

# WORLD DEMOLITION SUMMIT 2019

## Construction & Demolition Waste Management in Europe

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Vice President of International Committee

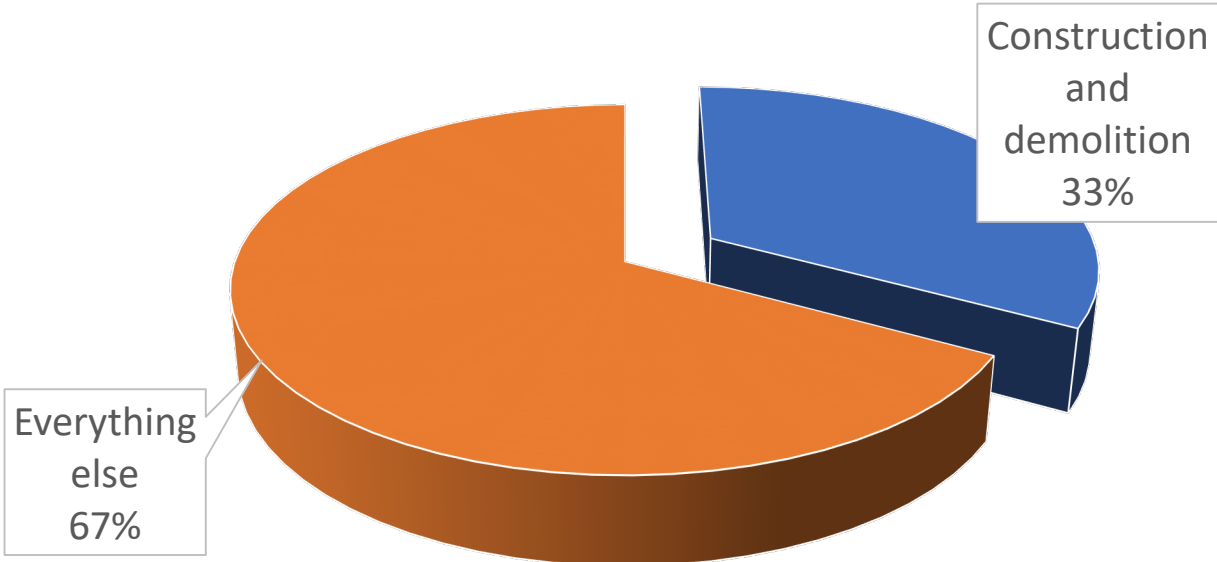


# Presentation of the speaker

- Belgian bio-engineer, specialised in demolition and C&D waste management
- Founder and owner of **RECYCLING ASSISTANCE BVBA (2003)**, a member of Demolition & Recycling Consultants and the European Demolition Association.
- Founder of **CHAP-YT BVBA (2011)**, specialising in the recycling of cellular concrete
- Co-founder and board member of **CASO, the Belgian Demolition Federation and Tracimat**, an organization for the certification of CDW.
- Board member of the **European Demolition Association** and Vice President of the EDA International Committee.



# Production of waste in the EU



All the numbers in the European Demolition Industry Report 2019!



# Waste management evolution



1989 Greenpeace® activist



The screenshot shows the GROWTH website interface. At the top, it says 'GROWTH Internal Market, Industry, Entrepreneurship and SMEs'. Below that is a search bar containing the word 'demolition'. To the left of the search results is a 'Search options' sidebar with dropdown menus for Source (DG GROWTH), Date (All), Language (English), and File formats (All). Below that is a 'Filter by' section with a list of categories: Docsroom (103), Entrepreneurship and SMEs (1), General information (4), Industry (3), and Sectors (2). The main search results area shows three items, each with a 'WEB' icon, a title, a URL, and a date:

