N° 31

SAUTER FACTS

The magazine for SAUTER customers

Environment & sustainability

Innovation

SAUTER highlights

SAUTER
Creating Sustainable Environments.

Dear Readers,

The SAUTER Group began 2015 with orders looking good in the first quarter. At the start of January, I took over operational management of this successful and venerable company. Prior to this, as member of the Board of Directors, I'd already been heavily involved in strategic decisions. Now, with our 2,400 employees on board, we'll pursue as a strong team the course we have set ourselves. This means we're following a clear strategy forwards, promoting growth in international markets and developing further our well-stocked product pipeline. Our guiding principle is "SAUTER stands for creating sustainable environments". You can see quite clearly on the following pages how we get together with our customers and put this into practice. When energy-saving and economical solutions for high-comfort buildings are called for, our know-how leads the way.

In this latest SAUTER customer magazine we'd also like to share with you a few of our product innovations. We'll introduce to you the newest versions of the building management solution, SAUTER Vision Center (p. 10) and our touch-optimised visualisation solution, SAUTER modu-Web Vision (p. 14). Under hardware you'll see the second generation of flexotron800 universal controllers (p. 12) and the SAUTER retrofit actuators we've kitted out especially for upgrades (p. 16).

SAUTER Facts also reports on a number of selected international reference projects. Starting on page 22, you can read about a university hospital in Germany, a publishing house in Italy and a computer centre in Switzerland. SAUTER has supplied its products and expertise in each of these buildings to facilitate the best room climate while also maximising energy efficiency.

In this issue's interview with a leading light in our industry, we speak to Peter Matteo from Gross & Partner (p. 4). I would thoroughly recommend reading his views as they show how high architectural standards, cost-effectiveness and flexible usage certainly needn't be at odds with each other.

Yours, Werner Karlen, CEO

About Werner Karlen

Before being appointed CEO of the SAUTER Group, Werner Karlen was Head of Schulthess Group AG for 5 years and, before that, at the helm of Phoenix Mecano AG for 7 years. He studied at the ETH in Zurich, at the RWTH in Aachen and at the University of St. Gallen (HSG). Werner Karlen is married with three teenage children.

"Sustainability is not a question of price, but the requirements"

Interview with Peter Matteo, Managing Associate at Gross & Partner

Since it was founded in 1992, the German project development company, Gross & Partner, has specialised in the development of high-quality office, residential and commercial properties and urban developments. Of particular importance to the company is combining architectural requirements, high cost-effectiveness and flexible usage in order to achieve long-term, sustainable quality, as Peter Matteo, Managing Associate, explains in this interview.

Peter Matteo is responsible for implementing projects and construction management at Gross & Partner.

Groß & Partner

How do you define sustainability in property development and what are the goals that you are aiming to achieve here?
One must distinguish between ecological, socio-cultural and economic sustainability. There is no such thing as sustainability in itself. It is always a consensus between multiple valid interests of a user community of today and tomorrow. One influences the other, and not always in the same sense. What I mean by this, for example, is that ecological sustainability measures can certainly impact negatively on economic or socio-cultural sustainability. The numerous sustainability evaluation systems have also recognised this. Accordingly, these systems attempt to reflect this in extensive criteria characteristics and evaluation clusters.

We at Gross & Partner have always defined our products as sustainable, as it is always our goal that our properties be optimally suited to the individual framework conditions, that they are as efficient as possible and have the longest possible useful life. Just as we try to prevent inconsiderate behaviour in our children, when developing and creating buildings we aim to weigh up all the interests and combine them into a whole as satisfactorily as possible. For us, effective sustainability is the sensitive networking of the valid, countless interests of a wide range of communities. Building contracts are also among the sustainability considerations for us. We strive to keep business relationships fruitful and allow them to grow in a healthy manner. Sustainability is not only measured in kWh saved or convertibility, or even in terms of the amount of greenery, but more in terms of the useful life of a property.

Properties must still be marketable decades from now
Therefore, it is with concern that we have followed the developments and durability of properties. There are very many residential and commercial buildings from the 17th, 18th and 19th centuries. However, if we look at the shelf-life of commercial properties from the 20th century, we have to conclude that a significant number of them have a half-life of less than 20 years before a substantial refurbishment is required. Is this sustainable? In these cases, the medium- and long-term requirements were not considered in the planning and building phases, and bad decisions were made. Properties need to be high-performing and interesting enough that even in 20 years, and with just a little work, they can still be marketable for a further 20 or

40 years. The only problem is that you have to build for tomorrow today. And you can only do this if you listen closely and sensitively and don't just get taken in by short-term trends. This also involves weighing up whether it makes sense to pay significantly higher costs and use vast resources in order to squeeze out the last 2% of energy-saving effectiveness if, for example, the same investment could be used to upgrade the public areas on the grounds of the property or make an urban development statement. Thinking about the whole and working out the details.

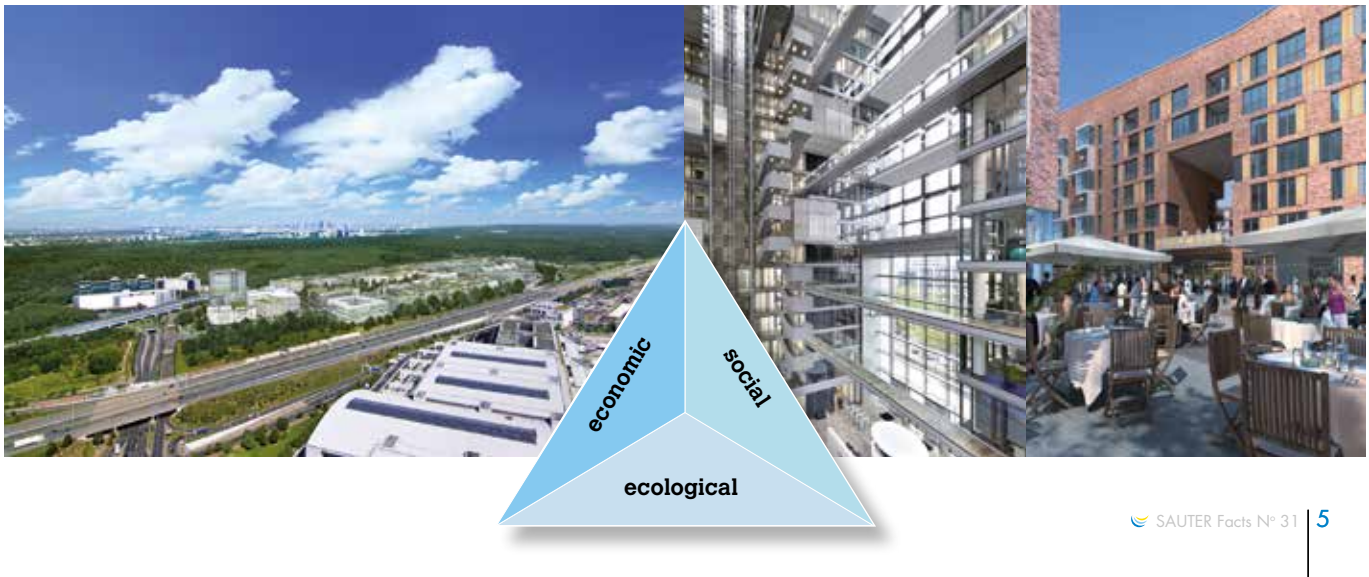
What are the greatest challenges and obstacles, from the project developer's viewpoint, on the road to increased sustainability?

There are no obstacles here apart from the standard that we define for the project itself. What we always do have are the many problems that arise and have to be solved. And with every new demand that we make of ourselves, new subjects appear. However, we're not afraid of new challenges, because we're used to taking on new challenges, and we love it. This is the project developer's favourite sport, so to speak.

Consciousness towards sustainability is growing, but there is still a lot of uncertainty

However, at present the growing awareness of a population that previously just lived unconsciously from day to day with regard to sustainability is a problem, because everyone has a different understanding of it. There are a large number of different conceptions and misunderstandings. Therefore, a lot of educational work is needed. The sustainability evaluation systems from LEED, BREEAM, DGNB, etc., endeavour to specify clear guidelines here, but they have only just begun. Five or six years ago there was no LEED in Germany, and DGNB has also only been on the market for six years. This is still very fresh and new, and it also makes many people uncomfortable. However, many people still see this as a fad, even marking sustainability down as a "trend", and are ultimately unable to classify the topic at all. Will this be trivialised before a healthy sustainability consciousness is even allowed to develop?

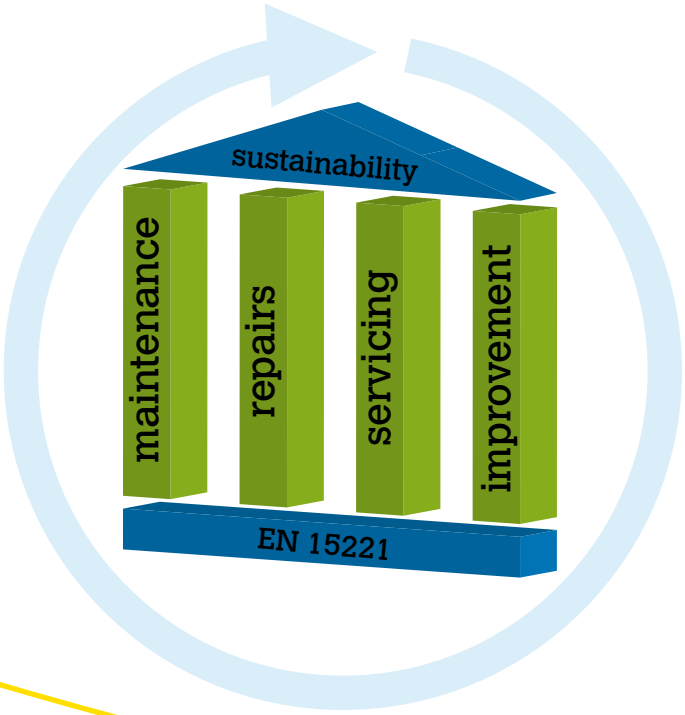
A major challenge that always reoccurs is convincing the user that sustainability is not only expressed in kWh or that it's even a topic in the first place. Now, in particular, voices are becoming louder and calling into question the packaging of building shells with increasingly thick insulating material or very cost-intensive composite facade components, not least in connection with the overall CO_2 footprint of the respective component.



