



Gerpho 3D Generates Digital Twin of Les Mureaux, France for Visual City Communication Campaign

ContextCapture and OpenCities Provide Virtual City Tour, Promoting Smart Management

CHANGING CITY VIEWS

Located 40 kilometers west of Paris along the banks of the Seine, 50% of the area in the French city of Les Mureaux is green space. Les Mureaux is closely linked to nature and features newer buildings and infrastructure for its small education center and downtown event areas. However, media anecdotes in the 1980s and 1990s have long given it the reputation of a highly urbanized city. "This image is all the more unjustified given that the older areas of the city have been renovated, leading to the creation of the first eco-district in France," said François Garay, mayor of Les Mureaux.

To dispute these unwarranted claims, the city hired Gerpho 3D to create a 3D panoramic view that demonstrated its natural beauty. A few years later, the city asked Gerpho 3D for a more realistic digital representation to help residents, the media, companies, and developers better understand the city, promoting local development and smooth integration of new projects.

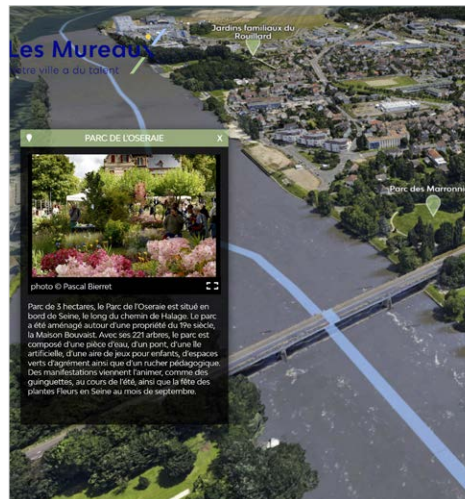
STRIVING FOR 360 VISUAL COMMUNICATION

"The goal was to reach 360-degree communication," said Philippe Graindorge, president at Gerpho 3D. This meant Gerpho 3D needed to expand on their original 180-degree aerial panoramic city view and create a city digital twin that ensured accessibility and intelligent navigation to a variety of users for different purposes. The virtual city tour needed to provide residents with a better understanding of their city and the services that it offers, tackle the media's preconceived urbanized notions, and highlight the attractiveness of the area for new business and developers to promote local employment and the economy. In effect, Gerpho 3D realized that their 3D model had to serve as the premise for a visual city communication and marketing campaign.

Faced with developing an accurate, accessible, and adaptable model, Gerpho 3D wanted to combine their photogrammetry techniques with integrated reality modeling and city planning technology. They strived to dematerialize the communication channel across a broad target audience through 3D digitization. This capability required user-friendly applications where Gerpho 3D could create the digital twin and then have the model viewed, manipulated, and customized by a specific user via an internet browser on any type of device—without the need to install any specific app.

ESTABLISHING AN OPEN INTELLIGENT DIGITAL ENVIRONMENT

Gerpho 3D selected ContextCapture to generate a 3D reality mesh of the city and imported the model into OpenCities Planner, creating a digital twin for intelligent navigation by various users.



Gerpho 3D was hired to create a city digital twin of Les Mureaux to provide a realistic image and better understanding of the area. Image courtesy of Gerpho 3D.

PROJECT SUMMARY

ORGANIZATION

Gerpho 3D

SOLUTION

Facilities, Campuses, and Cities

LOCATION

Les Mureaux, Île-de-France, France

PROJECT OBJECTIVES

- ◆ To provide residents, media, and businesses a better understanding of the city of Les Mureaux and its environment.
- ◆ To generate a digital twin to promote city development and smart management.

PROJECT PLAYBOOK

ContextCapture, OpenCities[®]

FAST FACTS

- ◆ The French city of Les Mureaux is along the banks of the Seine and closely linked to nature, despite early media urbanization claims.
- ◆ Gerpho 3D was hired to create a city digital twin to provide a realistic image and better understanding of the city.
- ◆ Bentley's reality modeling and digital twin technology allowed Gerpho 3D to generate an accurate, adaptable, and accessible 3D model.

ROI

- ◆ Leveraging ContextCapture and OpenCities Planner provides a customized virtual city tour via a web browser.
- ◆ The digital solution facilitated remote accessibility, dematerializing communication to save printing costs while offering an interactive city experience.
- ◆ Gerpho 3D generated a single deliverable capable of multiple purposes, supporting future integration of city projects and city development.

“The photogrammetry techniques used by Gerpho 3D with Bentley’s ContextCapture software make the 3D model accessible at a cost and resolution that are tailored to the end customer’s needs. OpenCities allows for intelligent navigation within the model.”

– Philippe Graindorge, President, Gerpho 3D

Using Bentley’s integrated applications, Gerpho 3D established a 3D city model in an open platform, making the model accessible via a web browser at a resolution to suit varying customer needs. “This means that the digital twin can be adapted to the user, whether they are a resident, developer, company, or a city, region, or state official,” said Philippe Graindorge. “Anyone can easily navigate to their different points of interest, thanks to the different layers.” Working in an open, intelligent digital environment using the same 3D model and OpenCities provides a customized virtual tour for each type of user by filtering desired data and information.