- Circular economy - European Commission**  
[ec.europa.eu/growth/industry/sustainability/.../index\\_en.htm](https://ec.europa.eu/growth/industry/sustainability/.../index_en.htm)  
**11 Feb 2016** - More on Construction and **demolition** Waste originating from construction and **demolition** represents one of the highest volumes of waste in Europe. One ton of construction and
- Construction - European Commission**  
[ec.europa.eu/growth/sectors/construction/index\\_en.htm](https://ec.europa.eu/growth/sectors/construction/index_en.htm)  
**11 Feb 2016** - the consolidating the internal market for construction products by developing a common technical language for the performance of construction products following up on the
- Growth - European Commission - News**  
[ec.europa.eu/.../itemdetail.cfm?item\\_type=251&lang=en&item\\_id=9589](https://ec.europa.eu/.../itemdetail.cfm?item_type=251&lang=en&item_id=9589)  
**09 Dec 2015** - from construction and **demolition** represents one of the highest volumes of waste in Europe. We plan to take a series of actions to ensure the recovery of valuable resources
- Construction sector competitiveness - European Commission**  
[ec.europa.eu/growth/sectors/construction/.../index\\_en.htm](https://ec.europa.eu/growth/sectors/construction/.../index_en.htm)  
**11 Feb 2016** - job creation through up-skilling and apprenticeships to meet demands for new competencies Resource efficiency : focusing on low emission construction, recycling and valorisation
- Growth - European Commission - News**  
[ec.europa.eu/.../itemdetail.cfm?item\\_type=251&lang=en&item\\_id=7141](https://ec.europa.eu/.../itemdetail.cfm?item_type=251&lang=en&item_id=7141)  
**18 Feb 2016** - to the construction sector, could provide a tool for data gathering. Recycling and valorisation of construction and **demolition** waste: Develop Tools/Guidelines based on existing

2019 circular economy on top of the EU-agenda

# Decontamination + Demolition + Recycling

## Make it safe and secure – All the time

- Environmental protection and decontamination
  - Dismantling and decommissioning
- Demolition itself (multiple methods, machines, tools, processes,...)
  - Valorization & on-site recycling
  - Preparation for off-site recycling
  - Remediation of contaminated soil



# Decontamination + Demolition + Recycling



# EU C&D Waste Management Protocol

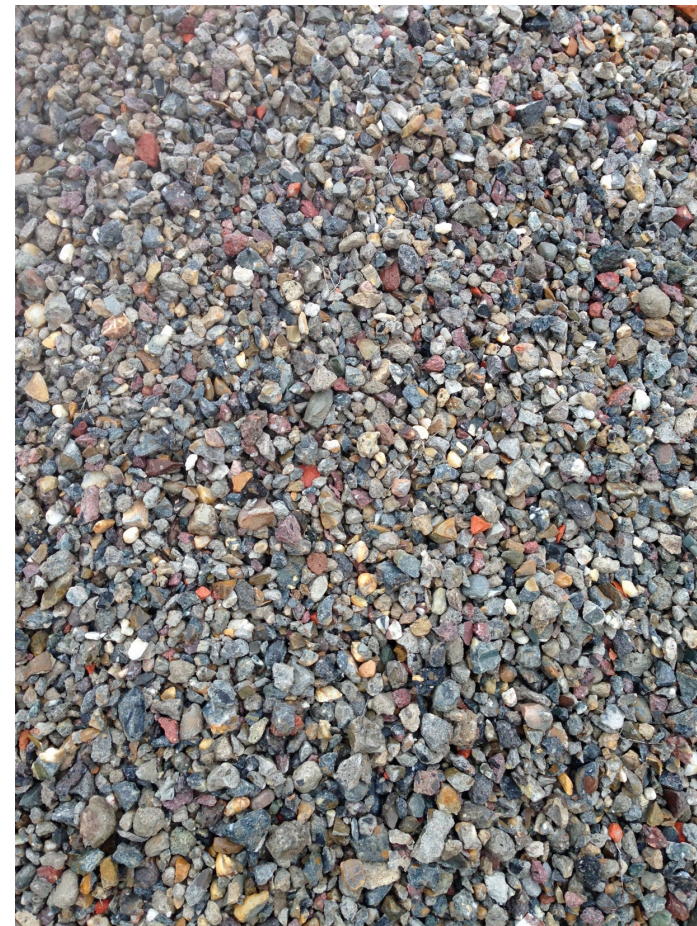
- Protocol as a guidance document, no legislation
- Guide for EU-member states “new” to waste management
- Based on best practices in the Netherlands, Flanders, Denmark, UK, ...
  - Pre-demolition surveys
  - Decontamination
  - Deconstruction/Dismantling
  - Demolition
  - Recycling on & off site



