

Automate infrastructures profitably

Be inspired by flexibility



Infrastructures require flexibility

SBC – Be inspired by flexibility

Saia Burgess Controls is the flexible automation specialist. Drawing on open standards, we develop and manufacture modular open- and closed-loop control products for buildings and infrastructures of all kinds, and market them internationally.

Solutions that excel through durability, compatibility and portability and hence increase profitability, sustainability, convenience and energy efficiency for partners, operators and users over the entire life cycle.



Making sure everything runs as you want it to

Infrastructure – this covers complex structures that are networked and need to be measured, controlled and managed, e.g. the water systems in a town, district heating for a residential district, cooling systems for regions or transport.

There are always people involved pursuing different goals. Users simply want what they've been promised: water, heat, cooling, an open road. Operators want to be on the safe side in the long run – with solutions that are energy-efficient, reliable, sustainable, profitable. And system integrators need robust products that enable them to develop reliable, long-term solutions for all these diverse requirements. That's what we provide.

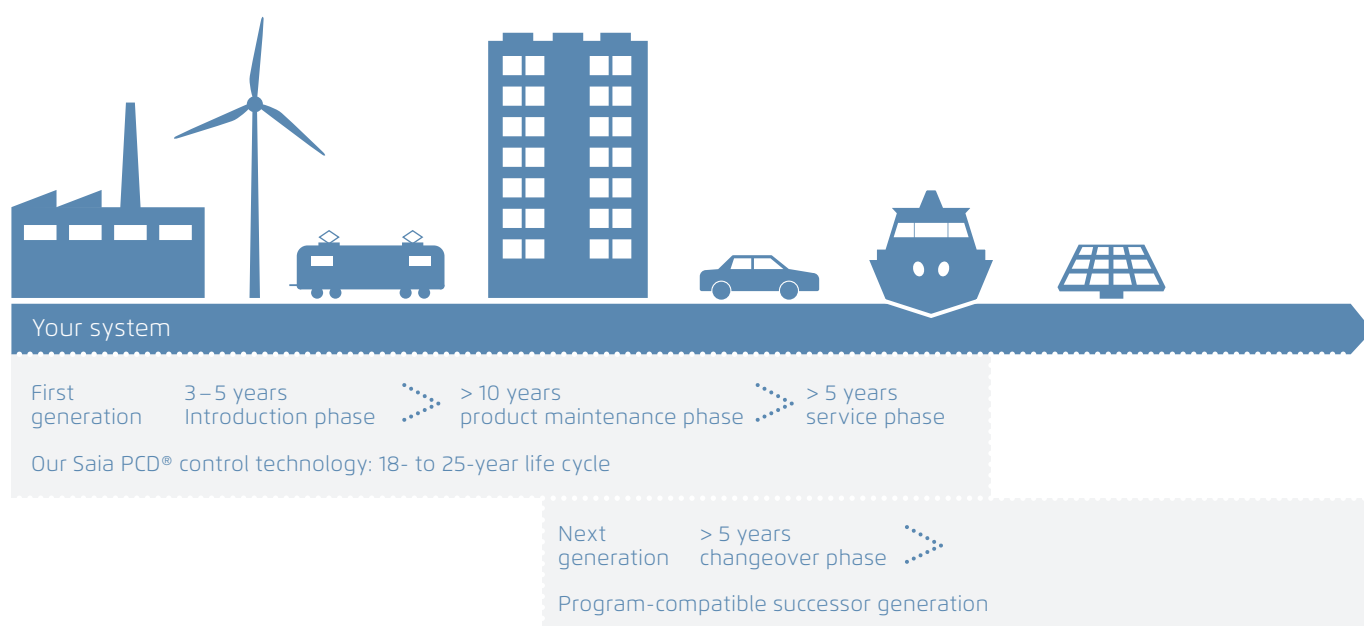
Infrastructure automation with Saia Burgess Controls delivers maximum flexibility and reliability – designed for a life cycle of up to 25 years and more; open for all requirements, changes and adaptations during operation; with CPU redundancy for resilience. Open for you. So that ultimately everyone benefits.

