# CONDEREFF NEWSLETTER



CONSTRUCTION & DEMOLITION WASTE MANAGEMENT POLICIES FOR IMPROVED RESOURCE EFFICIENCY

**ISSUE NO 2 | MAY 2019** 



Dear reader.

Welcome to the second edition of Newsletter series of the CONDEREFF project!

CONDEREFF is a European project funded by the INTERREG Europe Program that aims to share and disseminate best practices of waste management, reduction and recycling to stimulate and support their implementation in partners' territories.

In the following pages, you will find interesting materials describing the overall context and objectives of the project as well as information on the latest developments and events, and the upcoming ones.

Do not hesitate to subscribe on our newsletter channel at: <a href="https://www.interregeurope.eu/condereff/">https://www.interregeurope.eu/condereff/</a>

We shall keep you informed about our progress and key outcomes through the project website, thematic events, and newsletters.

The CONDEREFF project team











### **CONDEREFF** in brief

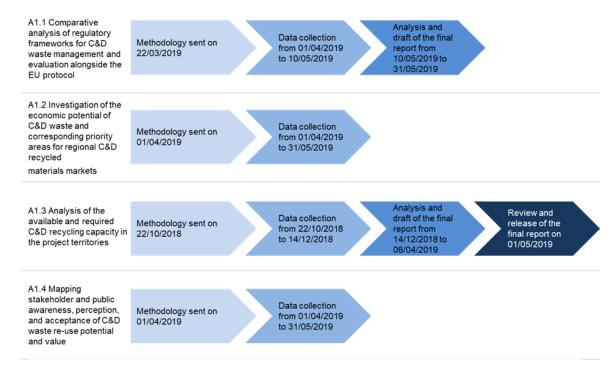
C&D waste streams represent **20-30% of all wastes generated in Europe**, reaching up to the two-third of the total wastes generated in some countries. Reuse rates vary across EU countries (10-90%). The Waste Framework Directive (2008) and the Construction 2020 strategy set a **70% recycling and reuse rate of CDW by 2020** and the Circular Economy Package also prioritizes CDW.

CONDEREFF aims to strengthen regional capacities for increasing recycling and reusability rates of C&D waste in the regions participating in the project. The project brings together 8 partners from 5 EU countries which work together during the 5 years of the program to analyze the CDW context in the regions, understand the stakes and get a clear view about brakes and levers on which to play with to ease the implementation of solutions.

To cope with the objectives, it is needed to **rethink the way products, materials and resources are designed, produced, used and disposed**. Challenges are many: organizational, technical, logistical, cultural and economical, and call for investment in R&D, new techniques and support of the overall value chain development.

From a planning perspective, the project is split into **two major phases**. The first, which has started in June 2018, focuses on studies & analysis, including policy learning, market potential for CDW, network mapping, tools and resources for monitoring, tracking management of CDW. The second, starting at the latest in June 2021, is about implementation of action plans and testing of solutions in territories.

## **Activity progress overview**



Timeline of the different activities of work package A: Exchange of experience, with the situation on the 31st of May.

#### Focus on the activity A1.3

This study analyses: a) the existing structures and frameworks that support CDW recycling capacity and b) the future requirements that could arise for CDW recycling capacity in partners' territories. Statistical data, academic publications and articles, CDW reports, and legal texts were considered. Results showed that:

- Achieving zero waste and high quality of CDW recycling faces classification and data reporting challenges, especially determining the wastes volume per category in the sense of EU codes. It is crucial to share the same categorization between countries, and implement harmonized systems to track CDW streams from generation to final recovery.
- CDW recycling capacity varies from one country to another. For instance, the current capacity in the region of Valencia is far below the need, while the Lazio region and province of Styria seem to be in excess of capacity.
- The main requirements that will lead to a change in CDW quantity and composition in the coming years (2018-2025) are the increase of demolition rate caused by ageing buildings, coupled with an increase of construction activities and CDW landfill taxes. Regarding demand for recycled materials, the overall trend is a slight increase for the material of secondary use.

