

Booster du Réemploi

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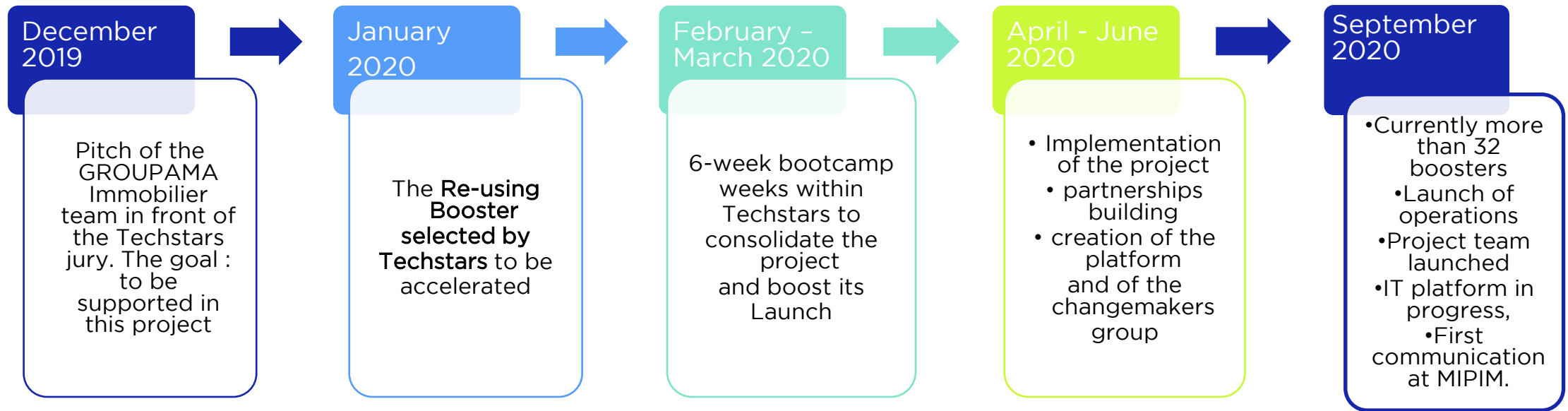
Overview of the “Re-use Booster”

The history, principle and objectives

The history – Identifying the right lever

-  Starting point : Groupama Immobilier was looking for a solution to **massify re-using**
-  Selective deconstruction and reused materials SUPPLY are growing, but there is not enough DEMAND to give these materials a second life
-  After an ideation stage, Groupama Immobilier joins Techstars.
-  This incubation period enable them to identify a real lever for accelerating re-using : **Mobilizing project owners so that they prescribe reused materials on their operations**

The history– Incubation and development



The Booster's principle : action toward transformation

It is high time to structure reused materials **DEMAND!**

Uniting project owners around a positive collective dynamic

Undertake **concrete actions** on your real estate operations

Act in the **long run** in order to fix the transformation

Un-risking and **simplifying** the implementation of reused materials.

Highlight the demand through a digital platform



Objectives



BOOSTING DEMAND : Boost, make visible and predictable **needs for reused materials** and help building actors to easily regulate reused materials on renovation and construction projects.



TESTING : Test reuse on **150 projects per year for 3 years** thanks to committed leaders.



MEASURING : Produce useful and operational information to help decision makers, technical and purchase directions, to comprehend reuse in their decision-making thank to the measure of **avoided environmental impacts** (carbon, water, waste).



CHALLENGING : Stimulate a race to reuse, with the creation of an annual **competition** rewarding the most virtuous realizations incorporating reused materials.



SUPPORTING THE INDUSTRY : Massify the reuse market will enable us to switch from a linear economy to a **large-scale circular economy** as well as to support the creation of local branches, in particular social and solidarity economy organizations.

Key figures



3 YEARS



36 Private Contractors committed in 2020/2021



150 Projects/year



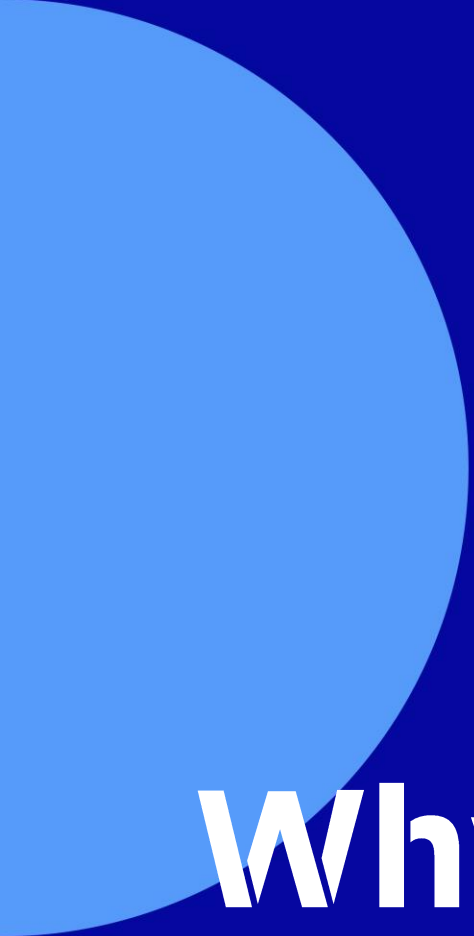
118 Projects initiated, representing almost 1 400 000m² (15/06/2021)




Potential avoided impacts : 4 061 403 m³ water, 75 096 Tonnes of CO² et 58 941 Tonnes of waste
(with 50% false floor and carpet, 140 ml removable glass partition and 20 toilets/1000m²)



220 requests for reused materials posted on Looping



Why the “Re-use Booster” ?



