



Building materials – progress towards a circular economy

Improving management of construction and demolition waste – recommendations

Circular impacts workshop
Industry and research perspectives

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Our approach

Guidance towards economic and energy transition
Sustainable development key player

Services

-  **Diagnosis and assessment**
-  **Transition support**
-  **Prospective research**
-  **Training and participation**

Areas of expertise

-  **Climact and energy transition**
-  **Waste and natural resources**
-  **Sustainable buildings and industries**
-  **Spatial planning and mobility**

Main clients



Today's presentation comes from

A study carried out for DG ENVI – 2015-2016

Deloitte.

The purpose of this study was to:

- Perform a screening of CDW policies and management practices in the 28 EU Member States
- Analyse obstacles to recycling and deficiencies in CDW waste management practices;
- Illustrates key elements in CDW management (6 case studies);
- Identify good practices allowing recycling rate to increase and improving quality of recycling and recovery;
- Formulate recommendations to address deficiencies identified;
- Evaluate current reliability of CDW statistics reporting and identify source of inaccuracy and lack of traceability.



Resource Efficient Use of Mixed Wastes
Improving management of construction and demolition waste

Final report
August 2017

In association with :

bre



RPS



FCT FACULDADE DE
CIÊNCIAS E TECNOLOGIA
UNIVERSIDADE NOVA DE LISBOA

http://ec.europa.eu/environment/waste/studies/mixed_waste.htm#deliverables the latest version (October 2017) will soon be uploaded



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graph TD; T1[Task 1. Diagnosis of the situation as regards CDW management in the EU Member States, including the distance to the target defined in Article 11 of the Waste Framework Directive] --> T2[Task 2. Case studies]; T2 --> T3[Task 3: Defining good practices]; T2 --> T4[Task 4. Assessment of the reliability of CDW statistics]; T1 --> T4;
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Task 1. Diagnosis of the situation as regards CDW management in the EU Member States, including the distance to the target defined in Article 11 of the Waste Framework Directive

- 1.1 Development of the screening methodology*
- 1.2 Screening phase*
- 1.3 Synthesis of data collected*

Task 2. Case studies

- 2.1 Identification of 6 success stories*
- 2.2 Construction of the assessment grid*
- 2.3 Preparation of the case studies*
- 2.4 Cross analysis*

Task 3: Defining good practices

- 3.1 Analysis of differences in performance of Member states*
- 3.2 Analysis of regional differences*
- 3.3 Analysis of good practices*
- 3.4 Analysis of backfilling practices*
- 3.5 Recommendations*

Task 4. Assessment of the reliability of CDW statistics

- 4.1 Analysis of CDW officials statistics on generation*
- 4.2 Analysis of CDW officials statistics on treatment, import and export*
- 4.3 Analysis of data collection methodologies*
- 4.4 Collection and analysis of other data*
- 4.5 Good practices and threats for future data quality*

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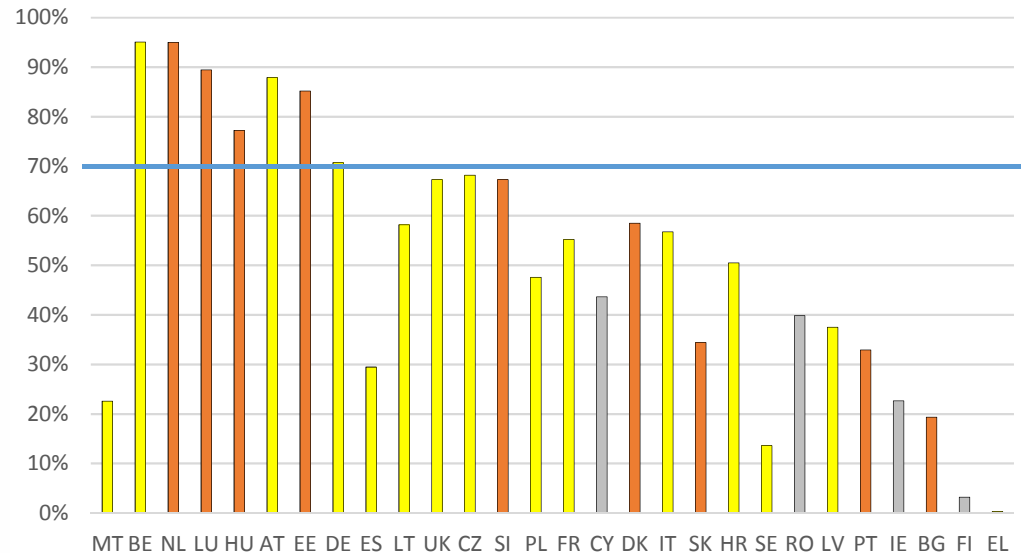
Main recommendations

to ensure minimal CDW generation and sustainable CDW management

Remove the backfilling barrier:

- Stop using the term backfilling and provide clarification on what a CDW recovery operation is,
- Remove backfilling from the 70% objective and include in the WFD a 70% recycling target to be met by 2030

Within the current practices considered as backfilling, only reclamation of excavated areas in construction could be considered as compliant with the WFD backfilling criteria, as it substitutes non-waste materials and would be undertaken anyway if waste was not available



2012 CDW recovery rates calculated in compliance with the WFD using all the available national information excluding backfilling

Main recommendations

to ensure minimal CDW generation and sustainable CDW management

Keep it clean (source segregation):

- Mandatory selective demolition
- Keep inert waste separated

National/regional sorting obligation

(on-site or in sorting facility)

Sorting obligations consist in ensuring the separation of different waste streams but may not be necessarily applied on-site and during the demolition process. Waste may be collected as mixed waste and sorted in a sorting facility. However, this legal obligation is often not enforced.