What we offer system integrators and OEMs: our partnership and a formula for success

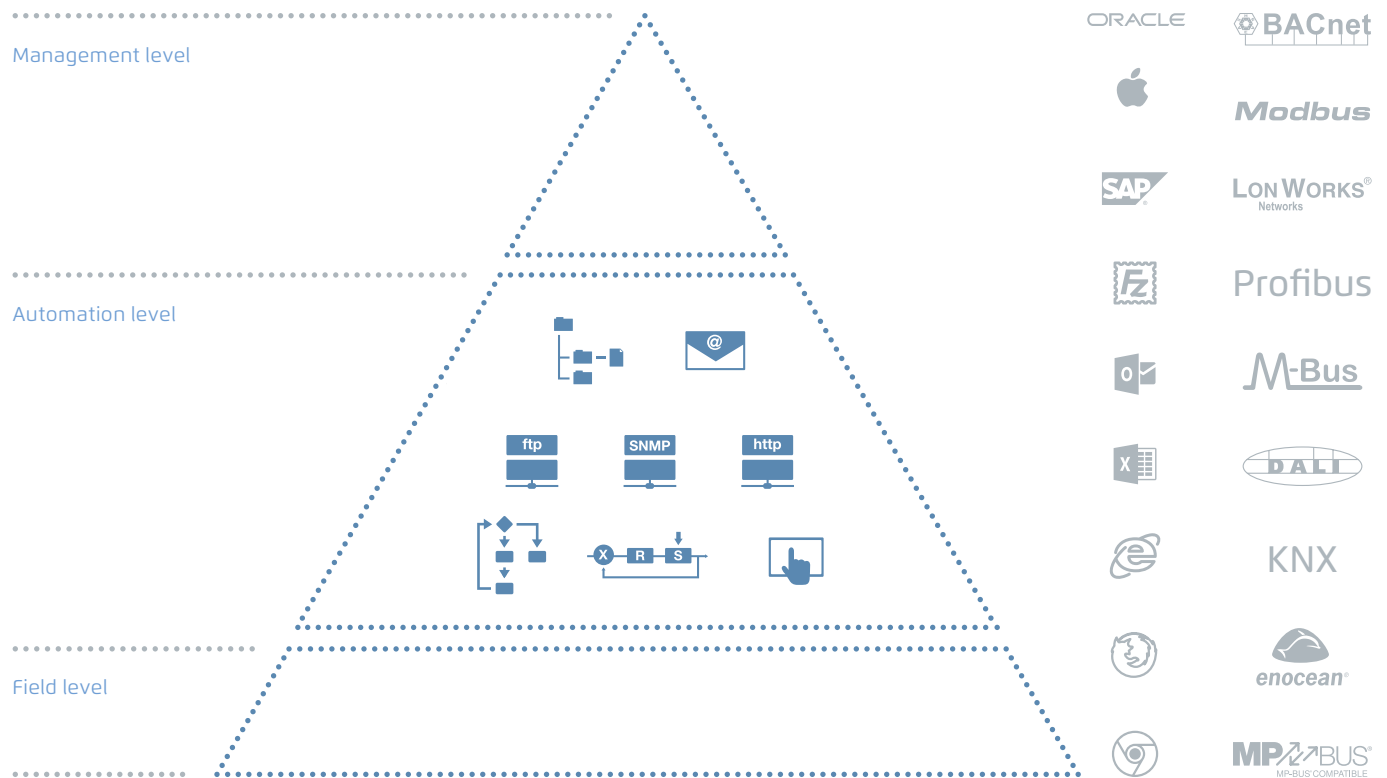
What does infrastructure automation with Saia PCD® offer that other suppliers don't? The answer is openness in technology, communication and application. And hence greater long-term profitability. Saia PCD® controllers, web panels and energy meters make this possible. Together, these three components constitute the system with which you can create a solution for any type of infrastructure automation. We supply the hardware and software, you provide the engineering. Perfect interaction with no competition. That's what we mean by partnership: greater success for you, for us and for your clients – building owners, general contractors and operators.

Building owners and operators benefit from maximum flexibility and long-term investment certainty

Infrastructures are intended to last but are constantly subject to change. They grow, are expanded, updated, modernised and need to adapt to changing circumstances. Conventional automation technology is not designed to cope with this. Any change, modification or expansion is costly in terms of staff, time and money. It doesn't have to be that way. Saia PCD® grows with your needs and adapts to the actual requirements. Where conventional automation requires additional proprietary software and hardware installations with high maintenance and operating costs, Saia PCD® can be reprogrammed or expanded quickly and inexpensively. It is precisely this flexibility that is such a benefit to operators because it enables them to react more quickly when circumstances call for it. And that pays off – over the entire life cycle.



Everything that helps you progress



Saia PCD® technology is open for all standards, making it cost-effective, easy to service, user-friendly and profitable in the long run.

The formula for your success

Web-HMI + Saia PCD® + energy meters

The requirements for automating infrastructures of any type are largely the same. They almost always involve the production and distribution of valuable raw materials such as water, gas, electricity and heat, and investments with a life cycle of 20 years or more. Continuity of service is top priority. Only a very few providers can meet these challenges and live up to the ever increasing expectations of operators, users and consumers. Saia Burgess Controls often exceeds them. The secret of our success is the open technology of our programmable logic controllers and the associated HMI web panels and energy meters.