REUSING MATERIALS IN 2020 BECAUSE...

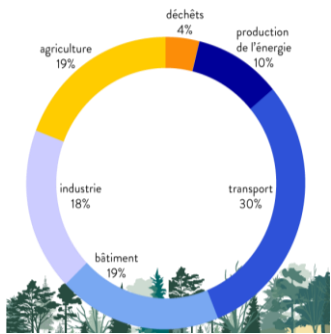
1. It is a lever to fight climate change : low carbon construction methods are necessary !
2. Deconstruction is becoming standardized, giving access to multiple material deposits,
3. Industries are developing and growing,
4. Potential wins in terms of waste reduction, job growth...are proven !
5. Among the 7 pillars of the circular economy, reuse is a short-term lever,
6. New regulatory obligations are pushing to reuse, at national and European scales !

In short, it was too early once ; later it will be too late: reuse is NOW !

« LOW-CARBON »

Figures in France

Carbon emission : 459 MtCO₂e



- production de l'énergie
- transport
- bâtiment
- industrie
- agriculture
- déchêts
- départements et régions d'Outre-mer
- émissions énergétiques



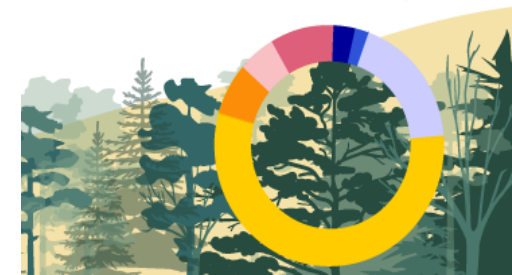
2014



Carbon sink: 85 MtCO₂e
(emitted and sequestered)

66% of carbon sinks = forests + wood products

forêts
produits bois
autres terres
technologies CCS / CCU



To reach carbon neutrality in 2050, we need to divide our emissions by 6 compared to 1990

REUSE MUST BE USED AS A LEVER



Available resources for reuse

The resource is plentiful:

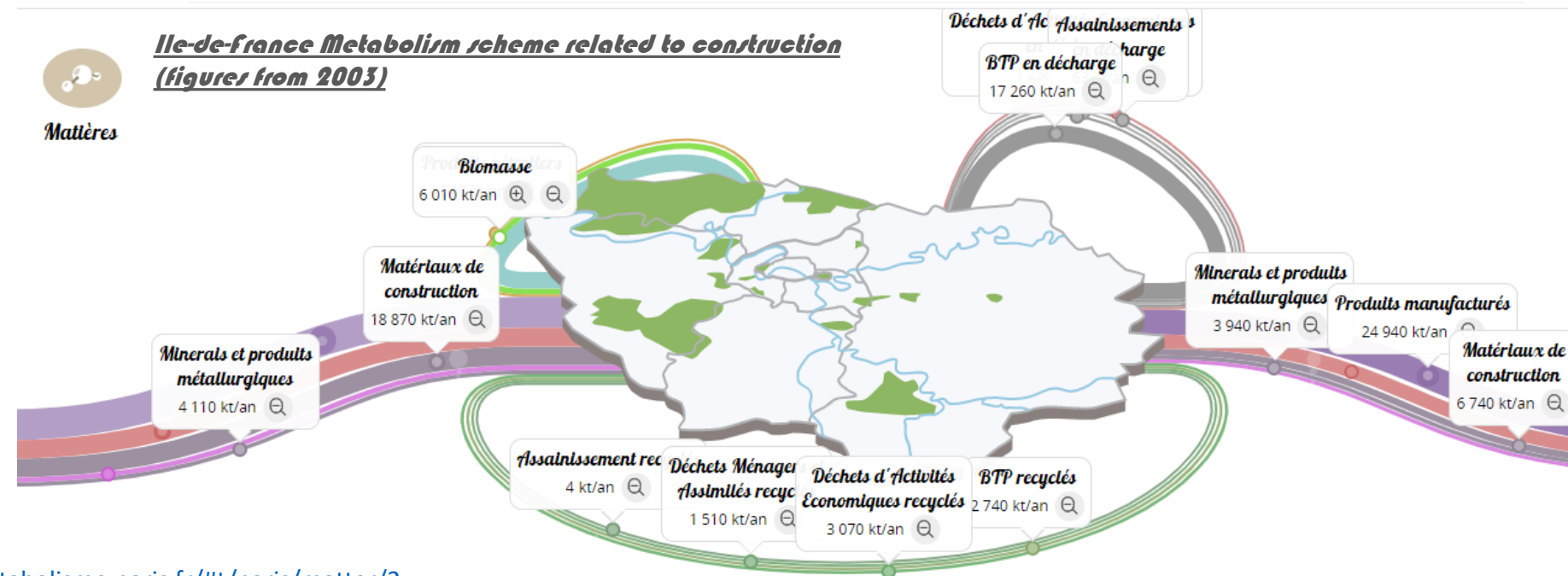
- Numerous demolitions: territories undergoing reconversion, urban renewal, densification, real estate speculation, building transformations related to changes in use, obsolescence of both the building and its components, rehabilitations, etc.
- Beyond demolitions: construction site offcuts, end of suppliers stocks, orders errors

