



Developing the circular economy, reuse
and recycling in the construction sector
in France

**300 kg
of
nature**



**10 kg of
industrial
product**



Summary

1

Envirobat
Occitanie
presentation

2

Who are the
stakeholders in
the reuse
sector in
Occitanie and
France ?

3

What lessons
can we learn
from the initial
feedback?

Mobilise and tools professionals...

in the act of building and planning

envirôbât
OCCITANIE

A network of stakeholders and a resource centre

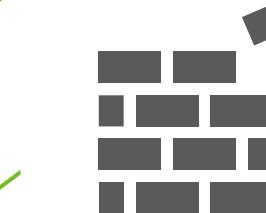


Reducing our environmental footprint

Support sustainable
renovation and efficient
use of buildings



Promote exemplary
construction



Promote circular and
frugal regional
(re)planning

Facilitate the organisation
of local low-carbon
materials and re-use
sectors

30 administrators



13 employees  à Toulouse & Montpellier



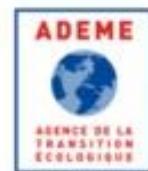
Illona PIOR Directrice
Emmanuelle BOUQUIN Responsable Administrative et Financière
Emmanuelle PONS RIBOT Responsable de Communication
Marie NGUYEN Chargée de communication
Manon RODRIGUEZ Assistante Formation
Pauline LEFORT Cheffe de projet Qualité Construction et Filières Matériaux
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Léa BOSSA Chargée de projet Rénovation



Co-animate by l'ADEME and
the Plan Bâtiment Durable



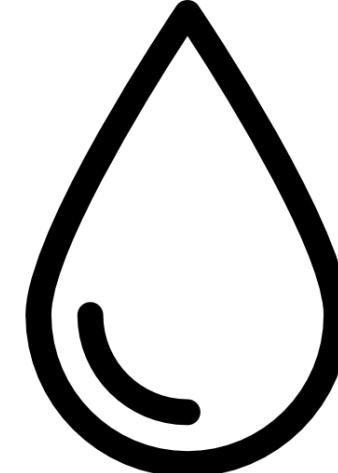
Environmental context





THE IMPACT OF CONSTRUCTION IN EUROPE

What is the impact in terms of resource consumption by the construction industry?



25%

33%

25%

50%

50%

42%

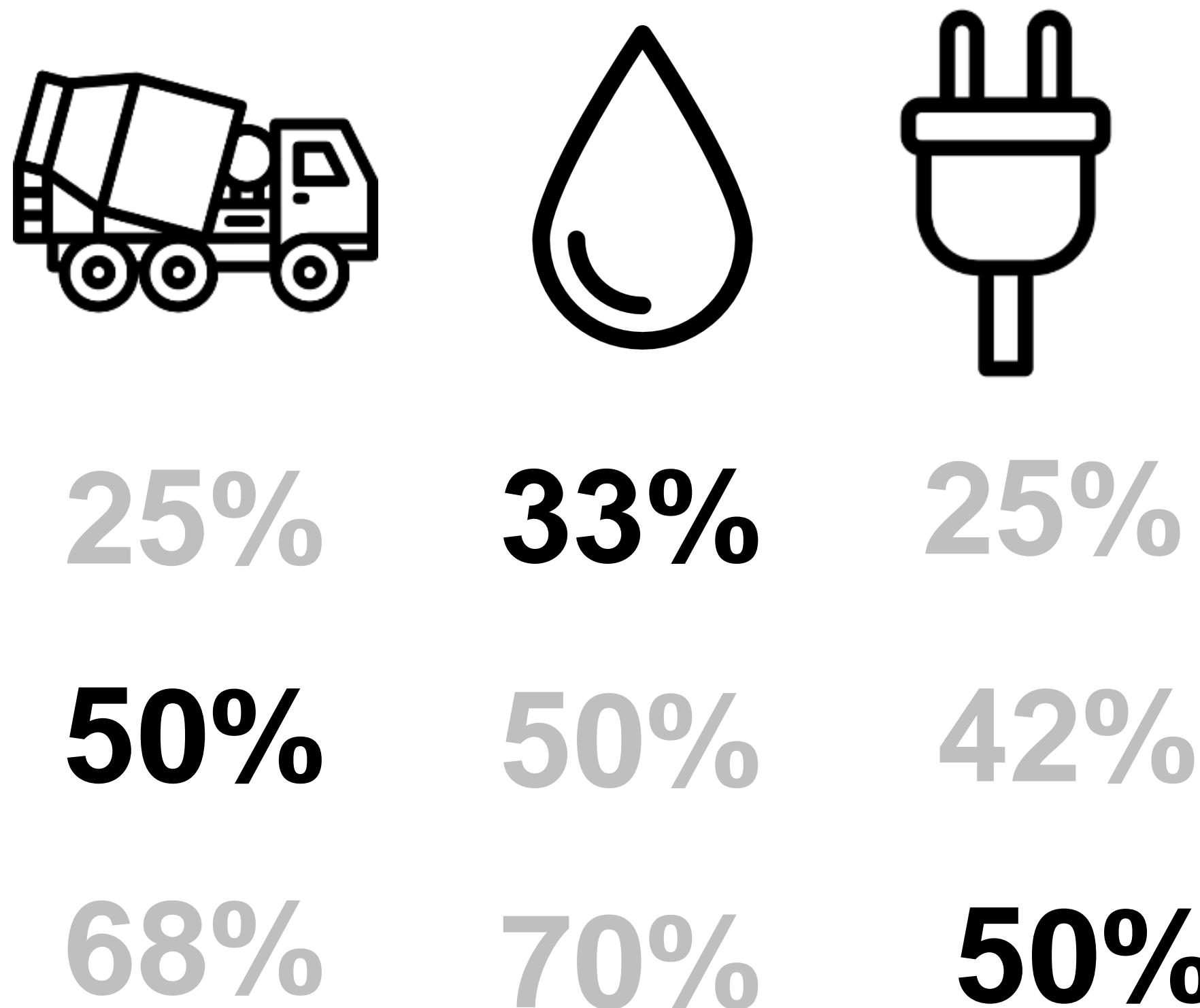
68%

70%

50%

THE IMPACT OF CONSTRUCTION IN EUROPE

What is the impact in terms of resource consumption by the construction industry?

