



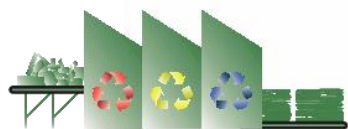
Fédération Européenne des Activités de la Dépollution et de l'Environnement
European Federation of Waste Management and Environmental Services
Europäische Föderation der Entsorgungswirtschaft





3,000
companies

320,000
employees

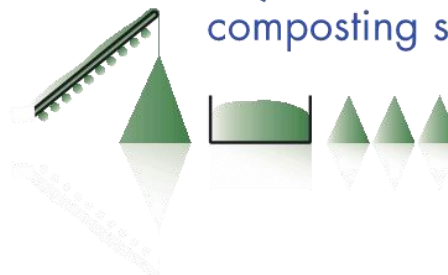


2,400
recycling and
sorting centres

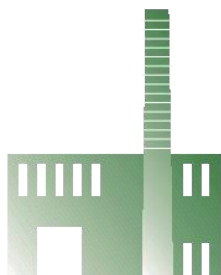


20
national waste
management
federations
from EU

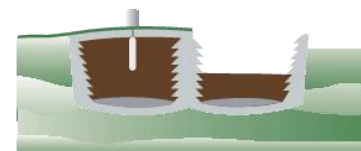
1,100
composting sites



260
waste-to-energy plants



900
controlled landfills



The enabling role of the private waste
management sector in Industrial Symbiotic
networks:
a 'wasted' opportunity?

