

SAUTER FACTS

The magazine for SAUTER customers

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Dear Readers,

Whether we're talking about a high-security laboratory, a skyscraper or your own home – the world of energy-efficient buildings is extremely multifaceted and is growing continuously. Software is increasingly important for investigating new options for optimisation and verifying what has been achieved.

Passive houses are generating a lot of interest, and not only in the specialist sector. The world's first positive energy office building is located in Dijon (France). While the Elithis Tower built in 2009 has already been marvelled at by around 10 000 visitors from all over the world, it is primarily a modern office building. It is a much-admired model project, built at standard cost.

Even as you're reading my editorial, numerous other passive houses are being built all over the world on the basis of the latest certification standards. What they all have in common is the ambitious and formidable idea of saving energy. Thanks to many innovations in the hardware technology and above all in the software technology of the building management sector, the world of energy-efficient buildings has made enormous progress.

SAUTER was very quick off the mark in recognising the opportunities offered by energy-efficient buildings for people, the economy and the environment. Today, we occupy a leading position as a provider of building automation solutions for green buildings. Our innovative technology and well-founded experience in this field are important elements of our success. However, above all they show us and our customers that yet more is possible.

A very special project that combines the state-of-the-art and the future in an exciting way is the NuOffice in Munich. This office building is a showpiece of the EU research programme DIRECTION, and meets the requirements of the LEED platinum certification. With the aid of the NuOffice, researchers at the Fraunhofer Institute are now using the SAUTER energy management system (EMS) to turn their ideas for the energy-efficient building of the future into practice.

Indeed, software solutions play an increasingly important role for our customers. With our software solutions, the energy efficiency that we promise our customers can be substantiated by actual figures on a screen, be it on the representative Green Building Monitor in the lobby, in the office of the building management company, or on the Facility Manager's smartphone.

So, whether you're reading SAUTER Facts on paper, on the Web or with your tablet, I hope you gain many unexpected and illuminating insights.

Yours, Bertram Schmitz, CEO

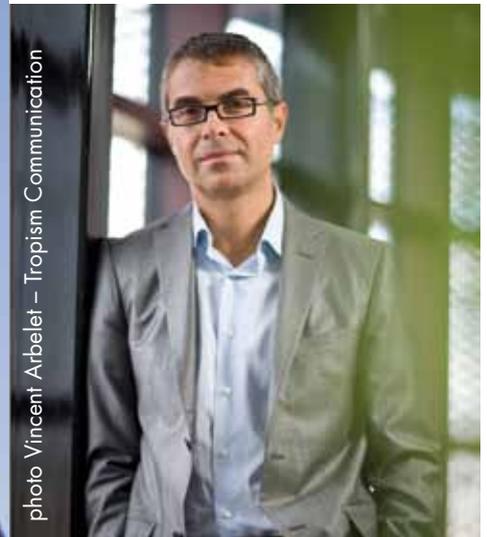


photo Vincent Arbelet – Tropism Communication

Could you give us a brief overview of your company and your own position in the business?

Groupe Elithis is an engineering company specialising in building technology and energy efficiency with a proven record of excellence in innovation and in the testing of new technology. We employ 185 people, of whom 70 are in the French-speaking region of Switzerland and 5 in Asia. The company aims to be playing a leading role in the building energy efficiency sector in Europe by 2015.

“Grey matter is the real energy of the future”

An interview with Thierry Bièvre, Groupe Elithis, France

Thierry Bièvre is the CEO of the French company Groupe Elithis. The company has built the Tour Elithis, an attractive headquarters that is also the first positive-energy office building in the world – without the costs being higher than those of a standard property. For SAUTER Facts, Thierry Bièvre answered various questions about this ambitious project and his view of the current state of the ‘green building’ movement.

By building the Tour Elithis, your new headquarters in Dijon, you wanted to provide an insight into modern building technology. As the owner and future user of the building, what considerations were particularly important for Elithis?

As investor and user, our aim is to assume our responsibility to the environment and, at the same time, support the sustainable building work espoused by ‘green buildings’. We wanted to invest in a building which, as an energy-plus building, would neither consume energy nor damage the environment in the medium-to-long term.

As experts, we are interested in benefiting from this ‘live test space’ and gathering experience in order to consolidate what we know already. We also want the building to allow us to familiarise our customers and employees with the latest ‘clean-tech’ solutions. The Elithis Tower should prove that saving energy can increase the users’ comfort level.

How did the matter of costs influence your decision?

Our goal was to build an energy-plus building for the same price as a standard building. We advocate relying more on grey matter than on grey energy – as our motto says: “Plus de matière grise pour moins d’énergie grise”.

