Protocolo de Gestão de Resíduos de Construção & Demolição

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COMISSÃO EUROPEIA Direção-Geral do Mercado Interno, da Indústria, do Empreendedorismo e das PME - Unit C.1 - Tecnologias limpas e produtos - Vincent Basuyau - vincent.basuyau@ec.europa.eu
Resource efficiency opportunities in the building sector

- *Toward a better functioning market for recycled materials*
  - Collaborative schemes between demolition and construction sectors aiming at sharing costs
  - Study on CDW recycling business models and support investments in new CDW recycling projects
Circular Economy Package

- *Construction and demolition waste (CDW)*
  - Recycling of CDW encouraged by a mandatory target: 70% by 2020 (WFD2008/98)
  - EU CDW Management Protocol
  - Guidelines for use on sites: Pre-demolition & renovation waste audits
  - Best practices in recycling of CDW
- *Increase the durability and recyclability of building components*
  - Building design improvements
  - Design for Deconstruction (DfD)
Energy Union and Climate: Accelerating clean energy in buildings

- Construction of new buildings or retrofitting buildings
  - to render them more energy-efficient
  - to rethink construction and demolition practices
  - to take into account broader resource efficiency aspects
- Principles and rules for the sustainable design of buildings
  - to generate less construction and demolition waste
  - to facilitate materials recycling

These initiatives will reduce energy consumption and construction materials costs
“EU Construction and Demolition Waste Protocol”

*Wider benefits*

- Increased demand for C&D recycled materials
- New business activities
- Increased cooperation along the value chain
- Progress towards meeting C&D waste targets
- Progress towards harmonised EU markets for C&D recycled materials
- Generation of reliable C&D waste statistics

Reduced environmental impacts and contribution to resource efficiency
"EU Construction and Demolition Waste Protocol"

Commission introduces EU Construction and Demolition Waste Protocol

Structure of the Protocol

- Waste identification, source separation and collection
- Waste logistics
- Waste processing
- Quality management
- Policy and framework conditions
“EU Construction and Demolition Waste Protocol”

Checklist

- IMPROVE WASTE IDENTIFICATION
- IMPROVE SOURCE SEPARATION
- TRANSPARENCY, TRACKING AND TRACING
- IMPROVE LOGISTICS
- STOCKPILING POTENTIAL AND PROPER STOCKING
- WASTE PROCESSING AND TREATMENT OPTIONS
- PREPARATION FOR REUSE
- RECYCLING
- MATERIAL AND ENERGY RECOVERY
- QUALITY OF THE PRIMARY PROCESS
- QUALITY ASSURANCE RELATED TO PRODUCTS AND PRODUCT STANDARDS
Figure 2 visualises a general flow of C&D waste processing and its relation to the policy and framework conditions. The chart can be specified depending on the C&D material and situation.

Figure 2  General flow of C&D waste processing (triangles represent the waste hierarchy, with nr. 1 being the most desirable)
Proper management of C&D waste and recycled materials – including the correct handling of hazardous waste - can have major benefits in terms of sustainability and the quality of life. But it also can provide major benefits for the EU construction and recycling industry, as it boosts demand for C&D recycled materials.

The Waste Framework Directive 2008/98/EC establishes a target of 70% of C&D Waste to be recycled by 2020. However, with the exception of a few Member States, only about 50% of C&D waste is being recycled. The good news is that some Member States have already developed and implemented a waste management system, which leads to a recycling rate of up to 70%

One of the common hurdles to recycling and re-use of C&D waste in the EU is the lack of confidence in the quality of C&D recycled materials. There is also the potential health risk for workers due to dust and dust particles. This lack of confidence restricts the demand for C&D recycled materials, which inhibits the development of C&D recycling industries in the EU.

This Protocol has been developed for application in all 28 Member States of the European Union and has the following target groups of stakeholders:

- Industry practitioners: construction sector (including demolition contractors, demolition companies, and product manufacturers), waste treatment, transport and logistics as well as recycling companies;
- Public authorities at local, regional, national and EU levels;
- Quality certification bodies for buildings and infrastructure;
- Clients of C&D recycled materials.

The Protocol includes good practices from across the EU that can be sources of inspiration for both policy makers and practitioners. It also includes an overview of definitions and a checklist for practitioners.

This initiative has been launched by the European Commission – the DG for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW), but the project is built on the active participation and contribution from industry and national government officials according to the tripartite principle of the Construction 2020 initiative.
“EU Pre-demolition & Renovation Waste Audits”

Development of Specific Tools and/or Guidelines for Assessment of Construction and Demolition Waste Streams prior to Demolition or Renovation of Buildings and Infrastructures

- a specific task within the project planning
- the first step towards recycling
- fair competition amongst contractors
- awareness and traceability processes.
- assurance that contaminants are safely removed
- better demolition waste management
“EU Pre-demolition & Renovation Waste Audits”

**CDW WASTE AUDIT GUIDELINE: General scheme**

- Desk study
- Site visit
- Inventory
- Management recommendations
- Reporting
- Original building documentation
  - Maintenance protocols
- Measurements, laboratory tests
- Waste classification
- Legal and other requirements
- Templates
“EU Pre-demolition & Renovation Waste Audits”

CDW WASTE AUDIT GUIDELINE: role of participants
“EU Pre-demolition & Renovation Waste Audits”

CDW WASTE AUDIT GUIDELINE: Decision-making

- Management of elements:
  - Elements
    - Not contaminated
      - Liability of the waste holder
      - Reusable
        - Liability of the auditor
        - Reuse
      - Contaminated
        - Liability of the waste producer
        - Not reusable
          - Liability of the auditor
          - Not reused
            - Liability of the waste holder
- Management of recyclable waste:
  - Materials
    - Non-hazardous
      - Recyclable
        - Recycling
      - Contaminated
        - Not recyclable
          - Not recycled
            - Not recyclable
- Management of other waste:
  - Backfilling
  - Energy recovery
  - Landfill
Securing sustainable construction materials and waste management

A comprehensive scheme on progress

• Achievable target of 70% by 2020 for all MS
• Towards efficient management of CDW
  ➢ Guidelines for pre-demolition and renovation waste audits
  ➢ EU Construction & Demolition Waste Management Protocol
• Financial support to new business initiatives
  ➢ Horizon 2020 projects supporting innovation projects in the area of CDW (BAMB, FISSAC, HISER, new solutions for a higher recovery of raw materials from buildings)
  ➢ Study "Development and implementation of initiatives fostering investment and innovation in construction and demolition waste recycling infrastructure"

A prospective view

• Principles and rules for the sustainable design of buildings
  ➢ Design for Deconstruction vs. Durability
Levels of maturity of EU member states in CDW generation and management (Study Bio by Deloitte-BRE-ICEDD-RPS-VTT-FCT in 2015-2016)

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Added value of EU actions to implement Circular Economy policy in the construction sector

Recycle and keep value of CDW
- Greater efforts towards Member States lagging behind the Waste Framework Directive objective
- Promote best practices throughout the Protocol and Pre-demolition/renovation audits
- Stimulate investments in CDW recycling infrastructure

Better knowledge and monitoring of CDW management actual practices
- Improve data/statistics collection and consistency with EUROSTAT
Thank you for your attention