Innovative solutions for industrial waste management

19 June 2014

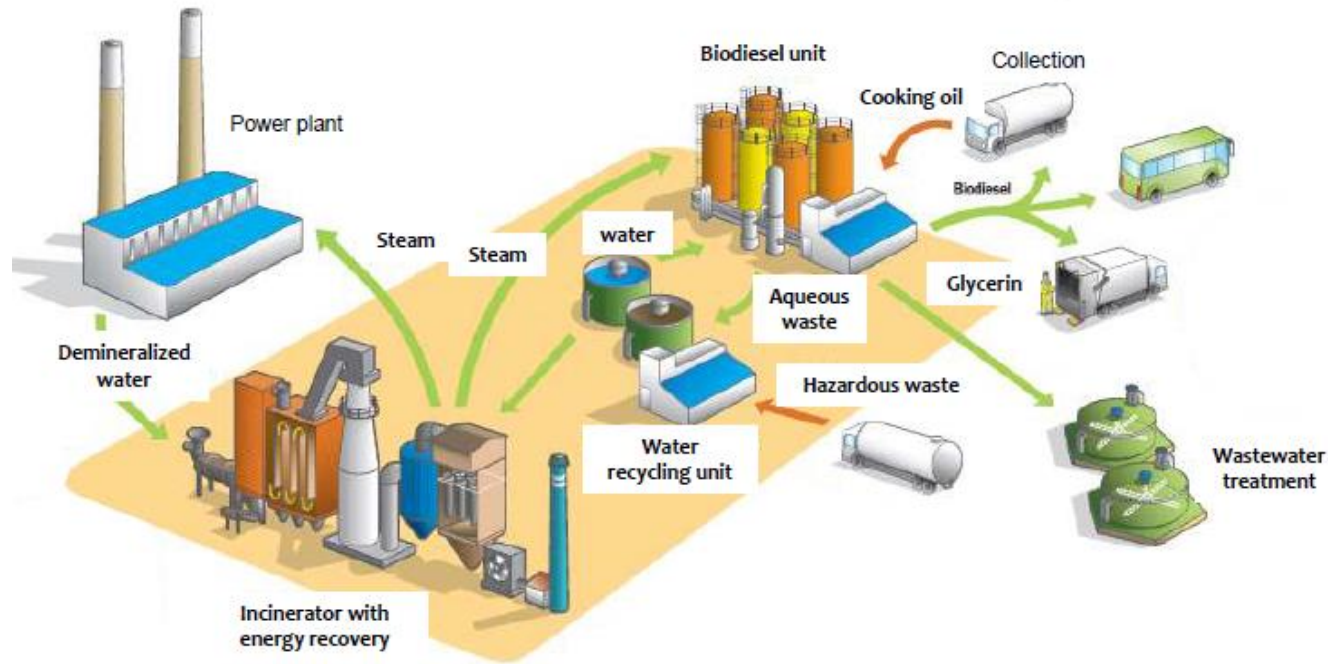
Athens

Industrial Symbiosis – EU approach

- Roadmap to a Resource Efficient Europe (2011)
 - The use of raw materials through greater 'industrial symbiosis' (where the waste of some firms is used as a resource for others) should be improved. Across the EU, this could save €1.4bn a year and generate €1.6bn in sales
- European Resource Efficiency Platform Manifesto (2014)
 - diverting waste from landfill
 - contributing to the preservation of resources
 - moving waste up the value chain
 - Pan-European network of industrial symbiosis initiatives to exchange knowledge

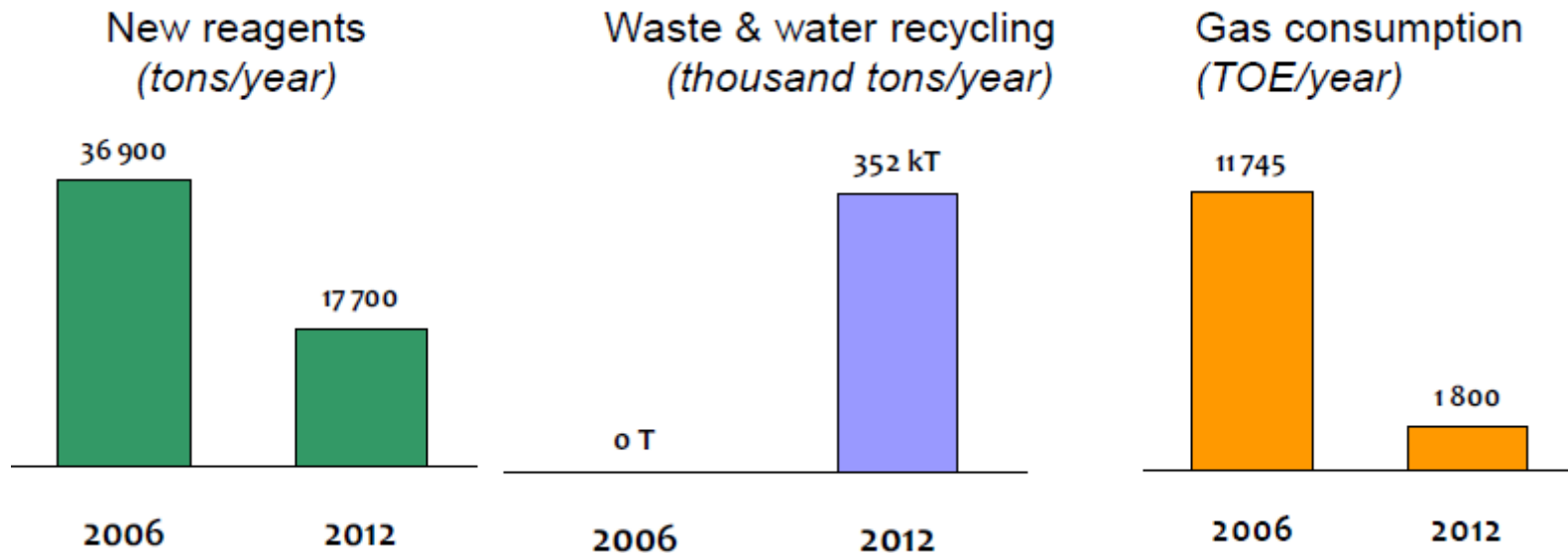
The Veolia hazardous waste treatment plant in Limay, France (I)

A symbiotic network emerged from the management of hazardous waste



The Veolia hazardous waste treatment plant in Limay, France (II)