How did you ensure that the Elithis Tower would also fulfil your expectations?

To obtain a very clear result, we developed a management system that comprehensively takes into account the energy efficiency and the standard costs. This innovative system enables all those involved – property developers, architects, planners, suppliers, partners, users and many more – from making the building decision to actually using the building, to benefit from one another’s know-how. It also incorporates sociologists and doctors, for example, to guarantee that the improvements relating to energy also improve the well-being of the users.

The renowned pioneer of green building, Jerry Yudelson, stated in the last issue of SAUTER Facts: “If a building doesn’t perform, then it can’t be green”, thus emphasising the key role of performance measurement. How do you evaluate the comparison between expectations and reality in green buildings?

To achieve sustainable energy efficiency and follow a policy of environmental improvement, it is necessary to perform in terms of energy and efficiency – and also prove this using measuring, information and control systems. We put the emphasis on the actual performance of a building that

uses information systems and consumption displays to encourage the ecological behaviour of its users – in contrast to buildings in which this performance is merely intrinsic.

In your opinion, what role does the building management system play in green buildings?

The building management system plays an essential role in informing, measuring and controlling. It provides knowledge that can help our entire sector to make progress.

When we look at the development of sustainable building, what trends and milestones do you see in the near future?

The growing consciousness of the building sector of topics relating to sustainable development strengthens my view that grey cells are the real energy of the future. The building sector will undergo a real revolution, with respect to both its organisation and its technical possibilities, in order to re-establish well-being and operational quality as essential characteristics.

The Fraunhofer Institute for Building Physics backs the EMS from SAUTER

Interview with Jan Kaiser of the Fraunhofer Institute for Building Physics:



What are the targets being pursued by the participants of the EU research programme DIRECTION?

The new EU building directive stipulates that, after 2020, only zero energy buildings are to be constructed in all member states.

The main aim of the research programme, which comprises ten partners from Spain, Italy and Germany, is to demonstrate throughout Europe that so-called 'nearly zero-energy buildings' can be very cost-effective yet also provide high levels of comfort and energy efficiency, thereby paving the way for the implementation of the new EU building directive.

To achieve this, three highly-efficient non-residential buildings in Spain, Italy and Germany (the NuOffice building) will be scientifically monitored over a period of four years. This evaluation will be based on metrological methods and user surveys. Comparisons with numerical simulations aim to demonstrate the potential for improving the running of the building and enable these improvements to be put into effect in real situations.

NuOffice serves as a show house for demonstrating innovative solutions in nearly zero-energy buildings. What are the insights that the Fraunhofer Institute for Building Physics hopes to gain from this project?

The burning question is how well the energy concept developed by the Fraunhofer Institute will prove itself in day-to-day use. The focus in this case is primarily on aspects such as: the building control system based on weather forecasts; the energy-saving potential of the LED lighting; the performance of the electrochromic windows; and, not least, the operation of an entirely newly-developed district-heating absorption heat pump and the resultant high control requirements.

The EMS from SAUTER provides high-definition data as the basis for your analyses and for the development of suggestions for making improvements. Which aspects of the EMS would you consider to be particularly valuable for your work?

To be able to analyse the data scientifically, we require a stable, easy-to-use data logging system that provides fast external data access.

Of particular interest to us is the ability to mirror scientific analyses back into the system in order to use them straightaway for advanced control concepts.



To let: office with a view of the future

NuOffice, an office building in Munich with LEED platinum certification, is a showpiece of the DIRECTION research programme financed by the EU. The building management and energy management systems from SAUTER are helping the researchers to turn their innovations for the energy-efficient building of the future into mass-producible products.



A unique office building complex is being constructed in the north of Munich, in three stages of 11 000 square metres each. The first building of the NuOffice project, recently completed, is an almost passive house and meets the requirements of the LEED platinum certificate – the highest certification level.

A vision ready for serial production

NuOffice represents an ambitious vision that will go far beyond the project in Munich. The developer and their partners aim to refine a pioneering energy concept that they hope, one day, to replicate in many locations.

As members of the 'DIRECTION' research consortium, they are using NuOffice as one of three pilot buildings. As part of the programme – running over many years and financed by the EU – their objective is to demonstrate innovative, inexpensive technologies for nearly zero-energy buildings and promote their more widespread use.

Consequently, they consider not only the current requirements when planning a building. One of their goals is to meet the energy targets of the so-called '2 000-watt society'. It is claimed that the office building already surpasses the German government's energy targets for the years 2050 to 2100.

