

eco-renovation of the waste treatment plant in sarcelles (95) - France

Terre De Sarcelles ©



INDUSTRIAL SITES, ARCHITECTURE AND LANDSCAPING : waste treatment and valuation

Client	SIGIDURS
Site	Sarcelles (95)
Project	Eco-renovation of the waste treatment plant in Sarcelles (95)
Design Built	AR ARCHITECTES, VERDI BG INGENIEURS CONSEILS
Mission	Architectural and landscaping eco-design
Plot area	30 000m ²
Building Ground Clearance	10 050m ²
Cost	9 000 000 euros
Date	Competition 2019



Aerial perspective - North West view

The architectural, landscaping and environmental aspects of the SIGIDURS Energy Recovery Centre renovation project revolve around three key ideas:

- 1. To homogenize** the different buildings and volumes of the Centre in order to show a single architectural unit: create a grey base.
- 2. To highlight the process area** which represents the heart of the plant and the SIGIDURS approach; create a coloured perforated metal envelope reminding the old brick used in the city.
- 3. Intensively plant** the plot and plant with the ambition to create a sustainable green design perfectly integrated into its surroundings.



Master plan

LES CIBLES HQE® TRAITÉES

TARGET 1: HARMONIOUS RELATION OF THE BUILDINGS WITH THEIR IMMEDIATE ENVIRONMENT

- Highlight the process area with green roof, walls and land. Enhance the relation with the surroundings.
- Views on natural areas: **green roofs and walls**.
- Use of **eco-materials** with a low impact on the environment. Harmonious integration of the plant into the near and far landscape.

TARGET 2 : INTEGRATED CHOICES FOR CONSTRUCTION PROCESS

- **Steel structure**, a long-lasting, easy-to-maintain material that can be adapted as required
- Exterior insulation with **wood fibre panels**
- **Recyclable aluminium cladding**.

TARGET 4 : ENERGY MANAGEMENT

- Thanks to its **insulation**, the operating building has a **good inertia** and reduces its energy consumption.
- **Natural lightning and ventilation** of the process area thanks to the facade openings.

TARGET 5 : WATER MANAGEMENT

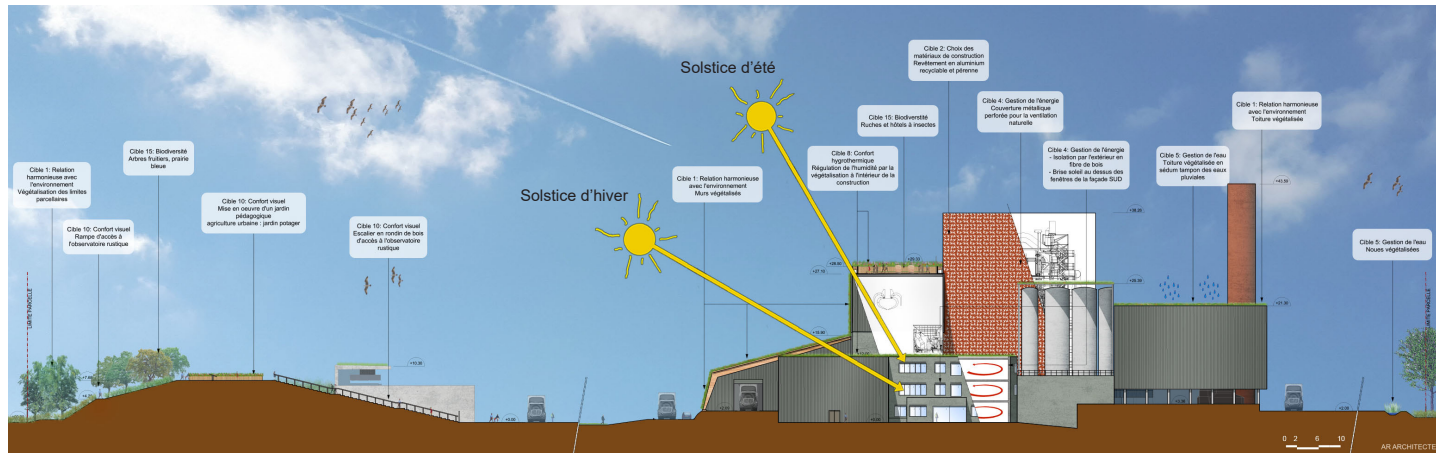
- The green roof and walls manage the rain water.
- The alveolate slabs manage the heavy road runoff water.
- The **water overflow** is collected gravitationally towards **planted ditches**.

TARGET 8 AND 9 : OPTIMIZED HYGROMETRIC COMFORT AND ACOUSTIC COMFORT

- The wood fibre insulation brings hygrometric and acoustic comfort into the building.
- An **acoustic wall made of gabion** guarantees **acoustic comfort** around the site.

TARGET 10 : OPTIMIZED VISUAL COMFORT

- **Green Wall** on the West facade: reduces air pollution, installation of a water network, **plantations adapted** to the weather conditions.
- The plant is designed as a **green park** giving a satisfactory view to the inhabitants.



Section of the Bioclimatic concepts



Aerial perspective - South West view

