

Construction and Demolition Waste practical treatment induced by different legislation (France – Wallonia – Flanders)

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- ☐ VALDEM project
- ☐ Overall philosophy for C&DW treatment
- ☐ Example of differences with underlying legislation
- ☐ On-site vs off-site additional treatment
- ☐ Traceability / tools for public bodies
- ☐ Conclusions

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Research Project, started 01/07/2017, duration : 4 years
Cross-border (France-Wallonie-Vlaanderen) collaboration

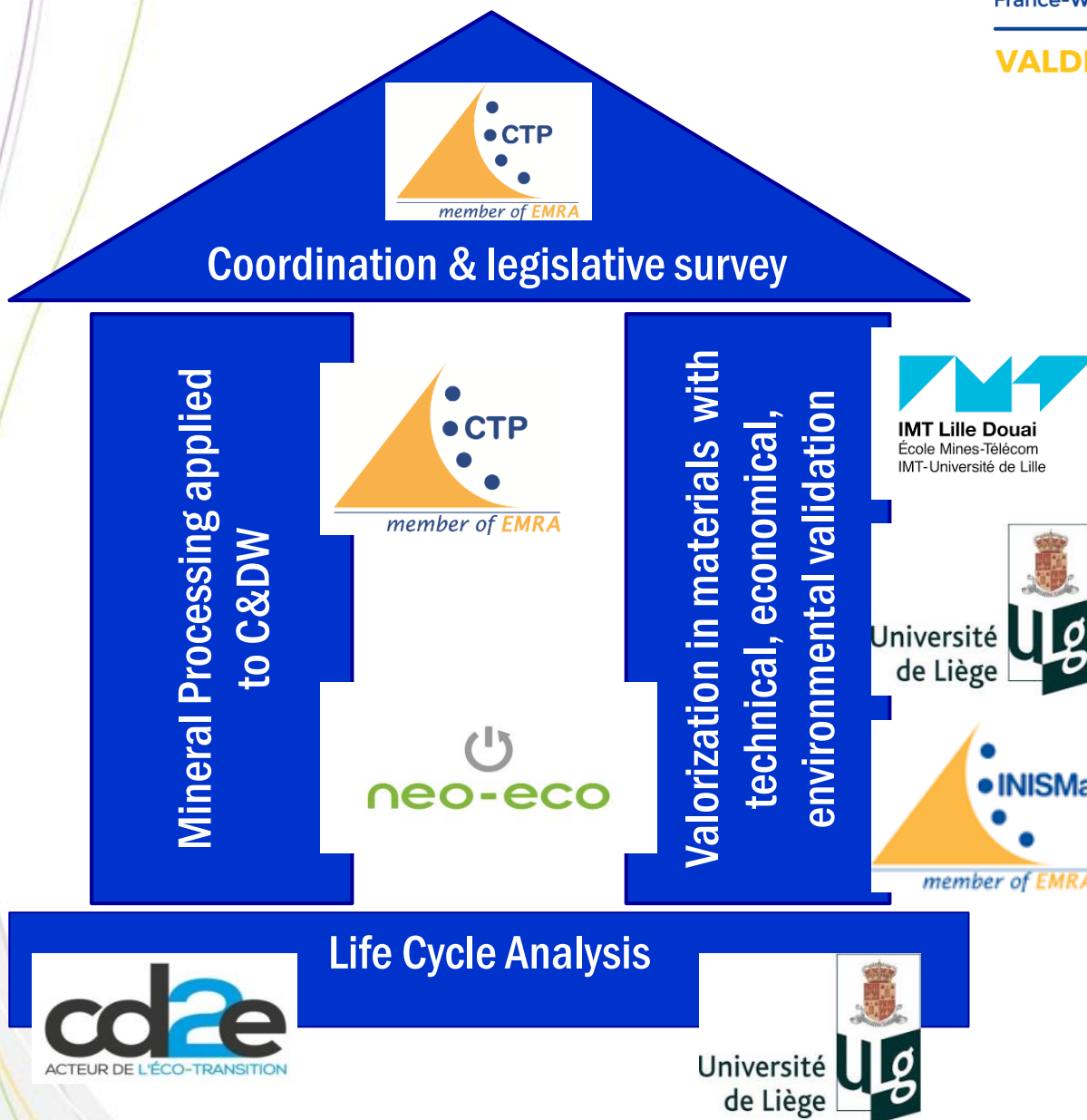
Target : promote selective deconstruction for local valorization of Construction & Demolition Waste in the transregional area France-Wallonia-Flanders



- ☐ Production of specific material batches for local new applications using dedicated mineral processing
- ☐ Process' validation (technical, economical, environmental)
- ☐ Transfer to industrial sectors
- ☐ Cross-border legislative survey

PARTNERSHIP

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Methodology:

Industrial survey

Visit of demolition site

Legislative review

Contacts with:

- TRACIMAT (Flanders)
- FEREDECO (Wallonia)
- SNED (France)
- CCW-VCB (Wallonia & Flanders)



Limits:

Non exhaustive study,

Period of legislation changes

Focus on practical examples showing differences

Overall philosophy for C&DW treatment

- ☐ Preparation
- ☐ Decontamination (removal of hazardous waste)
- ☐ Dismantling (metals, opportunities for valuable materials)
- ☐ Demolition (selective or not, treatment on-site/ off-site)
- ☐ Valorization:
 - Stony fraction (coarse, fine):
 - Recycled concrete granulates as granulates in concrete (prefabricated, ready for use)
 - Recycled granulate mix as granulate for roads
 - Other streams

**Transition towards circular economy derived from
Waste Framework Directive DIR2008/98/EC**

Waste inventory

Flanders:

- ☐ mandatory if (at least partially) non-residential building with enclosed volume over 1000m³

VLAREMA article 4.3.3

Wallonia:

- ☐ optional, BUT for Public works :mandatory Particular plan for waste management

**executive decree 01/07/2014
for CCT-B2022**

France:

- ☐ mandatory if (at least partial structural) demolition of a building of 1000m² of floor (all types including residential)

Construction code article R111-43 to R111-49

Forms, content, existing tools

Flanders:

- ☐ Sloopinventaris afvalstoffen: hazardous waste and non hazardous waste (type, EURAL code, qty, location, aspect)

www.ovam.be

Wallonia:

- ☐ forms associated to CCT-B2022 for public construction / demolition including waste management policy (volume '0' section '7')

<http://batiments.wallonie.be>

France:

- ☐ Hazardous/ non hazardous / inert asbestos, lead, termites and similar, other hazardous substances (PAH, treated wood)

www.diagnostic-demolition.ademe.fr

Obligation of removal separate sorting on site

Flanders:

- ☐ Hazardous waste (different categories)/ stony fraction
TRACIMAT goal: High Risk vs Low Risk Profile
VLAREMA 4.3.1 and 4.3.2

Wallonia:

- ☐ Hazardous waste (different categories) / paper, metal, plastic, glass
AGW 05/03/2015 – Art 2

France:

- ☐ asbestos, lead, termites and similar, other hazardous substances (PAH, treated wood)
Environmental code – Articles L541-2, L541-7-2, R541-11-1, R543-66 to 72

Differences during DISMANTLING phase observed due to economical context / opportunity

- ☐ Flanders: Non hazardous Wood from demolition for energy conversion ; PVC window frame
- ☐ Wallonia: bitumen based roofing, if non hazardous and chemically compatible (case by case)
- ☐ France:
 - PVC floors for recycling in areas around PVC producer plant (otherwise too expensive in transport)
 - PVC window frame
 - plaster boards



Allowed on site treatment:

Flanders:

- ❑ permits depending on City, Province, Region
- With TRACIMAT implemented HMRP vs LMRP, economical incentive to treat in dedicated platform (300 'crushers' for 150 'demolisher')

www.tracimat.org

Wallonia:

- ❑ Crusher and sieve (only for inert waste with < 3% non recyclable fraction) BUT obligation for the resulting material to transit via a valorization center ("crusher" platform) if not used on site

Declaration (< or > 200 000t/an) as AGW art 45.91.02
Traceability register(amount treated, used on site, shipped)

Allowed on site treatment:

France:

- ☐ Crushing, sieving, mix of non hazardous inert waste on site and use on site

Need for authorization 2515-2

- ☐ Crushing, sieving, mix of non hazardous inert waste on site and use off site

Need for authorization 2515-1

- ☐ Traceability for elimination in dedicated place

- Existing mobile unit dimensioned for large scale operations leading to high quantity threshold for profitability (> 20 000t/y)
- Need for space available
- Security constrains (noise, dust,...) and operating conditions

Initial fraction



Fraction +10 ; -16 mm



Fraction + 16 mm



Fraction +4 ; -10 mm

Traceability / role of Public bodies

Flanders:

- ❑ Mandatory in TRACIMAT system, hazardous, non hazardous – implementation phase, then 1 year transition period (up to 08/2018) then mandatory – economical incentive

Wallonia:

- ❑ Implicit at least, see CCT-B2022 (07/2014), choice of public authorities to go further, tools exist : 9500 articles by default for public tender in software 'VITRUV' available for free + associated forms

France:

- For hazardous: form CERFA 12571 & 11861
- For others: online reporting on voluntary basis: www.dechets-chantiers.ffbatiment.fr

Conclusions

- ☐ Period of changes in legislation on all 3 areas (France-Wallonia-Flanders)
- ☐ Need to inform industrial stakeholder (demolishers, crushers, valorizers)
- ☐ Similar philosophy derived from European Directive BUT differences in the details, and in the implementation timing
- ☐ Public bodies start to have the tools to impose further constrains and promote more systematic recycling of C&DW
- ☐ Work still in progress

Acknowledgment:

This work is part of the research project VALDEM (Convention n° 1.1.57 of Interreg France – Wallonie - Vlaanderen 2014-2020) partly financed by the European Regional Development Funds, and Wallonia.



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