An EMS with visible results

A number of features make this possible, including: the use of groundwater for heating and cooling, passive house-quality thermal insulation; triple-pane insulated glazing; photovoltaic systems; and a controller which also takes account of the weather forecast for its control strategy. An intelligent lighting, ventilation and cooling plan keeps power consumption low. The innovative SAUTER EY-modulo 5 building and room automation system, with BACnet- and eu.bac-certified products, is the key to efficient control of all the sub-systems of the NuOffice. This was how the new building managed to achieve Class A system certification from eu.bac.

To allow operation of the entire system to be constantly improved during the research, the overall energy concept must be rigorously monitored. SAUTER EMS plays a central role by delivering highly precise data on a minute-by-minute basis.

A close eye is kept on the SAUTER EMS from many angles. In the entrance area, monitors have been installed with the specific purpose of making the current energy data visible to everyone. Using the EMS in this way was acknowledged as being particularly innovative and, in all probability, will be awarded an extra point in the certification.

First-class data for sustainable knowledge

The data from the building management system and EMS are also highly regarded by the specialists at the Fraunhofer Institute for Building Physics. As partners of the DIRECTION consortium, they have direct access to the SAUTER systems and use them to make further improvements to the NuOffice energy plan (see the adjacent interview).

During the four-year project, the operation readings will be analysed in detail and any discrepancies in the simulations will be ironed out. While taking into account local anomalies, the insights gained will allow the new plans to be applied to many projects in the future.

eu.bac

The eu.bac system certification is a scientifically-proven method based on the DIN EN 15232 method of assessing the energy values of building automation systems.

The structured and standardised process gives a true appraisal of the efficiency of the installed building automation system in interaction with the building's technical facilities.

SAUTER is an approved eu.bac expert.

Gains in efficiency can be easily substantiated with SAUTER EMS 3.0

Version 3.0 of the SAUTER Energy Management Solution provides an improved interface for optimising energy efficiency. Numerous special functions and templates support certification projects in accordance with ISO 50001 and other standards. There is also now a module – called EMS Mobile – for smartphones and tablets.



Today, the success of a company depends more than ever on how carefully resources are handled. Increasing energy costs and intensified competition are an incentive to use resources efficiently.

A flexible, high-performance energy management system is a central element in continually improving energy efficiency. Whether certification-related or as part of a sustainability programme, the energy management system provides transparency with regard to consumption, enabling enormous increases in efficiency to be made.

The highest standards for certification
Standards such as ISO 50001, EN 15232 or eu.bac are becoming more and more important. Building certificates such as LEED and BREEAM are also in the ascendant. Though the systems and areas of application are very different, they all make the greatest demands on the systems and processes used for energy management.

Innovation



This is why SAUTER EMS 3.0 focuses on supporting certification projects. Many requirements have already been put into practice as standard. Key performance indicators for consumption, efficiency and running costs are easy to see in the system and are reliably logged. In order to publicise the low emissions and consumption levels, it is possible to present key figures, diagrams and graphics on a website, on screens in the lobby ('Green Building Monitor') and in other external applications.

Continuous improvement as a basic principle

SAUTER EMS is the ideal tool for a continuous process of optimisation based on the 'plan, do, check, act' cycle. This is used in many quality management and process improvement systems. The software supports this methodical approach with functions for measuring, displaying and monitoring, and analysing and maximising the energy efficiency, and for documenting these procedures comprehensively.

SAUTER EMS collects and consolidates measurement data automatically or by means of manual inputs via the EMS web interface, or via the internet access developed specially for mobile devices. Data from systems from other manufacturers can be recorded directly in SAUTER EMS as well. The users also benefit greatly from a range of functions that validate, organise and protect the data automatically. This allows them to concentrate fully on analysing the data.

Data analysis made easy – even when on the road

The measurement data is displayed in SAUTER EMS using either standardised reports or dynamic portal pages. Compared to the previous version, the user navigation has been comprehensively revised and simplified. Both centralised and dispersed building locations are visualised on an easy-to-navigate interface.

To meet the expectations of today's users, the new 'EMS Mobile' module – customised for tablets and smartphones (both iOS and android) – provides access to portals, alarms and an area for manual inputs. This makes manual meter readings significantly more efficient, because the values can be entered straight into a smartphone and the data is immediately available in the EMS. SAUTER EMS is also easily incorporated into contemporary IT infrastructure and, moreover, provides all the benefits of a modern cloud solution. Therefore, energy management information can be retrieved online at any time, and reports can be sent automatically in various formats.

SAUTER flexotron®: an all-rounder for small and medium-sized installations

Flexibility and lengthy installation don't have to be mutually dependent. Pre-installed applications and easy configuration make SAUTER's stand-alone flexotron® controllers extremely versatile.