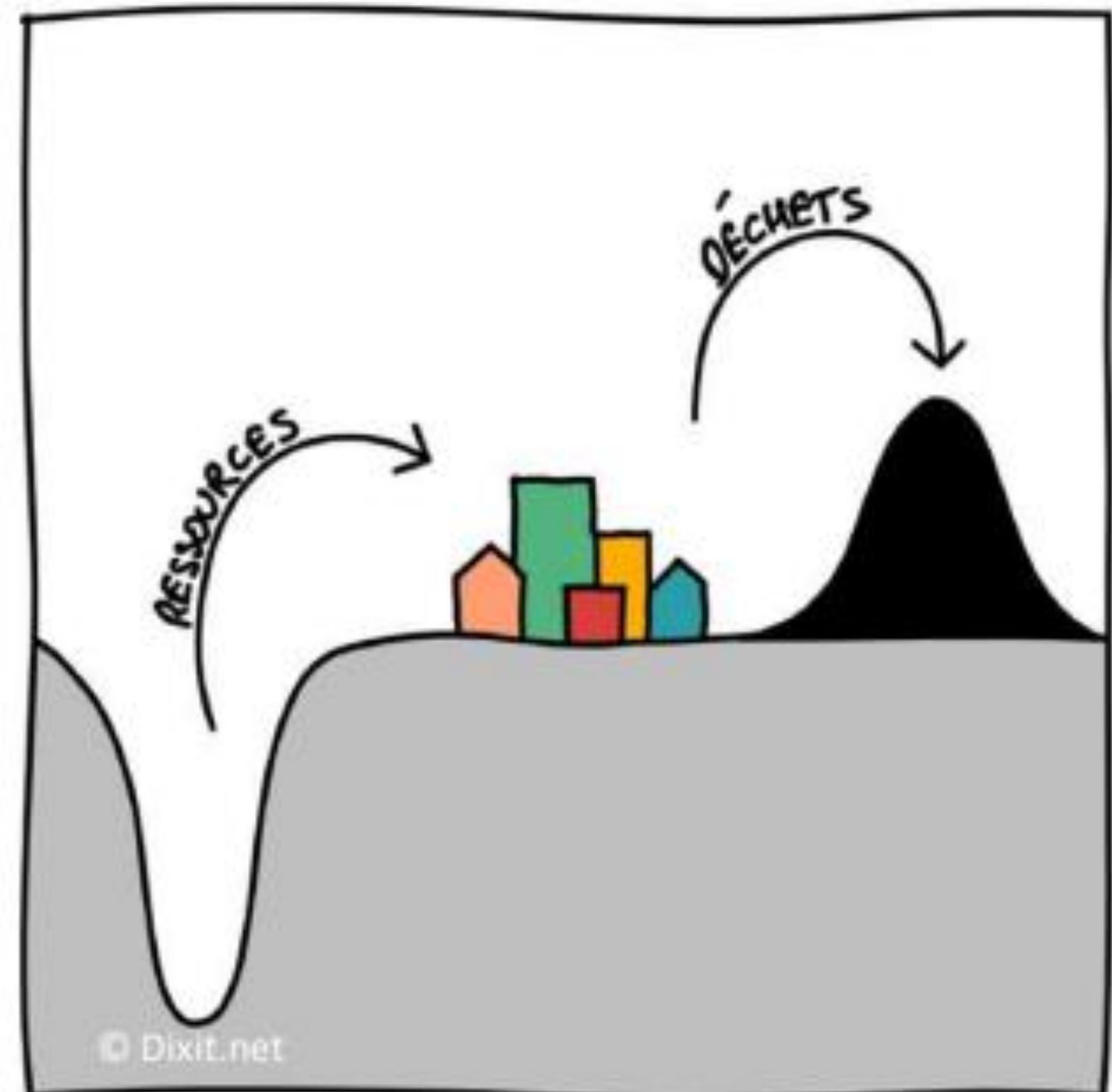


Source : <https://mooc-economie-circulaire.fr/>

In France, building waste represents 40 million tonnes

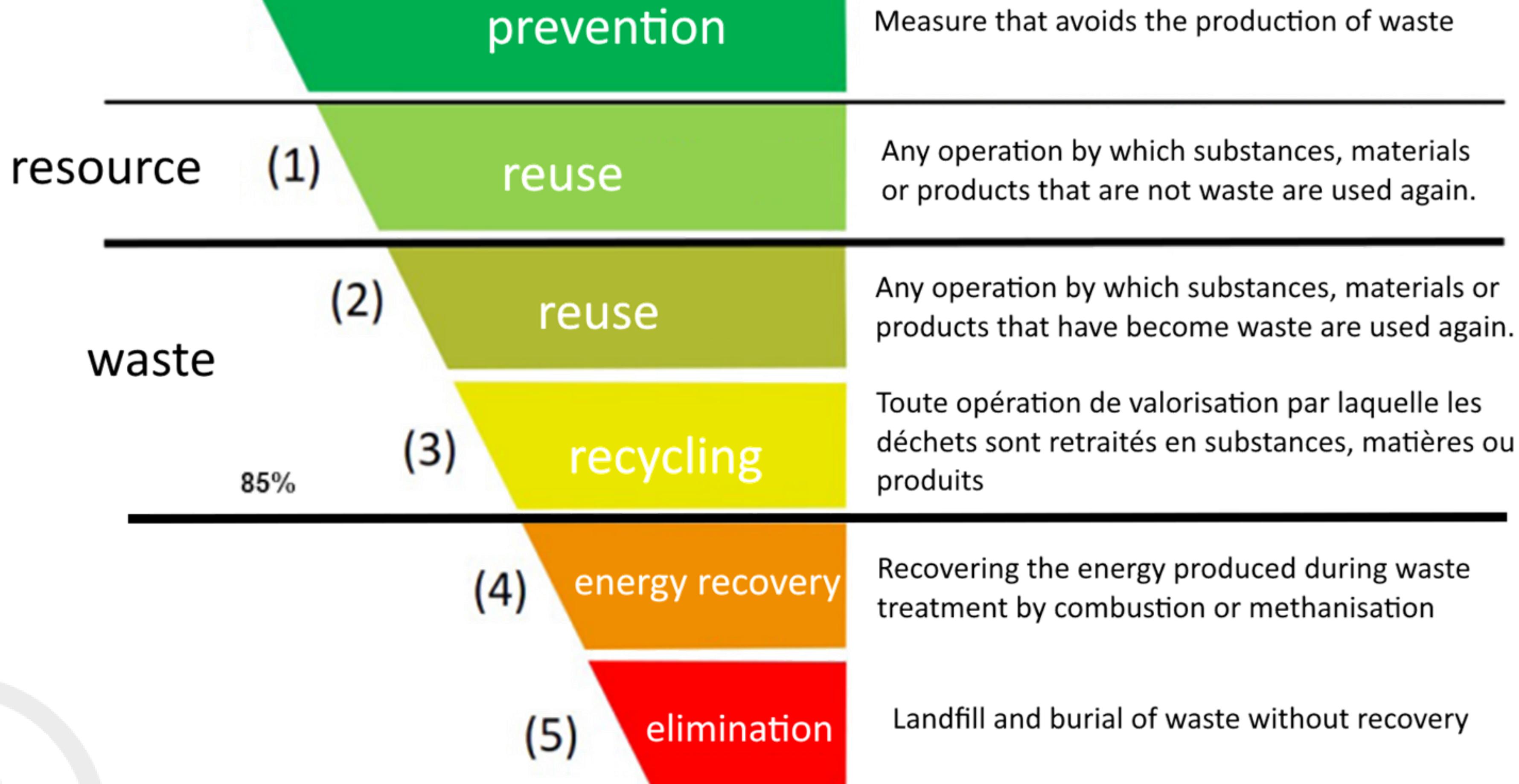
- 30 million tonnes for category 1
- 9.9 million tonnes for category 2
- 1 to 2 million tonnes of hazardous waste

The re-use rate was estimated at less than 1%.