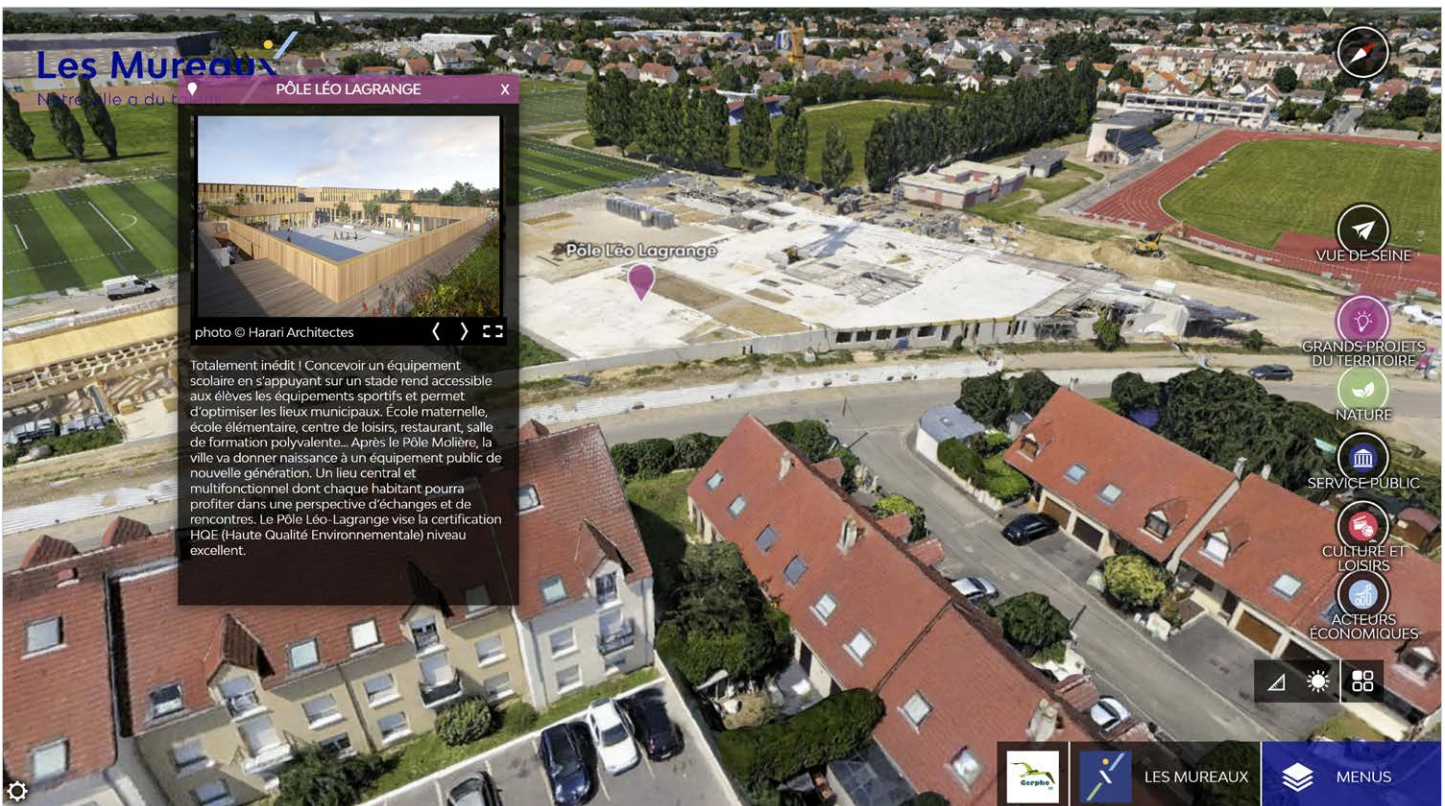
DIGITAL TWIN DRIVES DEVELOPMENT AND LIFECYCLE MANAGEMENT

Bentley’s technology solution supports powerful 3D renderings and detailed configurations via a simple web browser for broad, remote accessibility. Gerpho 3D relied on these features to communicate a realistic city image, refuting unjustified claims and ensuring a better understanding of Les Mureaux’s offerings. “The user-friendliness of the tool promotes interest among residents, city actors, and elected officials. It also allows companies that are setting

up new business to immediately visualize the environment and its assets,” said Graindorge.

The digital twin also dematerializes the communication campaign, allowing for more interactivity and remote presentation, saving printing costs on conventional marketing brochures, and simplifying updates to accommodate city changes and development. As a single 3D deliverable, the model can be adapted for different target audiences and remotely communicated, bringing the city to life, compared to still images.

“This 3D virtual tour of the city of Les Mureaux is an essential communication tool for us to support our human and development projects,” said Garay. Beyond serving as a communication mechanism, providing an accurate depiction of the city, the digital twin supports multiple purposes and can be updated periodically to reflect future works or the results of an urban renewal project. Having a digital city replica allows for the integration of architectural or roadway infrastructure projects, driving future city development and smart holistic lifecycle management.



Gerpho 3D generated a single deliverable capable of multiple purposes, supporting future integration of city projects and city development. Image courtesy of Gerpho 3D.