Functional diversity and configurability are grand words – and should certainly be used with care in the case of small and medium-sized systems. This is why consultants and ventilation engineers are particularly fond of solutions that offer lots of functions and intervention options, but also keep programming to a minimum.

SAUTER flexotron® demonstrates SAUTER's expertise in the control of heating, ventilation and air-conditioning systems in a solution that is specially geared towards small and medium-sized installations. SAUTER flexotron®800 and SAUTER flexotron®400 compact units enable planners and engineers to provide configurable and powerful all-round solutions for numerous applications.

Pre-installed applications for a wide range of uses

Devices in the SAUTER flexotron® range are factory-equipped with numerous applications. The settings can be made on the unit itself: the SAUTER flexotron®400 has a compact rotary adjuster, while the SAUTER flexotron®800 has convenient navigation buttons.

Of the various pre-installed applications on the SAUTER flexotron®800, one is for constant supply-air temperature control, e.g. in workshops. The controller also features cascade control for the return-/supply-air temperature – with humidification, if needed – for use in restaurants, shopping centres, warehouses etc. For installations with a large number of different zones, such as in office buildings, the solution offers pre-configured functions for weather-dependent flow-temperature control. Furthermore, the control applications provided ex works also cover pressure, CO₂ and heating.

There are also functions such as summer and winter shift, frost protection, fan control, night cooling, energy recovery, humidity or enthalpy regulation and additional sequences for heating/cooling or other applications.





User-friendly and open

Parameters and alarms can be edited easily using the device menu. It is also easy to take readings – even in the dark, thanks to the illuminated display. To facilitate operation still further, the solution supports more than twenty languages. The ability to make settings and adjustments can be restricted by granting access rights.

The SAUTER flexotron®800 can also be linked to a network with Modbus via RS485 or with an integrated web server via TCP/IP. The web solution enables the user to control, monitor and track events, alarms and the status very conveniently via the internet.

Easy to install and put into service

It takes no time at all to fit the SAUTER flexotron®. The units can be mounted on either the wall or a DIN rail. Pre-configured applications allow the controller to be configured quickly. The required settings can be made manually using the navigation buttons and the clear display.

Using the SAUTER CASE flexotron® PC software makes it even quicker and easier to adjust the settings on the SAUTER flexotron®800. The software provides access to all the control functions and current values of the inputs and outputs, and menus for operation, servicing and troubleshooting.

It supports offline engineering and configuration, enables settings to be copied from other controllers and provides other customisation options.

Many options and benefits

While the SAUTER flexotron®400 is designed for smaller applications, the SAUTER flexotron®800 has additional features and advantages for medium-sized and more complex installations.

Both solutions provide a versatile range of functions for ventilation, air-conditioning, heating and boilers. Pre-installed applications allow them to be adapted simply and directly to the specific area of use. Such flexibility, requiring no programming knowledge, is ideal for reducing installation and operating costs.



Europa Park chooses SAUTER building management system

Europa Park in Rust, near Freiburg, has over 4.5 million visitors a year, making it Germany's biggest theme park by far. The four-star 'Bell Rock' superior hotel, the newest of five hotels on the site, was opened last summer. A SAUTER building management system provides and maintains pleasant interior conditions in the 'Bell Rock' themed hotel.



Europa Park was founded in 1975 by entrepreneur Franz Mack and his son Roland. However, the idea of providing overnight accommodation inside the park itself did not become a reality until much later. It was in 1995 that Europa Park opened its first four-star hotel, the 'El Andaluz'. Additional themed hotels followed to consolidate Europa Park's position as a short-trip destination: Italian dolce vita can be experienced in the four-star 'Colosseo' superior hotel, the ambience of a Portuguese monastery in the four-star 'Santa Isabel' superior hotel, and the Spanish zest for life in the four-star 'El Andaluz' and 'Castillo Alcazar' hotels. Situated in Rust, in the southern state of Baden-Württemberg, Germany's biggest hotel resort has five themed hotels, a campsite, a guest house and a caravan park.

The latest hotel on the site, the 'Bell Rock', was opened in July 2012. This 4-star superior hotel takes its inspiration from the feudal manors of New England of the 17th and 18th century. Particularly eye-catching is the 35-metre-high lighthouse that gives the hotel its name and boasts six individually-themed suites named after various personalities, such as George Washington, John F. Kennedy and Abraham Lincoln. Next to the lighthouse is a complex comprising the four-storey main building and five three-storey auxiliary buildings.