 All countries have adopted a waste framework policy, a landfill and a secondary raw material legislation at national or local level. Having defined those plans, the focus now needs to be on implementation, tools, networks and communication channels to put the plans into practice.

In conclusion, clarifying accounting rules, coupled with the need to track CDW throughout the value chain, is essential between countries and regions. It adds up an additional layer of complexity to the current challenge of assessing real need for recycling capacity and reveals the upheaval that the C&D sector is facing to be compliant with the 2008 EU Waste Framework Directive objective. The demand for recycled C&D materials is expected to increase until 2025, but remains light in average, possibly due to the lack of visibility. Unforeseen rearrangements and releasing might appear, as all actors of the value chain are concerned, from the design choices and prescriptions in the tenders in upstream, to the skills and wants of auditors, demolition and recycling companies in the downstream. This is a real turning point where demand and practices have to shift rapidly, pulling away the shift of the supply, leveraged by indirect means and going along with interest and economic reality.

#### **CONDEREFF** Events

#### **Steering Committee in Rome**

The second Steering Committee was held in Rome on the 16<sup>th</sup> of January 2019 at ENEA's office. Partners met to discuss about:

- Project overview, management activities and operational planning such as the next workshops to be held: one in Valencia in early April and another in Rome in early June (date to be confirmed). A roundtable was made where each partner expressed briefly his situation in the project (activity progress, risks, difficulties, etc).
- Update of the activities Exchange of experience (work package
  A). Each partner leader on an activity provided an overview of
  the progress and the contribution expected from the rest of
  partners to achieve the different studies. Mainly speaking, it
  was noticed the risk of sending too much of questionnaires to
  the local network for collecting data and feedback for activities
  A. The need to simplify and merge questionnaires was
  discussed upon.
- In the afternoon a focus was made concerning the communication activities carried out during the 1<sup>st</sup> semester, the expectations for the 2<sup>nd</sup> semester and the contribution expected from partners. The tool to be used for collecting communication contents from partners was presented, then was discussed the issue of enlarging the number of connections and followers on social media networks.







Pictures of partners during the steering committee at ENEA's office on the 16<sup>th</sup> of January

# 1<sup>st</sup> international workshop in Valencia

The first international workshop took place on the 2nd and 3rd of April, at the Polytechnic University of Valencia. It was a great opportunity for project partners to meet together and discuss with local stakeholders about current state of the art of pre-demolition audit and techniques. Presentations and exchanges were made, tackling regulatory aspects, warranty concerning materials of secondary use, tendering processes and techniques, tools and skills related to audit, characterization of materials and inventory, as well as logistics aspects and traceability system. Thanks to this event, people also learned about the paramount importance of behavioral and cultural factors on the consideration of resources and wastes at national and local levels.





Roundtable between project partners and local stakeholders in day 1

## Key learnings of the workshop

- Wastes management and recycling should be regarded as a local issue to be managed where waste is generated. First due to transport costs, second for environmental impact due to the transport of materials, and third because recycling and re-using ratios do vary from one territory to another: buildings materials and components differ, so do treatment plants and facilities.
- Pre-demolition audit is a long process which takes months to be achieved. In-depth knowledge of building is required and all demolition projects differ from one another. Ratio estimations are necessary before demolition, inventory and sampling are essential to determine potential and find recovery solutions, the more in upstream of the operations the better.
- Wants and objectives are to be expressed clearly from the definition of needs, writing of tenders must be practical, and companies are expected to provide their wastes management plan and to be challenged upon during discussions with contracting authorities.
- Regulation is pointless without a consistent monitoring management plan and a deep involvement of authorities to reduce wastes dumping. The soil is turning into landfill and the subsoil is getting polluted, hence the need for control.
- Technical documents to trace and track wastes are to be finetuned. There is a global lack of reliable data, which are needed to estimate materials density and enrich databases to be able to compare buildings all together and refine quotations.

- Aggregate demand for second hand materials remains low, hence the need to promote their benefits.
- Taxes and compensation mechanisms should speed up the advent of recovery tools and facilities (semi-mobile and mobile sorting and treatment equipment).
- Every actor has a responsibility in the process. Managers estimate CDW volumes, establish waste management plan, keep track of wastes along every step from the audit and selective deconstruction to final recovery. Technicians who are well aware of materials and their potentials must involve and cooperate with all actors. Stakeholders and workers have to be trained about sorting techniques.