Sustainability must be an ongoing process

Years ago, we at Gross & Partner made the conscious decision to have every object leaving our company subjected to a neutral checking and certification process with regard to sustainability. With the German Stock Exchange in Eschborn we were the first company in Germany to build a new high-rise office building with a LEED Platinum certification. This wasn't just a building certification like any other. At Gross & Partner, the demand for sustainability doesn't stop with the receipt of the building certification. The new German Stock Exchange building, for example, won the Green Building Rhein Main Award of the city of Frankfurt after a year of successful monitoring and a successful inspection of the sustainability criteria.

Here we worked together very closely with our reliable partner, SAUTER GmbH. As always, SAUTER successfully supported us in all these questions and topics. This means that sustainability is an ongoing process beyond the certification and construction phases of a building which, in our opinion, must be as robust as, for instance, the structural stability of a building. For example, the building management DIN 32736 was supplemented with the new EN 15221 which, along with maintenance, repairs and servicing, also comprises an additional fourth column as a building service, namely "improvements". Sustainability is the process of continuous improvement.



Viewing the effects of our actions holistically

At present, sustainability criteria are much more concerned with the subject of energy savings. However, with U values of 0.6–0.7, or when using vacuum-insulated panels below 0.1, the glazing technologies are at the edge of what is technically possible. Insulation layers are over 45 cm thick in passive houses, tram depots are constructed as passive houses, etc. We have to start viewing the effects of our actions holistically. The creation of a very personal consciousness and raising everyone's awareness, involved in a building project, of the effects of their actions is the greatest challenge and also an obstacle that must be overcome with each new project. This starts with investors, authorities, technical planners and building firms and extends to controllers, consultants, tradespeople and users. Everyone needs to ask themselves: Is what I'm doing here appropriate, correct and proportionate? This is how you think sustainably and arrive at the correct decisions and goals.

What aspects are decisive beyond the use of environmentally-friendly building materials?

That's an easy question: all of them! Every aspect that you can recognise or become conscious of is decisive. The sum of the more or less smaller and bigger parts amounts to the overall result. Even an aspect that appears very insignificant and lower ranking at first glance can lead to a decision or have an influence that turns out to be very significant further down the chain of effects. In this network of dependencies, which the certification systems have gradually made very transparent and begun to come to terms with, it only takes one strand to break. Because this is an issue that they have recognised and can then react to accordingly.

Greater demand and more intensive marketing

Today, thanks to the rapid development of the public's consciousness of ecological sustainability, environmentally friendly materials have established themselves as an important sales criterion with its own demand in the industry. They are marketed accordingly and are requested more often than before.

In the past, everybody looked at us when we asked about the recycled proportion of carpeting material, while manufacturers now have entire product lines made of over 80% recycled material that looks and even feels just the same as "genuine new material". However, people still have reservations, as the words "recycled" or "renewable" are always associated with "eco" or "unclean", and this is irresponsible. The certification systems foster rethinking here, and the points evaluation rewards it and develops it further.

Long-term acceptance affects the choice of materials

We still don't construct office buildings with wooden frames or interior plaster made of clay, even though these products and solutions are available on the market, make sense from a purely ecological perspective and certainly could be used. But acceptance and maintaining a demand for the property in 20, 30 or 40 years also plays a role here. Decisive for us is that we implement the capacities used as effectively as possible to achieve the desired result. Conserving resources begins with how one's own employees do their work. We're learning every day even though we've been operating successfully for decades. What matters is that we put our experience into practice quickly, pass this experience on to third parties and make the new a matter of course in how we act from day to day.

Thinking, asking questions and making corrections where necessary

In building projects today, there are at least 300 to 400 people involved in each project. This is immense. It does include every authority, every office and every contact person at every company and all their employees, but all of these 400 people should be working together as well and as closely as possible. And then also have consideration for each other. All within a building period that's sometimes less than 15 months. These are fundamental aspects for us when we need to be able to free up the time required to think about sustainability and then act accordingly. You don't just follow up on the tasks that have been carried out, you recognise these aspects in advance, ask critical questions – repeatedly if necessary – and you don't shy away from correcting decisions again, if needs be, in order to improve them. This is neither about sustainability nor common sense. We have created fundamental quality standards and redefine these continuously. Examples of these aspects are selecting the site, micro- and macrolocations, rentability, convertibility, the effect on and conversion of urban planning space, the neighbourhood, variant surveys, energy concepts, the use of innovative and new services engineering, materials, composite methods for critical – but alas necessary – composite materials, logistical assignments, capacity planning, global and local effects of surface absorption and reflection levels, aspects of well-being and comfort for the users, room climate conditions, light pollution in the neighbourhood at night, the protection and nurturing of habitats from a nature-conservation law perspective, and the increasing challenges posed by extreme weather. There are hundreds of other points, the list goes on forever. The aspects that need more or less weighting are project specific and always changing. This is also what makes our job so interesting.

In the current economic climate, there's a key question that your customers must be asking: Is sustainability expensive?
This really depends on what "expensive" means. Is sustainability "right and expensive" for you, or just "expensive"? For us, sustainability is not a question of price, it's the core of the product that we supply to our customers. We want the customer to feel as comfortable as possible and be able to enjoy and benefit from their Gross & Partner property for the longest possible time. This is not a question of the price, but the requirements that one has.

When you're talking about sustainable project collaboration, you can implement the whole thing quite economically yourself by getting your employees motivated in the project and encouraging a consciousness and willing to succeed in a shared goal, or even creating this in the first place. If you're talking about technically complex solutions with regard to building components, you can quickly find yourself in the neighbourhood of six- and seven-figure sums. From this isolated perspective, sustainability may appear expensive. The numerous consultants and preparation of documentation also cost time and money. This additional, stigmatised sustainability controlling is time- and resource-intensive, but it is also sensible for maintaining consciousness and prudence. With the narrow margins involved in project development these days, points such as these make a big difference.

The useful life and the resources employed must be correct
But ultimately, the customer decides what or not to order. We at Gross & Partner see our products within the premium segment and advise and support our customers accordingly when they are coming to their decisions. At the same time, they can usually develop and build a good, sustainable property with relatively low added costs. It does not always have to be Platinum or Gold if the overall result is correct and the factors – useful life and resources employed – are correct for as long as possible because user satisfaction and user acceptance are very high. Of course, if you are aiming for DGNB Gold or LEED Platinum, it will be more cost-intensive and will have a noticeable effect on the building costs. This is also reflected, however, in the rent levels and sales factors achieved, and the market will recognise it accordingly.

However, our future should also be "dear" to us, and if we want to build a future, we don't ask about the price. Dear, like cheap, implies a negative evaluation. If you ask me whether sustainability is achievable at an appropriate price, I can say that this certainly is possible, and that we at Gross & Partner only create properties that can be certified as sustainable.

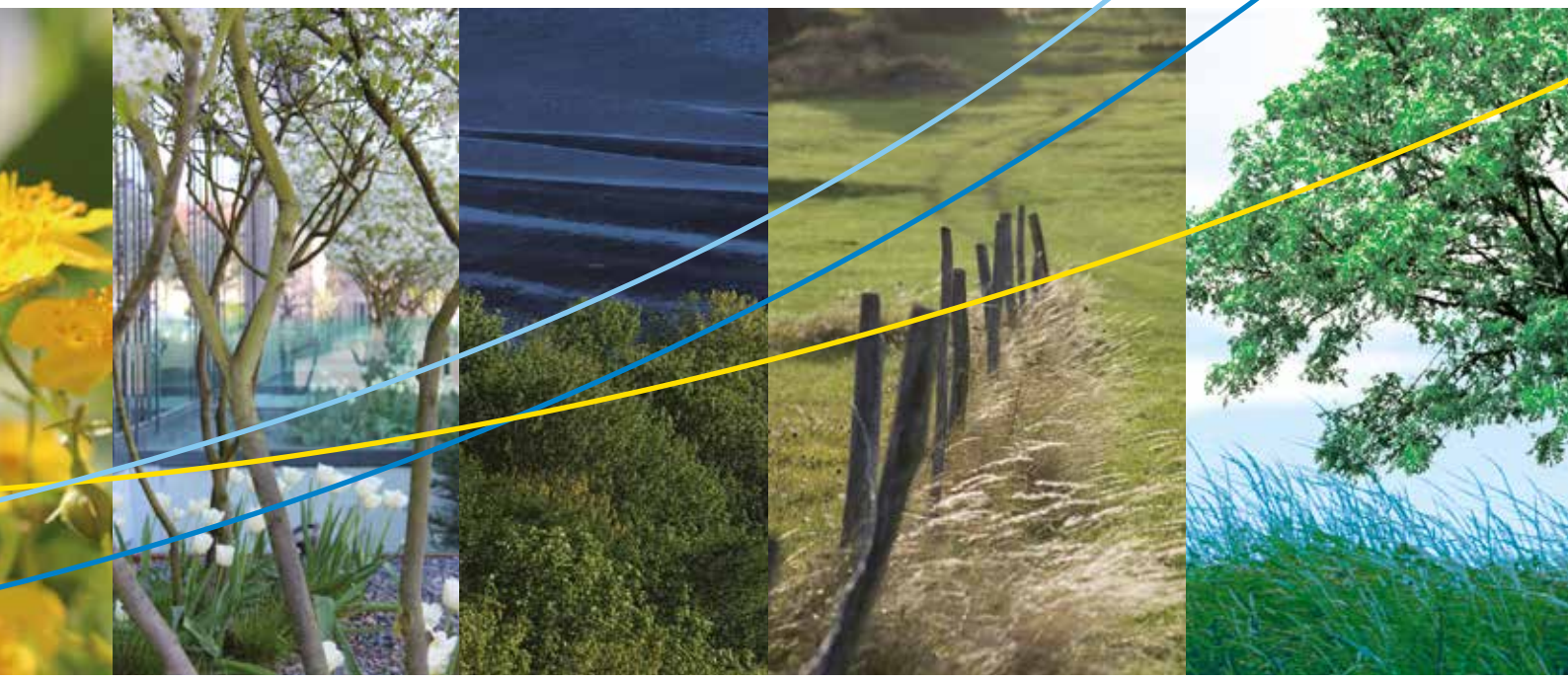
How does the subject of sustainability affect the way in which property development will be practised in the future?
Because the subject of sustainability has become a global "megatrend", the effort and interest at all levels for everyone involved in the project in all its phases is enormous. We have adapted to this, we were right there at the forefront and were able to get valuable,

detailed experience at a very early stage and tailor our processes accordingly. Today we have many project developers for the early project phases, and project managers for the implementation phases on site, who have gathered personal, practical project experience with sustainability topics and certifications, gain new experience every day, and can fully apply all their valuable knowledge of networked dependencies and their grasp of the picture as a whole.

