

always a step ahead



SE-ELEKTRONIC GMBH

Always a step ahead

COST EFFECTIVE, CUSTOMIZED & UNIQUE
TECHNOLOGY LEADING CONTROLS SOLUTIONS

Always a step ahead

INNOVATION KEEPING YOU ONE STEP AHEAD

+30Y PROVEN SUCCESSFUL EXPERIENCE

CO-DEVELOPMENT AND CUSTOMIZATION

SECURING THE FUTURE

TAKING RESPONSIBILITY

OUR INNOVATION KEEPING YOU ALWAYS ONE STEP AHEAD



FOREWORD BY THE MANAGEMENT

SE-Elektronik has been generating success with HVAC manufacturers since 1983. We have gathered over three decades of experience in developing customized controls & IoT solutions, all "Made in Germany". Whenever you see the SE-Elektronik logo on a product you can be certain that it is the product of German engineering expertise and has been tested inside and out for the highest levels of quality.

In the HVAC business, we were the first to implement cloud solutions to develop customized actuator and sensor technology, and have been the guiding lights for advanced protocol development for BACNet and Modbus.

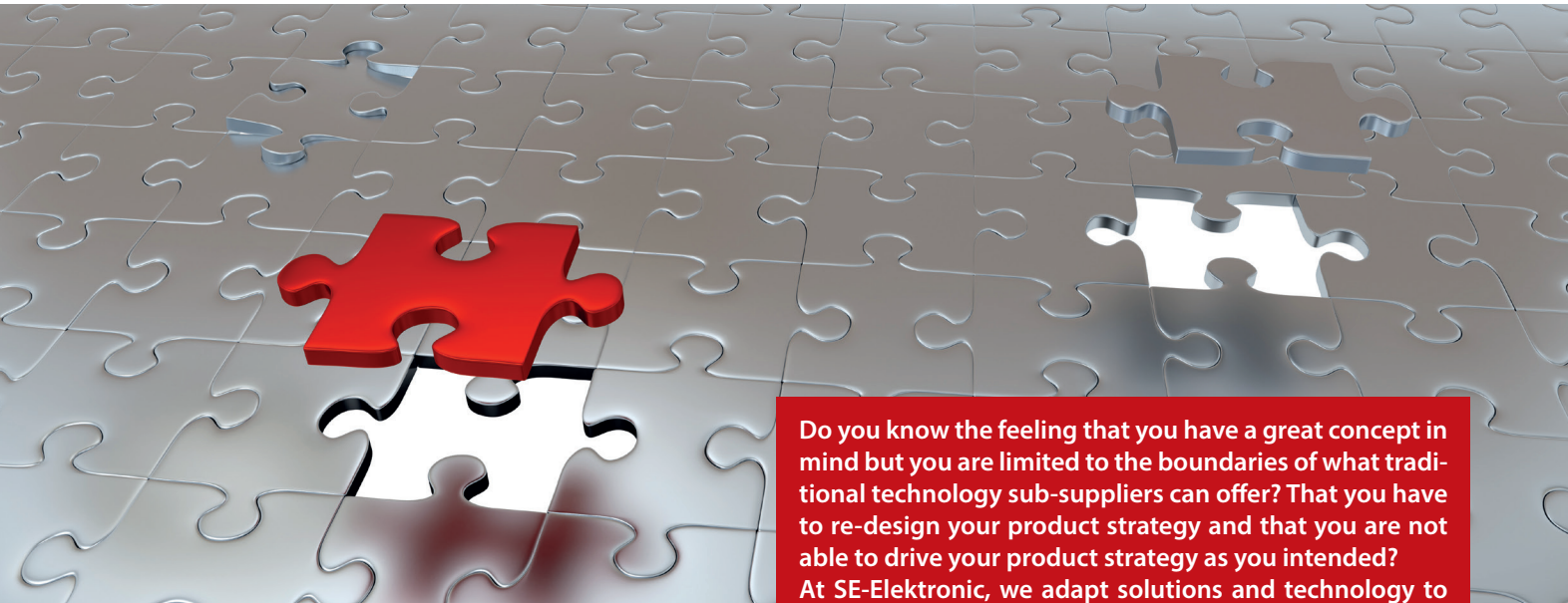
Our mission is to develop customized, cost effective and technology leading controls & IoT solutions. Together with our customers, we co-develop and customize our solutions in a way that leads to lasting unique advantages, keeping our customers always one step ahead of their competition.

We invite you to get a quick impression of what we stand for, what we believe in and what our operation principles are.

