



BRIGHT FUTURE FOR NEWLY ENLIGHTENED STUDENTS

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New meetings, new ideas and new light. Blåsenhus, the new campus built for Uppsala University, is not only an incredible architectural masterpiece and a new meeting point for students and teachers; it also spreads the knowledge of light, helped by intelligent lighting systems from Helvar, whose overall solutions offer energy-efficiency, flexibility and user-friendliness. They also make good financial and environmental sense.

Uppsala students may now be the most enlightened in the whole Nordic region. This is because one of the oldest Nordic student cities is now vibrating with new light, and we are not talking about new spring light or new research results coming to light. It is because Blåsenhus, the new university campus, located in the centre of Uppsala near to the castle and the botanical gardens, has finally opened its doors.

The campus is huge, with room for 40,000 students and 400 employees. It is 25,000 m², with plenty of room for classrooms, corridors, restaurants and a cafe area, as well as an ultra-modern media centre, offices and Uppsala's largest fitness centre, measuring 3,000 m². This extensive new development

was managed by Akademiska Hus, with smart lighting solutions being creatively integrated into the various campus areas. New collaborations, energy savings and flexibility were the guiding principles.

“Blåsenhus is a future-oriented, world-class centre of knowledge which will now take the university’s 350 years of learning into a bright, exciting future,” says Anders Öhrn, the Project Manager at Akademiska Hus, who has been involved in the project since 2005.

He continues: “Bringing all the departments for learning and psychology into one large and modern campus area provides the perfect breeding ground for new collaborations between different areas of study, which will hopefully give birth to new ideas. Before this, all the units were spread throughout Uppsala, which split up activities and led to more travel time for students and professors, as well as major energy losses.”

