

N° 28

# SAUTER FACTS

The magazine for SAUTER customers

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Taking a closer look at the practical feasibility of building life cycles

## **SAUTER modu521**

Ideal for small to medium-sized HVAC installations

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## Dear Readers

**Being able to see the big picture is an extremely valuable skill. This also applies to the cost effectiveness and energy efficiency of buildings. If you only have your eye on the investment costs or carbon footprint, you will miss a lot of opportunities. But how can we achieve this comprehensive view without overlooking the important details?**

Optimizing the cost effectiveness or energy efficiency of buildings requires more than taking a snapshot of selected indicators. Rather, what is needed is the ability to make as holistic a report as possible on the overall performance of a building – at all times. Along with economic and ecological criteria, the social dimension should also be considered here, e.g. the quality of the room air or light.

At the start of September, the SAUTER head office in Basel won the local IVB KMU Award in the “Efficiency” category. SAUTER employs renewable energy sources to generate energy in its own building and uses its own building automation systems to enhance the energy flows. The multifunctional building has different climate zones, as it comprises offices, conference rooms, production halls, warehouses and logistics. The CO<sub>2</sub> emissions were reduced by around 20 per cent by optimizing the heating system with groundwater usage and a heat pump.

As you will find out in the extremely interesting interview with Prof. Henning Balck in this issue of SAUTER Facts, building technology and automation play a key role here because they create a reliable basis on which to compare comprehensive snapshots with long-term results and relevant benchmarks, placing us in a position to learn. Thus, our intelligent, continually developing systems enable ongoing optimization of energy efficiency and costs.

However, SAUTER goes far beyond components and systems. When continuous improvement is the goal, our services also play a central role, not least in the facility management area. As our successful campaign at Deka Immobilien impressively illustrates (from p. 20), superior integration of building and engineering work is becoming increasingly vital. This is why we at SAUTER have been focusing on the closest possible integration of products and services for years – from customer service to complex facility management, based on seamless quality management.

What does this mean for SAUTER? Most important for us is that we have the expertise to support our customers and partners with integrated solutions during their properties’ entire life cycle. No matter what task we are performing, we never lose sight of the big picture. Whether during the planning in the draft stage, on the building site or during operation, we want to permanently optimize all aspects of the building’s performance – while keeping its entire operating life cycle in mind.

Seeing ourselves as an all-around service provider has undoubtedly made our company so successful. The reports in this issue of SAUTER Facts show how much our customers and partners appreciate this quality.

I wish you an insightful read.

Yours, Bertram Schmitz, CEO

# “Building automation and room automation – a key to optimising the utilisation and operating processes”



Interview with Prof. Henning Balck, CEO, Balck + Partner Consulting Group, Germany.

## LCC-Factor.

Life Cycle Cost-Factor =

In collaboration with industry partners in ongoing research projects, Prof. Henning Balck and his teams test the practical feasibility of life-cycle-oriented concepts and procedure models for sustainable building planning and management. In an interview with SAUTER Facts he explains opportunities and development options for automation.

**SAUTER wants to use its solutions to increase energy efficiency and ensure the sustainability of the environments of the future. How relevant is this mission today?**

On the one hand, energy efficiency is relevant from a business point of view. But, above all, it is the most important factor for reducing CO<sub>2</sub> emissions. However, the sustainability of buildings is not measured by its carbon footprint alone. Also important is the social component, i.e. the benefits for people. This includes, for example, the quality of the room air or lighting. Building automation supports all of this and, furthermore, can increase the economic sustainability. Building automation is a key to decreasing operating costs by recording and visualising energy

consumption and operating times, and making it possible to regulate and control installation output according to needs.

**Your Life Cycle Benchmarking approach gives the life cycle costs a key position in the planning, procurement and provision of services. Can you explain this methodology?**

The life cycle costs are the total of investment costs and follow-on costs for structures, technical installations or other building components. Life Cycle Benchmarking puts the life cycle costs in proportion, from an installation or component perspective, and shows the investment-dependent follow-on costs over selected time periods – over 20, 30 years or even longer. LifeCycle Benchmarks therefore provide information about the efficiency of the planned or completed objects – about both their energy efficiency and their service efficiency.

**In what context was this life cycle cost model developed?**

We developed this approach using comprehensive software data from maintenance

and building automation in a research project with renowned industrial partners such as Fraport and Audi. The knowledge we gathered enabled us to examine installations in a new light, and to reduce operating costs using specific measures. Building automation supplied important operating data for this. It also enabled the operating processes to be improved, e.g. the step from 24-hour operation of installations to demand-oriented operation.