Little decision certainty despite great experience

We are somewhat concerned about the fact, seemingly considered to be a necessity, that the certification systems are "updated" every one or two years, whereby requirements, specifications and criteria are changed repeatedly: sometimes only details, sometimes basics. Additionally, the way the sustainability evaluation can be interpreted, due to unexplained sustainability aspects, is a problem in the practice of day-to-day project development and project implementation work. Thus, measures in project A are not the same in a different project, B, as regards the design of the test instances, even though, for example, significant framework parameters of the evaluation are comparable. Or, if a project has a very long – but necessary – running time of two to three years, decisions based on views that are valid today are different at another time in the project because a new sustainability aspect or dependency has been discovered, or even because of new specifications. Of course, this gives us, as developers and project managers, less decision certainty, since we cannot totally rely on our experience, and new aspects and points are continually being added. Also, the revolving renewals of systems with expiry periods of just a few years are difficult to deal with and implement when you have projects running over two to three years. The building phase is actually the manifesting act for the future. Therefore, we do not shy away from continually asking critical questions and subjecting the ongoing product to inspections so that we can ultimately provide our customers with the "best of" version.

Because the sustainability topics are so multi-layered and interdisciplinary, this affects every single area of our work. However, it has always done so. But now it is observed consciously by the public, and is set down very clearly for everyone involved in a project. The topic of sustainability has also made us even more aware, while also giving us an enormous competitive advantage.



SAUTER Vision Center – the latest generation of building management

The latest generation of building management solutions is multifunctional, networked globally and can be used anywhere. The SAUTER Vision Center 3 management level brings all equipment systems and interfaces together, providing the complete picture – from small building complexes to scattered properties, from refurbishments to new buildings.

Latest-generation building management requires all automation processes to be networked and integrated. The solutions that will be around in the future are those combining different-type installations in one robust overall system. This new software generation enables energy efficiency to be monitored, controlled and optimised at any time and from any location – and on any device.

Open to all equipment systems

SAUTER Vision Center 3 achieves this by using current IT standards such as HTML 5, and is 100% web-based. Modular in design, the solution is ideal for small and medium-sized installations with up to 25,000 objects. It supports, for example, the open BACnet building automation standard and will no doubt continue to blaze the trail with the new, and also open, OPC-UA interface. The server software is designed for use on PC-based systems, servers in virtual environments and for cloud computing centres.

Connecting all data streams

SAUTER Vision Center is the premium solution in the leading operating and visualisation family from SAUTER. On the local operating level, the SAUTER Vision Center management level works perfectly with SAUTER moduWeb Vision. And, of course, on the automation level with SAUTER moduWeb too. This modular product range allows the correct solution to be scaled for any building automation task. One of the main benefits for the user is that all visualisation systems from SAUTER not only have a consistent look and feel but also the same operating philosophy.

The system topology of SAUTER Vision Center can be spread out over several buildings. It could be used, for example, for refurbishments where multiple protocols have to be combined. Or for new installations with only BACnet devices. SAUTER Vision Center is also downwards compatible with existing proprietary SAUTER communication protocols. The new, open OPC-UA interface allows direct and easy integration of existing, current and future building automation projects – from both SAUTER and other manufacturers. But with its state-of-the-art technology, integrating the SAUTER Vision Center isn't limited to HVAC. It's equally suitable for any building automation equipment system.

Easy to customise

The user-friendly, personalised display for monitoring and analysing the building automation information is a central feature of SAUTER Vision Center. It lets you change all views individually, save them and organise them as favourites. With integrated client functionality, different users can also access different views.

Navigating the building automation premises is via easy-to-understand menus. And to make them simpler still, you can filter them directly. The new version 3 of SAUTER Vision Center also features enhanced alarm functions supporting, for example, statistical evaluations or energy-related notifications.

When the SAUTER CASE Suite engineering and programming tool is used for engineering, SAUTER Vision Center is provided with all the information needed. This means that data points, images, and so on, created when configuring the automation stations, can be transferred to the management level. This simplifies considerably the commissioning process.

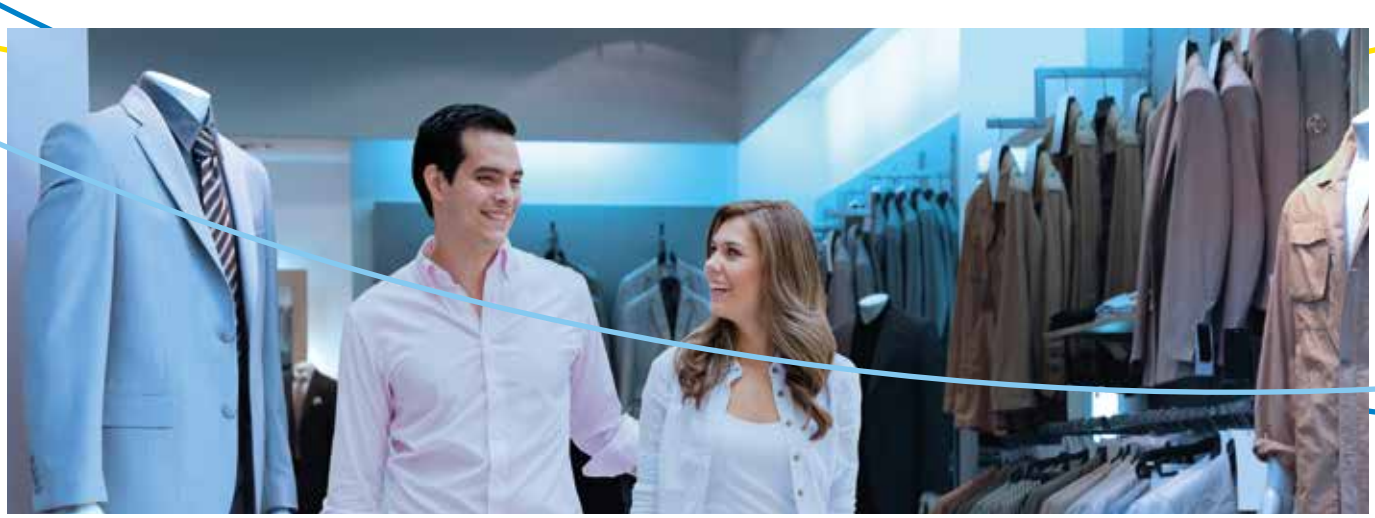
Building automation plus energy management

SAUTER Vision Center takes integration a step further. The global automation solution has an optional energy management module. This allows the visualisation and operation functions to monitor and analyse energy consumption. These features are essential, particularly for energy-conscious facility management.

The beauty of this integrated solution is that installations can share the same engineering throughout. All operating data is contained in a single database. Only one user management system is needed for the entire building automation. And to top it off, the way all relevant building automation management functions are operated and displayed is identical.

Full flexibility and open communication with no programming required

The second generation of SAUTER flexotron800 universal controllers has everything you need for small and medium-sized installations. This product needs no further programming and ensures local systems anywhere are regulated smoothly, and at great value for money. Furthermore, the solution provides interoperability with open communication protocols.



Wide-ranging functions and applications

Even small and medium-sized installations demand flexibility. Because of differing sizes, life cycles and comfort levels, no two buildings are the same when it comes to heating, ventilation and air-conditioning control. That's why, when we updated the SAUTER flexotron800 controller, we sought to cater to a whole host of applications. While keeping the solution simple.

The flexotron800 has all the functions expected for heating, air conditioning and ventilation applications. You might want it to control the cascade regulation of supply and return air in business spaces. Or for regulating the temperature of multiple heating circuits in small buildings. Small and medium-sized systems with heat generation, heat storage, domestic hot-water preparation and heating circuits are not left out by this stand-alone solution either.

Easy-to-set parameters

The units are delivered with applications pre-installed. But if you want to make your own settings, simply use the convenient navigation buttons and illuminated display. No further tools are needed. With appropriate access rights you can use the device to change set-points and settings, process alarms and view your system's readings. SAUTER flexotron800 is multi-lingual, allowing it to be operated and configured in over 20 languages.

To adjust your system even more efficiently, we recommend the SAUTER CASE flexotron PC software. You can call up all the control functions and current readings from the inputs and outputs. The tool and its user-friendly menus assist you during operation, servicing and troubleshooting. One such feature, for example, might be customising your own alarm descriptions. The unit doesn't even need to be online to program and configure it. Once you've set this controller, you can copy its settings easily to other controllers too. And if you really want to keep cost and functions to a minimum, there is also a hardware version without the built-in display.

Open communication

The BACnet/IP protocol has established itself as a standard with its openness, performance and wide range of applications. However, these qualities have been mainly the preserve of more complex systems with programmable automation stations. Until now, that is. The SAUTER flexotron800 – a BACnet-ASC controller – has opened this flexibility up to small and medium-sized installations. Performing simple control functions and yet providing BACnet/IP or Modbus (RS-485) connection, this is a cost-effective alternative.

