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**POLICY BRIEF 4**



# THE CONDEREFF PROJECT

## POLICY BRIEF OVERVIEW

“CONDEREFF – Construction and Demolition Waste Management Policies for Improved Resource Efficiency” is a project under the INTERREG Europe programme that aims to accelerate policy work on Construction and Demolition (C&D) waste management, improving resource efficiency in the countries of the partnership. Accordingly, CONDEREFF supports the development of infrastructures and methods for recycling and re-using C&D waste materials, as well as the introduction of relevant green growth opportunities. As such, the projects’ specific goals are:

- a) Support the integration of the EU C&D Waste Management Protocol into territorial policies.
- b) Strengthen public authorities' capacities in managing C&D waste, public procurement, landfill restrictions, recycling facilities, and public perception.
- c) Transfer the lessons learnt into partners’ regional policies.

This policy brief reports on the main lessons derived from the CONDEREFF interregional workshops held in Rome, Italy (26/09/2019) and Valencia, Spain (02/04/19), in the context of project activities A3.1 “Using public procurement as a driver for resource efficient C&D waste management” and A3.2 “Pre-demolition audits and demolition activities: supervision and documentation”, respectively.

The workshops focused on:

- Presentation of two major drivers for strengthening C&D waste management, namely Green Public Procurement (Rome workshop), and Pre-Demolition Audits (Spain workshop).
- Best Practices of green public procurement and pre-demolition audits.
- Challenges encountered, lessons learnt, as well as solutions recommended.



# C&D WASTE IN THE EU

**Why is the management of C&D waste important?**

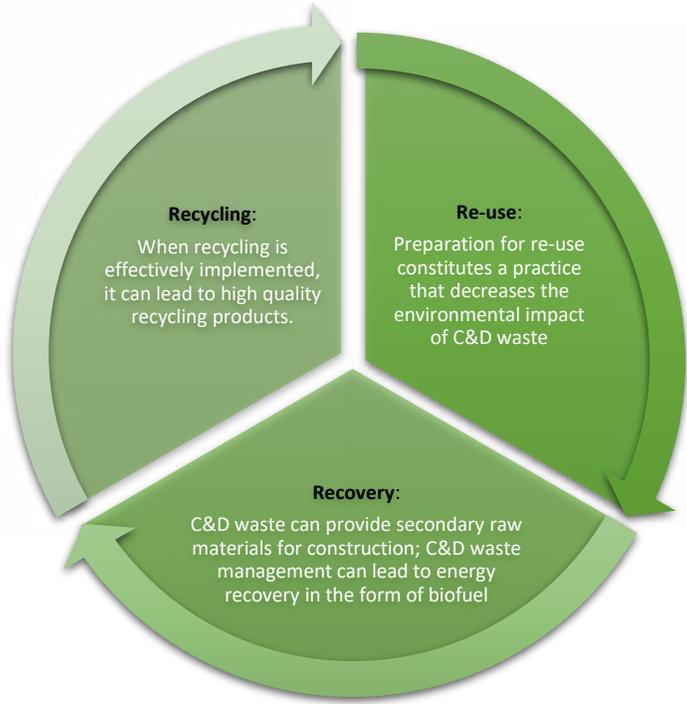


**Current state of C&D waste in Europe**

CDW waste constitutes the larger category of waste in the EU in terms of volume. More specifically, 25%-30% of the total waste is CDW, including a wide range of materials such as concrete, bricks, wood, metals and plastics.

**Tackling the Issue of C&D waste**

To tackle the high volume of CDW in the EU, Member States are increasingly implementing pre-demolition audits, as a means increase the rate of C&D waste recycle and re-use.





# GREEN PUBLIC PROCUREMENT (GPP)

Green Public Procurement (GPP) is defined by the European Commission as “a process through which public authorities seek to procure goods, services and works with a reduced environmental impact” (COM,2008)

Public procurement in the EU currently represents 19% of its GDP; the proliferation of GPP can encourage a shift towards goods and services that provide the impetus for the development of circular business models, substantially benefiting national economies.