**Your concept differentiates between ‘strategic components’ and the ‘operating’ and ‘maintenance’ processes. What did you find lacking in conventional observation methods?**

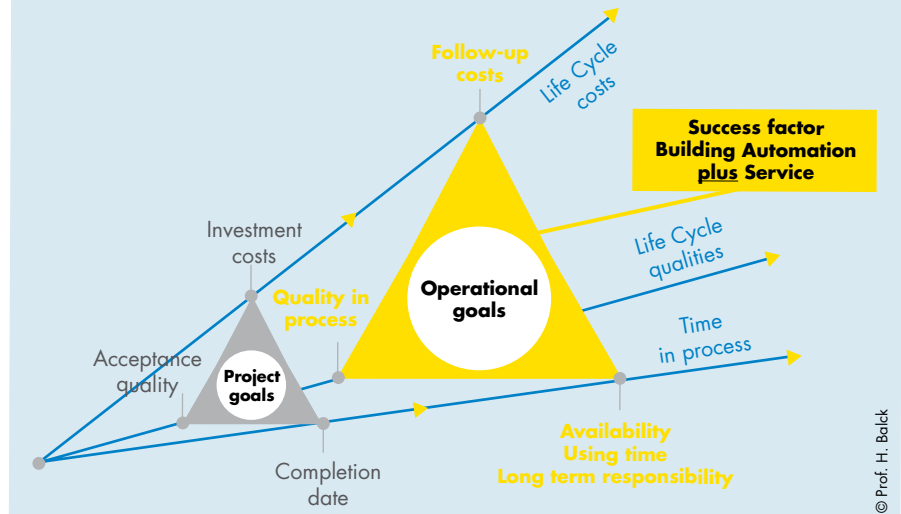
We call components that generate high follow-on costs ‘strategic components’. Based on the international standard, we differentiate between costs for operating and costs for maintenance. In the Life Cycle Benchmarking developed by us, we see units and components as life cycle objects, and evaluate in each case the relationship between investment and follow-on costs. Hence we are able to compare the energy efficiency,

Follow-up-Cost p.a.

Investment cost

© Prof. H. Balck

## Lifecycle-oriented goals and objectives from construction projects to operating and maintenance



© Prof. H. Balck

maintenance costs and replacement cycles for such objects with the data of alternative brands, and evaluate and optimise the component configurations of installations.

### What insights does this provide for green building projects and certifications?

Unfortunately, the result of the follow-on costs determined in our models is ambivalent, especially for very technical buildings. For example, while in earlier benchmarks buildings had an average investment proportion of around 25 per cent, this proportion increased to around 35 per cent in recent years for ambitious green building projects. Consistency of the methods is a challenge for us. On the one hand, energy costs are reduced by intelligent products. On the other, efficient technology can only demonstrate its full worth when it is operated correctly and maintained accordingly. The relationship between the energy saved and the often increased maintenance overhead must be a positive one.

### How can this be achieved?

Our benchmarks and optimisation approaches show that, in positive cases, using energy-efficient products leads to operating costs that more than compensate for the added costs of maintenance and replacements. Planners should therefore collaborate closely with architects, builders and operators in the planning process, and ensure a balanced configuration of technical installations, components and building components. However, this is only possible if the relationship between investment and follow-on costs is transparent. The LifeCycle Benchmarks developed by us are helpful here.

### You hold the view that the traditional professional orientation of technical service providers towards 'malfunctions' is no longer sufficient. What is required in the future?

The main goal of classic maintenance is avoiding or resolving malfunctions. Accordingly, building automation systems have, up to now, been used almost exclusively for this purpose. Active energy management has changed this, as inefficiency and

obsolescence are now also triggers for service work. A second main goal emerges: replacement at the correct time. Pursuing both of these goals in parallel results in an ongoing improvement process. This involves continuously optimising the parameters of existing plants and units, as well as their planned replacement.

### What is the significance of building automation here?

Building automation allows many adaptations to be made. The simple reprogramming of parameters such as operating times or temperature values enables many operating processes to be optimised. The historical data recorded in the building automation software is a precondition for this. The energy-related operating data contained here is particularly important.

### How do you use such historical building automation data in an actual case?

When this data is evaluated, weaknesses can be identified in processes and components during operation of an installation.

Based on this, systems can be optimised through 'surgical interventions' in a re-engineering process. In our experience, the measures required here mainly involve small investments. We take the LifeCycle Benchmarks established and concentrate on inefficient components and subsystems. Using new products allows us to reduce both maintenance and energy costs – and in many cases to finance this exclusively from current maintenance budgets.