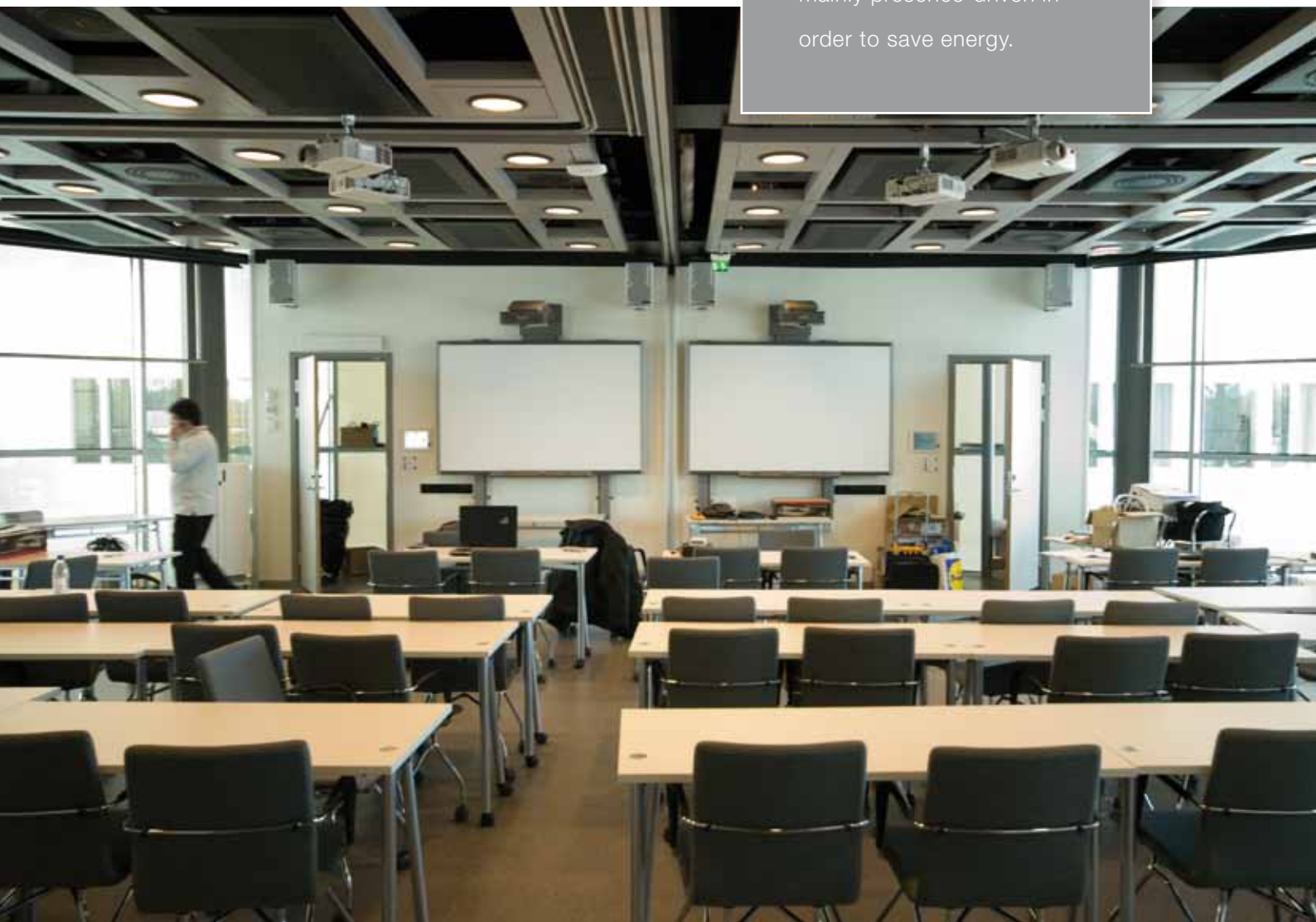
ENERGY EFFICIENCY AND FLEXIBILITY IN FOCUS

All of the buildings have therefore been designed with a special focus on optimum energy efficiency. This has placed high requirements on lightning not only to be user-friendly and flexible, but also to save on the University’s total energy bill. This will therefore contribute to a better environment as well.

Helvar’s overall solutions have not only shown potential for major savings, but can also be adapted to the changing needs of the campus area. This is why Helvar was commissioned by Elkonsult AB for the project. “Our main aim during the project was to save energy,” says Björn Bergqvist from Uppsala Elkonsult AB. “As well as saving energy, we have a flexible system that is easy to change in the future when we face new lighting needs.”

Helvar’s installation was an overall solution adapted not only to the needs of lighting in small local systems, such as small classrooms, offices and smaller corridor sections, but also to lighting in a network-attached system for public areas, a modern media centre, library, restaurant and a brand new fitness centre. In both cases the DALI protocol was used to fully meet all of the different needs. ▶

In the media centre and the lecture theatres, the lighting is integrated with the audio visual system. The lighting system for the building is mainly presence-driven in order to save energy.



“Research reports have shown a strong link between lighting and learning, something that we had in the back of our minds when we were commissioned to light one of Sweden’s oldest university areas,” says Lars Wilsson, the CEO of Helvar AB. “Although varied lighting and well-planned lighting solutions increase job satisfaction and the capacity for learning, they can also increase energy use, which is something we had to take into consideration in this project.”

“We have constantly invested in energy optimisation through presence sensors. Another function that has been adapted to meet their specific needs is daylight regulation, which can reduce the intensity of the light depending on how much daylight there is. The lights for whiteboards can be switched on and off when needed without affecting the other lighting in the rooms.”

AKADEMISKA HUS IS HAPPY

Lights are switched on and off automatically using Helvar’s Multisensors. Lighting in offices can be dimmed to an individual level using Switch-Control linked to Helvar’s DALI EL-si ballasts. Ventilation has also been integrated into the lighting system to further optimise the environment in the rooms, by allowing the flow of air to be circulated when the rooms are occupied.

A more general system was needed for public areas, such as the entrance hall, lecture rooms, library, rest areas and restaurants. Helvar’s DIGIDIM 910 Routers were therefore chosen. They include all the benefits of DALI; and are energy-efficient without compromising on the quality of the light. They also make it possible to provide architectural lighting that brings out the features and ambiance of different parts of the building, at different times and for different activities. This is something Akademiska Hus is pleased about.

“We are all extremely happy with how the lighting solutions work in practice – it is just fantastic,” continues Anders Öhrn, the Project Manager at Akademiska Hus. “The campus is a bustling environment throughout the day, so it is important to have dynamic lighting. Students don’t go home after they have finished their classes, but prefer to remain in the premises even during the evening to study, hang out, have a coffee and talk with fellow students.”

STUDENTS HAPPY IN THE LIGHT

The building has been designed in an L shape (L for learning), where full study activities take place. Johan Andersson is one of the thousands of knowledge-hungry students in Uppsala. He is studying at the Teacher Train-



ing College and appreciates the new light. "Lighting is incredibly important for all our learning; if a lamp is flashing on and off, it can ruin a whole lecture. We now have mood lighting in cafes and restaurants and the lights in our classrooms automatically turn off when no-one is in them. This is definitely something we support, as this kind of lighting has been proven to save energy and also contributes to a sustainable future society."

SEVERAL SCHOOLS SHOULD BE INSPIRED

As well as lighting, 500 air-intake devices have been installed with variable flows to ensure a good indoor climate. The ceiling is also a green environmentally-friendly roof covered with different kinds of moss. There is also a large indoor sports and fitness centre connected to Blåsenhus, with 3,000 square metres full of people exercising, which is also controlled using Helvar DIGIDIM 910 Routers. "I came to the Blåsenhus area just yesterday and was positively surprised," continues Anders Öhrn, Project Manager at Akademiska Hus. "The presence sensors worked incredibly well, with life and light filling the whole area. All of the energy-saving functions combined with the flexible system guarantee a bright future for Uppsala's enlightened students. This is something more schools should consider." ■

Large windows allow daylight to enter the building. Constant light sensors regulate the lighting depending on the daylight to create energy savings and increase the lamp lifetime.