Regulations and laws

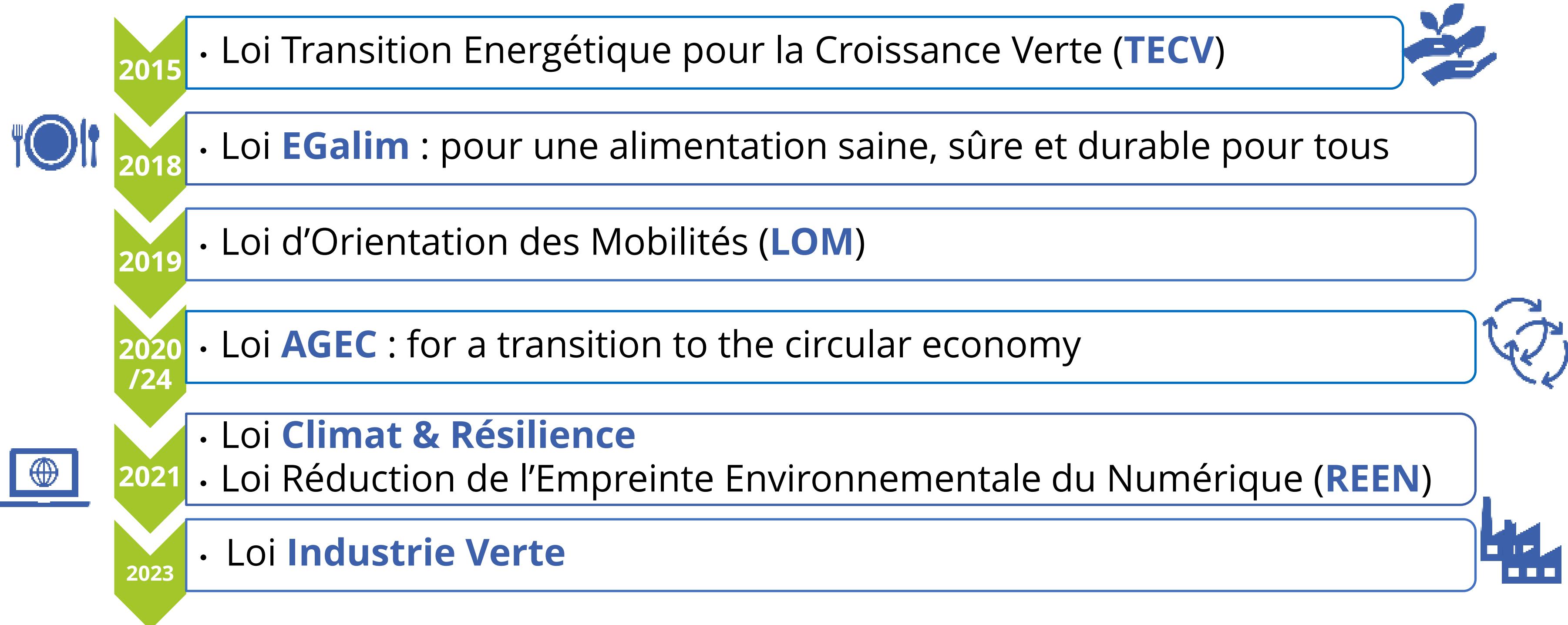




Hierarchy of waste treatment methods

Source : CSTB d'après l'article L. 541-1-1 du Code de l'environnement

A favourable regulatory context



A favourable regulatory context

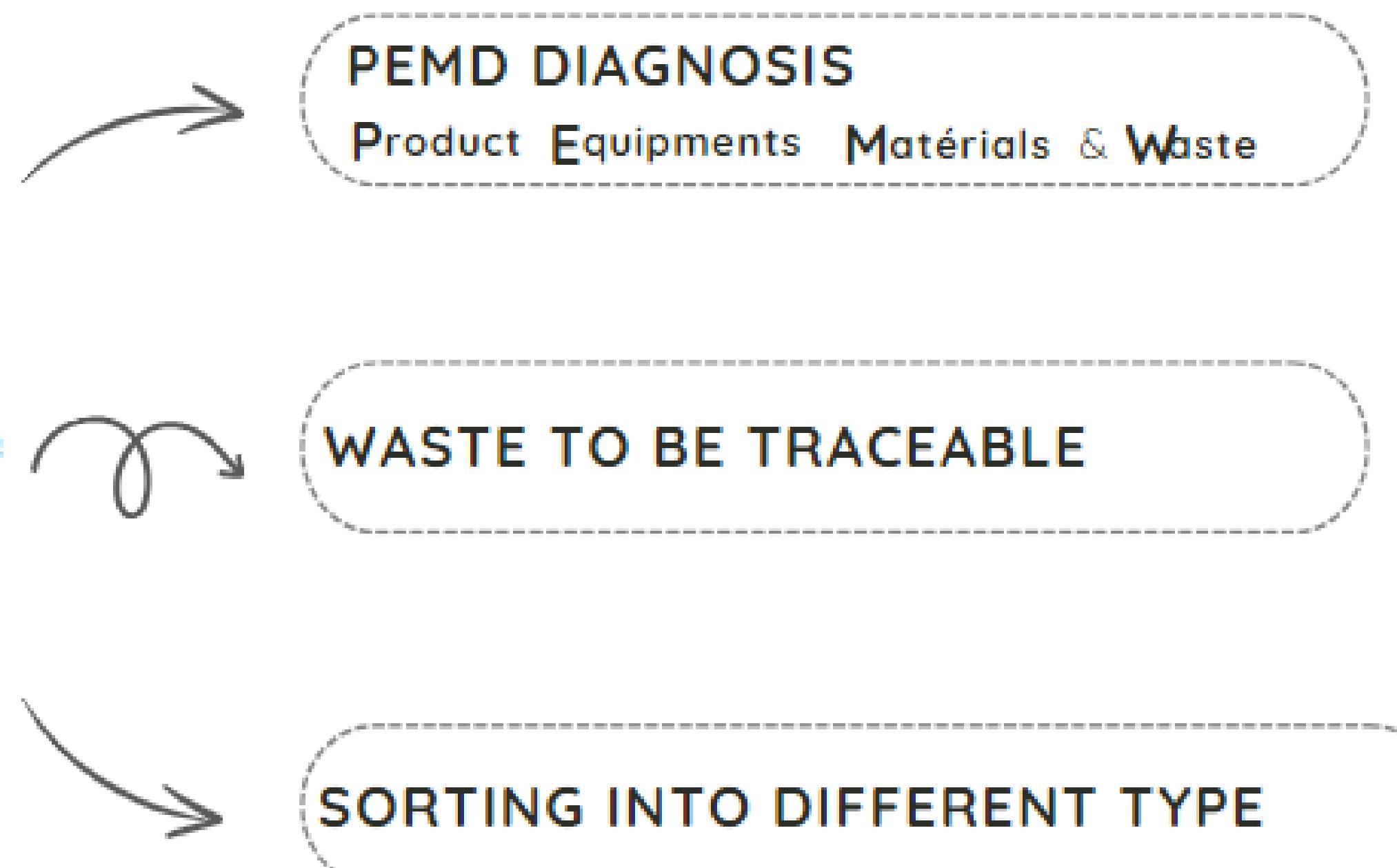
The AGEC Law and sustainable public procurement