#### **And what effect does this have on the services required?**

Benchmark-supported re-engineering changes the overall scope of the technical service. The established approach of continuous improvement becomes the second pillar, so to speak, of the technical facility service. However, re-engineering is primarily a task for engineers. It requires a stronger combination of technician work and engineer work in the operating teams. In the field of building automation in particular, linking products and services closely will thus be more and more important to success in future. The combination of customer service and facility management will be an opportunity for the providers of integrated concepts.

#### **Where do you see SAUTER's position in this development?**

From our experience of working with SAUTER in a research project, we see above all the opportunity of continuing to foster a close collaboration between the

automation business and facility services – equally along technological process chains and supported by quality management. SAUTER has a market advantage here.

#### **The life cycle approach affects not only the planning and erection of buildings, but also how they are used and operated. Is this possible with today's procedures for awarding contracts?**

In all award procedures, the life cycle approach demands considerable adaptations in the work processes and task demarcations. We see the need for change in the project management, which up to now has been almost exclusively geared towards investment costs and 'production goals'. In addition to tracking just investment costs, assessable follow-on costs must also be included. It must be clear to everyone involved in the early planning phase how these costs interact. Tools that put the focus on parallel cost drivers are helpful here – they look at both the prices and the follow-on costs of the life cycle objects. For the qualities that are defined in contracts as 'services owed', a whole range of other 'qualities of sustainability' must be added in accordance with conventional certification systems.

#### **Which qualities are particularly important with regard to sustainability?**

The 'flexibility' quality aspect, for example, is an excellent characteristic for sustainable office buildings. However, it is still difficult to evaluate this. Already in the planning phase,

performance benchmarks must be used to show how advantageous the effects of the flexibility of automation systems are when room requirements change. And these advantages must be measurable during system operation. Accordingly, certifications based on the green building model must be more differentiated. Let me sum this up for all the providers of building automation systems: The automation of the operating processes in technical installations must stand up to comparison with the rapidly progressing automation of production processes – as a recognisable contribution to real estate success.

#### **Energy efficiency and utilisation benefits often lead to increased investments in the initial stages. How can builders still be won over?**

Firstly, through a differentiated presentation of attractive follow-on costs based on the systems and components that cause them. Secondly, through quality advantages for users and operators on the level of the overall system. Finally, what is decisive, is definitive proof of reduced operating costs combined with improvements in the utilisation processes. Building automation has excellent potential to increase synergies across all equipment systems. For example, low additional costs for sunshade can lead to considerable savings, while contributing to greater flexibility and improved comfort.

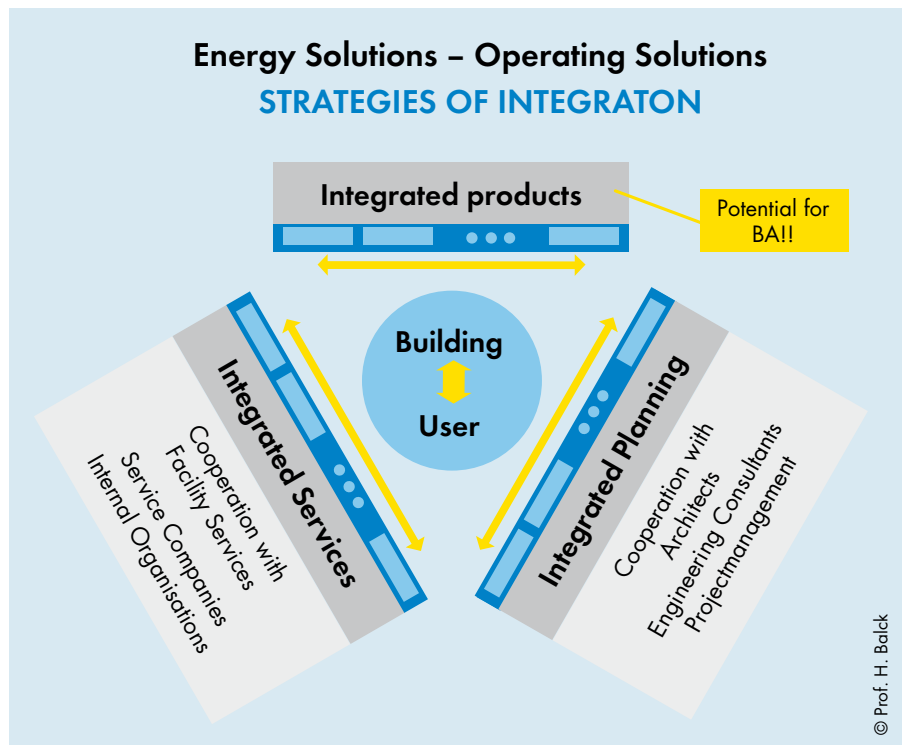
#### **What advice do you have for our read-**

Environment & sustainability

ers who want to know more about your approach?