Variable quality:

- Post-war construction fast and cheap
- Rapidly changing standards and regulations (technical obsolescence)

An unpredictable deposit

- Heterogeneous and dispersed
- Located in an urban environment
- Linked to the notion of planning



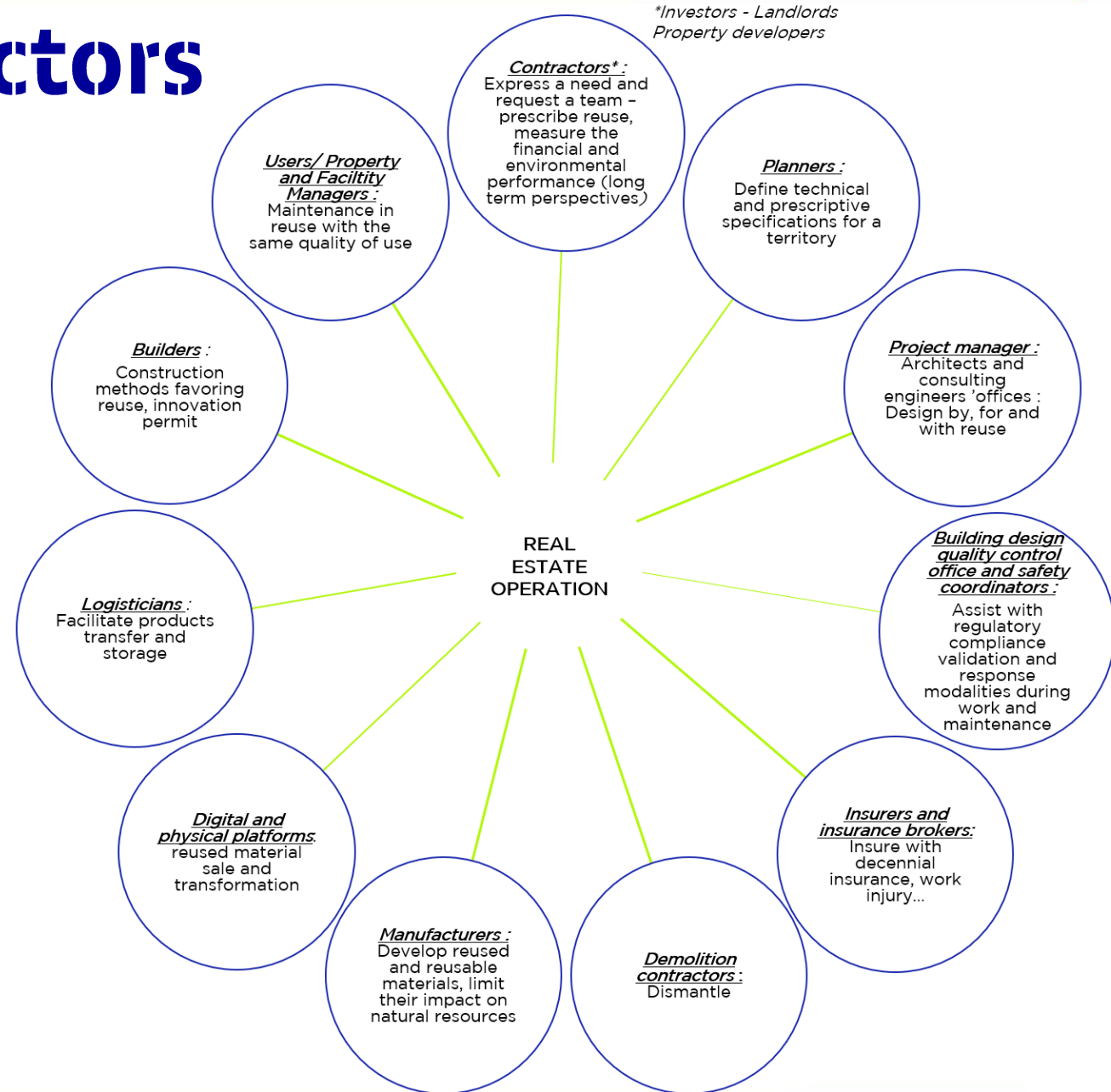
Focus on the actors

The ecosystem of actors involved in reuse is rich.

