6	3	0
TOTAL		301	134		132	28	7
TOTAL				167		167	



International survey on eco-innovation in industrial parks

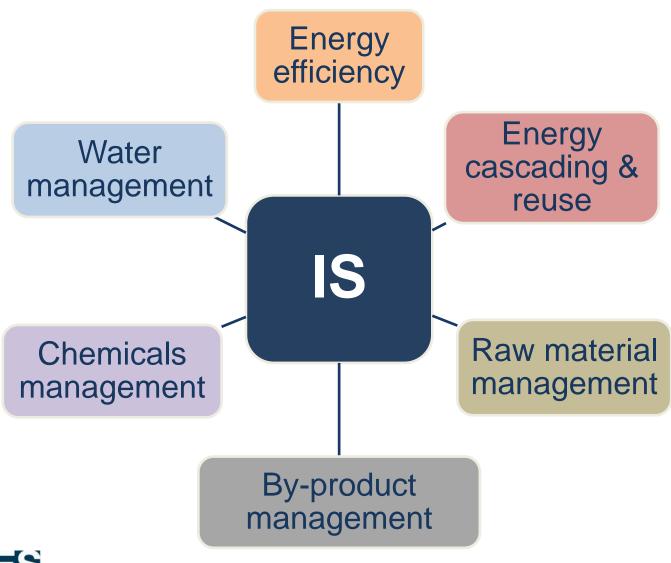
Source: OFEV & Sofies, 2012





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Industrial symbiosis: business opportunities



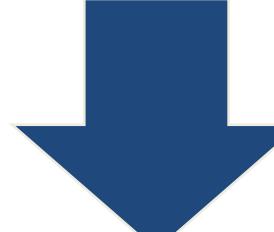


Influence of regional recycling systems



Juvenile recycling system

- Divert waste from landfill through the development of eco-industries or direct waste reuse
- Waste to energy



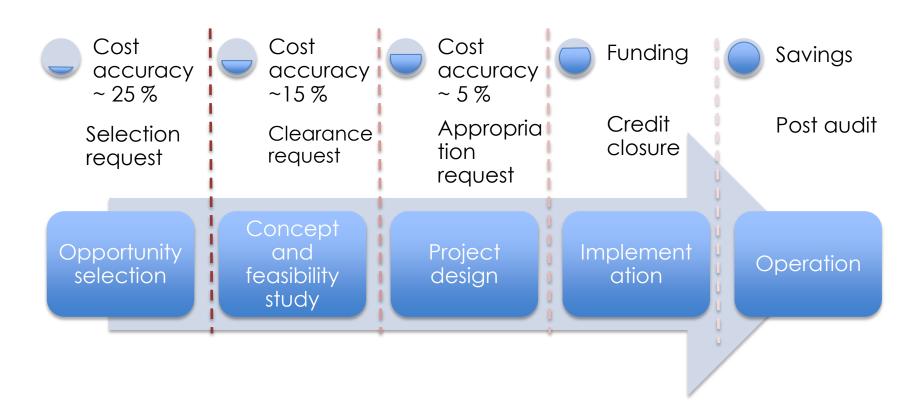
Mature recycling system

- Energy networks
- Shared services
- Eco-industrial development
- Clustering reinforcement



Industrial symbiosis: business opportunities

Capital expenditure should be made with a view to creating value and expanding business.





Industrial symbiosis: business opportunities

Strengthening economic competitiveness by implementing local business opportunities

Securing and diversifying resources supply and by-product management

Enhancing companies integration and reputation

Minimizing environmental impacts



Industrial symbiosis: opportunities for regions

Planning of industrial areas and economic activities

Pollution control through resource efficiency and industrial symbiosis

Regional and park marketing Regional development

Setting up of resource, waste and services centers



What is Sofies?

30 consultants active in 21 countries







Thank you for your attention!

Sofies International – executive board



Prof. Suren Erkman Chairman



Laurent Cuénoud CEO



David Rochat
Business
Development Director



Benoit Charrière Financial Director



Guillaume Massard Scientific Director



Alban Bitz Strategic Planning Director



Dominique Bernard Head of Paris Office

Guillaume Massard
Scientific director – Sofies SA

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