There are many possibilities, both in optimising existing buildings and when building new ones. A basic requirement is integral planning in combination with life cycle considerations. We have had our most positive experiences with 'learning networks' when introducing new methods. Along with our research partners and customers we are currently developing a network like this for Life Cycle Benchmarking. Anyone who wants to take part in their own projects should feel free to contact us.

Prof. Balck, thank you for this interview.



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# Universal solutions with the compact SAUTER modu521

The versatile, high-performance SAUTER EY-modulo 5 family of systems is being expanded. The new modu521 automation station is particularly suitable for small to medium-sized HVAC installations in the range from 20 to 50 data points. It is also BACnet certified and freely programmable.



The SAUTER modu521 is ideally suited for implementing small to medium-sized solutions. A significant advantage of the controller is its free programming. This enables it to be operated practically without restrictions in building management systems. The compact device thus covers the entire spectrum of HVAC applications, including ventilation, heating, cooling and plumbing systems, as well as energy storage management. Like all SAUTER solutions, the modu521 also integrates alternative energy sources, such as heat pumps and solar plants.

## Wide range of applications

The modu521 is not only recommended for new buildings and modernisations, it is also perfectly suitable for migrations, such as replacing earlier SAUTER systems. The range of applications for the modu521 is practically without restrictions, being suitable for office buildings, hospitals, museums, warehouses, leisure complexes, churches, residential complexes and branch networks. With the modu521, special areas such as operating theatres, kitchens, swimming pools – to name but a few – can be catered to with lower hardware investments. Other applications such as lighting, elevators, emergency power systems, smoke and heat extraction systems, fire protection and access control can also be integrated.

## Many advantages – major benefits

The modu521 impresses with its many advantages, which in turn provide great added value. For example, thanks to its compact housing with energy-efficient multi-area power supply unit, the station is extremely easy to install. The built-in slot for a MicroSD card enables data to be recorded directly onto the device when in the stand-alone mode. The integrated web server makes the system very easy to operate for all users. It allows all information to be viewed conveniently using a standard browser, either as a graphical representation of the installations for operation with a PC and touch panel, or as diagrams of saved data values. The comprehensive web functionality also permits access from anywhere, and provides specific alarm notification by e-mail or SMS at all times.

Innovation



With its SLC interface function, the modu521 can be expanded with additional hardware functions for room automation from the SAUTER EY-modulo 5 range of systems. The ecoUnit room control units and SAUTER ecolink modules can be used for this purpose. A defined number of rooms can be regulated directly in this way. An additional interface for connecting third-party protocols enables direct integration. BACnet functionality guarantees an open protocol and high investment protection for the future.

The device therefore provides ideal conditions for stand-alone installations where there is often no management level. Here the focus is on building automation – maximising benefits and minimising energy and costs in the long term. The compact modu521 model offers high performance and functionality, while requiring very little space.



# SAUTER vialoq AVM – easy to use and highly efficient

With its new vialoq AVM 1000, SAUTER has launched a latest-generation intelligent actuator on the market. It sets new standards with regard to performance and energy efficiency.



Fully automatic actuators are used in every HVAC installation in larger buildings such as office and administration buildings, schools, cultural facilities, airports, shopping centres, stadiums, hotels, hospitals and production plants. The new SAUTER vialoq AVM actuator impresses with its high energy efficiency, great performance and easy, intuitive operation, fast fitting and short start-up time.

## Energy efficiency is the top priority

The device has a high-quality mechanical transmission system and guarantees reliable and sound operation. The transmission system has a very sturdy construction with metal components, ensuring a product life cycle which is above-average. The SAUTER vialoq AVM is manufactured in Switzerland, and so precision and safety is guaranteed. As the power consumption of the device is only 1.6 W during operation – and a mere 0.4 W in stand-by mode – it is extremely energy efficient, thus resulting in significant energy savings.

An actuator in a built-in installation is normally 80% in stand-by mode and just 20% in operation. Therefore, when the vialoq AVM range from SAUTER was being developed, a major emphasis was put on very low energy consumption. The device therefore combines minimum energy consumption and maximum resource efficiency, ensuring operating and installation costs are kept right down.

## Patented actuator/valve coupling

The SAUTER vialoq AVM actuator also features patented automatic valve coupling, allowing the actuator to be started up with a simple click. This enables a fast start and exact positioning. With an insertable electric plug module, the electrical connections for the device can be made before it is installed. The electrical installation work is therefore quick and straight forward, without the fitter being unduly hindered. Afterwards, the electric plug module is simply inserted back into the actuator.