SBC has always been a pioneer in programmable logic controllers. Even our very first Saia PCD®, which was launched at the end of the 1970s, had an integrated, fully programmable serial interface – a clear indicator of interoperable automation even then. We have stayed true to this principle of openness. Today we can offer you Saia PCD® with up to 15 communications interfaces.

HMI web panels

Easier operation and monitoring

Saia PCD® web panels are touch screen panels for connecting to the web servers in the Saia PCD® automation stations via an Ethernet interface and HTTP protocols to make all relevant settings – regardless of whether your data is in the same switch cabinet as your controllers, on the same site or anywhere in the world. In other words, you can keep an eye on everything and keep it all under control, anywhere at any time, using functions such as trending, alarming and system images. No need for complex engineering, major project management or software licensing. The panels are available in various types, sizes and configurations.



Automation stations

Durable, modular, robust and reliable

The automation stations Saia PCD1, 2 and 3 are controllers for measurement and open- and closed-loop control. Both hardware and software are developed and produced here in Murten: everything from a single source – a one-piece flow for maximum quality, robustness and durability. The modular structure and interpreted programming code of these stations enable them to be tailored to any conceivable automation task. All our controllers feature integrated Web+IT technology that enables users to access the system quickly and easily using a web browser – from a PC, tablet or smartphone. The data is stored on the controller in CSV format and, once retrieved, can be opened and imported using Excel and other common applications. That, too, is a mark of openness and user-friendliness.



Energy meters

The way to energy management

Saia PCD® energy meters record current, voltage, active and reactive power as well as signals from gas, water and heating meters. They supply data to the Saia PCD® controllers and web panels for analysis and logging. Here too, there is a broad range of products with different specifications for all sorts of applications. They are generally bus-capable, so they are ready for use with no laborious configuration or programming. Good to know: with our standards, we already comply with many of the directives and tighter laws that are in preparation in energy and environmental management. The meters also comply with the requirements of the EU's Measuring Instruments Directive and can be used for energy billing without additional calibration, keeping you on the safe side in the long run.

