



Case study:

CITY OF ANTWERP: GREEN WORKPLACE ECONOMICS™ IN PRACTICE

The metropolis of Antwerp, one of the major cities in Belgium and home of the Flemish Baroque master Rubens, is home to about one million people. The city and its world famous Port of Antwerp offer a huge amount of opportunity in a diversity of sectors including manufacturing, transportation and logistics, the diamond industry and tourism.

To facilitate optimal living and working conditions and attract new residents and draw visitors, Antwerp officials manage a portfolio of about 1,500 real estate assets. Seventy-five percent of this portfolio is in use for public purposes including schools, sport facilities, libraries, theaters, city hall, and other public facilities. The remaining part is used by Antwerp's back-office organization for executing all relevant administrative and supporting tasks.

The municipal government is divided in 12 city-services, 5 independent-services, and additional support organization units. The city-service 'Patrimonium Onderhoud' (PO) is responsible for all Corporate Real Estate-related activities, and is fully supported by the Planon Solution.

GREEN AMBITIONS

In 2003, the Council of the Community committed to making the city's services in adherence with the Kyoto Protocol. Given this agreement, the City established a goal of reducing CO₂ emission by 7.5% before the end of 2012. In addition, in early 2007 the Council decided to set a good example for sustainable initiatives by implementing ecological standards in an early stage of future urbanization and to apply 'green' energy usage. Finally, in early 2009 the city signed the 'Covenant of Mayors', a formal commitment to reduce the city's CO₂ emissions by more than the European norm of 20%. To support this ambitious goal, the Council established a 'Coordinated Energy Platform', to create a structured approach to executing energy savings in Antwerp's city services, corporate real estate, and support organizations.



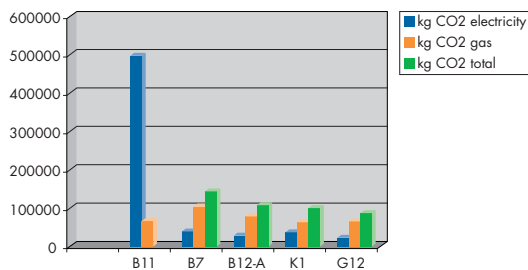
CITY OF ANTWERP

implements Planon to meet sustainability targets

ENERGY CONSUMPTION AND ACTUAL EMISSIONS

In 2008, the city's total emission was about 98,000 tons of CO₂ as produced by public lighting, transport services (garbage trucks, city-service-cars), and Antwerp's real estate assets. The emission produced by the real estate portfolio represents more than 70% of the total CO₂ emission.

kg CO₂ emission per building 2008



The electricity consumption in 2008 was about 81 million kWh, from which 60% was related to corporate real estate. The CRE electric consumption increased over the last few years, mainly caused by growth in building portfolio and increased use of ICT within the organization. The City's gas consumption was 210 million kWh,

almost 100% of which was related to corporate real estate, with swimming pools and sport facilities as the largest consumers.

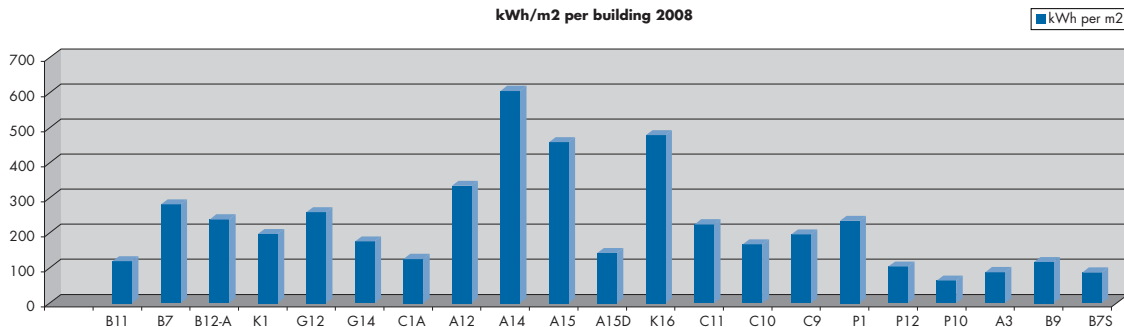
To meet the Kyoto Protocol (based on reference year 1990) and Antwerp's green ambitions, the CO₂ emission has to be reduced by more than 20,000 tons before the end of 2012.

