

# GREENER, HAPPIER, MORE PRODUCTIVE

Care for the environment in the industrial sector is not just about installing photovoltaic systems or replacing traditional lighting with LEDs but involves a whole range of activities. It's when all of them are combined that warehouses became environmentally friendly, says Panattoni's development director, Michał Samborski.

**'Eurobuild CEE': What do you do to ensure your warehouses are environmentally friendly?**

**Michał Samborski, development director, Panattoni:** Well, it's a whole bunch of things. The most important of these is that if you want your buildings to be environmentally friendly, you can't just focus on one area – you need to consider many aspects. We are now, for example, planting a wider variety of greenery, so that instead of having just lawns, there's also greenery that's tall or of medium height around our projects. Thus

areas friendly for birds and insects are created. These will be refuges for them. So that's one direction we are now taking. Another big area is using the right building materials so that we avoid any that are harmful to the environment. We don't want to choose anything based only on its effectiveness; we also want to consider its environmental impact. The next thing we are doing is following the best construction practices by complying with ecological recommendations, which also include documenting all the construction waste as well as the waste management. Another critical area is

the water retention. We want to retain as much water as we can so that we don't contribute to drying out the land. Now we are doing this everywhere. Sometimes we are just talking about building small ponds but, depending on the soil conditions and zoning, we can also build larger water reservoirs, as huge as 2,000 sqm. Sooner or later such ponds become abundant with vegetation, and various species of bird begin to nest there.

**What's your policy when it comes to the durability of the equipment fitted in your parks? Do you prefer to buy things that last longer or to replace them quite often so that they are always new?**

Obviously, the building itself has to last for many years, but some elements, such as the HVAC systems, have their own basic technological life-cycle. The point is to select the right ones and design the building in a way that such installations don't have to be thrown away after five years. This is especially true of the freezers in warehouses with cold storage. In an increasing number of facilities, we use devices that can be used for much longer and much more effectively. In short, we always want to avoid using things that get thrown out just after the warranty expires – even if there are economic reasons for buying them. For us that doesn't make sense. And besides, the life-cycles of installations is one of the aspects looked at in BREEAM evaluations.

**Are tenants actually interested in all these details? What do they even ask you about?**

There are generally two things that are of interest to our clients. One is how



*Michał Samborski, the development director of Panattoni*

much our buildings are environmentally friendly, and the other is how economical they are. Clients are interested in what generates savings for them. And savings come from anything that reduces energy and fuel consumption.

**What methods do you have for doing this?**

First of all, we update the lighting systems, and this has already become the norm in our new buildings. In fact, we have installed LED lighting in all our facilities. We are also introducing intelligent lighting control systems. The efficiency of our heating systems is constantly being improved. We are also introducing additional control and measuring systems to provide heating where it's needed and the correct temperature as required. Energy savings can also be made at the level of the building's structure itself, such as by adding greater insulation thickness. In addition, there are various ways of preventing heat loss during reloading, such as air curtains or adequately insulated gates. And here we come to the technological solutions for reducing both energy consumption and costs.

**Such as photovoltaic panels?**

Yes, that's right. Although for now those are generally provided only at the client's request. But we are continuing to look at this technology. At the moment, a few individual clients are saying that they want this – and in these cases we provide it. We are now implementing such a project for a client in Bydgoszcz. For another, who has commissioned several tailored buildings from us, we are preparing a building for the installation of such panels. It's not a question of if, but of when we will be doing this on a larger scale. This is something we are thinking about very much and have already implemented in a few projects.

**Why are photovoltaics not fitted as standard in Panattoni's warehouses?**

You have to bear in mind that this is still a relatively costly investment, even though it pays off well into the future. That's why we are closely monitoring the increase in the ratio of the costs required to invest in this



*Flower-filled meadows at City Logistics Łódź 1*

to the amount and price of energy it produces. But the trend is clear. Energy is very unlikely to get any cheaper, whereas the price of photovoltaic cells will drop. The profitability of such investment will then increase. In addition to photovoltaic panels, we have another solution that we have been employing for many years – solar panels that use the energy of the sun to heat buildings. Over the many years we have been using this technology it has proven to be effective. And that's the whole point. All the main environment friendly solutions are in fact mostly about saving energy: energy for transport, for fuel, for heating, for lighting and so on, which at the same time is all good for the environment.