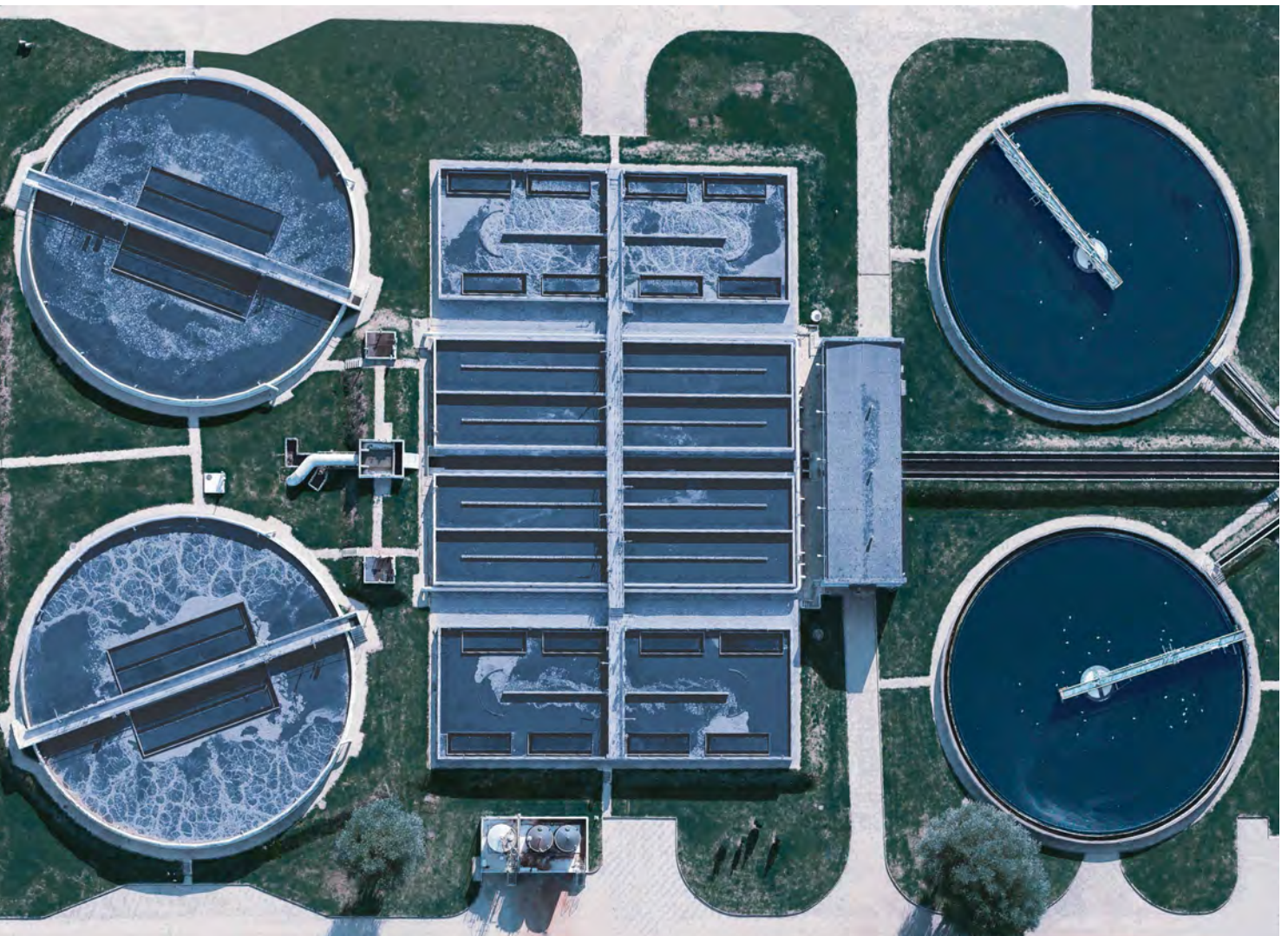


Guiding water in the right direction

With SBC, water systems grow as your needs do.

Every one of us uses water and counts on it being delivered reliably and in perfect quality. Drinking water from the tap, service water for swimming pools or industrial processes. The degree of purity is strictly defined and is guaranteed by water treatment plants. In water distribution, you always need to keep an eye on pressures.

Whether you simply want to control one valve or automate the entire water supply for towns and communities – Saia PCD® is suitable for both ends of the spectrum. Especially when simple applications become highly complex over time.



The security that operators need

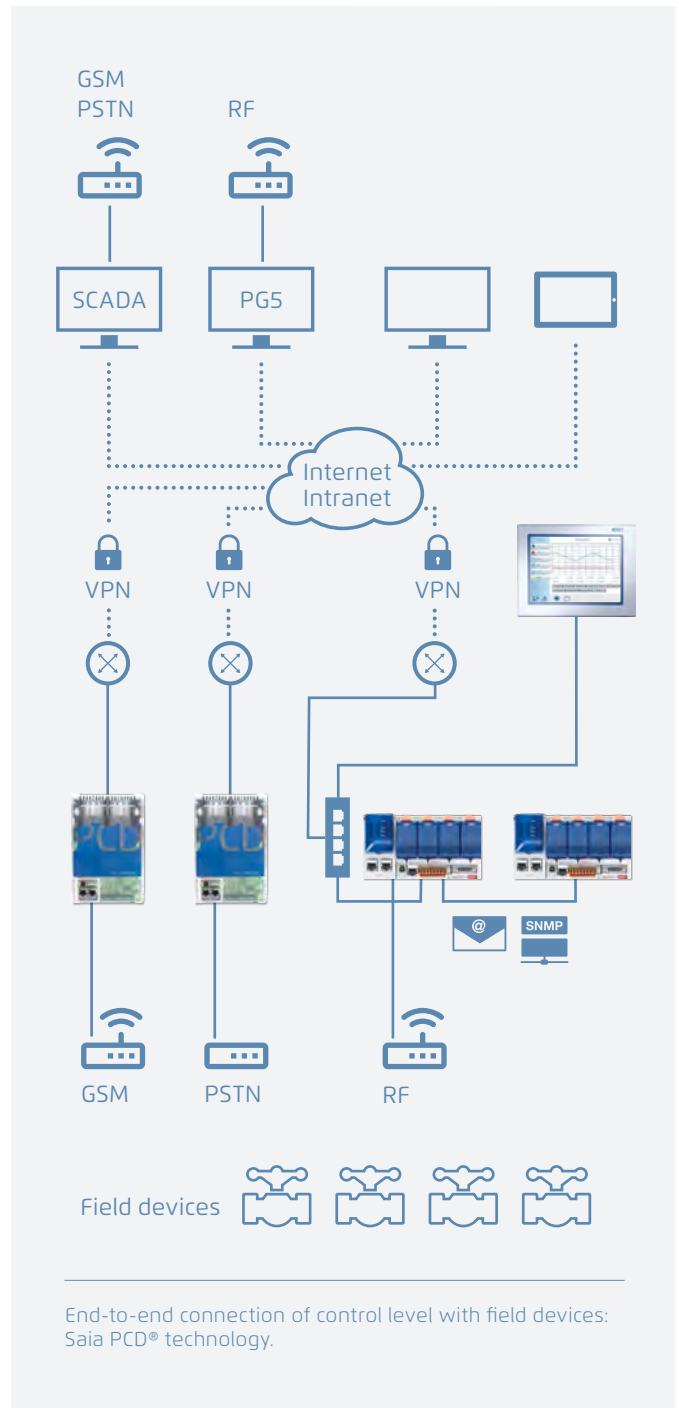
In fact, all of the aforementioned water systems are designed for growth. Drinking water, service water and sewerage systems grow with the communities they serve. New distribution stations need to be integrated with every residential area or industrial estate that is connected. New systems, new information technologies need to be harmonised with the existing controllers.

