

WEBINAR

How to support the skills development of the circular construction sector?

The case of the **LIFE WASTE2BUILD** project

5th June
11 am – 12 pm

3-11 June 2023
#EUGreenWeek
PARTNER EVENT



THE LIFE WASTE2BUILD PROJECT
HAS BEEN FUNDED
BY THE LIFE PROGRAMME
OF THE EUROPEAN UNION

Our speakers



Jérémie BERNARD

Coordinator of the Life
Waste2Build project

Toulouse Metropolis



Noga RAVIV-RECASENS

Employment project
manager

Toulouse Metropolis



Juliette SIMONNETTO

Head of development and
cross-functional projects

**French Institute of Circular
Economy (INEC)**



Julie VERRECCHIA

Circular economy and
materials reuse project
manager

Envirobot Occitanie



Laura LUCZYNSKI

Circular economy
project manager

Synetic



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SCHEDULE

INTRODUCTION

Circular economy, the major challenges for the construction sector

PART 1

The LIFE WASTE2BUILD project and the evolution of skills in the construction sector

PART 2

Feedback from the LIFE WASTE2BUILD project partners



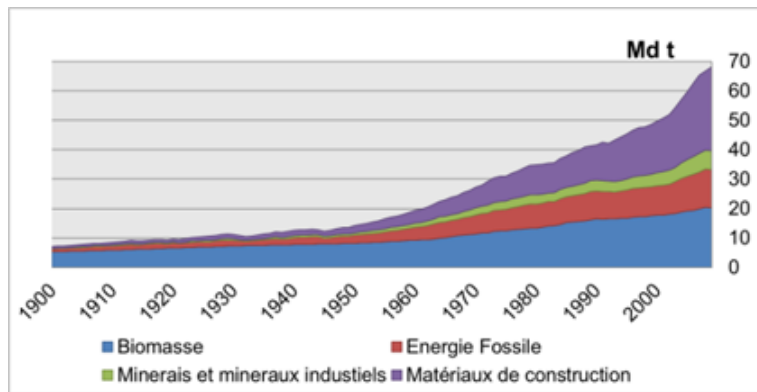
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INTRODUCTION

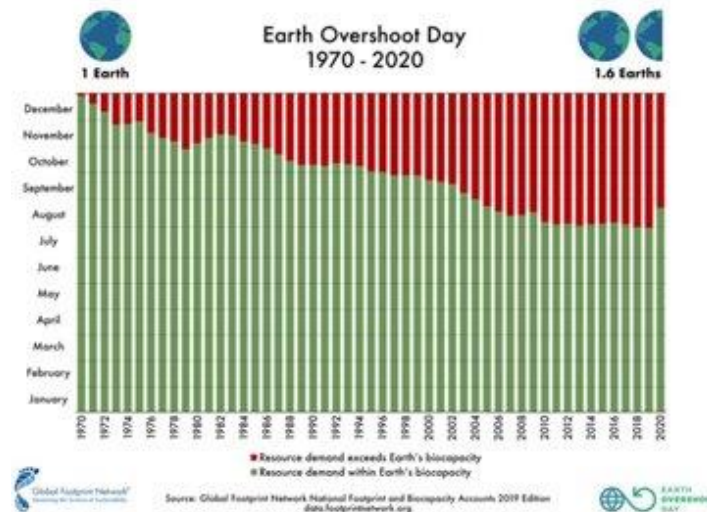
Circular economy, the major challenges for the construction sector