It has been in place for several years and can address the entire value chain of a real estate project.

The reusing booster created in 2020 aims to boost demand on the project owner's side.

In order to understand the functioning of the ecosystem, the will and the needs of the actors... the Reuse Booster meets the different structures on the different territories.



Focus on the environmental regulation « RE2020 »

0

This is the carbon impact of reused materials in the future “RE2020” regulation

RE=Réglementation Environnementale =Environmental Regulations
In 2020, France is moving from a thermal regulation to an environmental regulation, the “RE2020,” which is more ambitious and demanding for the construction sector.

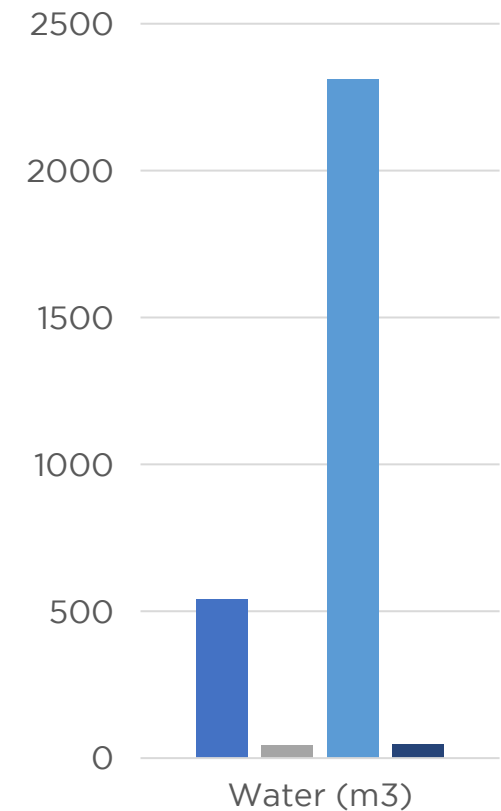
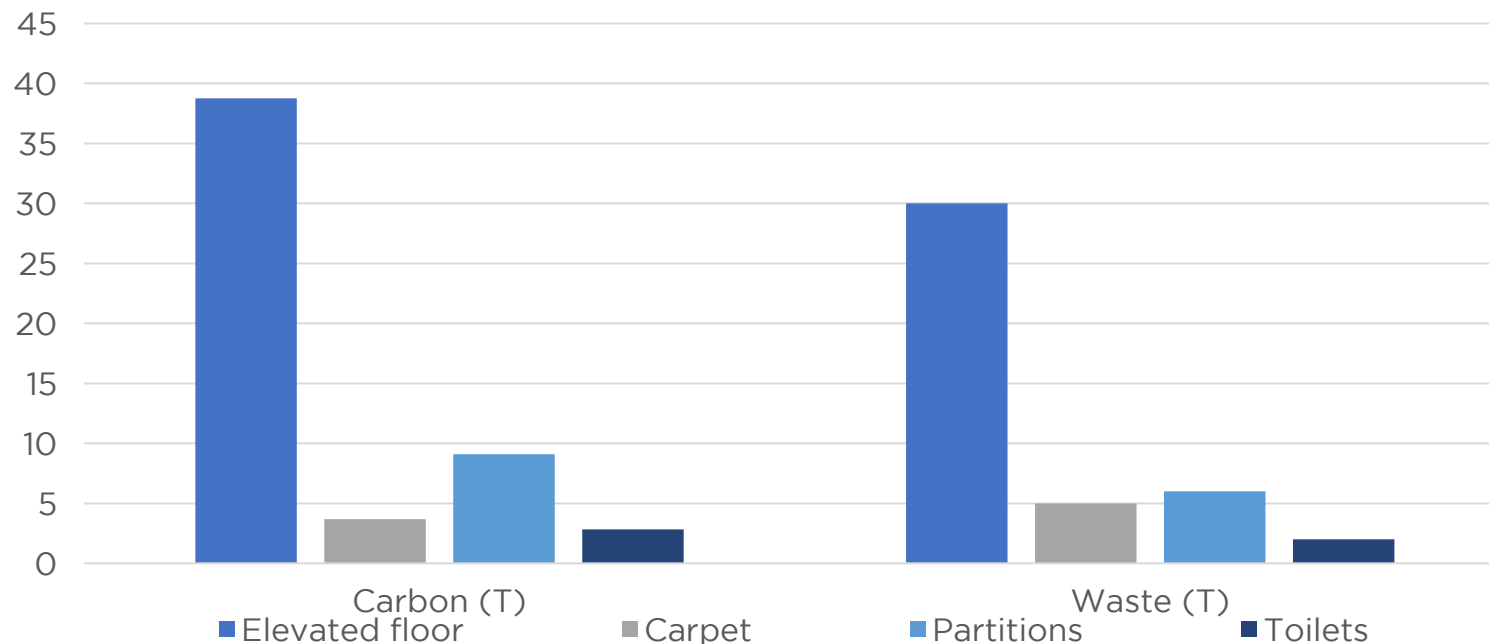
It is part of an ongoing and progressive effort to promote more energy-efficient buildings.