La loi

Anti
Gaspillage pour une
Economie
Circulaire

requires



Focus on PEMD diagnosis (Product Equipment Materials Waste) a regulatory obligation

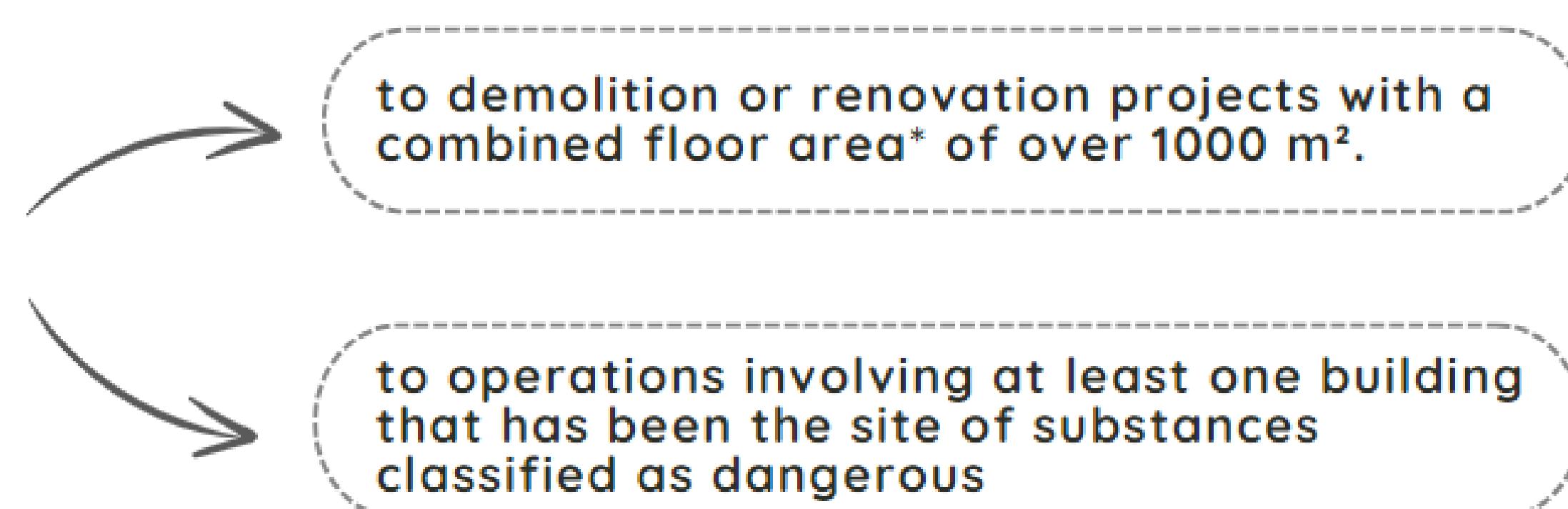
diagnosis

P
roducts

E
quipments

M
aterials and
W
aste

applies

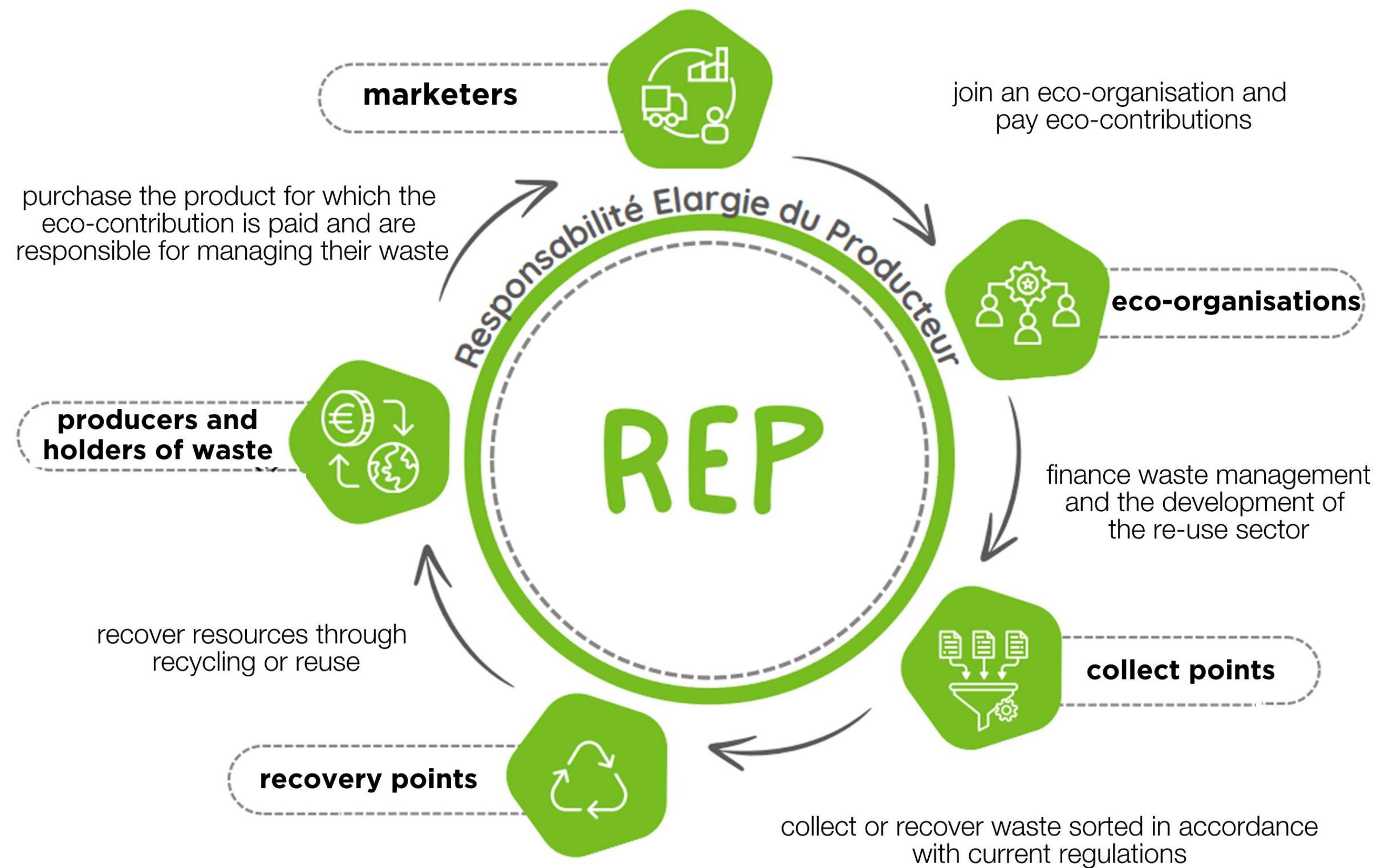


What is the REP ?