THE ENVIRONMENTAL EMERGENCY & RESOURCE SCARCITY



Graphique ADEME d'après Krausman et al., 2009, Mai 2011



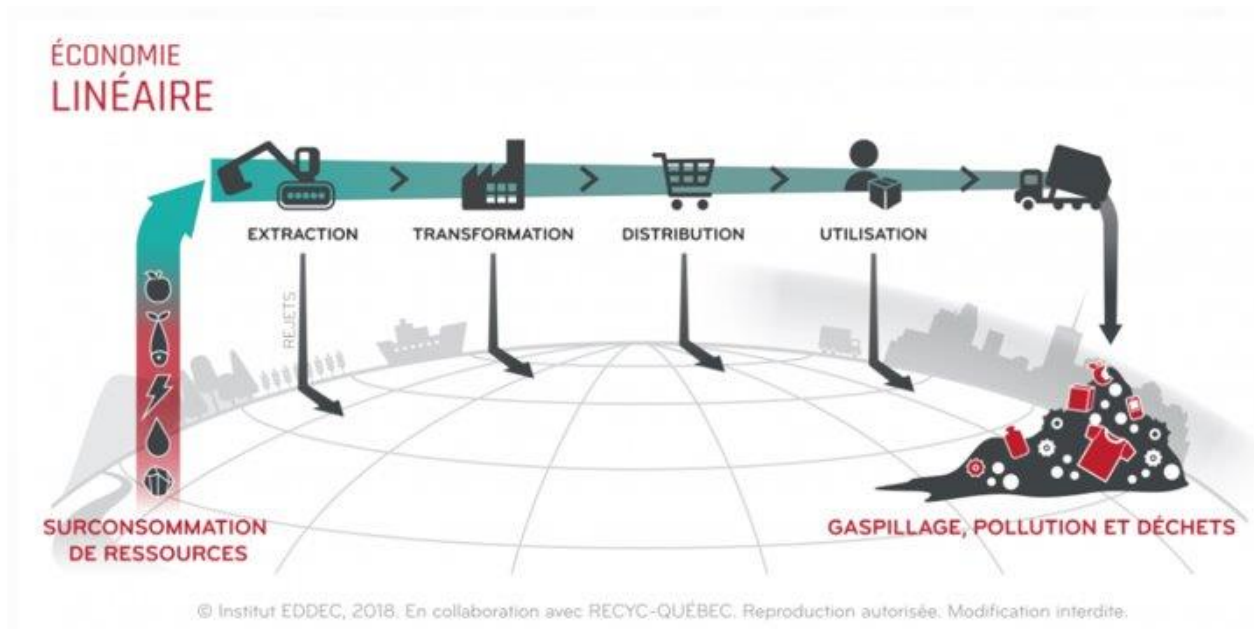
The evolution of the demand for raw materials

2022 overshoot day : 28th of July



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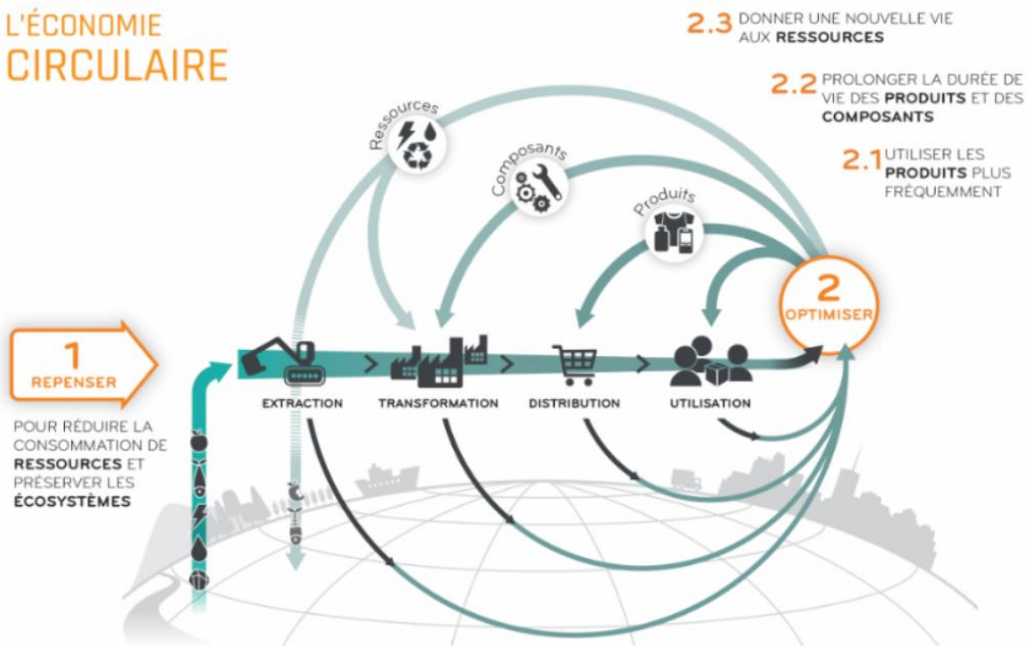
THE LINEAR ECONOMY, A MODEL THAT IS REACHING ITS LIMITS



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THE CIRCULAR ECONOMY, A NEW MODEL