Gains : Example of potential avoided impacts through reuse

Carbon / Waste / Water impact by flow

Assumptions for 1000m² of offices – 4 reused materials :

- 50% false floor
- 50% carpet
- 140 m² glass removable partitions
- 20 porcelain toilets



That is 3000 m³ of water, 55 tons of CO² and 43 tons of waste avoided!

Reuse as one of the 7 dynamics



1- Responsible consumption

Rehabilitating to optimize the use of existing buildings:

- Rehabilitating rather than demolishing and rebuilding;
- Changing the use;
- Densifying.

Ex: project Charenton-le-Pont transformation of offices into housing.



2- Product-Service system

Moving from purchasing products to service, purchasing a use associated with the building and products:

- No more selling a product but charging it for its use per unit of function
- Concept of operator linked to a technical object (cold, hot, etc.)
- Different uses depending on the time of day and night;
- Temporary occupancy;
- Return to the function of the premises, functional mix;

Ex: Textifloor - long-term rental of flexible floor coverings.



3- Industrial and territorial ecology

Create synergies between projects:

- Pooling of materials/equipment/site facilities in the construction phase/infrastructure in a neighbourhood.
- Exchange of energy or water flows in the operation phase.
- Use of secondary material, energy and local material flows
- Concept of local ecosystems

Ex: Noé platform: sharing of a living room, waste disposal, parking.



4- Extending products life span

Extending materials life span by :

- Ensuring selective deconstruction;
- **Ensuring reuse in new projects.**

Ex: Pulse project reuse of elevated floor.

5- Ecodesign of the buildings

Designing buildings taking into account their obsolescence and the depletion of resources:

- Sobriety;

• Adaptability, demountability, reversibility.

Ex: Work#1 office project in Lyon Confluence designed to be reversible into housing



6- Sustainable supply

Ensuring an optimal supply of :

- Energy
- Water

- Materials (local, bio-sourced, recycled)

Ex biosourced insulation (straw, hemp wool...)



7- Recycling

Optimize waste recycling and construction site logistics



Booster du
Réemploi

Focus on the law

3
new features
confirming that reuse
is now!



The obligation
for public project
owners
to turn to reused
materials



The end of the risk
linked with materials'
waste status



A new diagnosis
to develop the supply
of reused materials

Focus on the law

Obligation for public project owners to turn to reused materials

“

In the field of construction or of buildings renovation , [the public order] takes into account the requirements of the fight against greenhouse gas emissions and carbon storage and ensures the use of REUSED MATERIALS or materials from renewable resources.

”