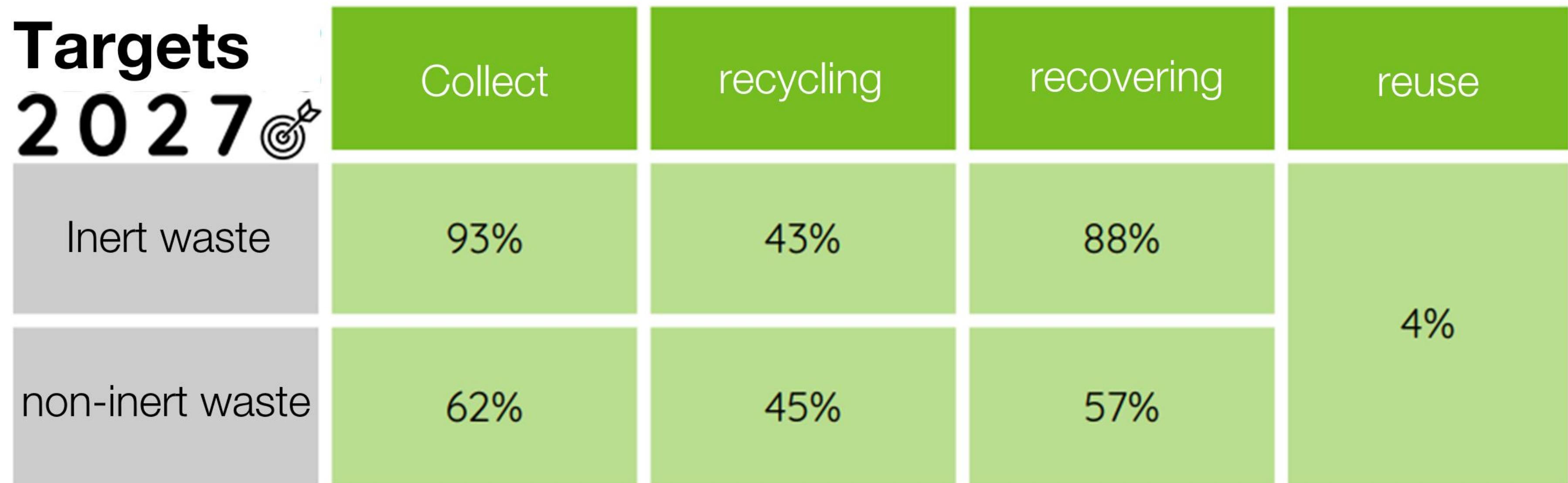


- specific arrangements for organising waste prevention and management
- based on the power or contribution of producers to dispose of waste from their products
- applicable to certain types of waste (12 existing sectors and 11 sectors to be created by 2025)
- extended to the entire life cycle of products, including their eco-design and re-use(s)

How does it work ?



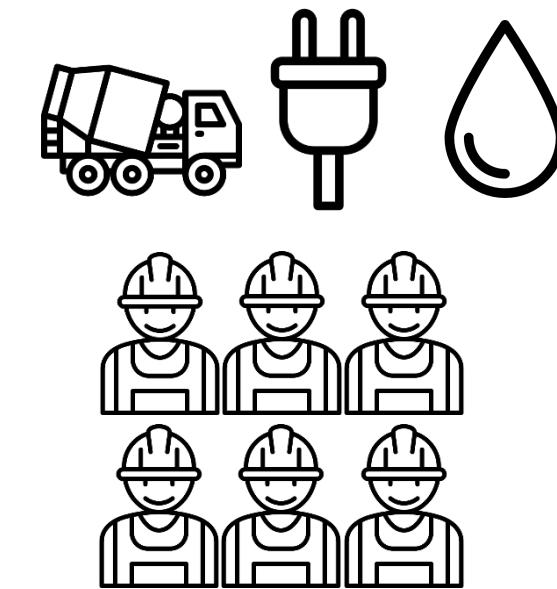
Targets 2027



CHALLENGES

Environmental and social challenges

- To help reduce waste
- To reduce pressure on resources
- To reduce greenhouse gas emissions
- To promote positive socio-economic spin-offs



Cultural challenges

- To preserve cultural heritage

Régulatory challenges



- Transition from waste diagnosis to PEMD diagnosis
- Reusable materials will not be classified as waste
- Regulatory platform PEMD
- REP construction

How the reuse sector in France is developing?



Projects supporting the development of re-use in France



Facilitating the circulation of reclaimed building elements in Northwestern Europe