GPP can also be an important driver for innovation, providing businesses with incentives to develop “green”, environmentally-friendly products and services, particularly in sectors where public administrations are among the largest buyers on the market (e.g. construction, health, and transport).

This part of the policy brief focuses on how public authorities can use GPP as an incentive for the construction sector to develop services for sustainable and economically beneficial C&D waste management.

A number of cases from Italy and Spain have provided valuable lessons; the workshop in Rome examined these cases in detail. Participants identified good practices and transferable elements, and discussed the challenges encountered during the implementation of green tenders incorporating C&D management clauses.

# LESSONS LEARNT FROM CASES PRESENTED

## Lessons learnt from Lazio, Italy

The case study in Italy involved the implementation of Green Public Procurement (GPP) during the earthquake of 2016 in the Lazio Region. Four open European tenders for waste separation, loading, transport, recovery and disposal of rubble were launched by the municipalities of Amatrice and Accumoli. By implementing GPP, **two good practices** were identified:

- **The timely recovery of product fraction and the identification of authorized recovery plants** during the tender by economic operators has assisted in increasing the economic potential of recovered materials.
- **The re-use of materials in other infrastructures** assisted in decreasing economic costs of waste management.

## Lessons learnt from Valencia, Spain

The analysis of Spain's case study focused on the process of CDW management in Valencia, from the collection phase (primarily through home repairs, and secondarily from cleaning plots) up to the recovery plants. The analysis revealed **three main challenges** in the process of recovery and re-use of construction materials.

- There is a general misconception that **secondary raw materials are of lower quality** than primary raw materials.
- **Difficulties in the manufacturing process of recycled material and high transport costs** can act as an impediment to the integration of GPP in C&D waste management.
- **There is a lack of institutional support** for the compliance and enforcement of environmental legislation.



# PRE-DEMOLITION AUDIT

This part of the policy brief focuses on how public authorities can employ pre-demolitions audits as a driver (or enabler) for the construction sector to develop services for sustainable and economically beneficial C&D waste management.

Specific cases from France and Spain have provided valuable lessons; the workshop in Valencia examined these cases in detail, and identified good practices implemented and challenges faced during the introduction of Pre-demolition audits in C&D waste management.

## **What is a pre-demolition audit?**

The pre-demolition audit is a valuable tool to outline and assess all materials that could be potentially re-used, prior to any demolition activity. By doing so, audits can increase the rate of recovery, recycle and re-use of materials, thus decreasing the environmental impact of C&D waste.

## **Who carries out a pre-demolition audit?**

In the majority of cases, a pre-demolition audit is conducted by external specialists, called auditors. Pre-demolition waste audits also involve stakeholders that are responsible to provide information on the composition of waste, and/or can identify potential markets for each waste type.

## **Mandatory or Voluntary?**

Currently, pre-demolition audits are voluntary, yet they are expected to become mandatory for all Member States.

# STAGES OF A PRE-DEMOLITION AUDIT

## NECESSARY DOCUMENTATION

- How the demolition will be performed
- The type of materials that will be collected
- Where and how they will be transported
- Which are the materials for recycling, recovery or re-use
- How to follow-up

## PARTICIPANTS IN THE AUDIT

- The owner, responsible for appointing an auditor team
- The authority
- The auditor team
- The contractor
- The waste manager
- The products manufacturer

## MATERIALS

The waste audit should provide adequate information for:

- The type of waste materials
- Recommendations for their management
- Documentation of their potential of re-use, recycle and recovery

## QUALITY ASSESSMENT

Quality assessment ensures that the procedural steps of the audit process have been adequately followed. By doing so, quality reports act as measures against mistakes or defects during the demolition process.

## REPORTING

Reporting is the final phase of a pre-demolition audit.