Building management system from SAUTER

While the building's style takes visitors on a journey back to the American colonial period, the project managers drew on the latest technology for all the equipment within. All of the buildings in the 'Bell Rock' complex are equipped with the SAUTER novaPro Open building management system. This combines around 11 500 data points in a multi-PDM environment with central data storage on a file server. Three Windows 2008 R2 servers are used for the whole building management system in Europa Park. The virtualisation infrastructure is mirrored



on two computing centres, thus providing a very high level of system reliability. The building management system is operated by means of web clients.

The building management system is also connected to the hotel booking system via OPC. The ventilation system in the swimming pool is connected via BACnet. A total of 268 automation stations and room controllers from SAUTER's EY system were fitted to control the air-conditioning in the 225 hotel rooms, 35 of which are suites. To maximise the comfort level, each room can be operated in one of four operating modes with different room conditions, taking full account, of course, of all energy-related aspects. For the automation of the general hotel areas – such as reception, shop, swimming pool, spa, restaurants, conference rooms and technical facilities – there are twelve equipment rooms, plus seventeen nova220, eight modu200 and one nova230 automation stations in operation. These are used to automate the heating and cooling systems and the indoor air technology.

Green oasis

Europa Park is situated in the idyllic landscape of the Rhine valley, between the Black Forest and the Vosges mountains, near the three borders of France, Switzerland and Germany.

High level of ecological awareness and sustainability

Centralised water treatment system; a hydroelectric power station that generates 1 million kWh of environmentally-friendly electricity per year; and a solar power station 300 metres long and comprising 2.500 solar modules.

- Over 4,5 million visitors a year
- Biggest and most popular amusement park in Germany
- Almost 95 million visitors since it was founded
- Around 100 attractions and international shows
- Total area: 94 hectares
- Over 3.400 staff members during the season
- More than € 600 million invested in renovations and extensions since the park was founded

Research for the well-being of both humans and animals

The refurbishment and expansion of the Central Veterinary Institute in the Netherlands is of major significance for the day-to-day struggle against infectious diseases in animals. Therefore, the BACnet/IP solution implemented by SAUTER for process automation has to fulfil special requirements.

The prevention and curing of diseases in livestock is a core concern in modern agriculture. With business operations getting bigger and bigger, and worldwide trade intensifying, the political and economic demands are also increasing.

The Central Veterinary Institute (CVI) at the Wageningen University and Research Centre plays a leading role as the national reference laboratory in the Netherlands. Its team of international specialists strive to improve the methods of dealing with various animal diseases.

Special demands placed on the automation system

The CVI has numerous facilities for researching infectious diseases in farm animals. There is a wide range of building types – from conventional to high containment (DM III, BSL3) – enabling research to be performed under various climatic conditions and safety levels.

These special circumstances make high demands of the automation system. The existing building technology was outdated in places and increasingly unsuited to the leadership claim of the CVI, so a comprehensive refurbishment was required.

Isolation for reliable biosafety

In autumn 2012, the foundation was laid for the construction of an additional research facility. This building is to fulfil the requirements of biological safety level 3 (hBSL3) and enable research into infectious diseases that can be transmitted from animals to humans.

The building must be reliably shielded from the outside world. To achieve this, the building automation system plays a prominent role. For example, the laboratories are regularly sterilised with vaporised hydrogen peroxide to eradicate any remaining microbes. In the process, the dampers for both the supply air and the return air are closed automatically and the room is flushed out.

BACnet/IP as a shared communication platform

During both the refurbishment work and the construction of the new building, the focus is on increasing the continuity and reliability of the overall system. When it came to selecting the supplier of the building automation system, price was a central factor, as was the ability to integrate the various existing and new installations.

The system presented by SAUTER was the decisive factor in the university's choice of BACnet/IP as the communication platform. Because of the excellent technical capabilities of BACnet/IP, the various pressure ranges and climatic conditions can be provided with ease and all the relevant safety standards can be met in full.

Safe down to the last detail

The local installations are controlled by means of central circuits that are grouped together in cabinets. A solution using cascaded controllers is not practicable in such a high-containment environment, nor in a catastrophe scenario.

The newly-installed, BACnet-certified SAUTER EY-modulo 5 system now controls the entire process automation in all of the buildings. The B-BC device profile ensures that communication between all the devices attains the highest standard that is possible with BACnet/IP.

Stay fully in the picture with SAUTER novaPro Open

The existing novaPro Open building management system from SAUTER is one of the few elements to survive the refurbishment. This tried-and-tested SCADA platform has proven over the long term that it can meet the highest of standards at the CVI – not least because of the standard equipment provided for implementing the directives in accordance with FDA 21, CFR. 11.

Moreover, this ambitious CVI project shows that, increasingly, comprehensive BACnet/IP solutions can prove themselves even in fields that place very specific demands on the automation system.