This is precisely where Saia PCD® scores with its openness for all freely available standards and its support for multiple protocols on the same interface. The modular systems can communicate with the field level and are suitable for any type of station and system. Communication with the field devices is analogue or serial. Both integration of additional systems and energy monitoring are possible.

All data can be time-stamped, saved and retrieved anywhere at any time via integrated web functions. In the event of an alarm, notification is given by e-mail, SMS or SNMP.

Wide area automation around Lake Garda

25 wells, 45 springs, 6 lake extraction points, 1,500 km of fresh water pipes and 20 million cubic metres of drinking water per year for 250,000 consumers: wide area automation around Lake Garda. The operator of the local water company opted for more flexibility – and for Saia PCD®. Why? The former supplier was unable to offer the freedom to network with any third-party equipment and the ease of service without long training and expensive software tools.



Find out more about this application by scanning the QR code or going to <http://sbc.do/Kr8zENrQ>

Saia PCD® – ideal for automating:

- Water treatment plants
- Drinking and service water supplies
- Industrial water systems
- Fresh water and sewage pumping stations
- Pumping systems
- Hydroelectric power plants
- Water parks, swimming pools and spas

Reliably distributing district heating

With SBC, energy is used where it's needed...

Of course, it's not just about using energy where it's needed. It's also critical to use only as much energy as is actually required. That sounds obvious but is generally not the case. While residential areas have continuous demand, building complexes with commercial and private use must expect quite different needs.

Saia Burgess Controls is the right place to go for automation – from generation to instantaneous heating systems to storage of district heating and its appropriate use.



... and only as much energy as is actually needed

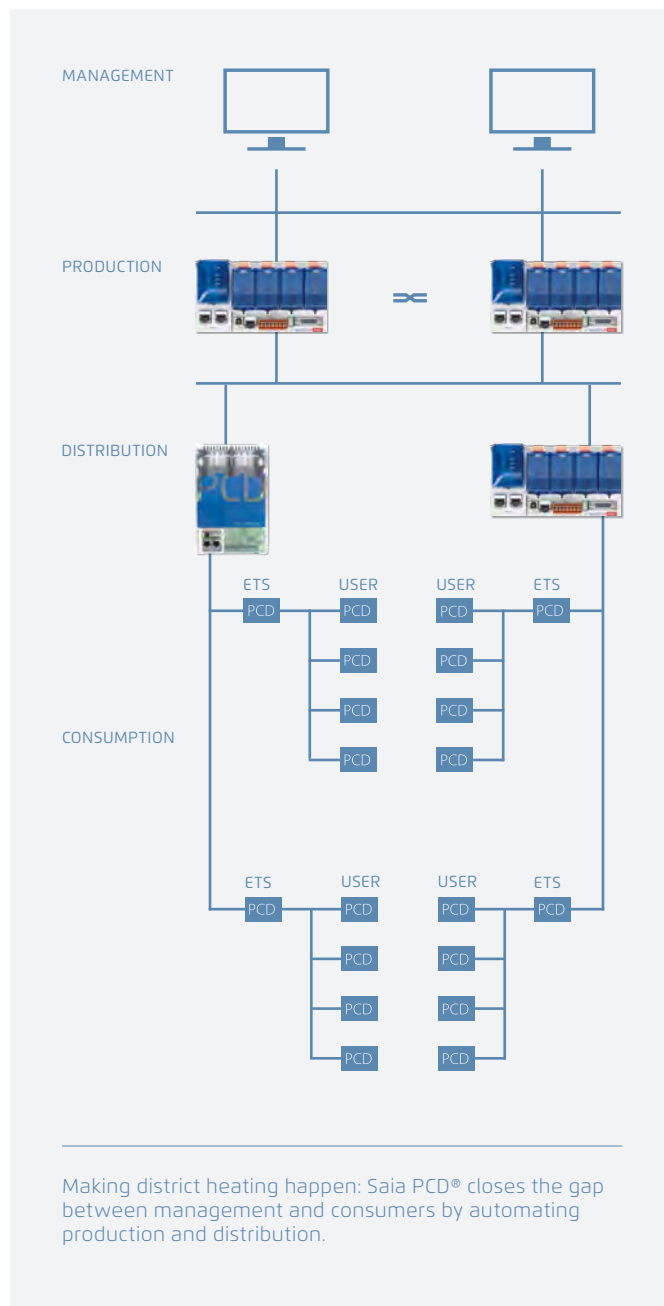
Conventional automation solutions often assign owners and building managers a contractually agreed quota of district heating, irrespective of actual demand and usage. If this demand is exceeded, reliability of supply is often no longer guaranteed. If demand is lower, the contractually agreed amount is still billed. Changes to programming or expansion of automation are often expensive and not viable since they require additional proprietary software that make any modification to the system a prohibitive cost factor.

