



GRENOBLE ALPES
MÉTROPOLE

ABC demonstrator

Starting from the second quarter of 2020, the ABC residence in the Presqu'île district, Grenoble, will welcome its first tenants. This demonstrator is a concentrate of technologies and innovations that make it the first design for an energy self-sufficiency building in France.

ENERGY AUTONOMY

Autonomous Building for Citizens: an autonomous building for citizens, such is the promise of the ABC demonstrator, whose two buildings, located in the Cambridge sector of the Presqu'île de Grenoble EcoDistrict, total 62 housing units. Exceptional performance supports the aim for self-sufficiency: the rainwater recovery and purification as well as the treatment and recycling of grey water represent 70% of the water supply. At least 70% of energy needs are covered by a mix of renewable energies: 688 photovoltaic panels spread out over 1,130 m² on the roof are connected up to heat pumps which recover the calories from the waste water to supply the heating system and produce domestic hot water. Solar electricity is stored in batteries for collective self-supply, and the surplus reinjected into the network.

Household waste is reduced to a minimum: collective composting is put in place in the building's kitchen gardens, while residents are asked to weigh their rubbish bins. Low consumption lighting, triple glazing, A+++ appliances, bio-sourced cork insulation... Bouygues Construction's R&D teams have teamed up with the architectural firm Valode & Pistre to make tech and innovation serve the ecological

KEY DATA

- > 5,000 M² of floor space
- > 42 intermediate rental housing units and 20 social rental housing units
- > €1.8 M support from the City of Tomorrow Investment for the Future Program

transition and well-being of residents. Inaugurated in September 2019, a 50 m² showroom located on the ABC demonstrator site presents the innovations at work on the first autonomous building in France. It also serves as educational support for residents wishing to better understand the technology and the functioning of their housing.

THE INVOLVEMENT OF CITIZENS

It is because what interests the Métropole in this project, beyond its technological and environmental aims, is the C of the ABC, that is to say the citizen strand. The demonstrator, completed by Linkcity for Grenoble Habitat, can only keep its promises with the help of its occupants. All the people living in the building are asked to take ownership of the process, to contribute in a sustainable way to the proper management of the buildings by sharing their personal data for monitoring consumption, then by agreeing to modify their uses, if necessary. To give itself the means to succeed in this project, Grenoble Habitat has drawn up with the possessors of reserved



shares (State, Action Logement Services, métropole) an agreement defining a common and innovative process for allocating the 20 social housing units that are there, in addition to the 42 intermediate rental units. In addition to the issue of social diversity, there is the motivation of all the tenants, who sign a shared commitment charter with Grenoble Habitat and are supported by the Atelier Pop Corn association, tasked with this by the social landlord for five years. The communication campaign which aims to bring forth the applications is very aptly called "Living differently". Self-sufficiency in water, energy autonomy and waste recovery are based on the combination of the proper functioning of innovative equipment and changes in tenants' usage over time. ABC represents as much an environmental experiment as a social one.

DIRECT

“ The ABC demonstrator is the culmination of a ten-year involvement with EcoCity. What was a complete pioneer today can be replicated, as much in terms of energy performance and their technical aspects as in the societal strand, which involves changes in habits and collective participation by residents. What this kind of beautiful tool teaches us also benefits all the métropole’s policies.”

Jean-Michel Evin,
Deputy Director General of Grenoble Alpes Métropole
with responsibility for Regional Cohesion



KEY FIGURES

- > **70%** self-sufficient over one year for water and energy
- > **40%** reduction in the volume of household waste
- > **209 KWP** of photovoltaic power



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