Public Responses to Enable the Use of Salvaged building Elements



LE PROJET LIFE WASTE2BUILD
A ÉTÉ FINANCÉ PAR LE PROGRAMME
LIFE DE L'UNION EUROPÉENNE



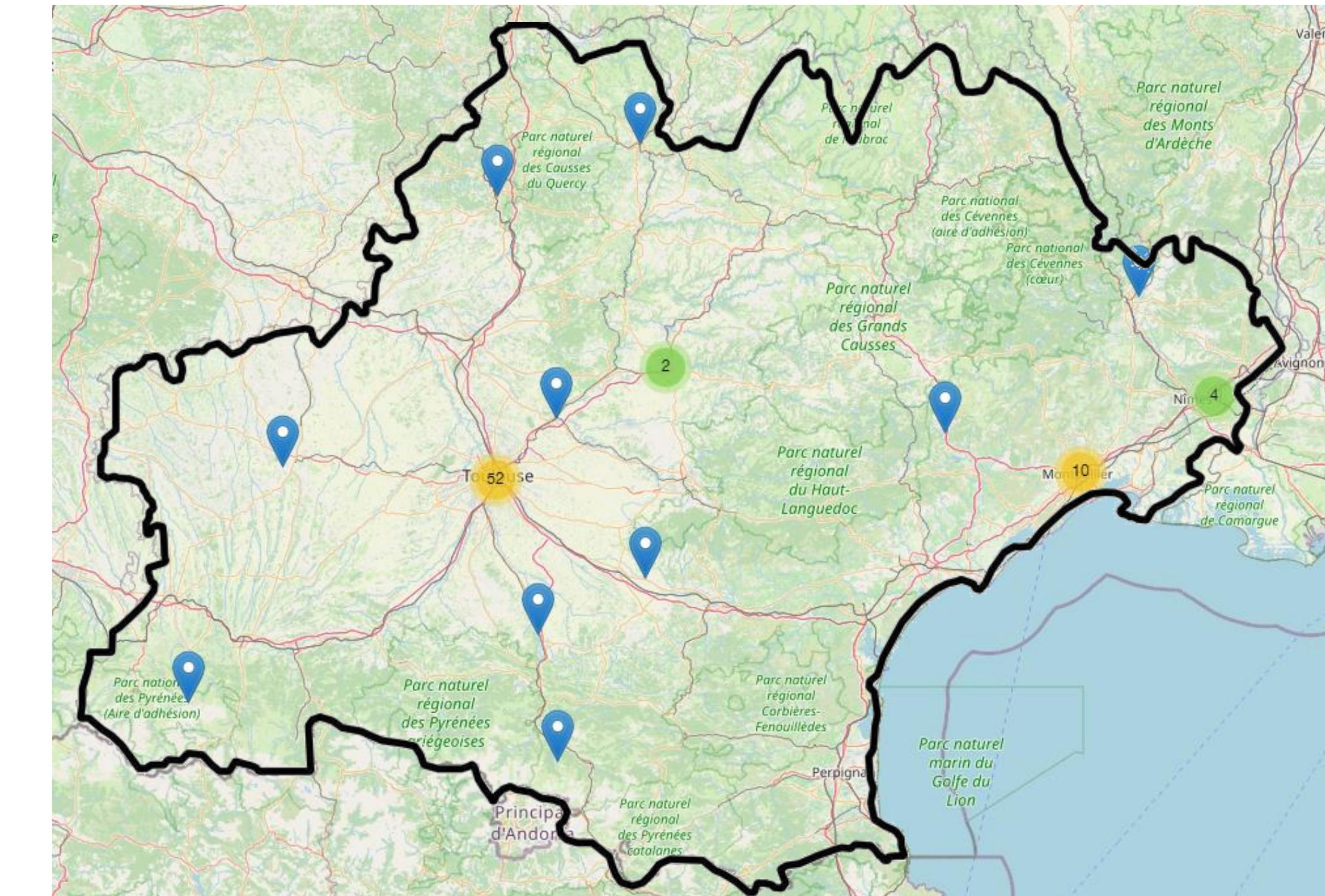
The reuse dynamic in Occitania

58 Life W2B experimental projects

41 Projects completed with feedback,
including 5 Life W2B site reports

46 % Selective deconstruction

78 Referenced projects including :



Re-roofing the Lycée Bellevue, Toulouse

Période Du 16/05/2022 au 17/11/2022

Challenges :

- Encourage the re-use of materials; where re-use is impossible, encourage material recovery with a minimum target of 85% of waste (in tonnage).
- Opportunity to develop a circular economy approach to optimise the re-use of materials in situ and/or ex situ Demonstration of a winning economic loop, creating local jobs



Main materials present :

- Metal
- Wood
- Plastic
- Inert
- hazardous waste

Waste production is limited and almost 90% of it is recycled (compared with 70% under the LTECV law and the project's target of 85%).

Stakeholders

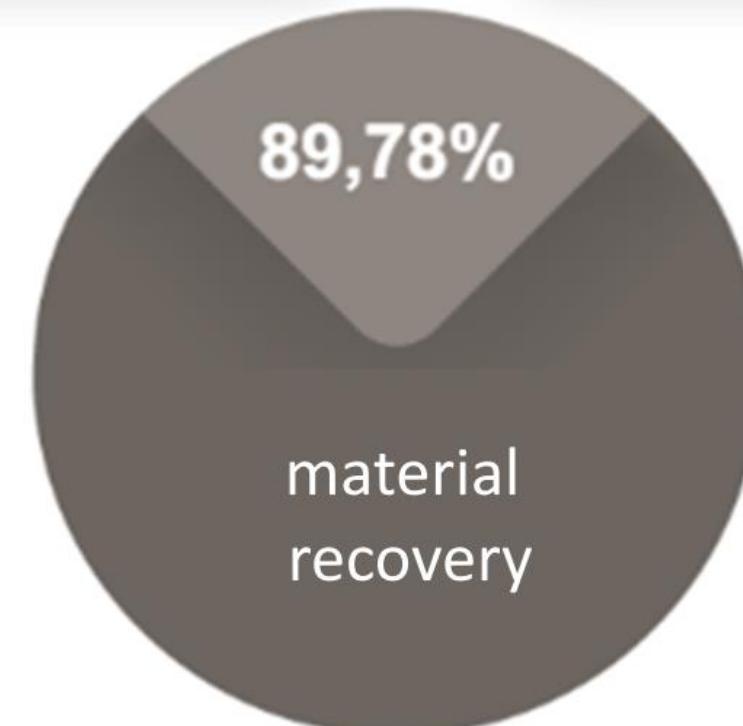
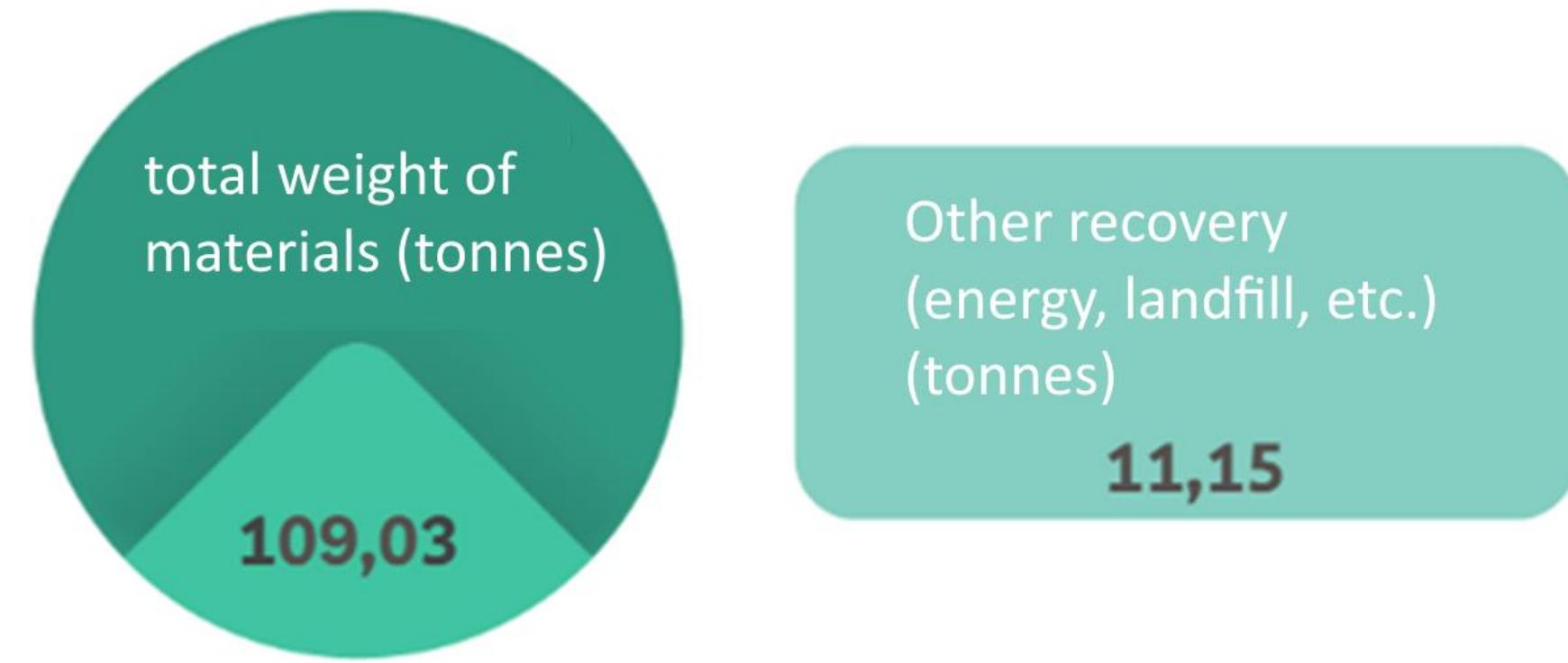
Maître d’Ouvrage CONSEIL REGIONAL OCCITANIE PYRÉNÉES MÉDITERRANÉE