With Saia PCD® you can keep an eye on everything. And you can react quickly if the usage of the area supplied with district heating changes, whether that be a building, a district or an entire region. Everyone benefits from this flexibility: system integrators implementing a low-maintenance solution, operators drawing long-term benefits from energy efficiency, and consumers who ultimately only pay for the district heating actually used.

Saia PCD® – the bridge between industrial and building automation

District heating is a good example of the versatility of Saia PCD®. The technology is used to automate not just the district heating system but also the distribution stations and consumers' premises. In other words, Saia PCD® allows continuous automation of the system with no discontinuity.

And that's by no means a given. The major providers in the automation industry usually specialise in one or the other: industrial automation or building automation. Saia PCD® infrastructure automation by Saia Burgess Controls closes this gap.



Saia PCD® – ideal for automating:

- District heating power plants
- Geothermal power plants
- Combined heat and power plants
- District heating transfer stations
- Solar energy plants
- Biomass plants

Cool calculations when things get hot

With SBC, district cooling becomes more profitable for you

Cold is just as important as heat. It depends only on the location. Automation technology is needed wherever cold is generated in central cooling systems and distributed to the surroundings. And Saia Burgess Controls has the perfect solutions for this.

Saia PCD® makes a huge contribution to reducing the energy needed to generate cold, cutting service and maintenance costs, improving consumer data recording and increasing customer satisfaction.



Combining energy management with service management for greater customer satisfaction

Integrating district cooling into the building management system and hence implementing and controlling the entire automation via a programmable logic controller presents a huge advantage for system integrators. All data protocols run via one system and all information can be retrieved at any time – via the web, the cloud, SCADA or ERP.

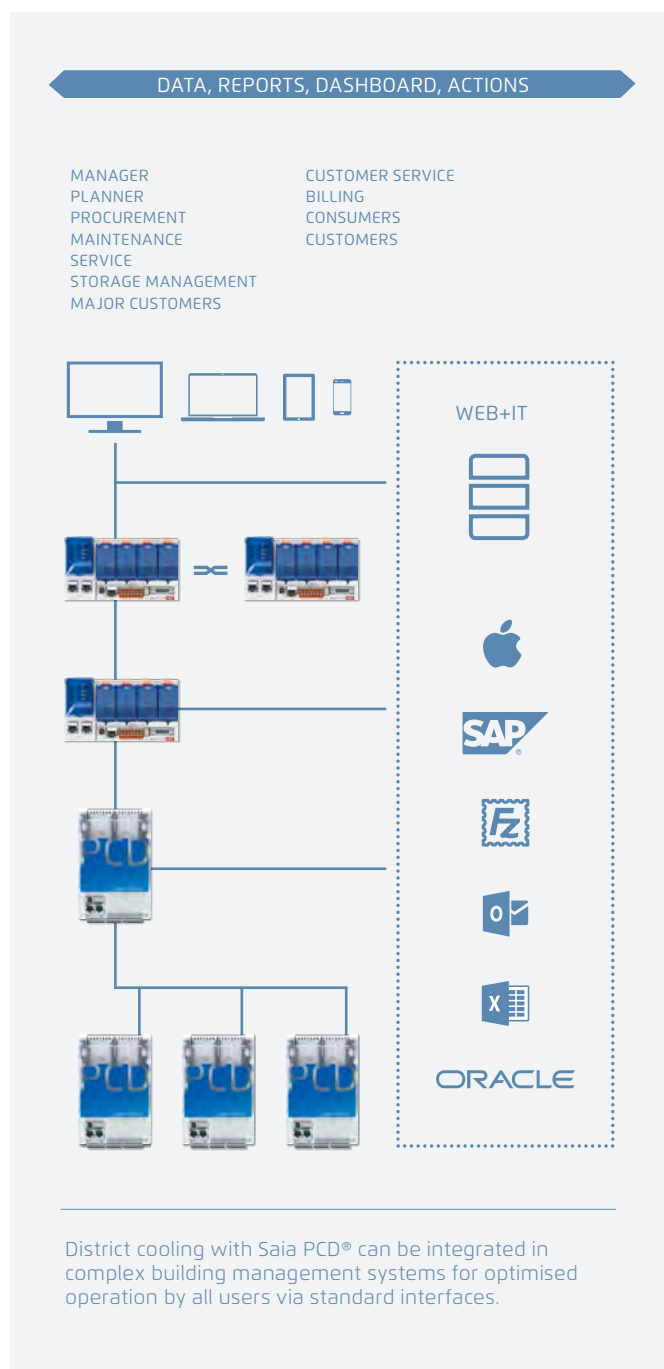
This enables operators to precisely determine their customers' actual cooling requirements, to manage this better and hence to supply more customers without increasing capacity. Service and maintenance are less time-consuming and don't necessarily require the system integrators to be on site. Both of which reduce costs without jeopardising reliability or functionality.