Visit of a treatment plant of 2 million m<sup>2</sup> of surface in day 1

### Lazio region testimony

The subject of the CONDEREFF project is widely transversal, in fact it involves different aspects such as the environment, the economy and innovation. It is for this reason that our team consists of personnel from different areas (Economic Development, Environment, Infrastructure, and Europe Office). Some of us are at their first experience working on implementing European territorial cooperation projects, but I can assure you that the enthusiasm and desire to do it are strong. Our team is composed as follows: Francesco Mazzotta (coordinator and project manager), Alessandro Drago (project manager support), Emanuele Rotili (financial manager), Moreno Tuccini (technical expert), Gaetano Mandarino (communication manager), Gabriella Trufelli (support financial manager), and Stefania Michetti (communication manager support).

We are aware of the delay with which we started the activities within the competence of the Lazio region and we are working hard to make up for lost time, with particular regard to the upcoming meetings to be organized right here in Lazio. The staff is young, dynamic and motivated but the complexity of administrative procedures, at regional level, and in Italy in general, represents an obstacle to the speed of the activities to be carried out, however we are confident about the high performance of the tasks assigned. The work methodology regarding project activities is undoubtedly the most important feature for the team and, especially for those in their first experience, represents a significant challenge, but the spirit of collaboration and support established with the lead partner, and with the other European partners are a strong stimulus for us and will certainly help us achieve the expected targets.

## **Interview with Vicente Lopez Mateu**

#### PhD Architect – Building Technology Department of UPV

# Regarding policy instruments implementation level of maturity, current CDW volumes and recovery rate, what is the situation at the local and regional level what's at stake?

In Spain currently, there are general or national regulations related to environmental preservation. They set some crucial issues such as the use of water, soil or air pollution and even noise control. There are also some special regulations refer to C&D Waste, the most important one come from 2008. At the same time, some regional regulations develop or modify it, with slight differences between all of them.

The first Valencia Region general waste law is relatively recent. It was set in December 2000. The other regional regulation was called PIRCV (Integral Waste Plan). It was the code in force when the CONDEREFF project starts last year because it was enacted in 2013. Nevertheless, there are other local regulations about the suitable use of inert waste in restoration, conditioning and filling works, or with general building purposes set in 2004.

This 2013 Law needed to be updated, not only because of its age, but mainly because of its necessary adaptation to European directives and protocols. Among others, it must adapt to European specifications for waste management, the EU C&D Waste management Protocol, established in September 2016.

A few days ago, April 2009, the Valencian local Government approved the new PIRCV. There are several changes, strategic objectives, and some new policy regulations. The most important ones are to reduce the volume of CDW and progressively improve the rate of recovery. There is a special section referring to the new limitations of the use of plastics in certain disposable elements for common purposes.

Regarding construction waste, it is provided with a new amount (expressed in an increasing average) for reuse in the different categories of materials according to the LER code or classification.

There are other principles expressed in a further mandatory way that should be developed in a new regulation, related to the following questions:

- -To establish a new sector-plan of the management model, so that all the areas of the Region can have C&D Waste management facilities that accomplish the principles of proximity and self-sufficiency.
- -To establish the conditions to promote the separation in origin of the C&D Waste and good practices in the execution of demolition and demolition works.
- -To obtain the building license, the C&D Waste producer will be required to include a construction and demolition waste management study in the project, and a deposit or other equivalent financial guarantee.
- -To consider the waste from minor construction or home repair works both as "urban waste" according to Laws 105/2008, and 10/2000 previously mentioned.
- -To regulate a particular protocol for hazardous waste that may appear in the C&D works. They must be delivered to an authorised manager. Regarding minor construction or home repair works, they may be deposited in "eco-park", if this place is able for the reception and storage of these products.

There are other aspects that the new law does not consider, such as the rates or valuations about the amount of waste produced. These evaluations are nowadays questioned for different reasons, as could be seen in Helena Granados' presentation in the last Valencia Seminar.