**Let's talk about the situation on the market for a while. Panattoni enjoyed a record first half of the year in 2020. But there is the expectation that in the second half of the year the industrial market will also be impacted by the economic slowdown. So isn't Covid eventually going to take its toll on you?**

I would probably agree that there's going to be a slowdown in the global economy. But will there be a slowdown in our industry? I'd beg to differ. At the moment tenants are constantly expanding their warehouse stock. There have been regular disruptions to supply chains as a number of them have collapsed; but the era is over where we expect to wait a while for

more to be delivered if we have no reserve stock. And although the market is strong, companies have been on the brink of such a situation across Europe, and so some stocking up is needed, which will boost the market further. We can also see that some companies are starting to turn their faces back towards Europe to maybe bring their production back closer to the consumer. These are not big bets for sure, but ten small instances is also not without significance. But let's even assume that there is a crisis, and that Western European companies start looking for cost optimisation. That would mean transferring part of their activity to cheaper countries. And what that will actually lead to is the ordering of a production facility in Poland, 120 km from Berlin.

**Are you getting such orders now?**

Yes, of course. That's why the area close to the German border is developing so well. Panattoni Park Gorzów Wielkopolski, Panattoni Park Szczecin I and Panattoni Park Szczecin II are just a few recent examples of this. The operations that take place there are to serve both Western markets and Poland. So the prospect of the economy slowing down somewhere does not mean necessarily that our industrial sector will be worse off due to it. It may even turn out that for us the Western European slowdown will give us added fuel for growth – and not only for our industry but also the entire economy. ■

# A CERTIFIED PHENOMENON



*If you had to pick just one reason why Panattoni deserves the title of leader of sustainable warehousing in Poland, it would be the sheer number of its BREEAM 'Very Good' certified projects. This is now the standard in each of the very many facilities it develops.*

*The outdoor relaxation zone at City Logistics Łódź I*

**P**anattoni, which is responsible for around half of the Polish warehouse volume added to the market each year (in 2019, the company completed around 1.5 mln sqm out of the market total of 2.72 mln sqm), has since the beginning of 2020 been ensuring that all of its new developments are BREEAM certified at the 'Very Good' level. As a result, at least 50 pct of the warehousing space currently under development in Poland will comply with this standard. "We provide it both to those tenants who have embraced sustainability in their corporate policy as well as those who haven't gone that far. Therefore all of Panattoni's warehouses will feature this as standard – and for no extra charge," says Emilia Dębowska, the senior marketing and sustainability manager at Panattoni.

## Meeting clients' expectations

There are basically two reasons why tenants choose sustainable warehouses: the financial savings these buildings offer when it comes to energy and water bills, along with their reduced impact on the environment – an aspect that many companies these days are particularly keen on. In order to meet both of these expectations and to emphasise its own sustainable approach, Panattoni launched its Go Earthwise with Panattoni environmental policy at the beginning of the year. According to the developer, by adopting this approach to warehouse design, construction and management, energy consumption can be reduced by 50 pct.

Go Earthwise with Panattoni involves energy simulations at an early design stage. These allow the best building materials and other

measures to be adopted for reaching the highest levels of energy efficiency and sustainability. This measure is complemented by the building automation systems that feature in all Panattoni parks. Smart metering is also commonly used, along with heat recovery from technical equipment and heat recuperation in the ventilation systems, which enable up to 80 pct of the heat thus generated to be recovered and reused. Such solutions have been implemented in such facilities as those for DB Schenker in Nowa Wieś Wrocławska, BTS Phoenix Contact E-Mobility GmbH in Rzeszów, a smart factory for GE Energy Management in Bielsko-Biała, as well as in buildings Panattoni has constructed for Amazon. The LED lighting in many projects is now automated, which makes it possible to adjust the lighting intensity depending on the level

of natural light from the windows and skylights, as has been done in the BTS project for Castorama in Stryków as well as Panattoni Park Sosnowiec II and Panattoni Park Gdańsk III. For some projects, the developer also installs solar collectors on the roofs for heating the water in the office sections, along with other photovoltaic installations. Such a system is being installed in Panattoni Park Bydgoszcz III, but for now photovoltaic systems are only provided at the individual request of Panattoni's clients.

### Ahead of its time

Panattoni has been developing buildings with low heat transfer coefficients for some time now, both in terms of their external walls (in some cases as low as 0.17 W / (sqm) K and their roofs ( $U = 0,11$  W / (sqm) K). The figures go far beyond the construction norms and regulations, as well as those that will become obligatory when new EU regulations come into force in Poland on January 1st, 2021.

Panattoni is also taking measures to reduce the water consumption in its parks. These include water aerators and taps with motion sensors. The company is also investing in water monitoring systems and solenoid valves to prevent water leakages. Another important element of its environmental policy is rainwater management, which includes the irrigation of green areas and (in some facilities) sanitary installations that use rainwater. The company also minimises water usage through planting local vegetation adapted to local water conditions in the grounds of its parks, such as flower meadows instead of lawns that require intensive watering, as well as adding drainage boxes to its retention tanks, for example in City Logistics Warsaw III.