[https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0\\_en](https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en)



# EU C&D Waste Management Protocol





# EU C&D Waste Management Protocol

Selective demolition & recycling only possible when the market is supporting this

- Taxes on landfill
- Promote the (re)use of recycled content
  - BREEAM
  - Green procurement
  - LCA



# EU C&D Waste Management Protocol

## Research for solutions for more difficult fractions of CDW

- HISER, Gypsum to Gypsum, Cradle 2 Cradle, ...
- Recently granted project Wool 2 Loop



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# A new scenario for the industry

## Demolition/Dismantling/Decommissioning/...

From simple to very complex processes

## Hazardous and unknown waste

More every day

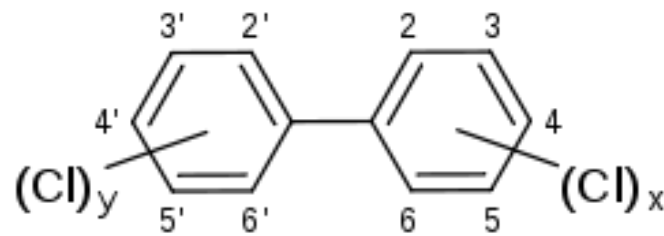
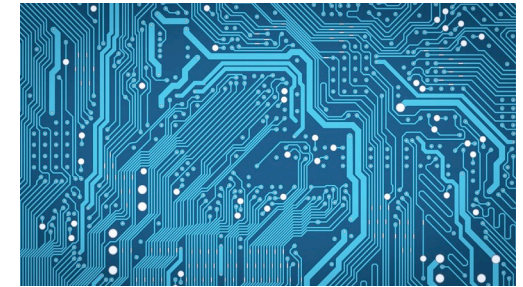
Need to have a global approach to hazardous waste

## Increasing awareness & regulation about

HSSSES: health, safety, environment, security, and social economics



# A new scenario for the industry



And ...



# Demolition

## Overview



- Fighting with the name
- Stable companies
- Second or third generation
- Multiple management levels = healthier companies
- Clear business models

## Challenges



- Changing and more complex regulations and business models
- Shorter life of equipment
- Big investments made/high economic risk
- Entrance barriers to drop significantly
- Need to be updated on everything related
- New players coming in (PM/engineering/consultants)

## Opportunities



- Niche markets (industrial, urban, scrap,...)
- Main contractors for related services
- Decontamination (work hours)
- Recycling everything
- Specialization



# Decontamination

## Overview



- Asbestos (regulations, good and bad practices, experiences,...) is the reference
- First generation companies/departments
- Big differences between companies: departments of demolition or newly created
- Strong price competition (mainly asbestos)
- Technical value of the operation must be proved by someone else

## Challenges



- Regulatory framework not clear and very complex
- Almost no entrance barriers, any operator can start a company overnight
- For many types of hazardous substances, lack of knowledge and information
- Regulations not always enforced
- Increasing importance of consultants in large projects
- Liabilities and high level of responsibility

## Opportunities



- Audits, samples, reports,... engineering and knowledge work
- Also done in rehabilitation and other phases of the building
- Large number of substances becoming hazardous in the coming years
- Companies perceived as problem-solvers due to the lack of knowledge available/fear

# Recycling

## Overview



- Circular economy is trending topic
- Recycling is part of the eco generation/positive image perceived
- Difficult to find a successful business model that works always/everywhere
- Multiple management levels = healthier companies
- Solid business planning and analysis work

## Challenges



- Multiple sources of income, but it has to make economic sense
- Big investments and long periods for operations to be profitable
- Need of real market and real enforcement
- Complex and irregular flows of materials
- New powerful players creating market misrepresentation

## Opportunities



- Average: 2 ton x person x year
- Complex entrance barriers
- Material keeps coming
- Regulations will have to enforce it
- Increased value of certain materials in urban environments

# Greetings



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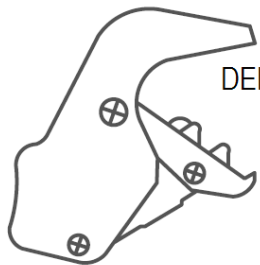
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