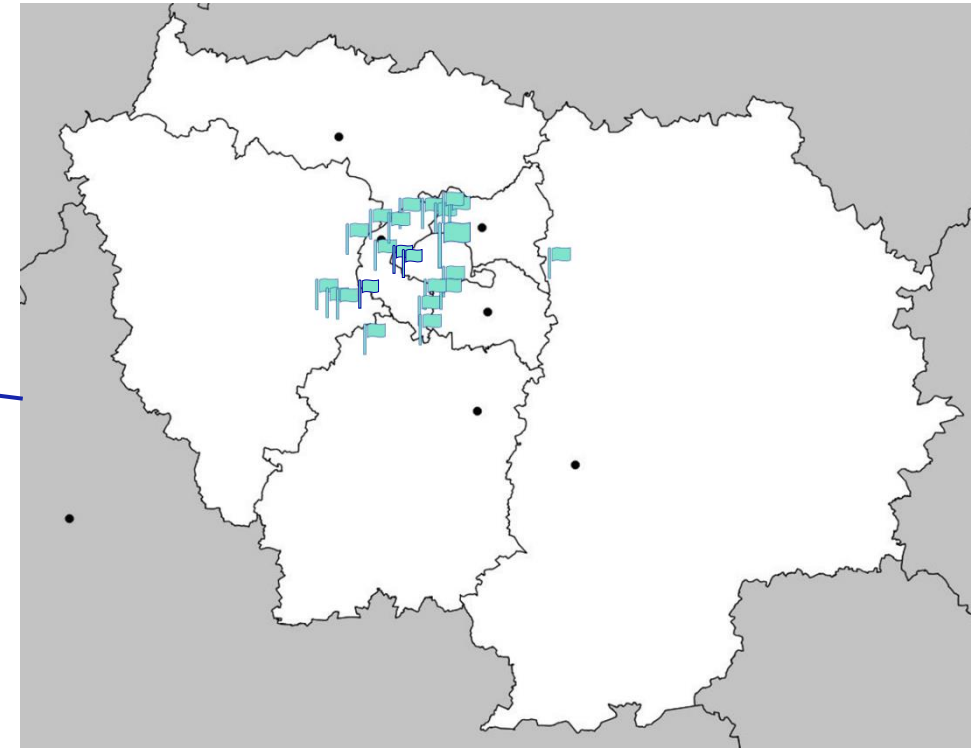
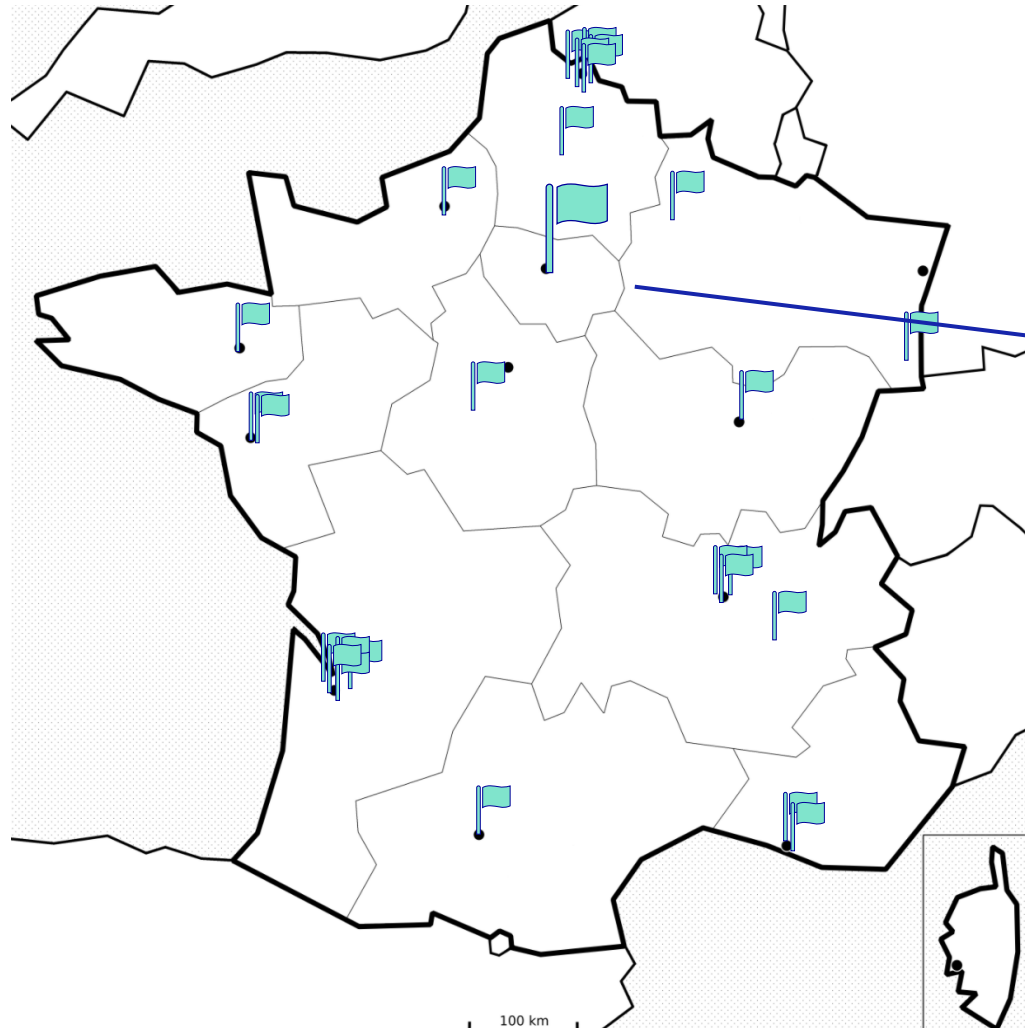


Article L. 228-4 of the French Environmental Code



La communauté

Contractors engaged in the regions



Map of launched Booster's projects

- | | | |
|--------------------------------|-------------------------|------------------------|
| 37 projects in Paris | 5 projects in Bordeaux | 1 project in Blois |
| 32 projects in IDF hors Paris | 1 project in Mérignac | 1 project in Bezannes |
| 7 projects in Lille | 2 projects in Marseille | 2 projects in Le Mans |
| 1 project in Villeneuve d'Ascq | 1 project in Toulouse | 1 project in Amiens |
| 1 project in Roncq | 1 project in Rennes | 1 project in Bischheim |
| 7 projects in Lyon | 3 projects in Nantes | |
| 1 project in Echirolles | 1 project in Mulhouse | |
| | 3 projects in Dijon | |
| | 1 project in Rouen | |

Booster's contractors

11 Property developers



KAUFMAN & BROAD



spie batignolles



/immobilier

17 Investors



4 Users



ESPACES FERROVIAIRES



S2FIT





Work program



Work program

Technical work groups

Innovation Committee

Manufacturers, Installers, Insurers, Insurance brokers, Building inspector, CSTB

Facilitating the prescription of reused materials.

Calculation Committee

Evea and CSTB

Calculating the avoided impacts (carbon, water, waste)

Logistics Committee

IFPEB, ADEME, Start-ups Engineering Consulting Firms

Providing expertise in logistics solutions (storage, transport, land, etc.)

