



GRENoble
HABITAT

→ ABC RESIDENCE - AUTONOMOUS BUILDINGS CITIZENS

POWERTY SEMINAR

| 17 juin 2021 - Lyon



AGENDA

1. ORIGINS OF THE PROJECT

2. CONCEPT

3. HABITANT'S EMPOWERMENT



1

ORIGINS OF THE PROJECT

ABC - A DEMONSTRATOR IN GRENOBLE



→ The first autonomous building in France

- Located in Grenoble in a new innovating district next to international companies (CEA, Schneider etc.)
 - The residence is composed of 62 social housing (delivered in summer 2020)
- Owned by Grenoble Habitat, a local public company, social landlord, builder and real estate developer
- Designed and builded by reseach and development teams of Bouygues Construction
 - Project has associated habitants to test the concept and the liveability with focus group
 - Suez Company which has developed a water treatment plant in the building
 - GEG - a local energy company which is owner of the photovoltaic power plant on the roof of the building (1 200 m² – square meter)
- A sustained implementation by local authorities and government
 - A convention has been signed between city of Grenoble and Grenoble Alpes Métropole
 - The program has benefited from state and AURA subsidies

A DEMONSTRATOR IN GRENOBLE

→ **A**utonomous – **B**uilding - **C**itizens



A DEMONSTRATOR IN GRENOBLE

→ **Autonomous - Building- Citizens**



2

CONCEPT



ABC – AUTONOMOUS BUILDING CITIZENS



→ A residence « demonstrator » of 62 social housing

- **A-Autonomous** : the residence aims for high levels of water and energy autonomy
 - 70% energy autonomy targeted
 - Reduction by three of the consumption of water from the city network
 - 40% reduction in final household waste
- **B-Building** : the residence uses construction techniques designed to reduce design and construction costs
 - Prefabrication and industrialization
 - Building information modeling
 - Reinforced insulation
- **C-Citizens** : a residence conceived as a participative housing that favors collective dynamics
 - Pooling of uses (shared spaces, vegetable gardens, large halls)
 - Involvement of the inhabitants to make them actors of their energy consumption
 - Social link: a common residential area at the bottom of the residence



ENERGY-SAVING EQUIPMENT

→ Objectives

○ General ambitions

- **Water consumption of 80 litres/day/inhabitant instead of 148 litres/day/inhabitant for a conventional building**
- 53% water autonomy
- A 2/3 reduction in water consumption from the city network

○ Energy saving equipment

- The dwellings have been pre-equipped with hydro-economical appliances to aim for the greatest possible sobriety, both in terms of sanitary equipment and household appliances



→ Showers equipped with a connected shower head

- Shower head that measures water consumption in real time and indicates the volume used during the shower via an integrated multicoloured LED indicator. The shower head changes colour according to the different consumption thresholds (colour change every 10L of water up to 40L). It works without batteries, self-powered by the flowing water for a totally autonomous and ecological operation.

→ Recycling showers

- Showers equipped with a system that continuously analyses, separates and treats the water for reuse. If the water is dirty, it is directly evacuated and the system uses the water from the network like a classic shower. If the water is clean, it is filtered, treated, and reused.
Entretien : un cycle de nettoyage hebdomadaire avec une aide au dépannage à distance.

3

HABITANT'S EMPOWERMENT

CREATE A COLLECTIVE DYNAMIC

→ Involvement and mobilization

○ Allocation process adapted

- The allocation process was adapted to place the motivation and involvement of the residents at the heart of the project. In particular, tenants were invited to complete a specific file including a motivation questionnaire to assess their understanding and aspirations with regard to the project.

○ Organization of some “Open House”

