

THE TOP 10 ECOCITY PROJECTS

écocité
committed to inventing
the city of tomorrow



RENNES
MÉTROPOLE

3DEXPERIENCity Virtual Rennes



Developed by Dassault Systèmes and Rennes Métropole, 3DEXPERIENCity Virtual Rennes is a digital twin of the city. All the buildings are of course represented there, but this modelling also integrates all the data that the métropole and its partners have available. Which makes this platform an extraordinary development tool.

A VIRTUAL TWIN

By adopting a 3D digital model in 1999, Rennes was among the first cities in France to opt for such a tool. This early adopter choice has paid off. Based on this first modelling, Rennes Métropole and Dassault Systèmes have been developing the 3DEXPERIENCity Virtual Rennes platform since 2017, which allows for the whole city to be viewed in 3D on any Internet browser. Not only is it possible to navigate the streets, but you can also take real guided tours, following historic routes or with an eye to the future since major real estate and urban projects are also included. This virtual digital twin of the real city allows elected officials, residents, and businesses in the métropole to simulate and experience changes to the city.

CONSULTATIONS WITH CITIZENS

On the occasion of the revision of its urban plan, Rennes launched a huge consultation: Rennes 2030 Available on the www.rennes2030.fr site, the 3D model in this way gave

KEY DATA

ACTION ECOCITY 3DEXPERIENCITY VIRTUAL RENNES

- > Total investment of **€3.02 INCLUDING TAXES** of which **€69,000** support from the City of Tomorrow Investment for the Future Program

ECOCITY AND IDSC PROJECT

- > Around **10 INNOVATIVE PROJECTS** supported to the extent of **€100,000**
- > Total investment of **€2.5 M**
- > The project also benefits from support from the City of Tomorrow Investment for the Future Program to the extent of **€1.2 M**

access to the models of the main development projects as well as to thematic urban walks marked out with 140 points of interest intended to stimulate reflection and conversation around urban issues, and which, in the real city this time, were manifested by 31 km of red line on the ground.

DIGITAL MANAGEMENT

A consultation tool, 3DEXPERIENCity Virtual Rennes is also a development tool which enables all the players in Rennes Métropole to coordinate the renovation and planning of buildings, public service networks, mobility systems and to



visualise and immediately test the different possibilities... The tool promotes collaboration between the different players by means of its systemic approach.

GATHERING DATA

The digital twin of Rennes is not a simple 3D model since demographic data relating to mobility, health, energy, vegetation, in a word everything that makes up a city, is all connected. 3DEXPERIENCITY Virtual Rennes therefore makes it possible to manage the entire city in a transversal and collaborative way.

NEW APPLICATIONS

The award winning project from the Industrial Demonstrators for Sustainable Cities (IDSC, Démonstrateurs industriels pour la ville durable) call for projects aims to put SMEs in the position of developing service occupations or provide value-added data on this virtual twin. The Images and Networks competitiveness cluster, a digital innovation benchmark, organises calls for challenges in connection with Rennes Métropole and Dassault Systèmes. SMEs and start-ups were invited, during three successive calls for challenges launched in 2018 and 2019, to develop, on the digital twin, innovative solutions dealing with all of the city's systems:

- people,
- businesses,
- development,
- transport,
- telecommunications,
- water,
- power,
- waste management,
- air and climate,
- plants and animals.

13 projects were selected, the first four being:

- an energy twin for the métropole, aimed at modelling the energy consumption of the buildings (Energies Demain company);
- a collaborative platform on indicators linked to the evolution of nature within the city (Kermap company);
- the creation of a mobility data repository at the peri-metropolitan level (Eegle company);

DIRECT

“ The smart digital model of Rennes, integrated into the 3DEXPERIENCITY platform constitutes a working base accessible to all the region’s players, as much within the city’s departments as external to them, in order to simulate, plan and manage the city in a cross-functional and collaborative way. Cross-referencing and sharing data designed at different levels makes it possible to develop effective public policies. This innovative tool addresses the complexity of the city and meets the expectations of regional authorities.”

Christelle Gibon,
Head of Innovative Projects at the Rennes Métropole Geographical Information Service



■ the use of a collaborative augmented reality, incorporating the opinions and comments of the inhabitants in its modelling (Artefacto company).

The last call for innovations was launched in spring 2019, which was also open to all French SMEs, temporary employment businesses and start-ups.

KEY FIGURES

3DEXPERIENCITY VIRTUAL RENNES PLATFORM

> **7** innovative services and **50** users in the experimentation phase (by June 2020)

SME IDSC ACTION

> **10** innovative services, **10** award-winning SMEs and **50** users in the experimentation phase (by June 2020)



Sign up to the newsletter

Join the LinkedIn EcoCity group to exchange opinions

www.ecocites.logement.gouv.fr