Goodwill Committee

Legal department, lawyers, notaries, real estate experts

Evaluating the financial residual value of materials

Digital

Platform LOOPING

Fabernovel, A4MT, Groupama Immobilier

Creating an operational digital tool to massify the demand for reused materials

Actors

Coordination Committee

Digital and physical platforms and suppliers of reused materials

Connect makers with building sites

Local relations

Territories, cities, towns, metropolises and local actors

Sharing territorial strategies and deploy tools locally

Institutional Relations

ADEME, DHUP

Exchanging on legislative and regulatory developments

Boosters sessions (monthly meetings)

Project owners and their team (consulting engineers, Project Managers, Companies)

Training through sharing experiences

Front : aimed at contractors

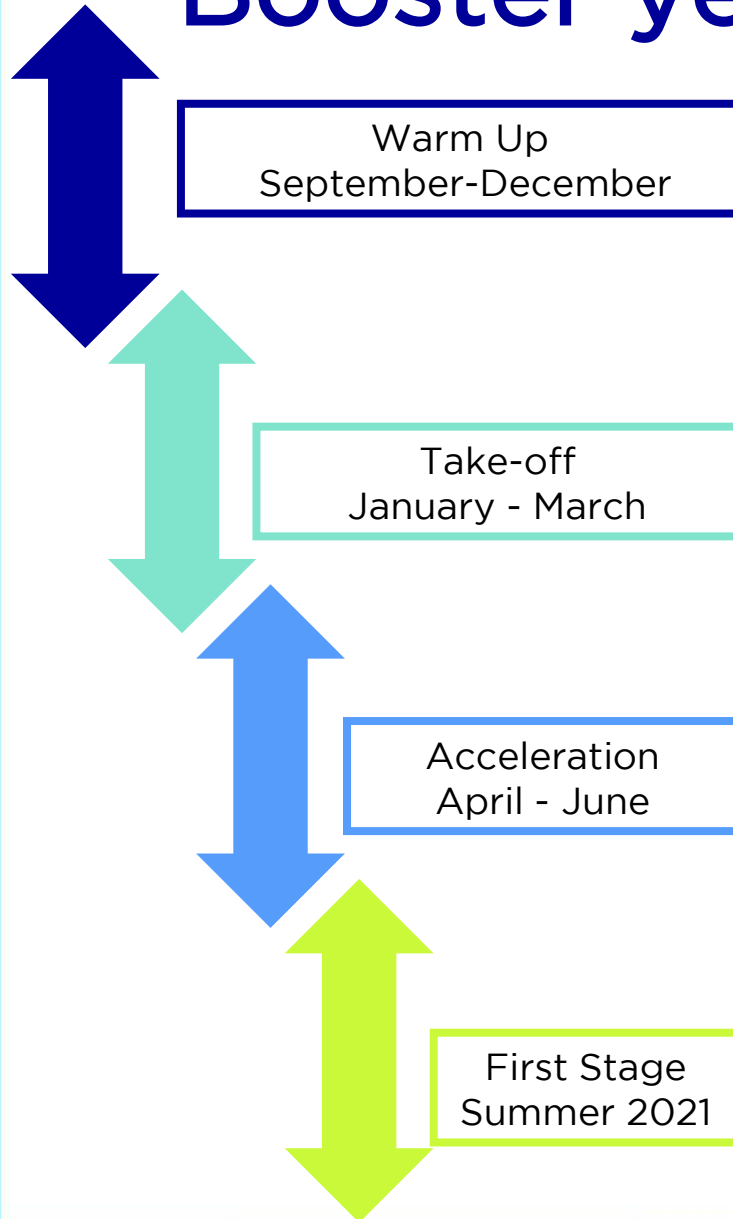
Back : Collective program

Operational support

Project owners and their team (consulting engineers, Project Managers, Companies)

Identifying the reusing potential and build a method

Booster year



« Foire aux CCTP! »
Launch of the innovation committee
Start of the logistics taskforce
Activation of the coordination committee

Lancement of the digital platform
Booster Projects Kick Off
Specific study of technical specifications
Launch of the Reuse Competition

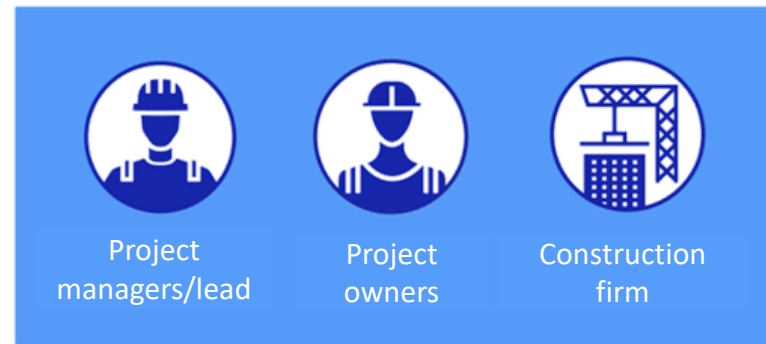
Acceleration of the innovation committee
Extension of specifications studies (technical batches)
Closing of applications for the Reuse Competition