Application in 17 Member States

- wide application:

AT, BE, BG, CZ, DE, DK, EE, EL, ES,
FI, HU, LV, LU, PT, SK, SE, UK



Main recommendations

to ensure minimal CDW generation and sustainable CDW management

Keep it clean (source segregation):

- Mandatory pre-demolition and renovation audits

Pre-demolition audits

Pre-demolition audits are an important driver for recycling: this preliminary step provides all the stakeholders involved in the decommissioning, deconstruction and demolition process with important information on the existing building. Opportunities for reusing and recycling may then be identified and assessed based on specific details given on the quantities and accessibility of building materials. This type of legislation has usually been in place for 5-10 years.

17 countries⁴¹ have introduced them in their legislation. However, for some of these countries, there is a limited application (voluntary – mentioned in the waste management plan, regulated regionally or limited to hazardous wastes).

Application in 17 Member States

- wide application:

AT, BE (Flanders), BG, CZ, FI, FR, HU, IE, IT, LU, MT, PL, SL, ES, SE, NL, UK





Main recommendations

to ensure minimal CDW generation and sustainable CDW management

Products, not waste:

- Develop EoW criteria for recycled aggregates across all MS
- Develop EoW criteria for non-aggregate applications across all MS

Only five countries (Austria, Belgium, France, The Netherlands and the United Kingdom) have end-of-waste criteria in place in national legislation mainly for recycled aggregates, other than the EoW criteria set at the European level (iron, steel, aluminium scrap, glass cullet, copper scrap).

Summary of main barriers regarding the EoW concept:

- Quality: reliability of materials (environmental and constructional quality must be ensured)
- Legislation: standards for recycled building materials and detailed rules in national legislations should be defined + national requirements included
- Image: secondary building materials still have a negative image
- Costs: the time needed for sampling and testing the aggregate quality is seen as a barrier. EoW is not workable for small-scale recycling

Main recommendations

to ensure minimal CDW generation and sustainable CDW management

Enforce to reinforce:

- Identify and set minimum resourcing levels needed to adequately enforce CDW legislation
- Introduce dissuasive penalties in case of breach of waste legislation

MS with mature legislation

Austria
Belgium
Denmark
Finland
France
Germany
Luxembourg
Netherlands
Sweden

Main characteristics may include: existing legislation with specific requirements on CDW prior to the WFD, ambitious targets on CDW prevention or recycling (either higher than the one defined by the WFD or defined by materials), future legislation in progress showing a step forward is taken above the WFD requirements, specific standards defined within the legal framework to facilitate the law enforcement

MS with advanced legislation

Czech Republic
Estonia
Hungary
Ireland
Italy
Malta
Portugal
Spain
United Kingdom

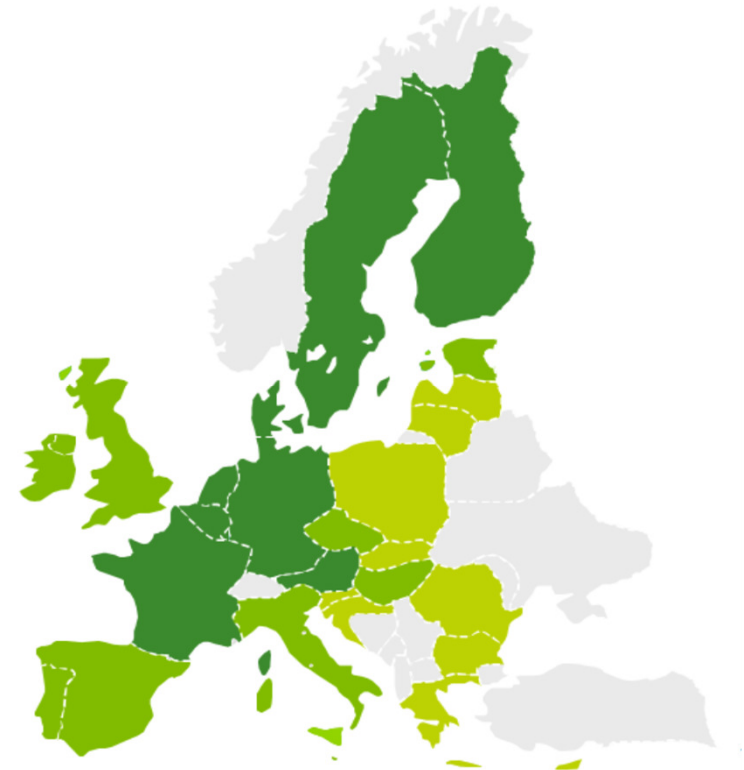
Main characteristics may include: existing legislation with specific requirements on CDW, possibly prior to the WFD, defined targets, existing specific standards/framework on specific issues but where law enforcement is weaker showing a lower level of maturity

MS with developing legislation

Bulgaria
Croatia
Cyprus
Greece
Latvia
Lithuania
Poland
Romania
Slovakia
Slovenia

Main characteristics may include: existing legislation with specific requirements on CDW mainly defined in application of the WFD, only a few legal specifications regarding specific CDW management issues, poor law enforcement

Level of maturity of
legal framework in MS





Main recommendations

to ensure minimal CDW generation and sustainable CDW management

Target waste prevention:

- Set waste prevention targets
- Provide procurement incentives for waste prevention (e.g. through building level standard, BREEAM...)



Thank you for your attention



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