The controller lets your building automation system utilise the data from air-conditioning devices, room-operating units, energy meters and other local components. SAUTER flexotron800 provides the "missing link" to the world of traditional, i.e., configurable, components. Another string to SAUTER's bow in the realm of programmable building automation.

The best of all worlds

So, however the SAUTER flexotron800 is used – directly on the device, accessing the integrated web server through a browser, using SAUTER CASE flexotron or incorporated in the building management system – it suits many installation sizes and is not a hindrance to scaling. The SAUTER flexotron800 universal controller provides an innovative, powerful solution that combines the best of all worlds.

Energy efficiency at your fingertips

Operating and visualisation facilities provide the right information at the right time and the right place. The "right information", of course, depending on the task of the user. The new SAUTER moduWeb Vision with Facility Touch Client is ideal for user-friendly operation on touchscreens.

Operating and visualisation solutions have so many requirements to meet – in the room itself, on the switching cabinet or at the central controls. Equally diverse are the end devices supplying users with the information and controls they need – wall-operating units, tablets and desktop PCs.

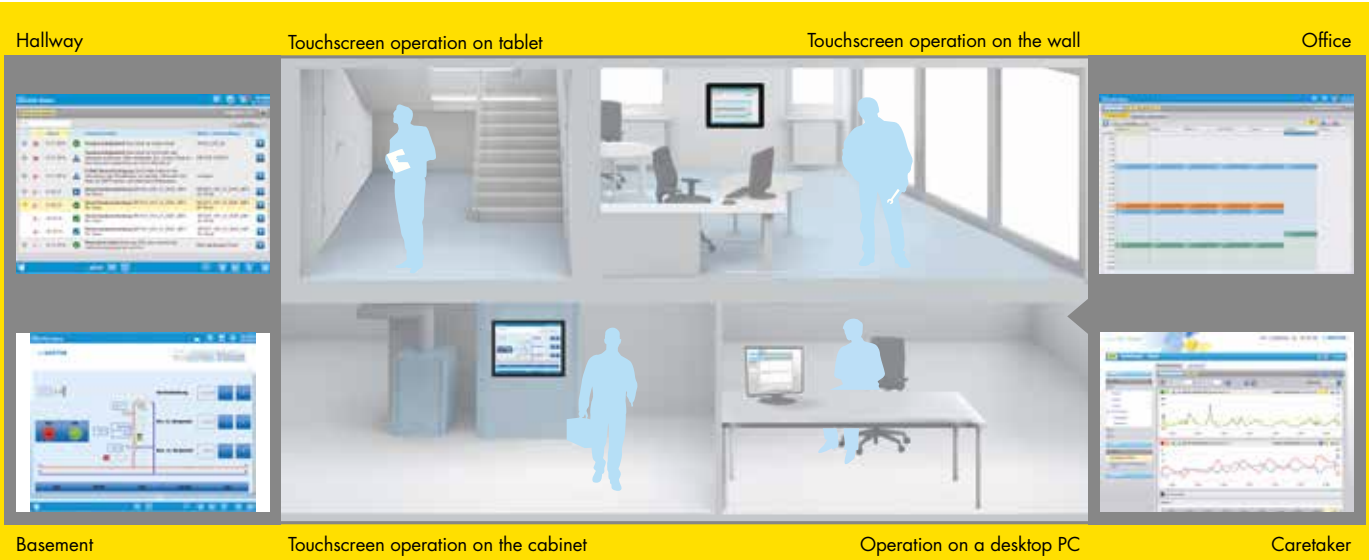
All the parallel interactions with the building automation system should start at one point and finish up at the same point. Enabling the installations connected and users to work more efficiently. SAUTER moduWeb Vision achieves this with flying colours – and now at the touch of a finger.

Intuitive touchscreen operation

SAUTER moduWeb Vision and the Facility Touch Client software allow any touchscreen to serve as the control centre for a whole installation. The user has more choice than ever as to when, where and how they use the flexible, versatile and intuitively operable visualisation software from SAUTER.

Tables, alarm lists, reports and calendars – now they can be displayed and adjusted conveniently by touch. On a cabinet monitor or caretaker's tablet, for example. The layout and different resolutions are adaptable to a whole list of devices. Special features suiting touchscreens also assist user control. And you can use and customise multiple touch clients at the same time. Enabling, for example, different 2-D and 3-D views to be created for the various facilities, such as heating and ventilation.

When touch operation was added to SAUTER moduWeb, developers were keen to have the same user interface for different device types and operating systems – while still allowing devices to carry out their own specific purpose. They particularly wanted user-friendly navigation and a state-of-the-art, ergonomic interface design, giving power users advanced functions but also catering to inexperienced users too.

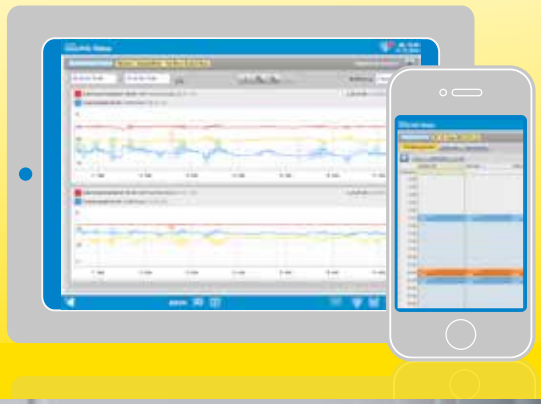


Dovetailed with standardised protocols

SAUTER moduWeb Vision is an economical, compact web server, especially suitable for small and medium-sized properties with up to 2,500 data points. The solution fits neatly into SAUTER's extensive range of operating and visualisation products. Between the high-end building management system – SAUTER Vision Center – and the basic SAUTER moduWeb software.

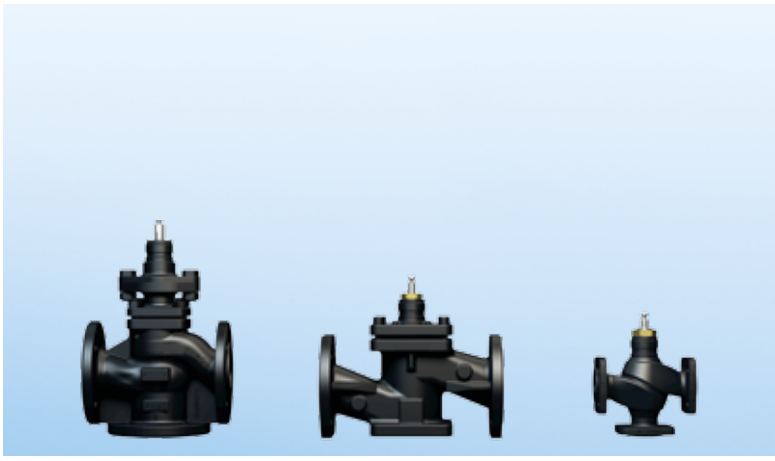
SAUTER moduWeb Vision offers high performance, stability and user-friendliness. With BACnet/IP it can consolidate all the data from any connected stations from both the SAUTER EY-modulo system family and other manufacturers. Standardised Internet protocols are used for communication with operating devices.

However, systems must be secure and function together. SAUTER moduWeb Vision meets these security needs as well. User administration can be configured so that operators only access functions that they are allowed to. Furthermore, all user activities are recorded in audit trails. And the built-in firewall protects SAUTER moduWeb Vision from any Internet attacks. So even when being operated with a touch client, security of the system is never compromised. Allowing it to be monitored and controlled safely from anywhere in the building.



Upgrade and conserve resources

SAUTER retrofit valve actuators are quick to install and extremely energy saving. Developed specifically for upgrades, SAUTER vialoq AVM valve actuators modernise any HVAC installation easily and reduce cost.



When retrofitting or swapping HVAC components, replacing like with like would seem to make most sense. However, closer inspection often reveals inefficient working and unnecessary operating risks. These negatives can be resolved by replacing old, uneconomical or damaged parts with modern, cost-saving, high-quality devices.

An actuator isn't just an actuator

Upgrading or replacing components is also meant to cut energy and maintenance costs. Therefore, the key issue arising early on is what return on investment from alternatives is expected. Various factors are considered here. They include product and installation costs, savings in energy consumption and maintenance, and improved performance and service life of the new components.

Here lies the strength of the new retrofit valve actuators from SAUTER – developed with easier modification in mind. They do away with expensive adapters and special tools, take less time to fit and the result is a high-quality installation. SAUTER retrofit valve actuators therefore reducing upgrade costs significantly.

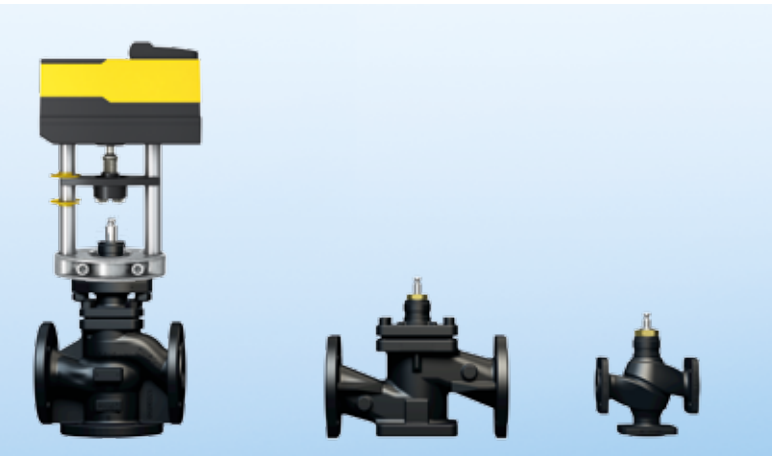
Compatible and fitted quickly

The valve actuators from SAUTER – backwards-compatible – are suitable for giving HVAC installations a new lease of life. With high-quality mechanical gears ensuring systems run quietly and much longer.