Celebrating a 20-year partnership between SAUTER and the ECO Group

Interview with Andrzej Goździkowski, Operational Director and Member of the Board of the ECO Group.



This year, SAUTER and the ECO Group will celebrate a 20-year partnership. How did it all start?

We remember the onset of our partnership very well. We were looking for a system that could control the heating stations in the municipal network.

We evaluated various systems, including the proposal from SAUTER. After SAUTER demonstrated the EY2400 system, we realised it offered a complete solution to all our needs and it would only be necessary to deal with one supplier.

The first implementation took place in 1994 when we started with the heating station automation in our largest district heating system and, within six months, the network had expanded to 50 controllers.

The implementation of the SAUTER system allowed us to raise the standard of our services by enabling us to access all important information like temperature, pressure and flow, and resulted in the more effective organization of our district heating stations. After 20 years, we can say that selecting SAUTER was an excellent decision.

What do you consider especially helpful in your partnership with SAUTER?

We appreciate the fact that SAUTER, apart from selling the system, also provides comprehensive operational training. The reliability of the equipment is also worth mentioning, which is exemplified by the fact that our system has been operating for 20 years without failure.

Can you give us an example of a SAUTER solution?

Our largest district heating system in Opole consists of more than 300 controllers from both the EY2400 and EY-modulo2 systems. All controllers are connected to a central station via cable or Wi-Fi where SAUTER novaPro Open version 4.1 SR2 is installed. The application is very extensive and includes

approximately 13 500 data points. NovaPro Open operates within a virtual environment which ensures we will never have any hardware failure.

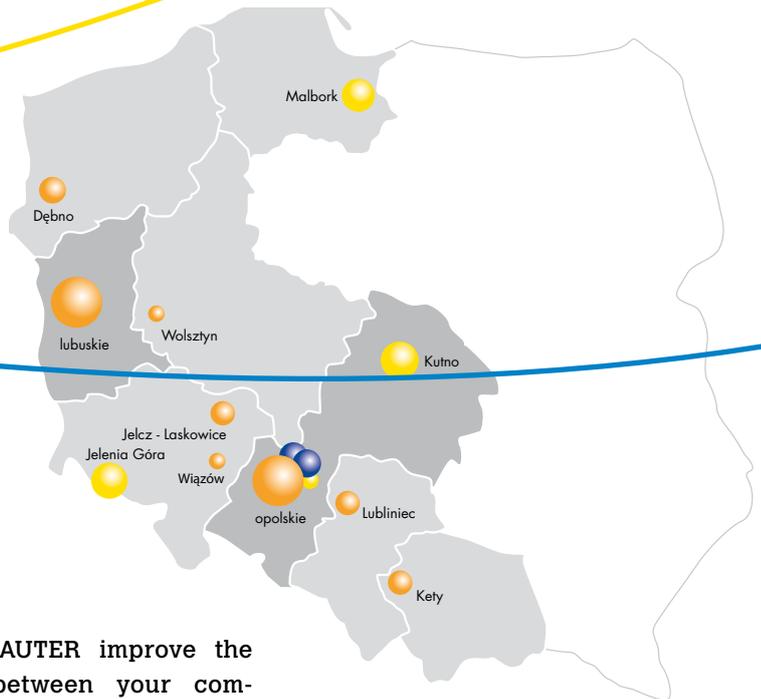
What was the biggest challenge so far?

The biggest challenge was to install a system of this size. We were successful and today the system operates seamlessly. We are currently working on integrating SAUTER novaPro Open into other systems within the ECO Group.

What are your future expectations regarding automation systems?

Functionality and reliability are first on the list. Functionality includes features such as transmitting information over long distances, connectivity to other devices like counters, and the independence of the transmission channel. In the future we also plan to allow our customers to view their energy consumption at any time.

SAUTER highlights



SAUTER manufactures and develops energy efficient systems. Can you tell us about any plans you have for such a system?

This year we launched a high-efficiency co-generating system in Opole with the capacity to generate 30 MW of thermal power and 10.9 MW of electrical power. Another example is the ESCO contracts where we intend to increase the energy efficiency of an installation. Furthermore, we are constantly working towards optimizing the generation, distribution and transmission processes.

How could SAUTER improve the partnership between your companies?

The most important factor is to understand individual customer needs. We also expect SAUTER to provide us with information regarding new products and their recommended use. A close partnership at engineering level is also needed, since it helps us use SAUTER equipment more efficiently.