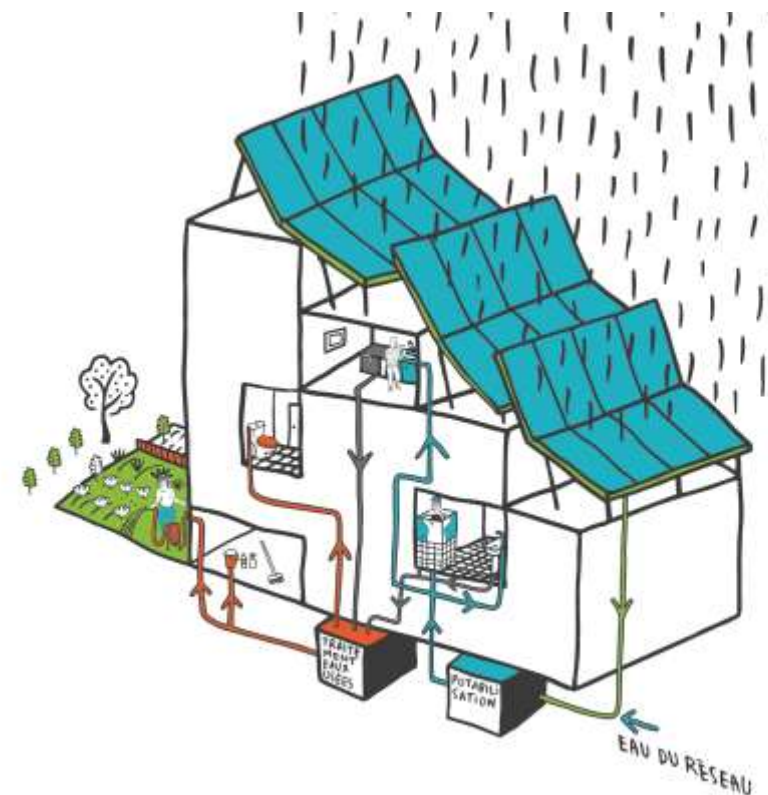
- Information meetings, open house days and visits to pilot units on the site were organized to present the concept with the help of films, models, demonstrations presenting the functioning and specificity of the residence

○ Specific entrance to the premises

- Welcome booklet has been edited to present the residence and equipments
- Specific explicatives notices have been handed out to the residents

○ Sharing moments

- Sharing and meeting moments were organized before entering the premises via the organization of webinars to promote the inter-knowledge between future neighbors



CREATE A COLLECTIVE DYNAMIC

→ Involvement and mobilization

○ Formation

- Equipment training sessions for residents took place during the 4th quarter of 2020: thirty sessions were conducted and animated by the PopCorn workshop, a firm specializing in user assistance. The objective was to help residents to become familiar with the various appliances and to better understand the correct actions to adopt to limit and reduce consumption..

○ Meeting of proximity

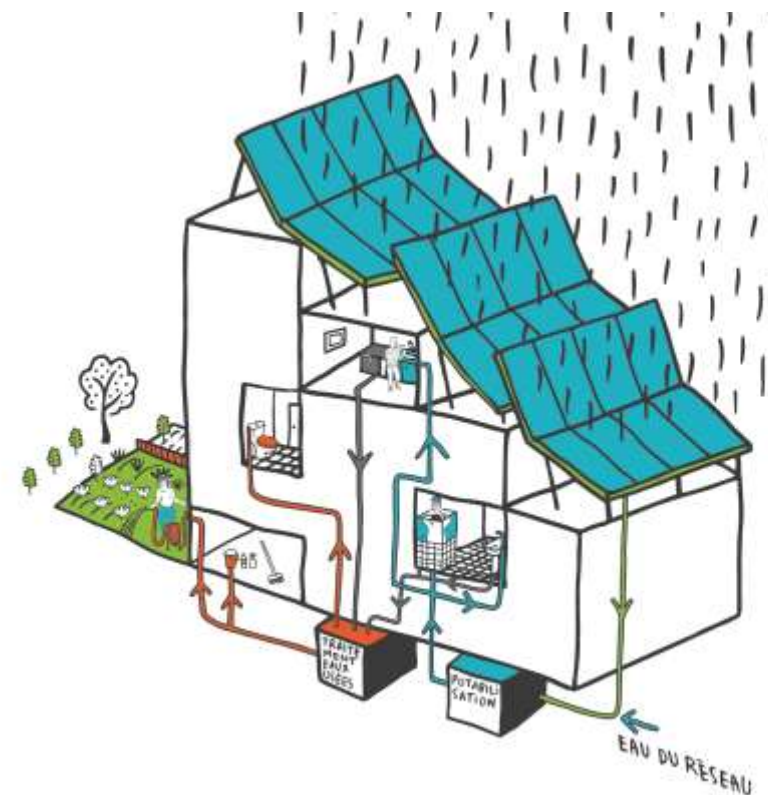
- The collaborators of Grenoble Habitat organized different meetings with the inhabitants to make a review how they feel in the residence and taking some correctives actions

○ Collectives workshop

- Specific workshops take place regularly in shared spaces with the launch of challenges and collective actions (shared gardens with Cultivons nos toits, composting with the support of the Metropole,, recycling, do it yourself)

○ Digital seminar « living together »

- Sharing and meeting moments were organized before entering the premises via the organization of webinars to promote the inter-knowledge between future neighbors



Thanks for your attention