Thanks to its optimised gear geometry, the vialoq AVM is exceptionally quiet and does not disturb anyone nearby during operation. The device also has an absolute distance measurement system with built-in movement detection. This means that, after a power failure, it is not necessary to re-initialise the actuator as the exact position is detected immediately by the absolute distance measurement system. Dip switches on the device allow parameters to be changed extremely easily – providing maximum flexibility.

In summary, the vialoq AVM impresses with three main advantages: its efficient operation, sturdy construction and easy fitting.

# A new lease of life for "Bau 65"



An industrial building in Basel earmarked for total refurbishment now meets the latest requirements thanks to its energy-efficient building management system. SAUTER's commitment and tried-and-tested novaPro building management system made a contribution to this successful outcome.

Creating attractive workplaces and protecting the environment are among the key sustainability goals for forward-looking companies. The aim of saving energy, reducing CO<sub>2</sub> emissions and maintaining operational reliability leads to many older buildings being replaced by new ones.

Hoffmann-La Roche, a Swiss multinational pharmaceutical concern, is also currently modernising its headquarters in Basel. Therefore, Bau 65, one of the oldest laboratories on the site, was scheduled for modernisation while it was being converted.

## **Making ecological and financial sense**

Medical, biological, chemical and pharmaceutical buildings, with their complex room air technology and building automation systems, consume enormous amounts of energy. Experience shows that their energy requirement can be up to ten times higher than that of residential and office buildings. It is not unusual for older buildings to have even higher energy consumption.

The modernisation of an existing building often makes more ecological and financial sense than building a new one. In this particular case, there was never any talk of demolition. It quickly became obvious that the good structure would make a total refurbishment very worthwhile. This was due not least to the high-quality maintenance that Roche provides for its buildings, both inside and outside.

With its well-established automation products and management systems, SAUTER had already made a contribution to energy optimisation in other Roche projects. For the modernisation of Bau 65, the experienced local project team was equally able to bring its experience to bear in getting the building automation up to the latest technological standard.

## **Gentle modernisation during ongoing operation**

After a comprehensive analysis of the HVAC technology, the building automation and electrical installations affected, the builder decided on a gentle modernisation of the out-of-date equipment systems. The particular challenge for SAUTER was to make the adjustments while operation continued and with the existing structure.

One of Roche's goals in the project was to save energy and reduce CO<sub>2</sub> emissions. The modernisation measures were also intended to increase operational reliability and improve monitoring of the existing systems, while bringing these into line with the newly installed equipment systems.

The old pneumatic volume regulator in the existing laboratories was modernised and extended directly with the current SAUTER EY-modulo 5 system. At the same time, the local SAUTER team coordinated the renovation of the electrical installations and switching equipment combinations that affected the building automation.



### **Everything taken care of by novaPro Open**

With a building automation system based on state-of-the-art technology, this modern solution from SAUTER gives Bau 65 a new lease of life. The operation, monitoring and maintenance of the systems is simplified by the SAUTER novaPro Open building management software and the continuous communication with the automation stations. Even the non-BACnet/IP-compatible ASi bus fire dampers are connected directly to the building management system via an interface.

Thanks to SAUTER's commitment and its proven solutions, it was possible to implement cutting-edge system functions in just 13 months and without any major disturbance to the building's operation. The outcome was a modernised, energy-efficient and future-proof old building.





In the newly opened Berlin hostel “The Cat’s Pajamas”, exciting encounters happen on a daily basis. This is no surprise, as it’s located in the trendy Kreuzkölln area – effectively the intersection of the Kreuzberg and Neukölln districts. Here you will find urbanity alongside green courtyards. And in the hostel’s comfortable shared rooms, globetrotters from the widest variety of countries find a place to stay together.

#### **An unconventional path to greater efficiency**

“The Cat’s Pajamas” wants to be different, offering its guests not only accommodation, but an incomparable experience. Whether in shared or single rooms, the hostel distinguishes itself with unconventional ideas and a high level of comfort. The hostel has been known to take the old door of a room and give it a new lease of life as the headboard of a bed.

“The Cat’s Pajamas” also aimed to break new ground in the building automation area. The fact that the core of the building was completely removed before the renovation provided many opportunities here. The main goal of the building’s operators was to keep energy consumption as low as possible, and to achieve a high level of energy efficiency in the building through intelligent controlling and consistent monitoring.