L'ÉCONOMIE CIRCULAIRE



1
REPENSER
POUR RÉDUIRE LA
CONSOMMATION DE
RESSOURCES ET
PRÉSERVER LES
ÉCOSYSTÈMES

2.3 DONNER UNE NOUVELLE VIE
AUX RESSOURCES

2.2 PROLONGER LA DURÉE DE
VIE DES PRODUITS ET DES
COMPOSANTS

2.1 UTILISER LES
PRODUITS PLUS
FRÉQUEMMENT

2
OPTIMISER

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A HOLISTIC VISION

- Circular economy is not just about waste, but also about materials and energy (all resources)
→ **optimising their "management" and the entire value chain**
- Circular economy should preferably take place in local areas



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KEY NUMBERS IN THE CONSTRUCTION SECTOR IN THE EU



Ressources

50%

of resource
extraction and
consumption



Energy

40%

of EU's energy
consumption



Waste

35%

of the EU's total
waste generated
per year



Negative externalities

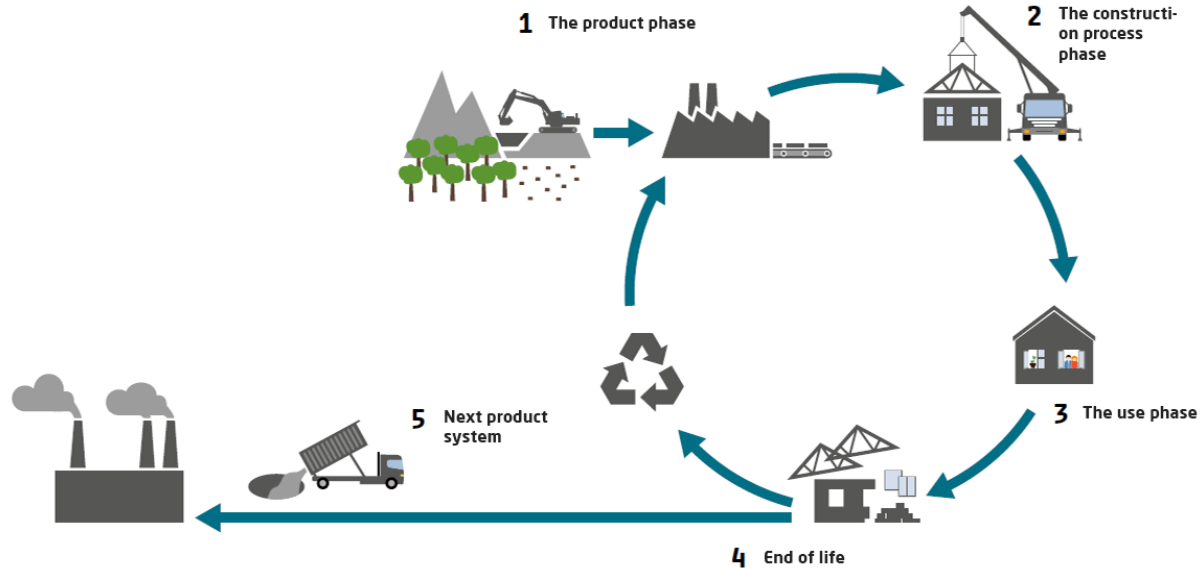
36%

of energy-related
greenhouse gas
emissions



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THE CIRCULAR ECONOMY IN THE CONSTRUCTION SECTOR



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CIRCULAR SOLUTIONS IN THE CONSTRUCTION SECTOR

AVOID



- Encouraging renovation over new construction
- Controlling the evolution of surface areas per household and per person
- Optimising the use of the existing building stock

REDUCE



- Develop the use of bio-based regenerative materials
- Optimising material requirements through modelling
- Extending the life of buildings

RE-USE



- Facilitating the demountability of materials
- Arrange the site to reuse the crushed concrete from the deconstruction on the same site
- Carrying out new construction on brownland

RECYCLE

Adapting recycling channels to the recovery of construction waste



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PART 1

The **Life Waste2Build** project
and the evolution of skills in
the construction sector



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* Toulouse is the regional capital of Occitanie region

Toulouse metropolis, a dynamic economic hub



**1.3 MILLION
INHABITANTS**



4th FRENCH
URBAN AREA



**POPULATION
GROWTH**

+65,000 HAB (5 years)/
+33% in 20 years



**ECONOMIC
GROWTH**

+2.9%/year GDP
per capita



**2nd METROPOLE
FOR JOB CREATION**

+10,800 jobs by 2021



R&D LEADER

2nd city for patent
applications (3,762
vs. 1,892 for the 3rd)





Toulouse Métropole

French local authority - 37 municipalities with a common planning and development project.