The system users enjoy greater convenience and better quality of life quite simply because requirements can be fine-tuned in a more targeted manner. And operators? Operators will feel the difference in financial terms because, in the long run, they are using a well-maintained system, making more efficient use of energy and can implement changes more cost-effectively. That's what we mean by a better customer experience.

Vienna's biggest refrigeration unit goes on-grid: the Schottenring district cooling plant

Wien Energie's new district cooling plant provides environmentally friendly cooling for buildings in Vienna's city centre, reducing annual CO₂ emissions by 1447 tons. Its overall output is 15 megawatts and it is controlled and monitored with Saia PCD®.

Cold is mainly generated from the waste heat of thermal waste treatment using absorption machines. In addition, district cooling can be generated with electricity in compressors. Finally there is free cooling, so to speak, in which water from the Danube Canal is used for cooling.



Keeping traffic on the move

With SBC, you can achieve your goals in traffic and tunnel automation.

Traffic runs every day: on roads, on rails, through tunnels. Sometimes it all comes together – in motorail trains. Especially in Switzerland.

There is a very great need for automation here since many functions have to be coordinated: signalling, ventilation, climate control, electricity, communication and lighting – and not just for the traffic tunnels, but also for the cross-connections, which can be numerous in longer tunnels.



Perfect coordination of the entire infrastructure

Each of these systems represents its own individual infrastructure. Communication within the systems varies from provider to provider. Different protocols, different interfaces demand special software solutions, which are expensive for operators to procure and complex and difficult for system integrators to coordinate.

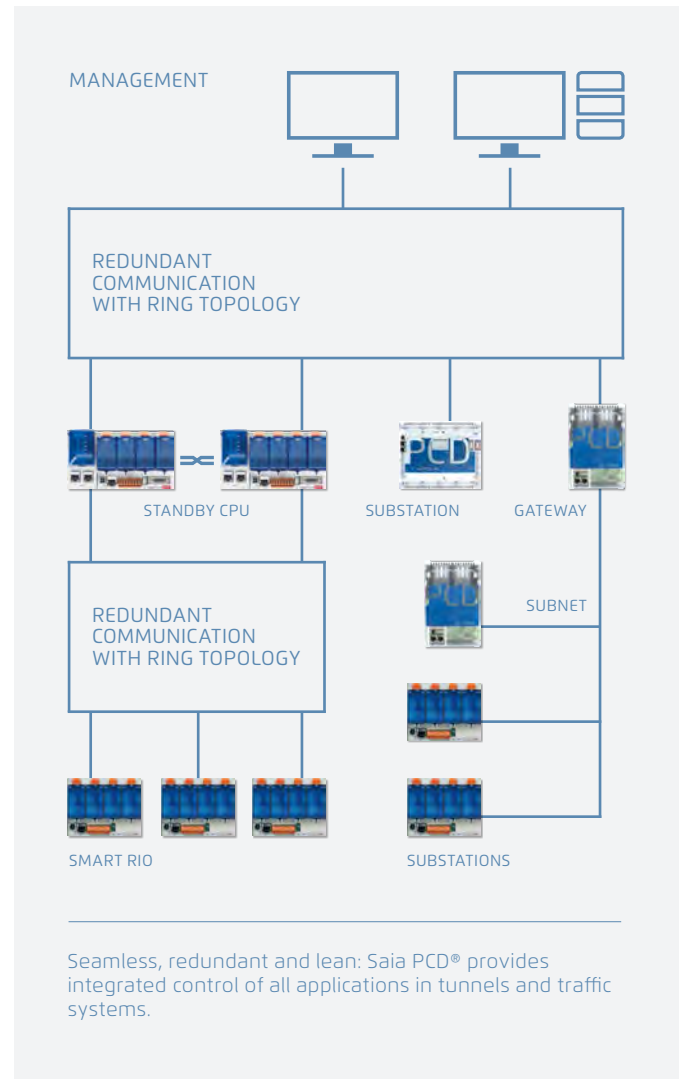
Open communication across all levels

Saia PCD® supports continuous communication across sections and levels – from field level with ventilation, climate control and electricity components, to the automation and management levels. And the best thing? The vast flexibility enables you to react at any time to expansions or extensions and modify Saia PCD® accordingly.