Bogomir Dajcman
Management

- Service and solution provider
- Our passion to develop innovative controls & IoT solutions
- Over 50 employees
- Our solutions enable you to drive your optimal product strategy
- Made in Germany

CO-DEVELOPMENT AND CUSTOMIZATION CREATES UNIQUE VALUE FOR YOUR PRODUCTS



Do you know the feeling that you have a great concept in mind but you are limited to the boundaries of what traditional technology sub-suppliers can offer? That you have to re-design your product strategy and that you are not able to drive your product strategy as you intended? At SE-Elektronik, we adapt solutions and technology to your needs and product, providing you with a unique advantage versus your competition.

YOU CAN OPTIMIZE THE COMPLETE CONTROLS & IoT VALUE CHAIN

We optimize the total controls & IoT solution: the hardware, the software, but also the design to optimize your production time. We make sure that the cost of the solution is fully optimized, taking the complete production and commissioning value chain into account.

TECHNOLOGY EXACTLY FITTING YOUR NEEDS

We offer the optimal future-proof technology that exactly fits your needs. Because we customize, the solution will not be undermentioned, lacking the features and unique values of your products. It will not be over-dimensioned either, increasing the costs unnecessarily and creating a pricing handicap.

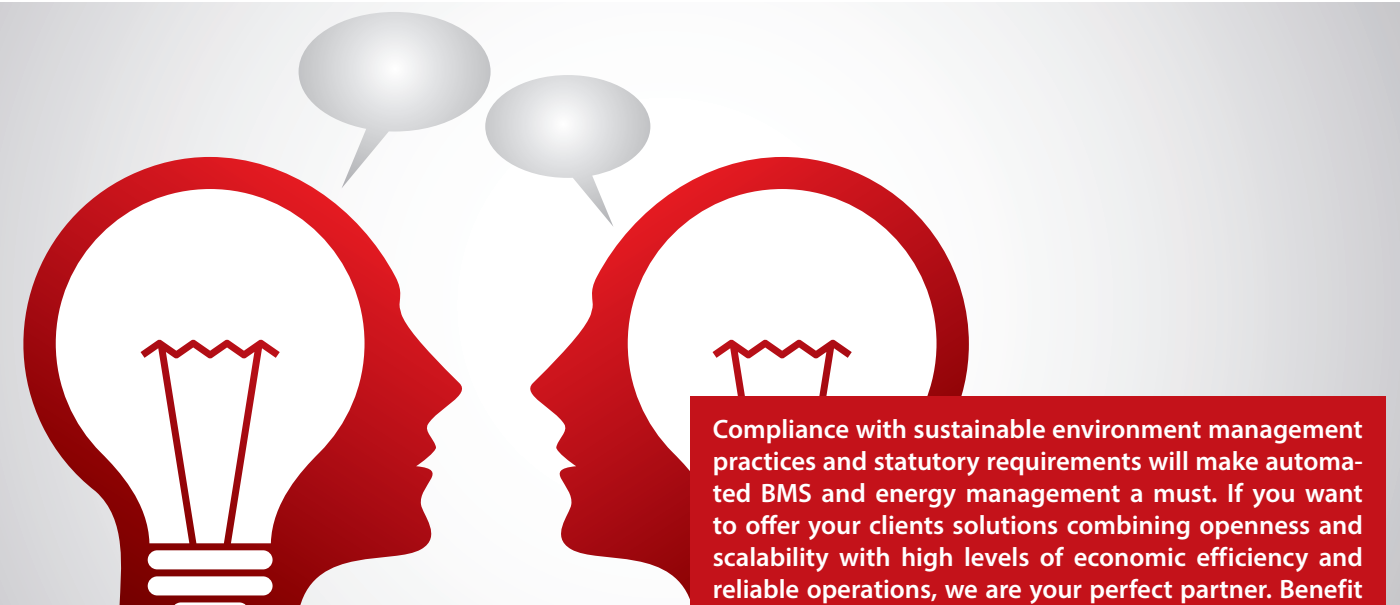
CUSTOMIZED AND UNIQUE – KEEPING YOU ONE STEP AHEAD AT ALL TIMES

OUR SOLUTION WILL:

- Provide your product with unique features, creating strategic advantages vs. your competition
- Optimize your total cost of engineering
- Optimize your total cost of controls & IoT integration in your products
- Reduce the total cost of production
- Reduce the total time for commissioning
- Enable you to securely connect to your product from anywhere, anytime
- Offer a unique value proposition to your customers

- Our controls and IoT exactly fitting the needs of our OEMs
- We keep our OEMs always a step ahead to their competition
- We cover the complete chain

A ONE-STOP-SHOP FOR INNOVATIVE SOLUTIONS



Compliance with sustainable environment management practices and statutory requirements will make automated BMS and energy management a must. If you want to offer your clients solutions combining openness and scalability with high levels of economic efficiency and reliable operations, we are your perfect partner. Benefit from our experience and development expertise.