Areas of expertise :

water and waste management ,

- environment and sustainable development ,
- development of gardens and green areas,
- mobility,
- urban planning,
- economic development
- international outreach.

Sustainable development : Environmental and ecological transition is expressed in local strategic planning documents (Air Energy Territorial Climate Plan and **Strategy for Circular Economy**) and at the European level (Covenant of Mayors).



Au cœur de
votre quotidien
toulouse
métropole



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THE EUROPEAN CALL FOR PROJECT LIFE



In mid-May 2021, Toulouse Métropole won the European call for projects of the Life program by proposing its Waste2Build project. The aim is to build a sustainable economy to meet the social, economic and environmental challenges of today and tomorrow.

Project duration: 4,5 years (2021 – 2026)

Total budget: €2,757,842

Budget of Toulouse Métropole: €1,150,209

(including European co-financing of 55% of expenses)



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ACTORS OF THE PROJECT



Toulouse Métropole – Coordinator: Management, political strategy of the project

Synthetic, association: Ensuring territorial synergy to extend the circular economy approach in construction and public works

French Institute of Circular Economy: Ensures dissemination and communication at European level

French Federation of Building and Public Works of Haute-Garonne: Ensures the link with companies and employees and the trades of tomorrow in the construction industry

Envirobat Occitanie, association: Articulation between the different physical platforms of the territory

Toulouse Business School: Creation of the business model of the platform

Scientific and Technical Center for Building: Inventory of protocols by type of materials and sites

toulouse
métropole



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STAKEHOLDERS



Landeshauptstadt
Düsseldorf



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CHALLENGES



85% of waste recycled in the Toulouse metropolitan area



80% of public contracts in the metropolis that include a circular economy criteria



60% of companies responding to public contracts are aware of these issues



360 FTE/year created by 2026

OPTIMIZING resources and VALUING construction waste on a local and regional scale

Reduce by 20% the impact of the construction industry on resource consumption and waste production

Structuring the sector of circular construction

Implementing more circular purchasing policies

Supporting the rise in competence of the circular construction sector

58 EXEMPLARY SITES to develop local loops between resources and needs

Quantified objectives:

- 85 % material valorization in dismantling buildings
- 5% of reused materials in construction

Some examples:



REHABILITATION GROUPE
SCOLAIRE BENEZET



NOUVEAU CAMPUS



DÉCONSTRUCTION GLUCK



REFECTION LYCEE BELLEVUE



DÉCONSTRUCTION N°26
MENTON



DÉCONSTRUCTION
GYMNASÉ-ZAC EMPALOT



DECHETERIE HALL 9 -RAMIER



REHABILITATION LOGEMENT
RUE DENFERT ROCHEREAU

Today : **46 exemplary projects** selected

Some figures:

- ✓ 230 million € of works concerned
- ✓ 24 different contracting authorities
- ✓ 13 private operations 33 public operations
- ✓ Projects from €50K to €70M
- ✓ 11 construction projects
- ✓ 17 demolitions
- ✓ 10 renovations
- ✓ 4 development operations
- ✓ 2 demolition and construction
- ✓ Already **2 projects completed**
(balance sheets available on our website)



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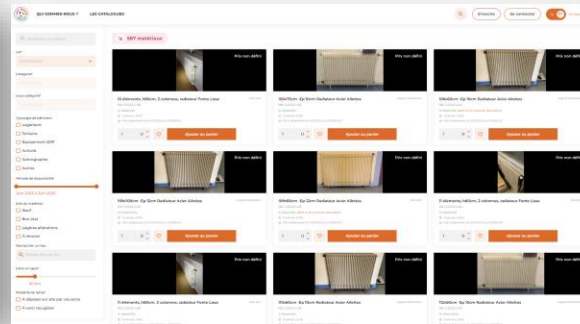
TOOLS TO DEVELOP CIRCULAR ECONOMY



