



CASE STUDY

Segment: Smart City

Market: China

Project: Yantai Hammarby Eco City

About the project: Yantai Hammarby Eco City is a smart and sustainable city inspired by the Hammarby area in Stockholm, Sweden. The new smart city infuses the Swedish spirit of innovation, lifestyle and environmental protection.

OVERVIEW

Yantai Hammarby Eco City is an ecological smart city built on an area of 880,000 square meters based on the global eco-city model of the Hammarby lake city project in Stockholm. The project embraces the green system concept of the Hammarby lake city project, aiming to lower energy consumption, improve recycling, and coexist with the green natural environment.

The green area on the site is maintained at 46% and the mission of the project is to strive for excellence in urban sustainable development. The enclosed pneumatic garbage automatic collection system of Yantai Hammarby Eco City mainly collects two fractions of waste; general waste and recyclable waste in the community.

Location: Zhifu district, Yantai (a coastal city in Shandong province, north China)
Population of Yantai: 7 million residents
Total plot size : 91,697 m²
Total number of apartments : 5000+ units
Project owner and developer: White Peak
Lead designer: Sweco
Waste handling: Envac

“China-Sweden Hammarby Eco City Alliance is an ambitious initiative that strives to make Swedish innovation, lifestyle and sustainability advocacy flourish in China. Its first project in Yantai is a success and has much resonance with its residents.”
- European Union, China

With 46% greening on site, the city has remarkable performance in reducing environmental impact



“When building the Hammarby Eco City in Yantai, we strive to make Swedish innovation, lifestyle, and sustainability advocacy flourish in China. We are delighted to work with Envac and bring its leading vacuum waste-collection system to Yantai, as part of our integrated solutions to reduce environmental impact and create a pleasant living experience for the residents.”

– Jesper Jos Olsson
Group CEO and Founding Partner
White Peak





32%

lower carbon emission

The project had an overall footprint of 159,302 T CO₂-e. This represents a carbon intensity of 1,193 Kg CO₂-e/m², 32% lower than the baseline carbon emissions of a standard building. This corresponds to avoiding the construction of 42,870 m² of typical residential buildings.

64

outdoor inlets

With a total pipe length of 2,500 meters, the automated waste collection system supports 1,760 residential units with two fractions of waste (general waste and recyclables). The closed system removes the foul odour, making littering a thing of the past.

NEXT-GENERATION AUTOMATED VACUUM WASTE COLLECTION SYSTEM

- ▶ First residential project fully equipped with touchless inlets that enables a cleaner and safer community for residents
- ▶ Using closed pipes to automatically collect waste underground creates more public spaces for plants and residential-friendly facilities
- ▶ Automated Waste Collection System (AWCS) eliminates the secondary pollution of household waste and secures a healthy living



“ The system also reduces waste collection traffic and noise, along with emissions and pollution associated with it by up to 90%, making city life greener, smarter, and more sustainable.

ENVIRONMENTAL IMPACT

01. Advocating sustainable lifestyle

In order to advocate for sustainability, White Peak designed and built a Sustainability Center at Yantai Hammarby Eco City, showcasing the Hammarby Eco City Model and White Peak's sustainable development journey in China.

The 400m² Sustainability Centre showcases high quality, health focused, smart and green housing by Nordic standards. In the long run, the venue will be used for exhibition and community activities, to advocate for sustainable culture and lifestyle.

02. Ecological cycle of water, waste and energy

The quintessential lifestyle is using hot water from 100% renewable sources and saving 14.3% of energy on HVAC systems. With 46% of green space in the residential area, there are water-saving devices such as humidity and raindrop sensors in use for landscaping.

3. Accolades & Recognition

- **BREEAM RATING:** very good
The world's leading science-based suite of validation and certification systems for a sustainable built environment
- Winner of MIPIM Asia Award
- 2022 for Best Green Development Project
- Best selling real estate project in Yantai