



CIRCULAR ECONOMY

Responsible
and committed!



- Contribute to economic growth without harming the environment
- Eradicate all abusive labour practices
- Guarantee safety for all in the workplace



- Ensure rational use of natural resources
- Reduce waste production
- Adopt and share sustainable practices

Constructing buildings, roads, schools and bridges, or developing energy infrastructure, involves the use of a large quantity of naturally-sourced raw materials and generates waste at our sites. The challenge Bouygues Construction teams face every day is how to combine high-quality construction with a reduction in our impact on resources and waste production. The Group is therefore committed to deploying a more efficient and sustainable form of resource management – one which uses renewable resources, produces less waste and ensures that waste is recyclable. We aim to overhaul our working methods to pave the way for the development of a range of innovative construction solutions.

This commitment, which aligns the issues of sustainability and competitiveness, seeks to place the preservation of resources at the very heart of our policy at a Group level, and to ensure these values are put into practice on a daily basis. For this purpose, the Group provides support for employees and encourages its entire value chain (from the research and development, design, purchasing and project management stages) to develop new solutions and more frugal and efficient professional practices, such as saving or opting for more sustainable resources, repurposing buildings, or deconstructing them so that materials can be reused or recycled into new raw materials.

To take full advantage of the many opportunities provided by this model, a threefold scope of action underpins the functioning of the Bouygues Construction circular economy:

- Bring about change in professional practice in Bouygues Construction in order to promote this new model by focussing on behaviour: raising awareness, coupled with training and developing skills across all our departments and throughout our entire value chain;
- Take advantage of opportunities for business, development and optimisation, with new offers based on these principles, and reshape our processes;
- Prepare and anticipate the future to understand and respond to new demands, whether regulatory or those expressed by our stakeholders (NGOs, public authorities, citizens, etc.).

THE 7 PILLARS OF THE CIRCULAR ECONOMY

Bouygues Construction's approach is based on seven levers of action inspired by the circular model of ADEME¹:

1. Ensure sustainable supplies
2. Eco-design our constructions and processes
3. Create synergies between our projects and the local community
4. Optimise the functionality of our constructions and improve purchasing and value creation methods
5. Foster responsible uses and consumption
6. Optimise the lifespan of constructions and equipment
7. Avoid producing waste whenever possible, otherwise recycle or reuse waste



Virginie Allain

Project Manager Environment
in charge of the Circular Economy,
Bouygues Construction

"At Bouygues Construction, the circular economy is palpable in the flows of materials and waste that enter and leave our sites each day.

We must rise to a new performance challenge: resource performance. Just as we pay close attention to the technical and economic performance of our achievements, we must monitor, measure, and manage our resources. We must transform this pressure on resources into an opportunity to invent, innovate and open up a whole range of new possibilities."



OUR SOLUTIONS

1 - Bouygues Energy & services

Bouygues Energy & Services is developing alternatives, more virtuous solutions to connect wind or photovoltaic farms to the grid. For example, a solution for burying cables that does not require trenches to be filled with sand has been trialled during the installation of the Champagne Picardy wind farm in the department of Aisne. This reduces both the use of this sensitive resource and the quantity of earth to be moved. A new type of reinforced cable allows for a saving of 175 m³ of sand per km of trench.

2 - Office Switch Home

The Office Switch Home concept is the result of collaboration between Bouygues Construction's Research & Development teams, Bouygues Bâtiment Rénovation Privée and Linkcity. This concept enhances buildings' resilience by planning for an easy change of use. For instance, the WORK # 1 reversible building in Lyon² has been designed to switch from its initial office function to become a residential complex as and when local needs change.

3 - ELAN

Subsidiary of Bouygues Construction, Elan is a consultancy that creates value in the real estate sector. Elan provides a circular economy consulting service, aimed at integrating this model into your company's strategy or applying it to a specific project. Its strategic support allows you to evaluate the potential of the seven principles of the circular economy as applied to your activity. Operational support enables you to implement one or several of the principles (e.g. eco-design of a reversible building, sustainable supplies and reuse of materials) at the early, competition-stage of a project.



246

million tons of waste generated by the construction industry (nearly ³/₄ of waste produced in France)

58 %

of non-hazardous waste recycled by Bouygues Construction worldwide

79 %

of non-hazardous waste recycled in France (Environmental Regulation Article L 541-1, paragraph 6 stipulates a minimum recycling rate of 70% for waste from the construction sector.)



1 French Environment & Energy Management Agency
2 To be delivered late 2020



OUR ACHIEVEMENTS

A WASTE-FREE CONSTRUCTION SITE

The Maillerie project, led by Bouygues Bâtiment Nord-Est and LinkCity, aims to maximise the reuse of existing resources onsite by means of a selective deconstruction process. The project for the deconstruction of the former 3 Suisses logistics site in Villeneuve d'Asq is also part of a wider ambition to create a local ecosystem.

Collaboration with local, innovative ecosystems has been key to the success of the project. Partnership with non-profits in the solidarity sector, circular economy start-ups and industrialists, such as Néo-Eco ou Etnisi, has enabled various elements from the deconstruction of the former logistics site to be reused and recycled.

30,000 tons of concrete and 8,000 sqm of solid oak flooring were salvaged during the deconstruction of the former site and reused.



RESEARCH AND DEVELOPMENT AT THE CORE OF OUR SOLUTIONS²

The Group's research and development work aims to remove existing brakes on the circular economy by changing our operating methods. Innovative ideas on zero-waste new building and selective deconstruction have been tested on the Auguste Renoir project in Nantes and there are ongoing trials at Bagneux Mathurins. These ideas allow us to develop methodologies that can be rolled out across the Group.