One of the longest tunnels in the world relies on Saia PCD®

With its two bores and many cross-connections, the Lötschberg tunnel has a total length of 34.6 km. The 104 traverses contain 1,500 climate-controlled switch cabinets to control the water supply, the building and operating ventilation as well as the loudspeakers, video equipment, gates and low-voltage system. The automation technology is Saia PCD®.

Find out more by sending an e-mail to info@saia-pcd.com



Open for all protocols

The basic Saia PCD® units support numerous protocols and interfaces.

On-board interfaces and protocols:

- USB, Ethernet, RS-232, RS-422/485
- IP protocols (HTTP, FTP, SMTP, SNMP, SNTP, ...)
- Serial protocols over standard RS-232, RS-422/485 interfaces (Modbus, Profibus, S-Bus, ...)

Pluggable interface modules for:

- Dedicated communications systems (M-Bus, DALI, KNX, EnOcean, MP-Bus, ...)
- Serial RS-232, RS-422/485 interfaces
- BACnet, LonWorks as operating system extensions
- Other protocols via application programs

Up to 15 interfaces per PCD controller.

A strong connection



We have been part of the Honeywell Group since 2013 and operate autonomously in the area of automation systems for buildings, infrastructures and machines. A strong connection with synergies that also benefit our customers and their customers around the world. Financially, because with this partner at our side, we can supply major projects anywhere at any time. Logistically, with our global presence and our complementary product lines. For example, not only do we supply the control technology, but also the field devices.



Flexibility – a hallmark of our cooperation

Our cooperation is shaped by competence, professional processes and loyalty you can rely on. We see ourselves as a partner for our customers – system integrators and OEMs alike. We supply the products, components and systems, you take care of the planning, engineering and implementation. No competition, perfect interaction, greater success for all planners, operators and users involved.

Modularity is part of our product philosophy

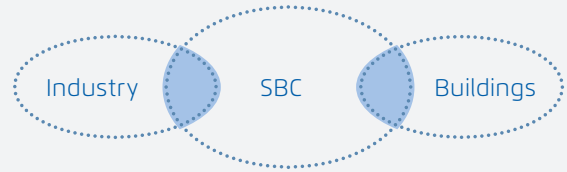
Saia PCD® technology is open for all common standards for communications, control technology and automation of all infrastructure types, backed by a modular product philosophy that guarantees compatibility and portability to ensure long-term service from our products, and functionality and profitability for your automation.

Sustainability is one of our brand values

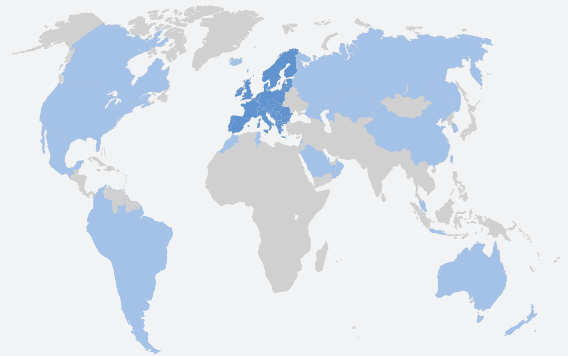
We view sustainability in a holistic way, as both economic and environmental. The Saia PCD® technology forms the basis for customisable solutions featuring both maximum energy efficiency and maximum profitability. And this in turn forms the basis for our long-term customer relationships and our success in tapping international markets.

Saia Burgess Controls in figures

- 93 million dollars annual sales
- 300 employees, 50 of them in development
- 2 million I/O points per year
- 40,000 CPUs per year
- 700,000 small devices per year



Saia Burgess Controls is characterised by openness – in technology, in cooperation with our customers and in the development of international perspectives. We are clearly positioned in the field of infrastructure automation. And that's unique in the market because we close the gap between conventional building automation and traditional industrial automation.



The head office of Saia Burgess Controls is in Murten, Switzerland, from where the company supplies its European and international core markets. And we are part of a strong alliance, under the umbrella of the Honeywell Group.

Everything from a single source. Everything under control:

- Product development
- Production
- Assembly
- Logistics
- Training and support

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