#### **Combining tried-and-tested technologies**

As energy consumption in empty rooms is a significant cost driver in the hotel sector, connecting the intelligent unitary control with the hotel booking software enabled major savings potential. After a thorough evaluation, the SAUTER EY-modulo 5 family of systems was chosen. Its ability to interface with third-party systems and its consistent support of BACnet made it optimally suitable to combine all the equipment systems of the hostel, including the intelligent unitary control and the booking software, into a single system. A total of 519 hardware and software data points are mapped in this system. For example, a gas cogeneration unit (CHP) was installed, generating heat and electricity. The goal is to meet the building’s power consumption requirements with the electricity created. A second goal is to cover the hostel’s heat requirement primarily by means of the

# Energy-efficient accommodation in the heart of Berlin

The German capital is known for its diversity, attracting visitors from all over the world. A modern hostel in the heart of Berlin is making a big impression with its stylish décor and innovative building automation that works hand in hand with the booking software.

heat pump, with the gas heater only being used at peak times. Using the SAUTER moduWeb Vision visualisation software, the operators of "The Cat's Pajamas" can monitor the interaction of the gas CHP, the gas heater and the hot water storage tank at all times on a tablet PC, with this web-based application.

## A room with a view of the future

With every room booking, the hotel booking software sends a report to the building management system. The system switches the room from stand-by to occupancy at the appropriate time. In stand-by mode, the room temperature is constantly kept under the current setpoint. This results in optimal configuration of the operating times for the ventilation and heating in every one of the bedrooms.

When the room is occupied, the guest can also use the presence button to manually adjust the operating mode of the SAUTER ecoUnit intelligent unitary controller. A multicoloured LED indicator informs the guests about the local energy consumption, thus encouraging energy-conscious behaviour.

## Sustainable hospitality

Half a year after its opening, "The Cat's Pajamas" is already enjoying great popularity, receiving top marks from its guests in online ratings. The beneficial combination of the booking software and the intelligent unitary control has also proven itself very well. The finely-tuned interaction demonstrates impressively that comfort and energy efficiency are not mutually exclusive.

### SAUTER components used:

- SAUTER moduWeb Vision: BACnet/IP web server and visualisation
- SAUTER modu525: modular automation station
- SAUTER ecos500: room automation stations
- SAUTER ecoUnit341: room control units
- Various communication modules, actuators and temperature sensors





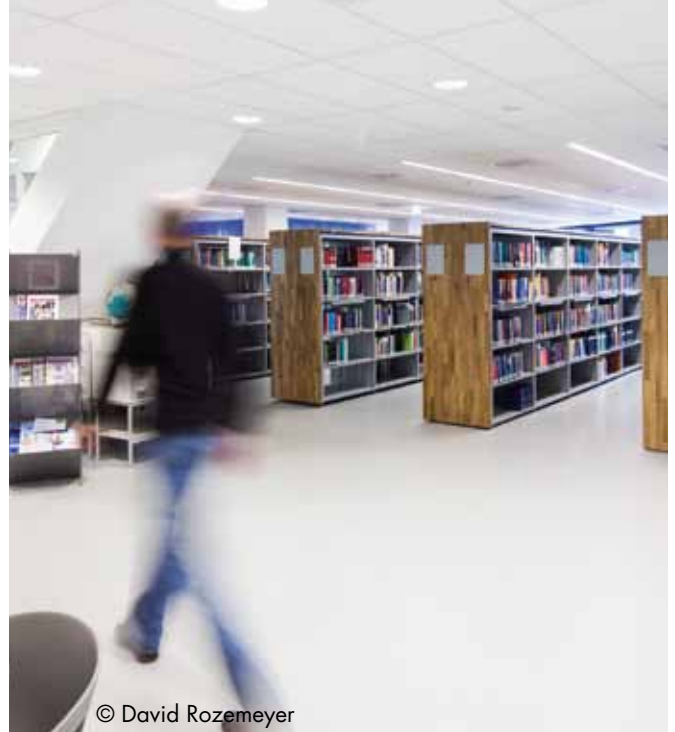
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# Integrated room automation in the new Palace of Justice, Amsterdam

SAUTER equipped the Palace of Justice in Amsterdam, opening in April 2013, with a system for integrated room automation. The system controls the room climate through heating, cooling and ventilation. It also provides daylight-dependent lighting control by automatically registering room occupancy.







© David Rozemeyer

Because the existing historical building was bursting at the seams, a new building was built for the Palace of Justice in Amsterdam. The new building was to be timeless, and designed so that it could be used for generations to come. Maximum flexibility of room division and very low energy consumption were called for. Heat from water supplied by a heat pump is used to provide energy. The Palace of Justice was certified with the "Environmental Assessment Method" by the Building Research Establishment organisation (BREEAM).

From June 2011 to December 2012, SAUTER planned and set up the automation systems. One of the challenges involved was integrating the DALI (digital addressable lighting interface) control protocol into the automation process on site. DALI lamps and multiple sensors record room occupancy and brightness. The key reason for the contract being awarded to SAUTER was that the SAUTER solution is based on the open BACnet/IP standard IEC16484, allowing DALI to be integrated throughout.