Connects professionals for reuse projects in Toulouse and the surrounding area

- By providing resources
- By indicating needs

To encourage the use of second-life materials in construction, renovation and landscaping to build in a circular economy approach



plateforme-lifewaste2build.com



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PRESENTATION OF THE EMPLOYMENT/TRAINING PART

Presentation of the Employment Working group

1

Measure the employment impact



2

Offer training programmes to develop the sector



3

Raise awareness of this sector and make it known to the public



4

Ensure an inclusive approach in the development of this sector



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PRESENTATION OF THE EMPLOYMENT/TRAINING PART

1 Measure the employment impact

By evaluating the results
of the Waste2Build
project's actions

Conducted from the end of 2023

By measuring the progress of the sector
in our territory



62 companies



4 416 employees

49 employees on average



33 million euros in
median
turnover

37 % are less than 5 years old

80 % are localized in Toulouse

Most of them in B2B and International



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PRESENTATION OF THE EMPLOYMENT/TRAINING PART

2

Offer training programmes to develop the sector

By creating or promoting new training courses in the territory

- Training by Envirobat
- Training by Urban Vitry High school, accompanied by synethic

By implementing the market of training PEMD diagnosticians (Products, Equipment, Materials and Waste)

- Linking the training organization with the funding organizations & Pôle Emploi, the state organization for job seekers support.
- 10 people trained in PEMD diagnosis training
- 4 job seekers

PRESENTATION OF THE EMPLOYMENT/TRAINING PART

3 Raise awareness of this sector and make it known to the public

By integrating the project into various employment actions



09/02/2023

Professional career discovery day, based on escape game

14/12/2023

Forum of ecological transition professions



PRESENTATION OF THE EMPLOYMENT/TRAINING PART

4 Ensure an inclusive approach in the development of this sector

By building and following pathways for the integration of job seekers

By raising awareness among companies of an inclusive approach

10 careers will be followed of those who have integrated the various actions offered by the project



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PART 2

Feedback from the **Life**
Waste2Build project partners



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TRAININGS



4 modules

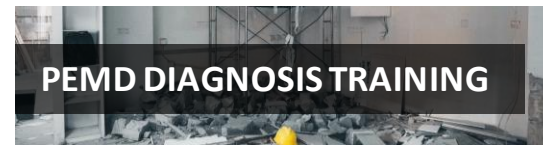
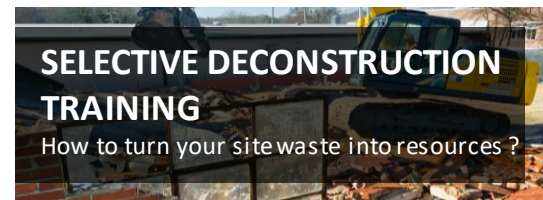


7 sessions



64 attendees

Organize the raising of
competence of professionals
and future professionals of the
building sector



OTHER TRAININGS



Creation of a **FCIL course** in the **management and development of resources from building deconstruction**

Features :

- **Duration:** 1 year
- **Final level of studies:** Bac + 1
- **Type of diploma:** local initiative training
- **Organisation:** full-time



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HACKATHON



1 semaine interdisciplinaire
avec les étudiant·es en urbanisme,
design, architecture, ingénierie !
La mission : Concevoir un module léger
multi-usage à partir de matériaux
de réemploi.

Venez découvrir les travaux des
étudiant·es le jeudi 10 novembre
à 15h dans les locaux de l'ISDAT !

Hackathon LES AGILES #2

DU 7 AU 10 novembre à l'ISDAT
5 Quai de la Daurade, 31000 Toulouse

Life Waste2Build : et si on re-utilisait
les déchets des bâtiments pour développer
l'économie circulaire sur le territoire ?



4 schools and universities
UT2J, ENSA, INSA, ISDAT

55 students
1 week

Define a 100% 2nd hand
materials tiny house



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A SPECIFIC COMMISSION



FFB 31 circular economy commission



20 construction contractors



It meets once a month



Objectives:

- To involve professionals
- To support them in their responses to local calls for tender



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MODELING TOOLS

Public and private procurement

- Insurers
- Control offices
- Architects
- Construction and deconstruction companies



Raise awareness of workers on construction sites



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AN ESCAPE GAME



Immersive training module
on the circular economy in
construction sites



- Recycling
- Short circuits
- Use of recycled
- Materials
- Zero waste sites
- Choice of materials and implementation methods
- In-situ reuse

1 hour of play

Team of 6 peoples

+ Debriefing

+ Educational booklet

Awareness of :

- Workers on construction sites
- Students
- Job seekers



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Thank you for your attention !



More on the Life Waste2Build project:

lifewaste2build@toulouse-metropole.fr



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