About the ECO Group

Headquarters: Opole, Poland

Areas of specialisation:

production, transmission, distribution and sales of heat and electricity

Areas of operation:

Southwestern and Western Poland

Turnover 2011:

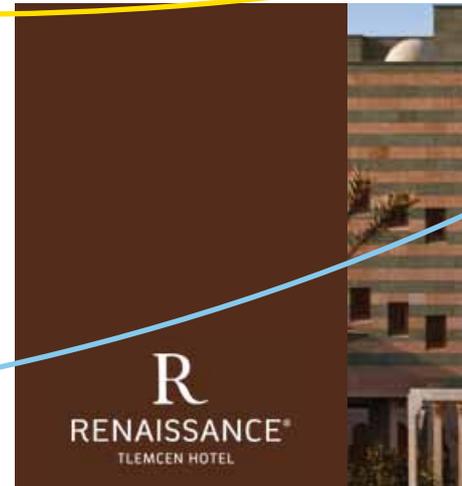
304.5 million PLN

(approx. CHF 90.2 million)

www.ecosa.pl



Even perfect hosts can be thrifty



The first Marriott International hotel in Algeria aims to pamper its guests with luxury and personal service. Which is why the building management system from SAUTER is thinking about its customers even before they arrive.

The Algerian city of Tlemcen was 'Capital of Islamic Culture 2011' and is garnering more and more attention. This is also thanks to the New York Times, which named the city in the west of the country one of the most exciting destinations of the year.

With its history extending back thousands of years, all the way to the New Stone Age, and as a melting pot of Berber, Arabic, Andalusian and French culture, Tlemcen has a lot to offer. The mild mountain climate entices visitors to linger in the city, which then charms them with its unique architectural sights. Up to now, all the city's guests have been lacking in accommodation of an international standard.

The view from an observation point at an altitude of 800 metres

The 'Renaissance Hôtel Tlemcen' is the first Marriott International hotel in Algeria. It is situated on the prominent 800 metre-high plateau of Lalla Setti, which is connected directly to the city centre by a cable railway. In addition to an artificial lake, the complex boasts a promenade with a magnificent view of the city and its surroundings.

The design of the five-star hotel is based on the local building style. Its guests can choose from 204 luxuriously outfitted rooms and suites. Because 'Renaissance Hotels & Resorts' is a prestige brand of Marriott International that caters for customers with upmarket tastes.

A complete building management system providing an overview ...

While the Lalla Setti plateau's altitude of 800 metres is a source of wonderment for the hotel's guests, the building management system from SAUTER, in its own way, provides the staff of the 'Renaissance Hôtel Tlemcen' with just as much satisfaction. With the small, essential difference that not only can everything be monitored directly, but it's also possible to adjust the power supply and the operation of the HVAC systems to the current conditions at any time.

To combine comfort with energy efficiency, the hotel's booking system is connected directly to the SAUTER novaPro Open building management system. Different rules are applied to a room at various times, depending on whether it is occupied or empty. When guests are expected, the controls are adjusted automatically so that the conditions in their room are pleasantly welcoming. The same system also controls the banquet halls, conference rooms, offices, restaurants, swimming pools and all the other important areas of the hotel.

... and direct access

Using the ergonomic novaPro Open operating stations, the management level of the building management system, and the numerous touch screens set up right next to the information centres and systems, authorised users of the hotel management system can obtain an up-to-date overview of all the systems at any time. All the important systems are visualised to enable the situation to be understood and analysed quickly. The software allows the management to make adjustments at any time in order to continually optimise the operation and efficiency of the system.



A net with a fine mesh

The BACnet/IP standard has been applied throughout in order to network the entire hotel complex. A high-performance glass-fibre network connects every building. Every single one of the twenty zones is equipped with a BACnet/IP router (SAUTER EY-AM 300). All HVAC and electrical systems are connected with automation stations of the SAUTER EY-modulo 2 product family. To combine all the transformer stations, boilers, cooling systems, control rooms, lifts and heating and air-conditioning systems within one single installation, the SAUTER building management system has a total of over 140 EY-modulo 2 automation stations and 600 ecos®200 single-room controllers. Specialist sub-systems that are not compatible with BACnet/IP, such as fire alarms, access controls and surveillance videos, are connected by means of the corresponding interfaces.

In total, the building management system monitors and controls around 18000 hardware data points, including more than 100 energy meters and 10000 software data points. The values calculated are displayed in the form of a control console and provide information on average values, total values and the energy efficiency of the systems.

A host that makes the most of a little less

The Renaissance Tlemcen Hotel aims to be not simply the first hotel in these parts, but also the best one. SAUTER's building management system makes a big contribution to maintaining high levels of comfort and efficiency at one and the same time.



SAUTER expertise for Valad Europe

Valad Europe is a major real estate investment manager.