Nature de l’opération Rénovation

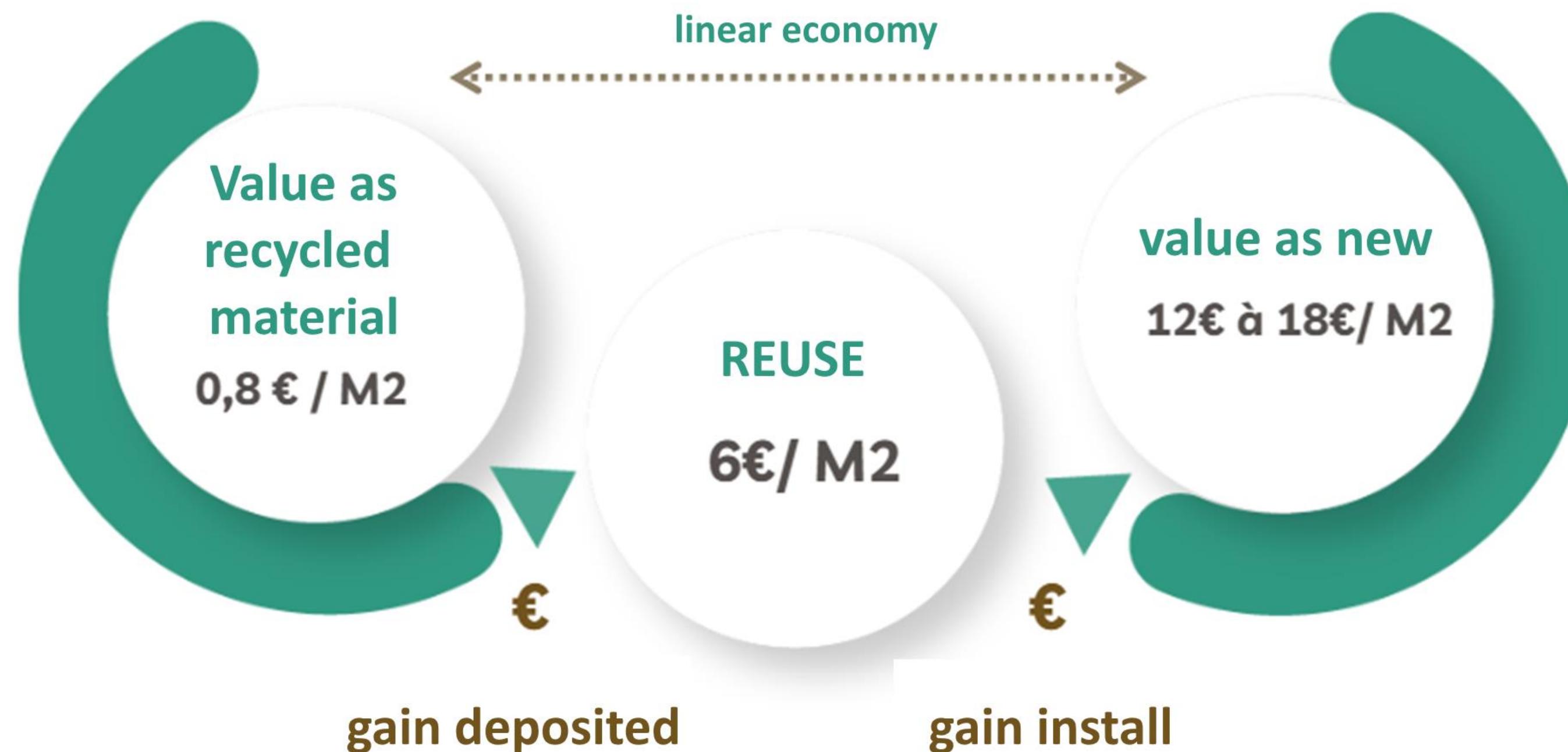
Référent MOA Hakim MAZOUZI

Référents SYNETHIC Edith BRUEL / Patrick BERNARD

material recovery



micro-economic diagram of the re-use of steel pan



Where did they go ?

4233m² of steel pans were present, 80% of which were reused via 3 outlets:

- Région Occitanie : lycées agricoles de Pamiers (09) et Vic en Bigorre (65) : 2528 m²
- OPPIDEA (Guintoli) – ZAC Saint Martin : 720m² - change of use as barrier