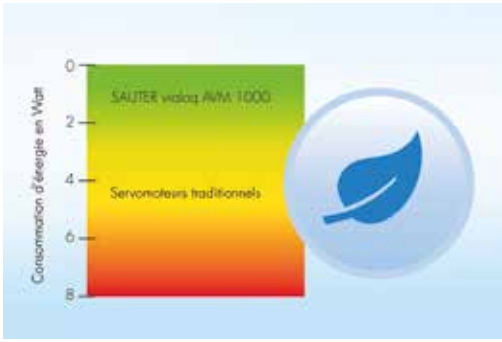
SAUTER retrofit actuators fit most common valve types, regardless of manufacturer. You can replace single or multiple actuators in an installation. Less work is needed, saving valuable time and money.

Fitting the SAUTER vialoq AVM retrofit valve actuator is quick and easy. Requiring just two screws and a patented automatic valve coupler. The spindle is connected automatically, and since you can order a completely tailored version, there are no leftover parts to dispose of.

Innovation



Fast mounting and commissioning



Energy efficient and environmentally aware

No surplus components,
no waste

Powerful

Kind on resources and energy efficient

SAUTER valve actuators consume just half the energy of comparable products – less than a conventional LED light. Even at maximum power and a rated thrust of 1,000 N, power consumption is minimal.

Valve actuators spend around 80% of their time in stand-by mode and this was the prime reason for SAUTER keeping energy demand in idle phases to a minimum. This unique energy efficiency conserves the environment and resources sustainably, and helps you cut costs in the long term. And an added bonus? This ingenious retrofit solution eliminates unneeded waste produced during installation.

Watch the animation on the website to see how quickly and easily the SAUTER vialoq retrofit valve actuator is ready to operate. And find out about its compatibility and how it fits precisely on your valves.

New ball valves for precise regulation

Three new ball valves made of dezincification-resistant cast brass from SAUTER make possible a wide variety of cut-off and change-over applications.

Ball valves are meant to regulate flow rates precisely and work without leaks. SAUTER supplies a complete range of high-quality ball valves for use in new business, residential and industrial installations, and also refurbishment projects.

Durable and sturdy

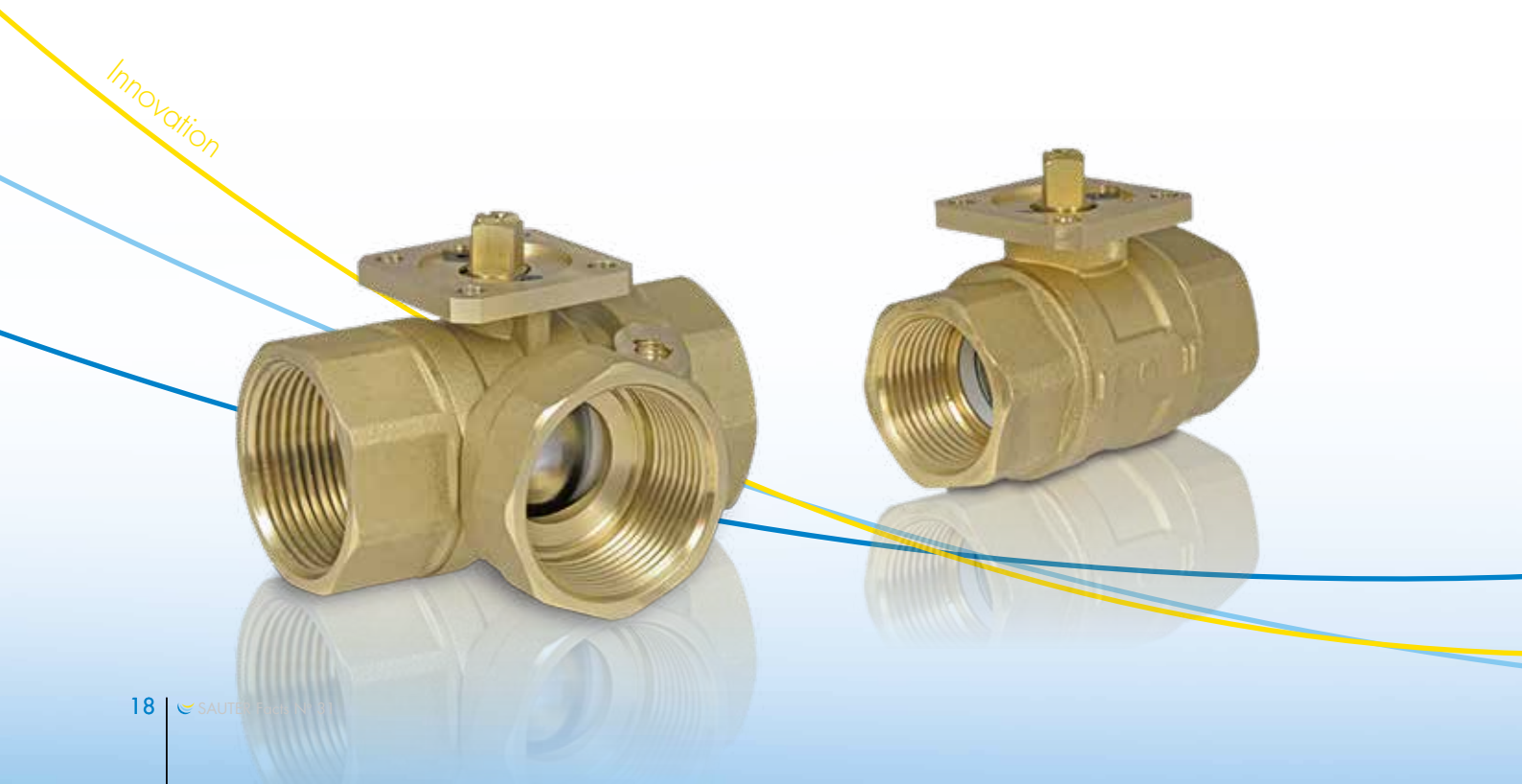
SAUTER now has three more ball valves for energy-efficient regulation of cold and hot water in closed circuits. They are highly versatile and are light, sturdy and suitable for a wide range of temperatures and pressure conditions.

One of the new models is a two-way, cut-off ball valve with On/Off function. And the other two from SAUTER are three-way, change-over ball valves, with L- and T-bores, for distributing and switching over fluids.

Excellent properties and simple installation

Each valve is made of robust, dezincification-resistant cast brass and has a female thread. With nominal diameters of DN 15 to 50, there is a minimal drop in pressure at the connections. The rust- and corrosion-resistant valves are suitable for use up to 35 bar at 130°C.

A chrome-plated brass ball with polished surface is the key to the outstanding physical properties of the three valves. SAUTER's new ball valves support all kinds of valve-actuator combinations. Easily connected to actuators, with or without a spring return. And fitting the components is a breeze, with no tools required.



Practical tools for valve calculations

Want to work out quickly the right valve-actuator combination for your project? Find the correct size regulating valve in one go? Then the practical tools from SAUTER for easy valve calculation are just what you need.

Control units are the robust and reliable basic devices of any HVAC installation. Water and saturated steam should flow using as little energy as possible – and only when they are needed. With a myriad of valves, valves sizes and actuators to choose from, which combination is best?

SAUTER provides various tools to help you find the answer. A large A1 poster with valve-actuator combinations gives a general overview, including applications. You can use our practical valve slide rule to select and determine the valve best suited to your installation. This handy tool enables you to size and select regulating valves for a certain electric actuator quickly and easily – with liquids shown on the front and saturated steam on the back.

Also available as online version

You'll also find an online version of this nifty slide rule on the SAUTER website. The online solution has a practical option for sharing the calculation values set on the screen. Of course, if you want the "real thing" to grace your desk or put in your work folder, that's no problem either. Simply talk to your SAUTER sales representative or ask at your local SAUTER point of sale. You can pick up the valve-actuator poster here too.

User-friendly software

SAUTER Valvedim is another way of determining the correct valve size and finding the right actuator. This user-friendly PC software is newly developed, intuitive to use and features four tools in one – general and detailed valve sizing and catalogue directories for both valves and actuators. If you know the installation specs, you can use the software to work out the values for the version and sizes you need. By adding more details you can whittle down further the ideal valve and actuator. It even lets you compare the properties of different valves with another. And once this is done, you can transfer the results directly to your project documents.

You'll find the SAUTER Valvedim software and online valve slide rule at www.sauter-controls.com/en/valvedim.

Saarland University to become a model energy campus

As part of the EULE project, Saarland University (SU) is currently optimising its operation and developing into a model energy campus. The goal of the project is to perform a range of inspections and measures to achieve energy savings of around 30% by 2017.

A consortium of engineers, business economists and psychologists is currently working on the project "SU model energy campus: optimised energy consumption throughout the premises" – or EULE for short. One technical aspect of the project focuses on building automation. SAUTER is playing an important role here.

High energy costs an impetus for EULE project

The campus buildings of the SU in Saarbrücken were constructed over different generations. They include barracks from the first half of the 20th century and typical university buildings from the 50s to 70s. And buildings that are new or completely renovated. The standards of air conditioning are therefore quite different. Since 1998 SAUTER has installed building automation systems in around 50 of them. While SAUTER has upgraded twelve more since 2009 with its EMS energy management solution. The electricity and district heating costs were relatively high, particularly in the older, badly insulated buildings. This being one of the reasons why the German Ministry for Economic Affairs and Technology is sponsoring the EULE project.