### Unique bidirectional technology

For the building and room automation SAUTER turned to the EY-modulo 5 family of systems. The modu525 automation station was used for the building automation system while an ecos 5 with EnOcean wireless technology handles the room automation. SAUTER novaPro Open was chosen as the building management system for monitoring and controlling the entire installation.

What makes the SAUTER wireless room operating unit – an ecoUnit 1 – in the Palace so special is its unique bidirectional technology. It uses the international EnOcean standard when transmitting data to the room automation station, and vice versa. The room temperature and operations are sent from the room control unit to the room automation station. Conversely, users can read at any time the target room temperature and information about the heating and cooling on the room unit's display. Users therefore have more information which contributes to the energy optimisation of the rooms. The integrated solar panel harvests the energy, ensuring that neither cables nor batteries are required.

### A flexible solution for flexible room utilisation

Integrated room automation from SAUTER provides full flexibility for all room functions. The technology is based on single room segments. This means rooms can be individually configured and do not need rewiring or reprogramming each time the room division is changed. ecos 5 room automation is therefore an intelligent solution for intelligent rooms.

### Facts & figures

The architecturally impressive building stands on IJDock, the 60 × 180 m artificial peninsula. Around 700 staff of the court and the public prosecutor's office work in the new Palace of Justice. The building is divided into two wings, with a total area of 34 000 m<sup>2</sup> on eleven storeys. One wing contains 19 courtrooms and 26 cells, and the other contains offices and meeting rooms. The floors and walls of the courtrooms are lined with Italian marble.

SAUTER highlights

# Complete solution from a single source for new innovation centres

In 2012, specialty chemicals company Evonik started building two new buildings for research and development at its production site in Essen. It was important to avoid unnecessary interfaces and risks. More than 30 years' experience in the laboratory and clean room ventilation sector recommended SAUTER as the provider of the complete solution in this project.



Reliability and safety play an important role in a building that is dedicated to innovation. Researchers and product developers need to be able to focus their attention on the challenges of their work – and not have to be concerned with the reliability and optimal operation of their workplace.

## Two new research centres for Evonik

Evonik Industries AG is one of the biggest companies for specialty chemicals and employs more than 30 000 people worldwide. To consolidate its R&D, the company built two innovation centres at its production site in Essen: one for new, environmentally friendly materials to be used in the varnish and paint industry, and a second for innovative and sustainable products in the cosmetics industry.

The two new buildings comprise laboratories and office space with a total area of around 5 000 m<sup>2</sup> each on five storeys. The new buildings provide workplaces for more than 180 people. Evonik invested 31 million euro in the new research centres, which were built to ecological standards.

## Complete solution from SAUTER

It was a particular priority, for the planners and operators, to keep to a minimum the planning and co-ordination work between the suppliers

involved. In contrast to providers from the ventilation sector, SAUTER was able to offer a holistic solution that came from a single source, from the fume cupboard all the way to the management level.

In the new research centres, the tried-and-tested products and technologies of the SAUTER EY-modulo 5 system family automate all 60 laboratories and 300 fume cupboards. A total of 3800 data points are connected to EY-modulo 5. The solution is based on the ecos500 laboratory automation station and comprises numerous SAUTER components. These include the ASV115 VAV compact controller, the SVU100 air-flow transducer and the FCCP100 function indicator.

## A single configuration for all laboratories

The configuration of the laboratories is repeated throughout the building in order to achieve scale effects in the installation and maintenance. It was possible to wire the field devices so much faster and error free, and pre-assembly enabled the installation costs to be reduced. Because, with regard to the building management system, the rooms differ only in the number of fume cupboards.

On the management level, the novaPro Open building management software monitors and controls all the components



incorporated via BACnet. In the fume cupboards, for example, standardised safety functions were used to control and monitor the return air. These functions were created with the SAUTER CASE Plant Solution.

#### **Two standard applications in the entire building**

On the room level, the SAUTER ecos500 BACnet laboratory automation station takes over the regulation of the room temperature and controls the reheater and time-controlled decrease of the air change. It also balances the volume of the supply and return air, depending on the fume cupboards, and reduces the air change in the room in setback mode. Additionally, the night setback mode of the respective fume cupboards can be defined individually according to the time programme.

On the lowest level, the laboratory automation station monitors the volume flow in the fume cupboards. In this way, it prevents the discharge of pollutants from the fume cupboard and ensures safe working conditions. The measurement of the volume flow is performed with a SAUTER air-flow transducer and is transferred to the EY-modulo 5 ecos room automation station. Even for special applications with high thermal loads, the temperature can be monitored and the volume flow increased accordingly. The notification and setpoints for

the VAV controller are also carried out in the automation stations. The optical and acoustic indication is performed locally at each fume cupboard using the SAUTER fume cupboard control unit.