The main reasons for this disappointment are the following: standard rates do not consider the particular constructive technology, usually related to the specific location or the building site, and the different varieties of building tasks or works (refurbishment, new development, maintenance, etc).

The biggest challenge is to make effective regulations that support common policies. At stake, there is not only the lack of monitoring and compliance with European or even international protocols, and the penalties that may result, but other aspects including:

- -Present and future environmental improvement, elimination of landfills, especially the uncontrolled ones, preserving the natural spaces, improving the recovery of green and public open areas.
- -To take advantage of the waste potential re-uses, making human processes more sustainable and healthy, especially in building construction by using appropriate materials.

In summary, to procure better resources management, following the path towards a circular economy that is ready for future technological development, respecting the environment and improving the living conditions of human beings and their global or different context.

# Which are the main levers and barriers to put the plan into practice about communication and exchanges with CDW actors, need for investment in facilities and resources and skills?

First of all, probably the main barriers are the complexity of regulations, lack of specific education or information, and the management resources in some small towns or villages. Some of these problems can be solved using a proper shared and collective information net. I think it should be supported by the local government which has the responsibility in these matters.

Refer to the levers, the possibility to get or introduce direct or indirect advantages related to good practices, such as low taxes or even partial subvention on different activities, projects, specific task, etc. At the same time, in my opinion, there is necessary a more efficient policy related to mandatory and compulsory activities. We need to balance both possibilities as well as some crucial questions, for instance, the deposits, the second-hand material or products market, etc.

About the need for investment, I guess the public investment should take the initiative about creating some specific web tools used to improve the C&D Waste pre-evaluation, management and to establish the traceability in the different waste streams. This tools should be affordable, easy to use and upgradable.

# Which are the difficulties encountered in implementing CDW management and recycling practices? What feedback obtains?

This question is linked with the previous one. At this time, I could not know which the difficulties in detail are because I'm not working for a local government agency or office. Nevertheless, I can guess some of the problems regarding the opinions expressed in the Seminar.

The majority of the speakers said that they haven't got enough resources (human, material, software, etc.) to manage with the day to day activities related to harmful practices or even for the good ones. Finally, most of them only could follow the small or the more important ones. Otherwise, they give up the daily management and abandon the task.

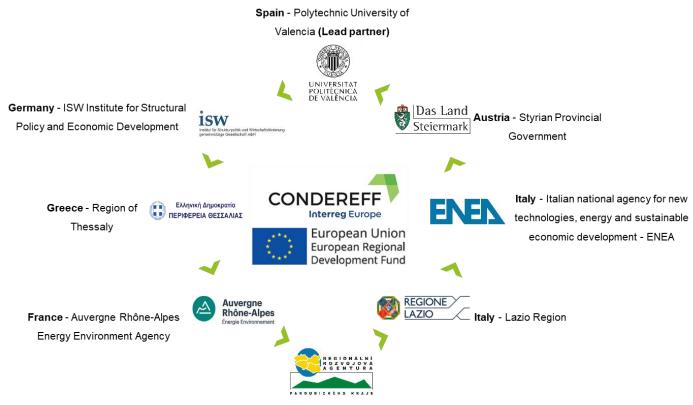
The feedback obtained is devastating. It seems that the documents that are processed by the administration only are useful to fulfil the necessary procedures, but there are no other goals or purposes beyond that.

#### How to go further in all of this? Which are the next steps?

Probably there is not a unique way of acting. I'm firmly convinced that we need a nice combination of different measures or activities.

- a) The improvement of the indicators system that supports monitoring &measurement of the PIRCV with regards to C&D waste management operations and a new "online software" and new Web facilities.
- b) The promotion of public awareness to also include companies & SMEs, accelerating the active involvement of the construction industry in the C&D waste management plans in the Valencia region.
- c) It is necessary to introduce a group of transversal subjects in university education and vocational training that deal with the question of waste under construction. Training new specialists in this field may be considered essential.

# The CONDEREFF Partnership



Czech Republic - The Regional Development Agency of the Pardubice Region

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