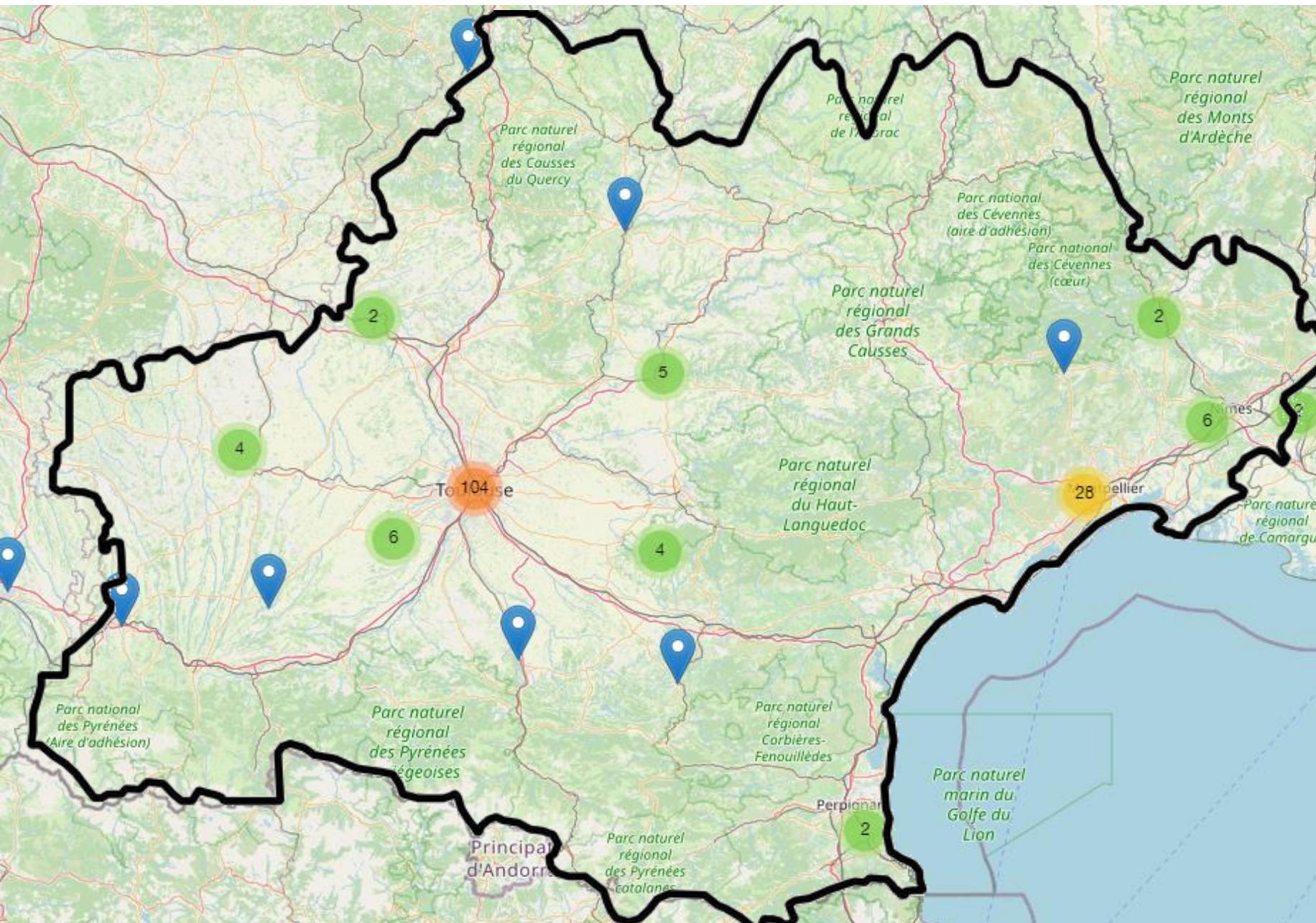
French reuse stakeholders



The reuse dynamic in Occitania

190

Construction and development stakeholders
(11.5% SSE stakeholders) including:



37

Project owners including 31 signatories of the Life W2B charter

16

Stakeholders in dismantling and selective removal (14% SSE stakeholders)

28

PEMD Diagnosticians

09

Réuse center

35

reconditionners

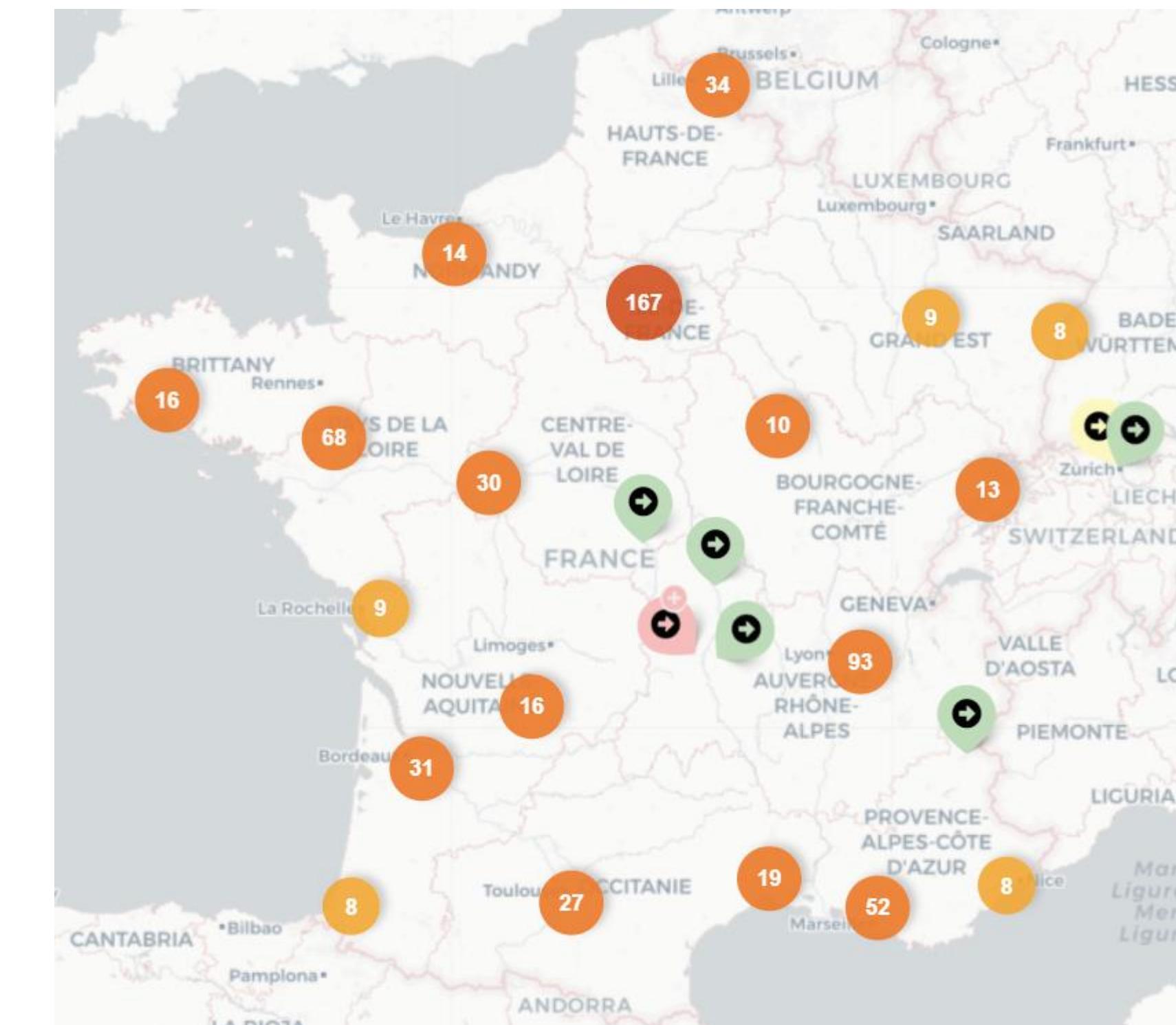
12% SSE stakeholders

The reuse dynamic in France

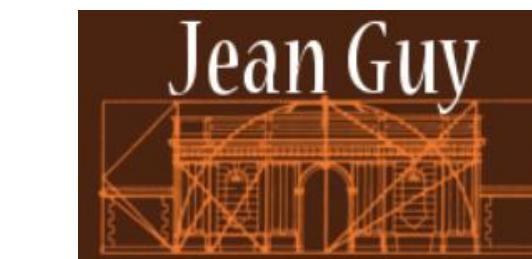


278 Stakholders listed in <https://opalis.eu/fr>

640 Stakholders listed in matériauxreemploi.com



154 Reconditionners



CAST IRON RADIATORS

METALWORK MATERIALS

TILING

INTERIOR FITTINGS

OLD MATERIALS

MOVABLE PARTITIONS

CARPET TILES

FALSE FLOOR TILES

SANITARY

SPECIFIC

In your opinion, what is
the role of the
economist in a re-use
project?

What's missing ?

Lack of price benchmarks: Reused materials do not yet have standardised databases, as is the case for new materials. It can therefore be difficult for the economist to find reliable references, making cost estimates more complex.

Assessing added value: The economist has to convince stakeholders that re-use can have economic benefits (reduced transport costs, recovery of existing materials) and environmental benefits (reduced carbon footprint), while justifying the sometimes higher initial investment.



Conclusions



Remember:

- Think ahead!
- Use the tools at your disposal:
 - Training
 - Technical guides
 - Feedback
 - Listing of local stakeholders
- It's possible and you can do it !





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et réemploi des matériaux

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