The notable results of the symbiotic network:
increased material productivity & energy efficiency



Synergy Volkswagen - ALBA Group: *'Enabling VW to close the loop' (I)*

- Cooperation between Volkswagen and the ALBA Group
- In the Braunschweig and Wolfsburg VW factories (Lower Saxony)
- The treated waste stream includes out-of-specification parts from several polymer types in varying compositions and multi-component plastics, as well as the so-called high-tech plastics



ALBA Group
the recycling company

Synergy Volkswagen - ALBA Group: *'Enabling VW to close the loop' (II)*

- All parts are sorted and disassembled directly in the factory
- An example of the synergy results is that VW is now manufacturing a car underbody shell from 100% recycled material
- Economically necessary, ecologically responsible:
 - In 2009 alone, the ALBA Group in Braunschweig recycled 1,300 tonnes of plastic waste. This led to a reduction in CO2 emissions of approximately 1,000 tonnes

Synergy SITA – Passenaud Recyclage:

- SITA and Passenaud have established an eco-centre in Le Mans - VALOR POLE 72
- VALOR POLE 72 activities:
 - An industrial and small business waste collection unit with a hazardous waste transit zone
 - A fleet of industrial waste collection lorries
 - A sorting and conditioning centre for industrial waste
 - An organic waste packaging separation unit (retail and catering industry)
- Recyclable streams: metals, paper and carton, plastics

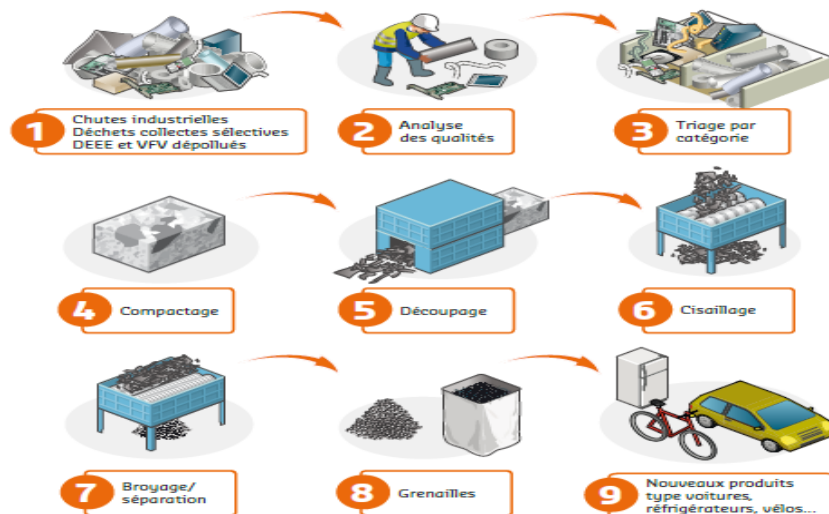


Synergy SITA – Passenaud Recyclage:

‘Management of metals: enabling the production of new cars & refrigerators from end-of-life vehicles & industrial metal scrap’ (I)

COMMENT LES MÉTAUX SONT-ILS RECYCLÉS ?

La filière de valorisation des métaux correspond à tous les standards exigés par la réglementation et les utilisateurs.



1 TONNE D'ACIER RECYCLÉ



- 1,4 voiture
- 19 chariots de supermarché
- 1 229 boules de pétanque

1 TONNE D'ALUMINIUM TRIÉ



- 106 chaises
- 265 vélos
- 530 trottinettes.

Role of the private waste management industry in Europe

- Substantial know-how, resources and competitive skills
- Expertise in environmental technology and innovation
- Investments in sustainable infrastructure
- Europe has:
 - The highest recycling rates
 - The most efficient waste processing
 - The highest environmental standards

Conclusions

- Private waste management industry – an important contribution to growth, jobs and sustainability in Europe
- Why private waste management industry?
 - Know-how
 - Infrastructure
 - Logistics
 - Contacts
- FEAD looks forward to contributing significantly to a resource-efficient European recycling society