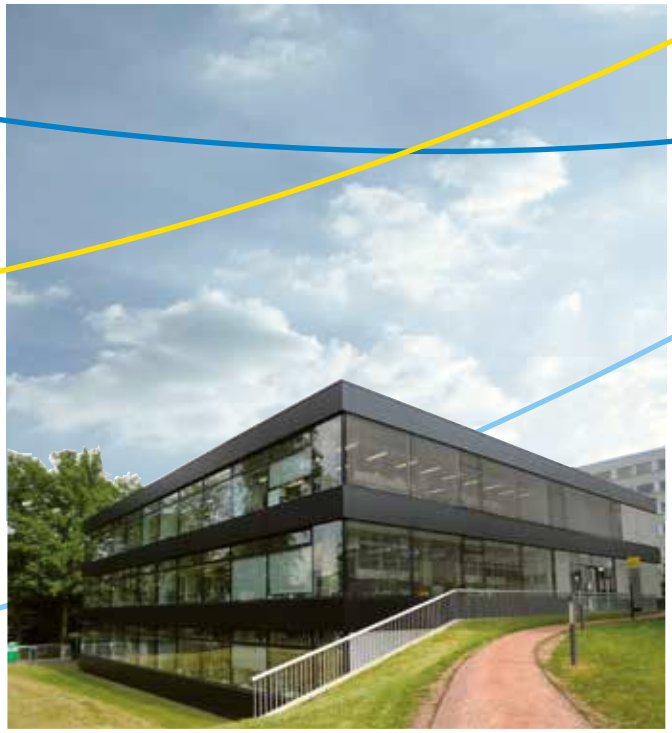
Targeted energy savings of 30%

The university administration wants to reduce energy consumption of the entire campus by around 30%. To turn this into reality, various energy efficiency measures are being carried out in different campus buildings and then analysed. The project consortium has come up with special methods and tools for minimising energy consumption. And case studies are now being used to develop them further. It is hoped that, ultimately, a common theoretical model is created for optimising energy use in public buildings.

Proving to be very much up to this task, SAUTER was also commissioned to refurbish selected campus buildings. This entailed upgrading the building automation and connecting some buildings to the EMS. And where buildings were technically obsolete, additional necessary automation components were fitted. The automation was now in place on the campus to perform the case studies needed over the coming months.

Refurbished building automation enabling systematic comparison of energy consumption

During the EULE project, SAUTER installed devices including room automation stations from its EY-modulo 5 system family. Room operating units – connectable to the automation stations and freely programmable – were put in at the entrances. Heating, energy and water consumption is also being monitored in three selected buildings. The data generated by these facilities is collected in SAUTER's building automation and EMS systems. It is then used to compare systematically energy consumption under varying conditions. A specially developed monitoring system allows the savings made to be documented in detail.



Saarland University (SU) is the only university in the Saarland and is situated in Saarbrücken and Homburg. Founded in 1948, it was a joint German-French project, the Saarland then being a region semi-autonomous politically and linked with France economically. The university had its origins in the Institut d'Études Supérieures de Hombourg, which was first associated with Nancy-Université. Around 18,100 young people study in Saarbrücken and Homburg today, with more than 16% coming from other countries.

HVAC installations fine-tuned

The building automation work also involved SAUTER upgrading all the heating installations in each building. This will bring about improvements in the heating curves and switching programmes for the night and weekend set-back modes. It also enables the heating to be switched off completely during summer. And the reburbishment didn't stop there. The way the cooling systems function was examined and the operating times, volume flow and pressure loss, etc., of the ventilation systems were also inspected – with adjustments made as necessary. And depending on usage, buttons or presence detectors were added for switching the systems on and off.

SAUTER fitted an M-Bus system, linked to the building automation system, to record all the energy readings from the big, energy-intensive ventilation and cooling systems. Flow rates can therefore be captured, together with consumption values, in specified time steps. The room automation was tied in with the university's internal network. The automation accesses a BACnet station, where it is assigned to a particular room via network connections, and then routed to the higher management level.

Prediction model also to be used at other universities

The next step integrates the findings of the economists and environmental psychologists involved in the project into the model – already developed – which predicts energy consumption. This will create a shared flexible and configurable tool, enabling the effect of various measures to be forecast. Other universities are set to apply this model at a later date.

The results of the EULE project study illustrate how working with SAUTER can achieve the optimised processes and savings aimed for. And the scientific values and knowledge gained from this joint work provide SAUTER with a great springboard to carry out more refurbishment projects – and in the private sector too.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Less noise and CO_2 at Munich Airport

As part of a noise protection and energy-saving strategy, the Munich Airport and Terminal 2 companies have launched a pilot project where aeroplanes are air-conditioned on the ground for the first time with a "pre-conditioned air" (PCA) system. SAUTER Deutschland was responsible for the pilot system's building automation. The test phase successfully completed, PCA systems will now be installed in all parking positions close to buildings at Germany's second biggest airport.

Until now it's been standard practice to air-condition planes with their own auxiliary power units while docked at the passenger boarding bridges. Causing major noise pollution and high CO_2 emissions. With around 800 planes docking annually at each parking position at Munich Airport, the total emissions are considerable.

In a bid to reduce energy consumption and noise pollution, a pilot project was set up at passenger boarding bridge 216 to provide stationary heating and cooling. A PCA system was upgraded so that it could provide the air conditioning to the aeroplanes docked there during the test period. These measures in fact stemmed from the company's own CO_2 management guidelines, aimed at further reducing aeroplane noise and achieving CO_2-neutral growth by the year 2020.

Communication with SAUTER EY-modulo 5 using BACnet

SAUTER had to ensure special requirements for the PCA system's building automation were met. To begin with, a coupler between the management level and Air Handling Unit (AHU) automation, as well as the air distribution automation, needed to be developed. The PCA system had its own internal regulation and controls with field devices, a power unit and internal wiring. This was connected to the SAUTER modu525 automation station via BACnet/IP, allowing it to communicate with the AHU. BACnet/IP was also used for connection to the existing building management system. One advantage of this communication, for example, is that aeroplane data can be transferred for regulating and controlling the AHU.

However, this data first had to be broken down by the airport so that it could be processed by the PCA system and enable the program to keep the switching in line with the flight plan. But because the airport's building management system department and SAUTER worked closely together, it was possible to find a solution to this challenge.

Weather-resistant operating panel

Another requirement was that the heat supply at the heat transfer station had to be pre-regulated. The building automation ensures warm water is supplied to the heating coil. At the terminal parking position there is a district heating transfer station. Depending on the needs of the central heat supply, its plate heat exchanger reduces the temperature from 120 to 80°C.

Finally, SAUTER was tasked with providing a local operating point at the chassis of the passenger boarding bridge. This operating point had to function correctly even under extreme weather conditions and within a temperature range of –30 to +50°C. That's why touchscreens were out of the question. SAUTER decided instead on a user-friendly panel with buttons and lights positioned in their respective groups in order to prevent mistakes.

Building automation measures energy consumption per plane

It was important that the building automation could record the energy consumption data for each boarding procedure and transfer this data to the building management system. For this purpose, SAUTER developed a special program for preparing the data, with the option for it to be billed in SAP. This enabled the cost of the air conditioning to be assigned to each boarding procedure.

After the pilot system was tested successfully, SAUTER won the tender to provide the building automation for 35 additional systems in terminals 1 and 2.

High-tech automation solution for the University Hospital in Dresden

University Hospital Carl Gustav Carus provides the people of Dresden with the maximum level of medical care. The hospital's room devices and technical equipment are continuously being updated, with lots of the high tech coming from SAUTER.

The Dresden University Hospital Carl Gustav Carus (UKD) provides the highest level of care to around 320,000 patients every year. It has 21 specialist clinics and nine inter-disciplinary centres accommodated in about 60 buildings. And with their chequered history, the building structures vary greatly.

Since the start of the 1990s, the hospital has undergone continual refurbishment with many conversions and new buildings added. Changes in healthcare also mean the UKD is under increasing cost pressure and has to use resources efficiently. However, the University Hospital, and the Medical Faculty linked closely to it, spotted these challenges on the horizon at an early stage. They therefore enlisted the services of partners such as SAUTER and came up with future-proof solutions.

Systems managed centrally and with ease

To ensure the hospital – with its operating theatres and sensitive technical equipment – runs smoothly it is essential the building automation systems operate reliably. Various systems are installed in each building, with automation stations to control and regulate them locally. The devices connected to this system include BACnet stations from SAUTER and other equipment using the Modbus and M-Bus open protocols.

SAUTER already set up its building management software – novaPro Open – in 2007 and this monitors, operates, analyses and optimises control and regulation of the installations. A central computer centre is the base for the all-important BACnet solution which processes a total of 60,000 hardware and software data points in multiple virtual networks. It's easy to extend the system. Which is just as well, considering the number of data objects is expected to grow to around 150,000.

The SAUTER software fulfils key functions in building management. These include recording operating and malfunction notices, measurement and meter values, and also visualising the installations using current measurements and installation statuses. The software correctly prioritises alarms and forwards them, while also guaranteeing high availability levels and processing speeds.

There are two main operating points – physically separate – with large 42-inch wall displays. This is where building management staff have direct access to all the equipment systems connected. What's more, technicians responsible for the equipment systems can go to any authorised office workstation and access the password-protected web interface on novaPro Open.

This allows operators to reliably analyse the operating status of installations, identify errors and malfunctions and thus nip problems in the bud. Staff can also view energy meter data and call up long-term assessments of historical data, enabling them to improve operation continuously – remotely even. Finally, user-friendly navigation – with no programming knowledge required – means they can adjust the system precisely to new operating processes and requirements.

Keeping up to speed

The University Hospital's room devices and technical equipment are upgraded on an ongoing basis. In 2012, the Diagnostic Internist Neurological Centre (DINZ) was opened, with an old building being refurbished and a new one built. The biggest and most challenging building automation project so far, it comprised 11,800 new hardware and software data points at 102 BACnet automation stations – all supplied by SAUTER.

The new centre is marked by its highly varied system landscape with many technical facilities. The new building, for example, has a building management system which takes the weather forecast locally and then regulates component activation in the thermally active ceilings. Various protocols such as Modbus RTU, M-Bus and LON are also used to integrate other equipment systems. These include water chillers, ventilation, heating and cooling meters, fire protection smoke damper controls and recirculated air chillers.

Intelligent cooling network

The hospital's eight cooling centres, with up to three chillers each, have grown into a cooling network. A special master automation station has been set up recently and integrated, in multiple stages, in the UKD's existing network. This allows refrigeration systems, network feeds and network withdrawals to be modernised and automated. With the highest level of intelligence in the system, this station can connect the cooling centres, across the virtual networks, to their own independent automation stations and technology-specific operating structures. In this way it also ensures the correct data is exchanged.