GROWING AWARENESS OF ENERGY ISSUES CALLS FOR STATE-OF-THE-ART SOLUTIONS

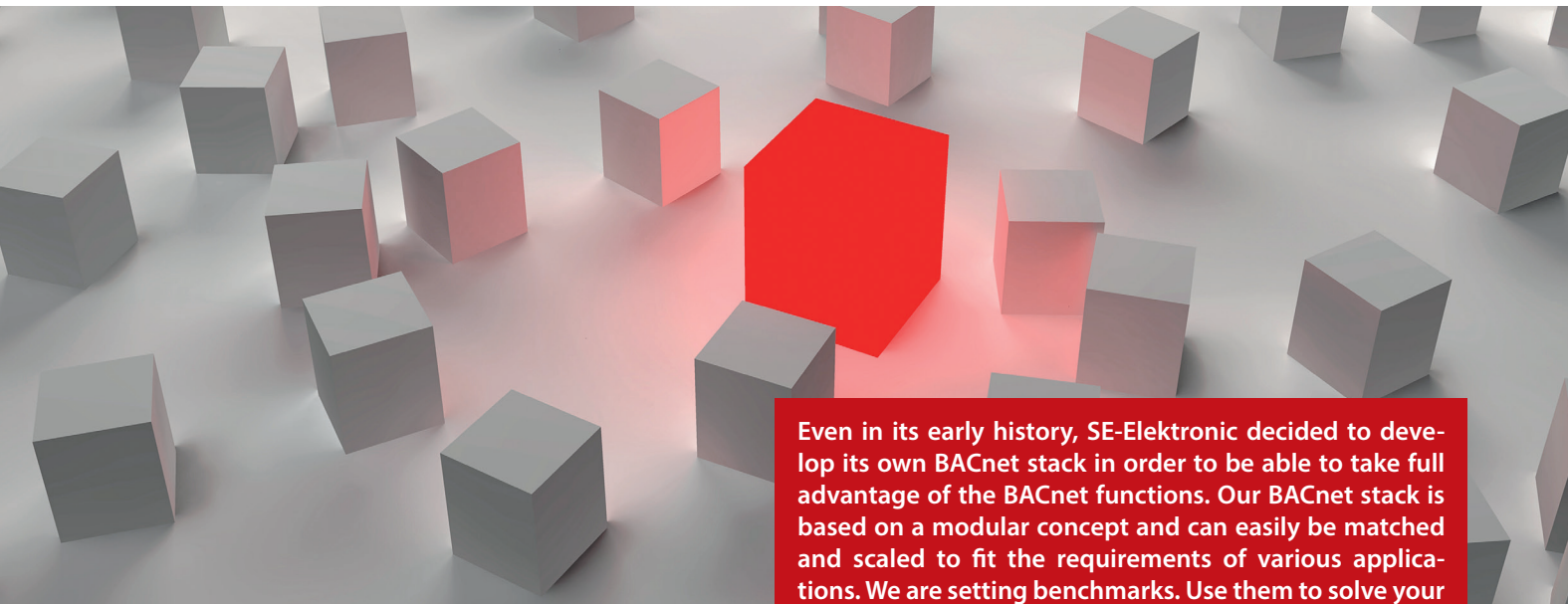
- Using open and scalable technologies
- Developing tailor-made solutions
- Reducing energy costs
- Reducing emissions
- Taking responsibility for shaping the future

WHAT YOU CAN EXPECT FROM SE-ELEKTRONIC

- Open and expandable solutions which easily integrate in existing structures
- Customized development projects, prototypes, low to high-volume solutions from concept phase through to series production
- Energy-efficient building automation solutions, low energy consumption, improved efficiency in heating, ventilation and cooling
- High operational reliability, service and support for standard and customer-specific solutions

- Save our planet by using innovative technologies
- Customized solutions
- Cost efficiency

SE-ELEKTRONIC – A BACnet PIONEER



Even in its early history, SE-Elektronic decided to develop its own BACnet stack in order to be able to take full advantage of the BACnet functions. Our BACnet stack is based on a modular concept and can easily be matched and scaled to fit the requirements of various applications. We are setting benchmarks. Use them to solve your challenging tasks.



IN-HOUSE DEVELOPED CERTIFIED BACnet-STACK

MORE FLEXIBILITY

- extensive BIBBs and object library
- routing across all interfaces
- UTF-8 character set (all characters sets around the world), ANSI X3.4, ISO-8859-1, UCS-2, UCS-4
- multilingual capability, can be changed anytime, even during the run-time (no restart necessary)
- TCP/IP communication in parallel with MS/TP via RS485

LEANER

Resources used only for functions which are required for a specific device type.

FASTER

Direct access to data and functions of applications.

MORE AFFORDABLE

Reduced hardware requirements thanks to our own optimized BACnet stack.

Our products offer all options for BACnet communication via Ethernet, modem and 2-wire cabling (RS485). And of course we can also implement or integrate other bus systems.