Reporting ensures the accuracy, credibility and reliability of the demolition process

# CASES PRESENTED

## DURING THE WORKSHOP

### **QUALIRECYCLE BTP, an Audit Tool Designed for C&D Waste Management Companies, FRANCE**

The French Management and Audit Scheme, QUALIRECYCLE BTP, is a voluntary pre-audit scheme developed by Syndicat des Recycleurs du BTP (SR BTP) for waste management companies.

The objective of the scheme is to evaluate, report and improve companies' compliance to environment and safety regulations. The framework of the scheme outlines the necessary information required in five sections, with both mandatory and recommended parameters that ensure regulatory compliance and detailed monitoring of the pre-demolition audit, the amount of waste produced and their environmental impact

### **Building Information Modelling for Smart Demolition (BIM-SD), SPAIN**

Building Information Modelling for Smart Demolition (BIM-SD) is a pre-audit tool that focuses on how selective demolition would allow the recovery of larger volumes of secondary raw materials.

The tool deploys the most recent technological innovations (i.e. smart processing of data) to increase the amount of information collected in the pre-demolition phase. Additionally, the tool provides with a range of other utilities such as easier and more effective traceability of the materials produced, improved calculation of material produced and faster and more precise evaluation of alternative options for re-use or recycle of the materials produced.

# CHALLENGES IDENTIFIED

Participants to both workshops highlighted a number of **challenges**:

## **Challenges concerning Green Public procurement**

- There are limited legislative initiatives on a regional level. As a result large amounts of domestic waste are managed inefficiently.
- High transportation costs impede the potential of using C&D waste.
- There is often a lack of knowledge on the positive aspects of using secondary raw materials from C&D waste.
- There is also a lack of common regulations to ensure the quality of secondary raw materials from C&D waste.

## **Challenges concerning Pre-demolition audits**

- There is a limited presence of adequate regulations concerning C&D waste management.
- There is a lack of incentives for the involvement and commitment of the contracting authority which is essential for minimizing and regulating illegal, uncontrolled landfills.
- There is a lack of detailed documentation in regards to the density and composition of C&D waste produced during demolition.
- There is a broad perception of the public that quality of secondary raw materials are of lower quality.



# RECOMMENDATIONS

## Recommendations for Green Public Procurement

- Further research with experts on the ways regulatory, legal and insurance compliance can integrate the potential of re-use in GPP. This would provide a better understanding of the necessary changes required to GPP for wider implementation.
- Campaigns to raise awareness and training courses for public stakeholders in waste prevention strategies. Similarly, training and information events to alleviate concerns regarding the quality of secondary raw materials.
- Proper documentation of the waste produced during the demolition process to identify secondary raw material that could be re-used in other construction projects.
- Knowledge exchange of successful practices (such those presented in this policy brief) to further improve the audit process and maximize the value of GPP for C&D waste management.

## Recommendations for pre-demolition audits

- Systematic review of existing documentation regarding the audit process and enrichment with research and knowledge obtained from experts. This would assist to create a document that provides enough detail on risks and responsibilities of each participant in the audit.
- Further analysis of relevant data to quantify and qualify the potential of recovery and exchange information between interested parties. This would provide more knowledge on the economic benefits of pre-audit processes.
- Full implementation and compliance to the guidelines of the audit through mandatory documentation and regular checks from relevant civil services. To do so, further discussion on potential changes in the legislative framework is considered essential.



# REFERENCES

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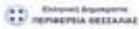
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# Get involved

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<https://twitter.com/CONDEREFF>

<https://www.linkedin.com/in/condereff-project/>



## About us

The CONDEREFF project brings together 8 partners from 7 countries to exchange experiences and practices on how to promote green growth and circular economy through sustainable constructions & demolitions (C&D) waste management.

CONDEREFF is an INTERREG Europe project and is co-funded by the European Regional Development Fund (ERDF)

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