Coolers can now be switched on and off to meet demand and system efficiency. The speed of the supply pumps is adjusted automatically and the pressure differential of the whole system is regulated at the withdrawal points. The system responds by itself when loads change or if individual coolers fail. Staff can use the central building management software from SAUTER to change control characteristics at any time. And let's not forget, of course, that this refurbishment has optimised the energy efficiency of the entire cooling network.

A 14-storey Palazzo as a birthday present

Tecniche Nuove, the major Italian specialist publisher, celebrated its 50th anniversary last summer. To mark the occasion, the company treated itself to a substantial present, opening a new headquarters in the north of Milan. By supplying its EY-modulo 5 integral building management system and other equipment, SAUTER helped gear up the building for the future.

Tecniche Nuove is an impressive success story and a permanent fixture on the media and trade fair landscape in Italy, Switzerland, Brazil and also, of late, China. With over 500 employees, the company cherishes its family roots. Ivo Nardella, son of Giuseppe Nardella, founder and President of the publishing house, is today in charge of the company's fortunes.

The General Manager and CEO of Tecniche Nuove recently referred to the new building as "the reward for fifty years of hard work". In keeping with family tradition, the company took on no debt for the ambitious project. It was equally important to the owners that all resources be used carefully when constructing and operating the high-rise building and that innovative technologies be employed.

An expression of sustainability and innovation

The company itself has been relaxed about the visibility of its own brand, choosing instead to put the renowned titles among its publications at the fore. So with its 14 storeys, the new head office really is making an impressive statement. It is confidently taking its place in the strong "upwards trend" in Milan, capitalising on the space available next to the Group's existing office building.

With a height of 60.68 metres and total gross area of around 3,700 m^2, the tower provides office space for the editing, sales and administration departments. Staff can go about their work in a comfortable, energy-efficient environment. And much of this is possible due to the integral building management system – SAUTER EY-modulo 5 – and the innovative management and visualisation solution – SAUTER novaPro Open.

Open communication and highly energy-efficient

A particular challenge faced during the project was integrating various systems from different manufacturers into SAUTER's overarching solution. However, the open BACnet/IP standard has been employed throughout. And this means the higher-level management software and integrated Advanced Alarm Module ensure building managers always see the bigger picture regarding the different equipment systems in operation.

All components in the versatile automation modules from SAUTER's EY-modulo 5 devices interact, of course, as one. Distributed intelligence increases efficiency at every point in the building management system. And maximum energy efficiency is achieved by controlling energy demand between consumers and their energy sources.

"We congratulate Tecniche Nuove on its 50th anniversary. May the innovative systems and reliable services from SAUTER play a key role in ensuring that the rewards of the next 50 years are at least as impressive as today's."

Alberto Isola, CEO, SAUTER Italia

Interview with Ivo Nardella

- CEO and General Manager of the Tecniche Nuove Group
- Married and father of three children
- Second generation to manage the company; father and founder, Giuseppe Nardella, is now President of the publisher
- The publishing group also operates internationally

In June you celebrated 50 years of Tecniche Nuove. Is it coincidence that you moved into your new headquarters on this very occasion?

I rather believe that this is the culmination of a fifty-year history and the result of the hard work, great determination and many sacrifices, on the part of our family, that have made Tecniche Nuove a solid and, at the same time, dynamic and innovative company.

What goals do you hope to achieve with your family company's move?

I would say that the main goal is to show or underline the image of a modern, highly efficient, professional organisation. Not only in terms of products produced, but also management of the company as a whole.

The desire to create a company headquarters that matches the reputation that Tecniche Nuove has built up in Italian and international publishing – a place that is a synthesis of technology, culture, history and future outlook of our Group and which aims to send the market a clear signal through this considerable investment.

How important to you was energy efficiency in your new headquarters?

We are very conscious of the fact that energy is the lifeline of our society. The well-being of the population, industry and economy depends on whether we have secure and sustainable energy, and on whether everyone can access it. Therefore, energy efficiency – especially that of buildings, since buildings account for 40% of total consumption in the European Union – plays a fundamental role. In short, energy efficiency means doing more with less through better use of resources: a strategy that is undeniably beneficial. On the one hand, efficient energy use leads to lower harmful emissions, less impact on ecosystems and improved quality of life. On the other, measures to increase energy efficiency lead to savings in cost, thus boosting the competitiveness of each industrial activity.

This is why, when constructing the Torre della Cultura, we made the most of the new building and building installation options on offer from leading companies. It was because of this that the building was able to achieve energy efficiency class A.

Swisscom is investing in energy-efficient computer centres

As Switzerland's most sustainable telecommunications company, Swisscom constantly seeks to increase the energy efficiency of its computer centres. To upgrade the energy network at the Binz computer centre in Zurich, Swisscom turned to energy-efficient solutions from SAUTER. But most impressive of all, the renovation took place while the centre remained in operation.

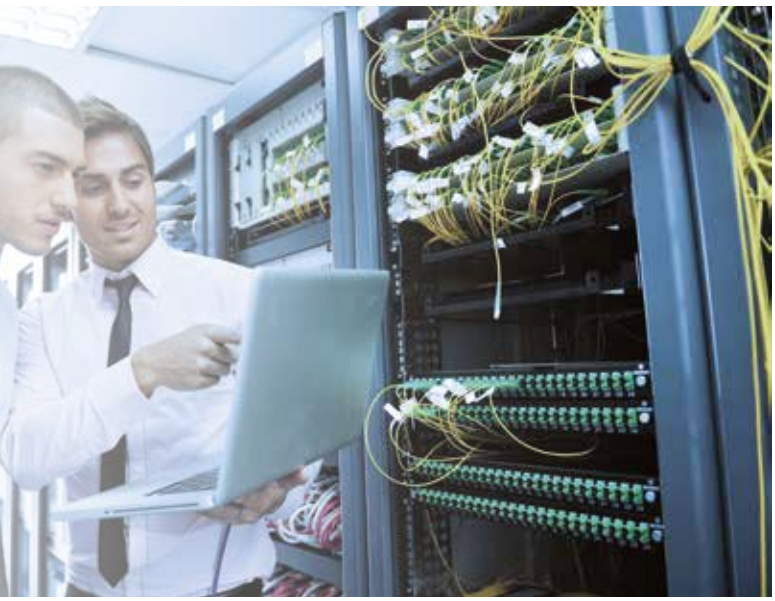
Computer centres worldwide are the source of around 2% of total CO_2 emissions – the same as the output of all air traffic. This high energy consumption is mainly down to the cooling of server rooms and usually inflates the cost hugely of running computer centres. So what's the answer? Innovative room climate technology – which can significantly reduce energy consumption and operating costs. However, this is no news to Swisscom which, according to the Dow Jones Sustainability Index, is one of the ten greenest telecoms companies in the world. Thus making it no surprise that the company has given its Binz computer centre in Zurich Wiedikon a comprehensive energy overhaul.

The Binz computer centre, in operation since 1993, is an important nerve centre for Internet and TV services. The technical rooms are housed in the three wings of the building over a total of seven storeys. The rapid development of IT has made it necessary to be able to change the space allotted between technical rooms and office areas without any fuss – offices turned into server rooms and vice versa, with the different air-conditioning requirements that this entails.

Power station and housing cooperative recycling waste heat

When the Binz computer centre was being refurbished, three new chillers with a total power of 6 MW were installed. Seven new heat exchangers on the building's roof are used as direct coolers for technical cooling during the transition periods. The waste heat from the computer centre now provides the Zurich city power utility (EWZ) and the nearby Zurich family housing cooperative (FGZ) with energy in the region of approx. 10 GWh per year. This novel use of waste heat has also paid off for Swisscom in the form of a PUEDA subsidy, from the Swiss Federal Office of Energy, promoting better power use in data centres.

SAUTER not only redesigned the technical cooling system in the entire building but also the air conditioning and ventilation. A management level system and automation stations were also part of the package. The management level – SAUTER novaPro Open was chosen here – lets operators view the operating statuses and actual and set point values of the various systems at one central point. Key data is shown on the graphical user interface. Now re-allocating room use is no problem whatsoever.



Availability of entire system essential

High system reliability is crucial in computer centres. At the Binz computer centre, the requirements are those of TIER Class 3, the second-highest level for system reliability. Hence all the technical cooling systems must also meet the same standards. Availability of at least 99.982% is demanded, meaning the cooling installations may be down for 1.5 hours per year at most. However, even this would present Swisscom with a major problem and so everything possible is done to guarantee cooling remains up and running at all times.

To ensure the required availability, all components of the technical system must be fail safe. There must be no single point of failure, no component that would bring down the whole system were it to malfunction. To safeguard communication between the automation stations and management level, SAUTER built a redundant network with servers at three different locations in the building. The network is very fast, with a recovery time of less than 20 ms if there's an interruption. SAUTER novaPro Open runs virtually on the servers. This means that, should a server fail, another server will immediately take over.

No stoppages during conversion

For ventilation and heating, SAUTER replaced all the existing recirculated air chillers, regulated externally, with compact units which had integrated regulation. All the existing field devices in the ventilation systems also made way for new switching device combinations, including automation stations (SAUTER EY-modulo 5). This was not all. SAUTER equipped the data centre on the first floor with its SAUTER EMS energy management solution. This reports and analyses energy consumption and also performs benchmarking and key figure creation. The data recorded is sent automatically to Swisscom's own EMS application.

The project was particularly challenging because all the building work on the new cooling system had to be done with the computer centre still operating. Therefore, shutting down server room cooling had to be avoided at all costs. And furthermore, refurbishment could only progress in stages. This was because business dictated that Swisscom had to define multiple "frozen zones", some lasting for several weeks, and during which the renovation work had to cease. But the conversion of the cooling system was ultimately achieved, without a glitch and with no interruptions to the data centre's operation.