In conversation with:

Andreas Hardt, Head of Valad Germany

Ulrich Fuchs (MRICS), Asset Manager, Germany



VALAD

Valad is a European multi-let real estate investment manager. Its core business is value-added real estate investment management with local asset management teams. Can you explain that in more detail?

Andreas Hardt: Our core business is real estate investment management aimed at increasing value. We specialise in commercial real estate in the following sectors: offices, light industry, retail and logistics. Valad is positioned throughout Europe, with 22 teams in 12 countries. This means that we have an international presence and excellent connections, and our asset management teams in each country know the local markets really well.

Valad was listed on the stock exchange and was put together through a series of acquisitions. Your company currently manages more than a hundred properties throughout Germany. What is the greatest challenge there?

Andreas Hardt: Valad Property Group, the original parent company of Valad Europe, was listed on the Australian stock exchange

up to 2011. When the firm was privatised in 2011, Valad Europe separated from the Australian parent and now operates as a private, independent company.

Valad can look back on a history in real estate that spans around fifty years, during which time various targeted mergers were carried out. Valad currently manages a portfolio worth approximately €4.3 billion, comprising around 600 properties throughout Europe. This includes about a hundred properties in Germany alone.

All the time, we are actively seeking new ways of utilising and expanding our platform to the greatest effect. At present, Valad is already a diversified investment and asset manager. We have very close relationships with domestic and foreign banks, and, being a European platform, we have not only the international experience but also the human resources required to meet this challenge.

SAUTER FM manages every facet of the Ettlingen Industrial Park near

Karlsruhe, i.e. technically, commercially and in terms of the infrastructure. SAUTER has been working for Valad since 2007. What do you see as the reasons for your successful collaboration with SAUTER?

Ulrich Fuchs: The factors of success are: the performance and services from a single source; one contact partner for all sectors; short communication paths; technical know-how; geographical proximity; and the good working relationship with the SAUTER team.

SAUTER is contracted to work for you in Ettlingen. Could you tell us a little more about this industrial park?

Ulrich Fuchs: The sheer size of the Ettlingen Industrial Park alone is impressive: 121,000 square metres of rental space, 20,000 square metres of exterior space, 742 parking spaces, its own car park, 123 gates, 250 fan heaters, three gas central heating systems and so on. The site and its tenants benefit greatly from the economies of scale that are possible at premises such as these. The success of the site can also be seen in the fact that the two main tenants have been

SAUTER highlights

Valad Germany GmbH

The company's core business is value-added real estate investment management with local asset management teams.

In Germany, Valad has offices in Berlin, Frankfurt, Düsseldorf, Munich and Hamburg. From these offices, the 30-strong Valad team manages real estate assets worth around one billion euros and covering an area of 1.4 million square metres in more than 100 properties throughout Germany, serving a total of about 800 tenants.



located there without interruption for fifty and thirty years respectively. At present, 97% of the industrial park is occupied, and the fluctuation rate is very low. This is surely also due to less tangible location factors such as, for example, the efficiency and commitment of the management team.

The tasks assigned to SAUTER included: the creation of pressure-booster systems in four warehouses; conversion of drinking water pipes in nine warehouses; the installation of a new diesel pump, including pipes and controls; the conversion of a distribution station; and the provision of a reserve container with a volume of 140 cubic metres. What are SAUTER's particular strengths?

Ulrich Fuchs: Of course, SAUTER has the technical expertise and the extensive knowledge of the site conditions plus, in this case, the creativity and dedication required to solve problems. We had previously contracted an engineering firm to plan the separation of the water system for firefighting from the drinking water system, but we weren't

at all satisfied with the results. We couldn't find any space on site for storing the water volume calculated for the fire water reserve. SAUTER FM broke the problem down into its constituent parts and provided several small solutions that were attuned to each other and made the separation economically viable, and then even independently negotiated with a tenant to secure an urgently-needed site for the smaller reserve container.

What is your own personal highlight of working with SAUTER?

Ulrich Fuchs: We also work with SAUTER at other locations in Germany. SAUTER has always proved itself to be a proficient and reliable partner for all technical and infrastructural matters. It's also our impression that the staff have a motivated and autonomous approach to their work due to the cultivated company atmosphere. It makes it easier for us, as the client, if we can rely on our contract partner and don't have to be checking up on everything all the time.

A particular highlight of the last year, along with the separation of the fire water and

drinking water systems, was the problem-free collaboration with the SAUTER team in Ettlingen in renewing a very substantial rental contract with Daimler AG. FM Manager Mike Hackenspiel, in particular, has been tireless in responding with technical expertise and a wealth of ideas to substantial demands, sometimes at quite short notice. We would not want to be without this co-operation, and we look forward to implementing the refurbishment measures together in the coming year.

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

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