REDUCTION AND IMPROVEMENT MEASURES

One of the first measures to help achieve these ambitious objectives was a new, single procurement contract for green electricity. This single contract supports about 25% of the projected emission savings in the coming years.

To further reduce CO₂ emission, the City of Antwerp defined different types of measures for electricity reduction (like re-lighting programs and tuning of HVAC equipment) and gas reduction (like condensing boilers-, high efficiency equipment). The main challenge in the arena of measures was the question: On which real estate assets should we focus our reduction efforts?

kWh/m² per building 2008



The PO was able to create a report in the Planon system to benchmark energy consumption per building, per building type, and per m². This benchmark showed that The Pareto Principle applied to energy consumption: 20% of the CRE portfolio consumed 80% of the energy.



VALUE FROM PLANON

To find the answer to this question, the 'Patrimonium Onderhoud' (PO) decided to extend their already running Planon system with energy control processes. In the first step, the PO took the already available real estate registry in Planon (buildings, building categories, m², assets, building usage, etc.) and extended it with energy consumption data from external energy suppliers and monitoring solutions like Erbis and EnerLution. Based on this data, the PO was able to create a report in the Planon system to benchmark energy consumption per building, per building type, and per m². This benchmark showed that The Pareto Principle applied to energy consumption: 20% of the CRE portfolio consumed 80% of the energy. After identifying the top 200 energy consumers, PO started implementing an array of technical measures.

With Planon, the PO also analyzed space within its portfolio. It showed that a substantial part of the CRE portfolio was not in proper use or could be optimized. Eliminating this 'm² waste' had a direct positive impact on the CO₂ emission: The greenest building is the building you don't need.

Actually all public buildings larger than 1,000 m² are labeled with the Energy-Performance-Certificate (EPC), a sustainable standard as defined by the Flemish Energy Agency (VEA). Relevant data for this EPC certification is available in Planon and can be used for cross-portfolio green analyses.

RECOMMENDATIONS

"Without high quality and reliable information, a project like this is not possible. Planon not only supports us in making the right choices, but also in the integration of CRE and green-related processes like contract management and planned preventative maintenance," said Luc Lebon, business development manager at PO/ City of Antwerp. Lebon also recommended that organizations:

- Collect and process the right data to identify the easiest targets for reductions
- Use The Pareto principle (80-20 rule) to focus efforts
- Implement an integrated IWMS solution that is able to supply the right information and decision support



"Planon not only supports us in making the right choices, but also in the integration of CRE and green-related processes like contract management and planned preventative maintenance," said Luc Lebon, City of Antwerp."

PLANON AT CITY OF ANTWERP

The CO₂-reduction program is only a part of the activities that are supported by the Planon Solution. The City is also using Planon to handle processes like work order management, rent- and space management (including CAD), technical assets (energy consuming assets), preventative and corrective maintenance management, contract- and supplier management, document- and budget management, and reservations.

For new sustainable projects like 'Den Bell', the city implements the Planon Smart Workplace solution to support an innovative workplace. All 8,000 city employees have web access to Planon's Self Service portal to handle all facility and real-estate-related issues. The implementation of Planon was a common effort between 'Patrimonium Onderhoud', Digipolis (IT Provider), and Planon.



The Planon Solutions

Planon, Inc.
35 Braintree Hill Park
Suite 107
Braintree, MA 02184

Phone : 781 356 0999
Fax : 781 356 0996
Support: 888.PLANON.1
E-mail : info@planonsoftware.com



www.planonsoftware.com