### Saving the planet

Panattoni claims that its green policy reduces CO<sub>2</sub> emissions by up to 230 tonnes per year for a facility with an area of 10,000 sqm. Early on, in the design stage of its buildings, it assesses their life-cycle costs at the element and component level, leading to improvements in design, specification, maintenance and operation throughout the life of the investment. One of the key elements is to ensure the location of the plot is well

connected with public transport, as well as having the right sub-suppliers – in this case, the developer chooses companies that comply with the ISO 14001 environmental management system. As a result, these companies follow strict conditions that define how to carry out the entire construction process responsibly and how to reduce its impact on the environment. Panattoni also uses materials with supply chain and 'chain of custody' certificates, such as FSC for wood. In addition, the amount of waste is minimised by being adequately separated during the construction and recovery work, thus achieving recycling levels

of up to 90 pct during the investment process. Among the other solutions the developer employs is to use a white roof membrane that insulates the roof from heating up by around 50 pct – for example, for H&M with LEED 'Gold' and 'Silver' certifications and all Amazon projects, which have BREEAM 'Very Good' certificates.

Another significant factor is Panattoni's ethical approach to using land, which features the use of existing land resources, while conserving ecologically active areas, creating environmentally friendly meadows with houses for invertebrates, as well as replacement planting schemes.



*Panattoni Park Cheb South*



*A beehive at City Logistics Łódź I*

### Well for well-being

Last, but by no means least, well-being has been embraced by the developer. This is an important pillar of the developer's Go Earthwise with Panattoni policy and provides valuable support tenants in terms of their human resources policies. As Panattoni points out, satisfied employees are 43 pct more productive and 86 pct more creative. Employee well-being reduces sick leave absences by 36 pct and employee rotation by up to 61 pct.

The support provided by the developer starts with the careful choice of the warehouse location. A key factor for this is the easy access to public transport, the promotion of car sharing, and the provision of electric vehicle chargers along with cycling infrastructure – such as cycle paths and shelters, showers and lockers. Other important factors include ensuring greater daylight penetration in the facilities, as well as increased acoustic insulation and the use of materials with fewer organic compounds (in line with the ISO 1600-9 standard). Water treatment wells are installed by the company – as well as roof snow sensors to ensure the safety of the people working in the building, for example, in a BTS for Leroy Merlin in Panattoni Park Janki II. The developer focuses on the green space

around the offices, together with the creation of relaxation zones with outdoor gyms. And being a good neighbour to the local community is also very important.

### BTS for higher scores

The speculative developments where all these measures are applied as standard make up the majority of Panattoni's projects, but some of the developer's BTS projects score even higher when it comes to sustainability. One eminent example is Panattoni Park Cheb South, a 27,000 sqm brownfield project built for German online retailer Real Digital in Cheb, close to the Czech Republic's German border. It has recently scored a record 90.68 pct and a rating of 'Outstanding' under the BREEAM 2016 New Construction standard. The project has been built on a former industrial site, where a factory was demolished to make way for the new construction. Around 90 pct of the materials from the former factory building were recycled. Water usage has been reduced in the centre by around 84 pct by using rainwater to flush the toilets. Other solutions include smart LED lighting, smart metering as well as external roller shutters, which limit the energy required to ventilate the facility. As a result, the centre uses around 56 pct less energy than a standard

building while its carbon footprint has been reduced to around 58 pct.

In addition to this, all the building materials were chosen with the environment and sustainable construction in mind. Over 12 pct of the construction materials possess one of the ISO 14001, BES or FSC certificates or have been verified under the Environmental Product Declaration (EPD). The park also has several well-being oriented amenities, such as an outdoor recreation area, an outdoor gym, and safe access for pedestrians and cyclists.

### Record figures

Panattoni has now certified 38 of its developments. Most of these, 27 in fact, obtained their certificates before the company adopted more stringent standards for its new development projects and so hold BREEAM 'Good' certificates. The other eleven have achieved 'Very Good' ratings under the system, while there are also two with LEED certificates added to that. In total, 2 mln sqm of warehousing space has so far been certified within Panattoni's development portfolio, which amounts to more than half of all the certified warehouse space in Poland (3.8 mln sqm). Another 2 mln sqm of space developed by Panattoni's is currently undergoing green certification. ■



*Panattoni BTS Lila Benningen  
in Southern Germany*