#### **Efficient thanks to many years of experience**

With more than 30 years' experience in the planning and implementation of pharmaceutical and laboratory installations, SAUTER was able to make a key contribution to the high degree of efficiency in the building and operation of the ambitious new Evonik innovation centres. The comprehensive SAUTER portfolio in the laboratory and clean-room ventilation sector is synonymous with forward-looking solutions and high energy efficiency, as well as intelligent controlling, ingenious functions, easy operation and absolute reliability.

# “Quality, good collaboration and fairness are paramount.”

SAUTER Facts talks to Ralf M. Jung, Project Manager for Real Estate Management of Deka Immobilien GmbH, about strategies and key figures in service provider controlling.



**Deka Immobilien GmbH manages 235 properties in the largest open real estate fund in Germany. Could you tell us about what your work involves?**

I report directly to the responsible CEO for worldwide real estate management. We not only manage the properties in our largest fund, Deka

Real Estate Europe, but also those of all the other real estate funds in the Deka Group. All told, that's more than 450 properties in 23 countries. As a result, I have a wide range of tasks, and a lot of variety. My main responsibilities involve carrying out special tasks such as process optimisation along the entire value-added chain, setting up archives or working out technical concepts. However, I am also very involved in projects, for example in our tender specifications for electricity, elevators or facility management services. For all activities the main emphasis is on improving the quality and the cost structures and achieving the highest possible level of standardisation, in order to reduce the workload on my colleagues.

**Last year, you restructured the facility management for a large proportion of your buildings. What service provider strategy do you pursue at Deka Immobilien?**

For Deka Immobilien, quality is a central criterion for all tender specifications. For example, a service in the regions in which our funds own properties should always be awarded to at least two contract partners. In this way, we want to maintain a certain competitiveness. However, good

collaboration and treating our contract partners fairly are also very important to us. We show this by having longer contract periods. Therefore, the contract parties can adjust to each other and collaborate successfully for a long time. On the other hand, we try to incorporate all the parties involved for topics relating to processes, so that everyone can participate in the optimisation. We want to create a win-win situation for all partners along the entire value added chain.

**At the start of the year, SAUTER took over the facility management for 30 properties of Deka Immobilien. What criteria were in the foreground for you when you made this decision?**

With the awarding strategy described above, it was clear that we always required at least two service providers per region. Of course, the decisive criteria were the quality of the service, but also the award price – only in this way can we create added value for our tenants. It was also important for us that the price would not cause the service quality to suffer. Therefore, the award did not go to the cheapest bidder, but to the most economical in terms of the high quality and service specifications. In this way, we want to ensure that our properties are placed in the right hands.

**What role do service level agreements (SLA) play in the service provider controlling in your company, and what do you pay particular attention to when formulating such SLAs?**

Of course, service level agreements play an important role in controlling external service providers, not least because of the regulatory

Benrather Karree, Düsseldorf



requirements for outsourcing controlling. However, the commensurability must be considered for both the scope and the content of the service level. In implementing the SLAs, our service provider controlling team has found that less is often more, as the evaluation and monitoring of many SLAs also ties up a lot of resources. Therefore, restraint should be exercised with SLAs. However, those few SLAs that one agrees on should then be measured and applied consistently. Ultimately, it helps neither contract partner if the SLA becomes an end in itself and the actual provision of the services drifts into the background.

**The information basis is most important for the optimisation of real estate performance. Which key figures are the 'right ones', and what conditions do they have to fulfil?**

Of course, real estate performance mainly depends on the location, infrastructure, condition, tenancy situation and, increasingly, the sustainability of the property. After the first key figures are already checked when the property is being purchased, our task is to market the property, that is, to let and manage it. Therefore, the tenancy quota is one of our decisive key figures, as it provides information about the success of our

letting, for both new and renewed leases. Another main key figure is tenant satisfaction, which has been surveyed since 2011. This reflects how satisfied customers feel in our properties. Of course, this key figure is also strongly influenced by the people who look after the needs of our tenants on a daily basis. Finally, the operating costs, the so-called "second rent", are decisive. As the total costs are relevant for the tenant, we also attempt to reduce these continuously.

**Ralf M. Jung**

Born 1964, banker, Bachelor Professional of Banking, Degree in Business Administration. 1999 joined the DekaBank Group as in-house consultant in the group organisation. Since 2006 organiser and project manager in real estate management of Deka Immobilien GmbH.

*SAUTER Facility Management is offered mainly in the German-speaking markets.*

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