Green Building on the "Fortress of the Gods"

Gladiators once fought for their lives in the amphitheatre of Divodurum. All that remains of this amphitheatre is its name – the new city district of Metz was named after it and one of its first buildings, erected on land belonging to the Foncière des Régions real estate group, is called "Le Divo". This building is the new headquarters of the real estate company, with its environmental friendliness earning it the HQE certification and the BBC label.

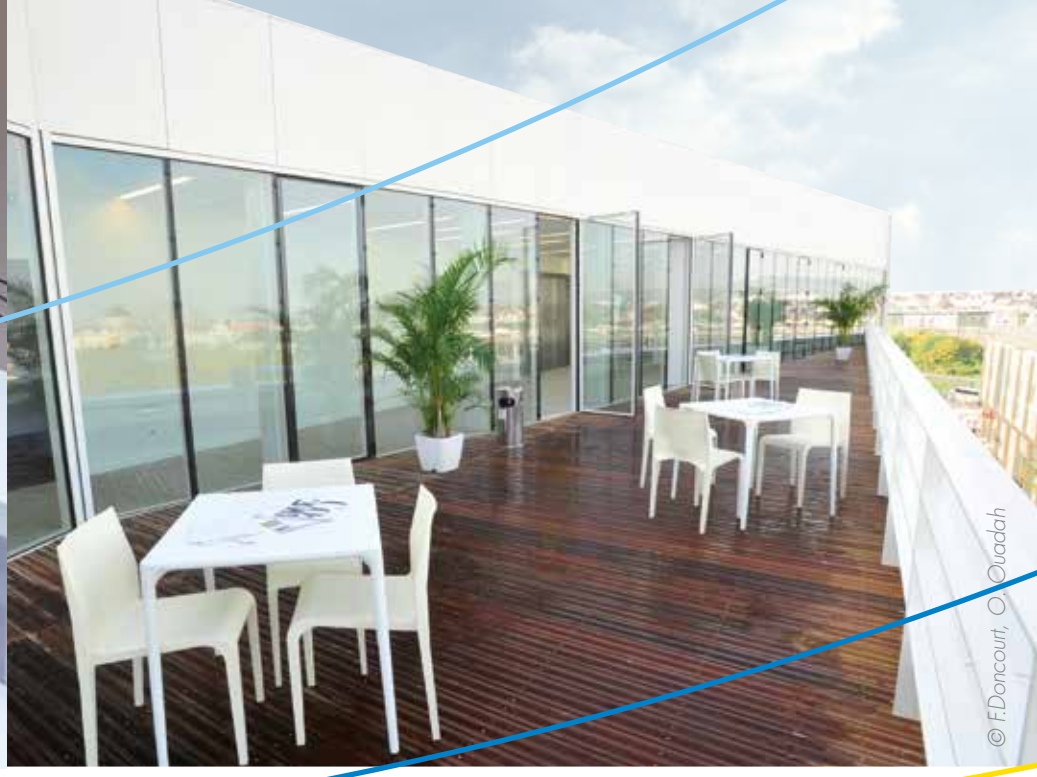
In the south of the city, there's an urban development zone covering 38 hectares. The area is currently the biggest development project in the city of Metz. One of the largest Roman amphitheatres, with a capacity of 25,000, once stood here and remains of its foundations still lay underground. The impressive Centre Pompidou-Metz, behind the TGV train station, is the cultural hotspot of the new "Quartier de l'Amphithéâtre", attracting hundreds of thousands of visitors to its exhibitions every year. A large sports and events venue next door goes by the apt name of "Les Arènes".

"Le Divo", the first office building in the new district, diagonally opposite the Centre Pompidou-Metz on the Avenue François Mitterrand, was opened at the end of 2013. The name is derived from the old Celtic-Latin name of Metz, "Divodurum", or "Fortress of the Gods". Foncière des Régions, which was founded in Metz, has real estate holdings of € 16 bn. In France and Italy it operates in the office sector, while in Germany it is active on the apartment market and in Europe on the hotel market.

Green offices the focus

Foncière des Régions is a keen promoter of sustainability. Energy efficiency is extremely important to the company. Between 2008 and the end of 2020, energy consumption in its buildings is set to be reduced by 40%. By the end of 2014 – one year earlier than planned – no less than 50% of the office buildings in its real estate portfolio had either obtained a Green Building certificate (HQE, BREEAM, LEED) or one of the energy efficiency labels (BBC-effinergie, HPE, THPE, etc.) – or both! And that's not all. Foncière des Régions plans to up the proportion of green office buildings in its portfolio to 66% by 2017 and fully 100% by 2020.

Of course, "Le Divo" was also designed as a Green Building from the outset – being awarded the NF HQE Bâtiments Tertiaires certificate and BBC-effinergie label. The building has total office space of 5,000 m² over 7 storeys. Contracted to equip the building with the installations and control software needed, SAUTER made its own mark fulfilling these high environmental standards. SAUTER fitted intelligent automation stations and single-room controllers from the SAUTER EY-modulo 2 system family – including around 600 single-room controllers (ecos202) for regulating the heating, ventilation, room climate, lighting and window blinds.



Central building management and flexible rooms

The web-based management software, SAUTER novaPro Open, controls and monitors the entire building and room automation. With the system of flexible rooms in place in "Le Divo", rooms can be divided up precisely to the requirements of individual tenants. Mobile walls allow rooms to be designed freely while the user interface on novaPro Open enables the room automation to be adjusted to the particular room division. Once Foncière des Régions – the first user – had defined the room division it wanted, SAUTER technicians began programming the room automation.

No energy wasted in unused offices

Every office in "Le Divo" has a room temperature sensor and an occupancy and light sensor. These cut down energy waste in the rooms. The systems now control the blinds, regulate the temperature and supply fresh air. They also measure the light to adjust the light intensity in the rooms. The air conditioning and lighting stay off in offices not being used, saving more energy. Once people have left corridors and communal areas, lights are switched off automatically. A weather station on the roof of "Le Divo" feeds the building management system information on the temperature, wind and strength of the sunlight. Added to this, office users can use remote-control units to control the temperature, lighting and blinds individually.

The building technology in "Le Divo" features a heating and cooling system connected to the municipal district heating and cooling networks of Metz. Two ventilation systems supply fresh air to the entire building. The SAUTER management system controls 11,400 data points and also regulates air curtains at various entrance doors of the building. The system can be operated over the Internet or by remote control.

The generous panorama terrace of "Le Divo" provides an excellent view of the growing "Quartier de l'Amphithéâtre". More residential, commercial and office buildings – plus a congress centre – have already been built or are in the throes of construction or planning. The new city district of Metz therefore stands to become a great, diverse location.

Sustainable facility management has crucial effect on a property's value

"Am Zirkus 1", a real estate project in Berlin, includes a four-star hotel with 309 rooms and total area of about 11,000 m². It also features a luxurious residential area and commercial and office space. Part of this premises (the hotel and commercial space) belongs to the portfolio of KanAm Grund Institutional – an investment management company with headquarters in Frankfurt am Main. SAUTER Facility Management is responsible for the technical and infrastructural building management and the property management at this exclusive Berlin property.

Interview with Barbara Gross, Associate Director of Asset Management, Technical, KanAm Grund.

Barbara Gross, the real estate funds of KanAm Grund are based on a long-term investment strategy. How does this affect the selection of the facility management service provider?
Our goal is to have sustainable, efficient building operation over the entire holding period. For this we require the facility management services to be quality assured. Therefore, we aim to have a long-term collaboration with renowned, technically competent service providers.

At "Am Zirkus 1", the owners and users value style and luxury very highly. What does KanAm Grund see as the most important features of a satisfactory range of facility management services?
For the complex spectrum of uses at the premises in Berlin, a high level of technical expertise is key. It must be sufficient for the premises. However, of equal importance are, of course, 24-hour service and good, practical support for the needs of the tenants. On the one hand, all of these services must employ state-of-the-art technology and, on the other, the costs must be in line with the current market. Admittedly, this is a difficult balance to maintain, but it is a very decisive one for us. The service provider's internal processes must also be transparent and efficient. Above all, they need to be suited to our own processes and requirements. In the special case of "Am Zirkus 1" in Berlin, the property management was also awarded to SAUTER to fulfil the expectations of the owners and tenants.

The premises was certified Silver by the DGNB (German Sustainable Building Council). What significance do you attach to sustainability in facility management?
KanAm Grund already focuses on aspects and criteria of sustainability when selecting and buying a property. It's therefore also important that the property maintains, and even improves on, its status in operation during the holding period. This is because sustainability does not just stand for the environment – a term which is hard to quantify. It also specifically relates to things such as comfort due to natural lighting; healthy, clean air; effective heating and cooling; noise reduction; healthy, sustainable materials; and a longer serviceable life, etc., with reduced consumption – and therefore also reduced cost. All of these factors are significant arguments both for renting out and for negotiating a price for the property in the future – and therefore, also, very sensible and decisive economic selling points. They have a crucial effect on the value of a property.

With the HighLight Towers in Munich, KanAm Grund and SAUTER have already proven that specific measures can have very positive effects on consumption and comfort. In your experience, what are the best approaches to improving energy efficiency in building operation?
The best approaches are in reducing consumption for electricity, water, heating and cooling. This is best achieved by optimising the building technology installations and their operation, and by adapting the room conditions in the building to specific user behaviours. The HighLight Towers in Munich have a very impressive building ensemble comprising two slim tower buildings, a hotel and a four-storey low-rise building. Architect Helmut Jahn had already considered all the aspects when drawing up his draft plans. The HighLight Towers are connected to the district heating; they have no central air conditioning or heating, and every room can be regulated individually. Although these are high-rise buildings, ventilation flaps can be opened in every office to let in fresh air and listen to the sounds of the city, even on the 33rd floor. And yet, a computer-based measuring system from SAUTER was able to improve the energy efficiency even further during the last few years. Why settle for good when you can have it even better?

Do you see it as an advantage that, in facility management, SAUTER can also draw on all the Group's experience as a provider of building automation solutions, i.e., for the hardware and software?
Yes. We look forward to benefiting from expert support as we optimise processes and make operating costs more efficient.

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