Feedback on the functionality of the platform and new issues
Measures of collective performance (Carbon, waste and water) and communication
Reuse Competition Results
Assessment and **action plan for year 2**

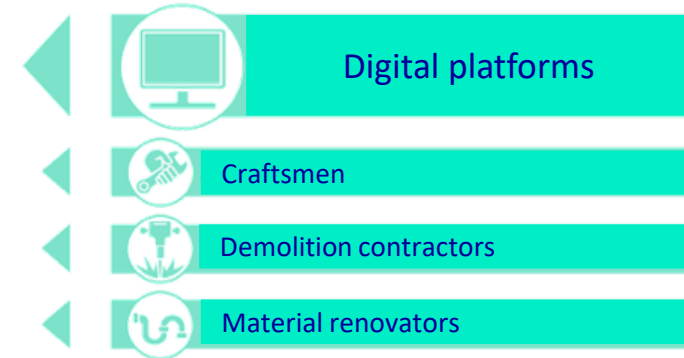
Reusing operation steering on Looping



DEMAND FOR MATERIALS



MATERIALS OFFER



1 REGISTRATION

I enroll my project



2. - NEEDS

I submit my needs for materials



3 - FACILITATION

I benefit from a personalized support all along the process



4 - UNWINDING

The project manager can finalize the specifications given to the contractors, with full knowledge of the deposits



5 - RESULTS

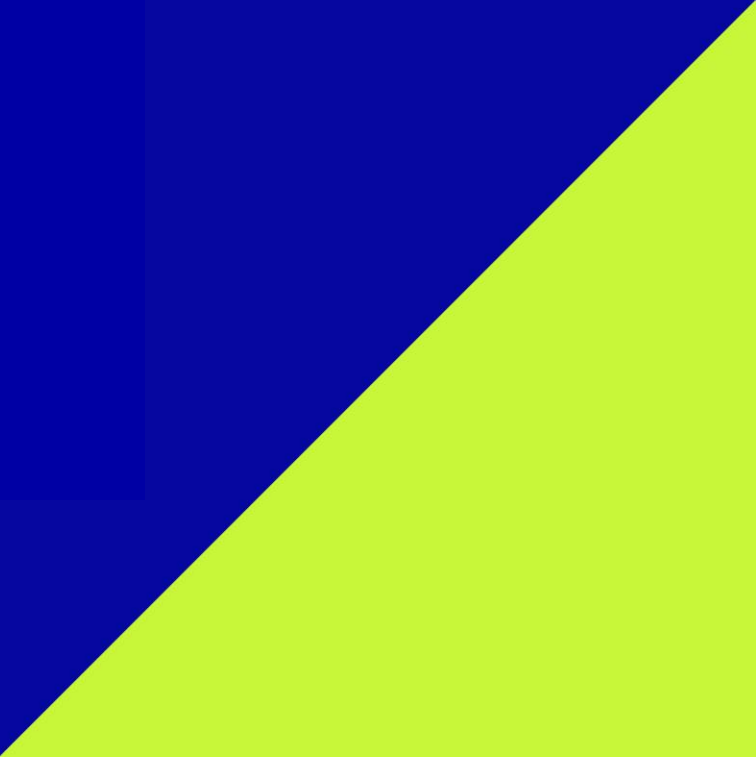
I receive a recap of water, carbon and waste savings made on the project

Demand predictability enable my project to adapt depending on available resources and opportunities

POSITIVE COLLECTIVE IMPACT



About us



IFPEB / A4MT – ABOUT US



**Cédric
BOREL**
CEO A4MT



**Camille
BERTIN**
Project Manager

**Elisa
WARCHOL**
Project Manager



**Elisabeth
TROFIMOFF**
Project Manager



**Zélie
PERRIN**
Project Manager /
Community
Manager

IFPEB / A4MT – THE PROJECTS

The HUB of low carbon advisers

With the consulting firm Carbon 4, IFPEB is piloting an open collaboration platform to detect, encourage and implement low-carbon solutions for the construction industry, at the service of major building project owners and advisers.

Workspace Future (Phases 1 & 2)

Winner of an ADEME call for projects, IFPEB is leading a working group on the circular economy in the development of **workspaces and offices**. Studies, pilot projects and the development of a federating network of learning partners to make the reuse of building materials a reality and to reach levels of GHG emissions divided by 3!

CUBE Contest



Since 2014, IFPEB has been organizing the CUBE competition: the energy savings championship for offices . With already 670 buildings to its credit and 12.2% average savings in one year, the competition helps to show all construction and development makers the operational implementation of a sustainable ecological transition.

Extended Producer Responsibility « EPR » action

Drafting and submission to the Ministry of Ecological Transition and Solidarity of a position paper on the future creation of Extended Producer Responsibility (EPR) channels applied to the building industry, to carry its environmental ambitions far!



Booster du Réemploi

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