WE OFFER BESPOKE AND ENERGY-EFFICIENT SOLUTIONS TO OUR OEM CUSTOMERS.

BACnet – THE BASIS FOR ALL SE-PRODUCTS

BACnet (Building Automation and Control networks) is a networking protocol for building automation. BACnet is the name of a uniform-independent standard for data communication.

The advantage of BACnet solutions is their remarkable flexibility.

The BACnet protocol enables communication between devices. It allows to connect and exchange information between building automation and controls systems for application like heating, ventilation and air treatment.

BACnet is a protocol governing data exchange between different technical building services components. It provides a consistent description of communication across the different management and automation levels, for heating, cooling and ventilation, light control systems, fire detection and conveying systems, as well as monitoring lifts and escalators.

Data is transmitted through different pathways such as Ethernet, RS485 and modems. SE-Elektronic has focused on these media and supports BACnet/IP, PTP and MS/TP protocols.



- With our innovations, BACnet becomes the communication standard for building automation
- SE-Elektronic solutions speak your language
- Based on standardized communication protocols

YOUR PARTNER FOR THE FUTURE



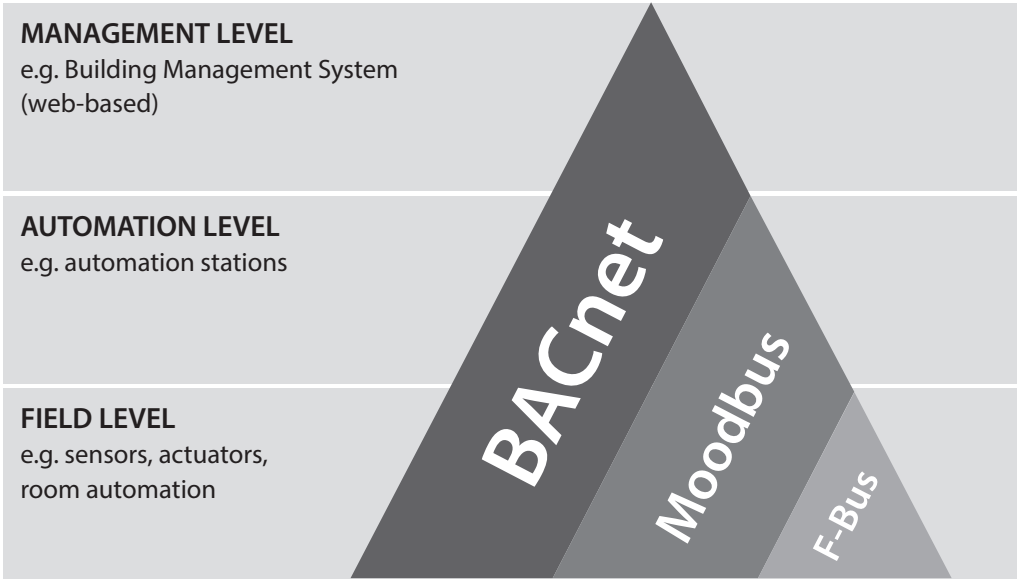
At SE-Elektronik the name of the game is versatility. This means that our solutions cover all levels of building automation today and can be adapted to the demands of a wide range of different buildings: from industrial buildings or hotels to public buildings like universities or hospitals. Whether custom-engineered solutions, small or high-volume: with SE-Elektronik you cannot go wrong.

100 % QUALITY MADE IN GERMANY



Building automation solutions must meet the most exacting demands in terms of performance, availability and longevity, every single day. Which is why we never compromise on quality. Our devices are only shipped to customers after thorough testing. In addition, we carry out our own long-term tests, which provide early clues as to potential improvements.

BUILDING AUTOMATION – SYSTEM LEVELS



- | | | |
|--|--|--|
| HARDWARE <ul style="list-style-type: none">■ automation stations■ operating devices, I/O modules■ sensors, actuators■ interfaces, modems, gateways■ room automation | SOFTWARE <ul style="list-style-type: none">■ monitoring and control■ programming and parameterization■ visualization and processing | SERVICES <ul style="list-style-type: none">■ customized application services■ development capabilities locally■ support services and training |
|--|--|--|

- Versatile solutions
- Covering a wide range of different buildings
- Custom-engineered solution for small or high-volume

HOW WE GUARANTEE THAT YOUR INVESTMENTS ARE SAFE

- SE-Elektronik develops 100% of its solutions itself and produces exclusively in Germany
- certified quality management system in accordance with DIN EN ISO 9001:2015 in-house test lab, long-term tests
- products are BACnet-certified and BTL-listed
- products carry the extended AMEV mark AS-B
- we are members of the BACnet Interest Group Europe e.V

NATIONAL AND INTERNATIONAL PRESENCE

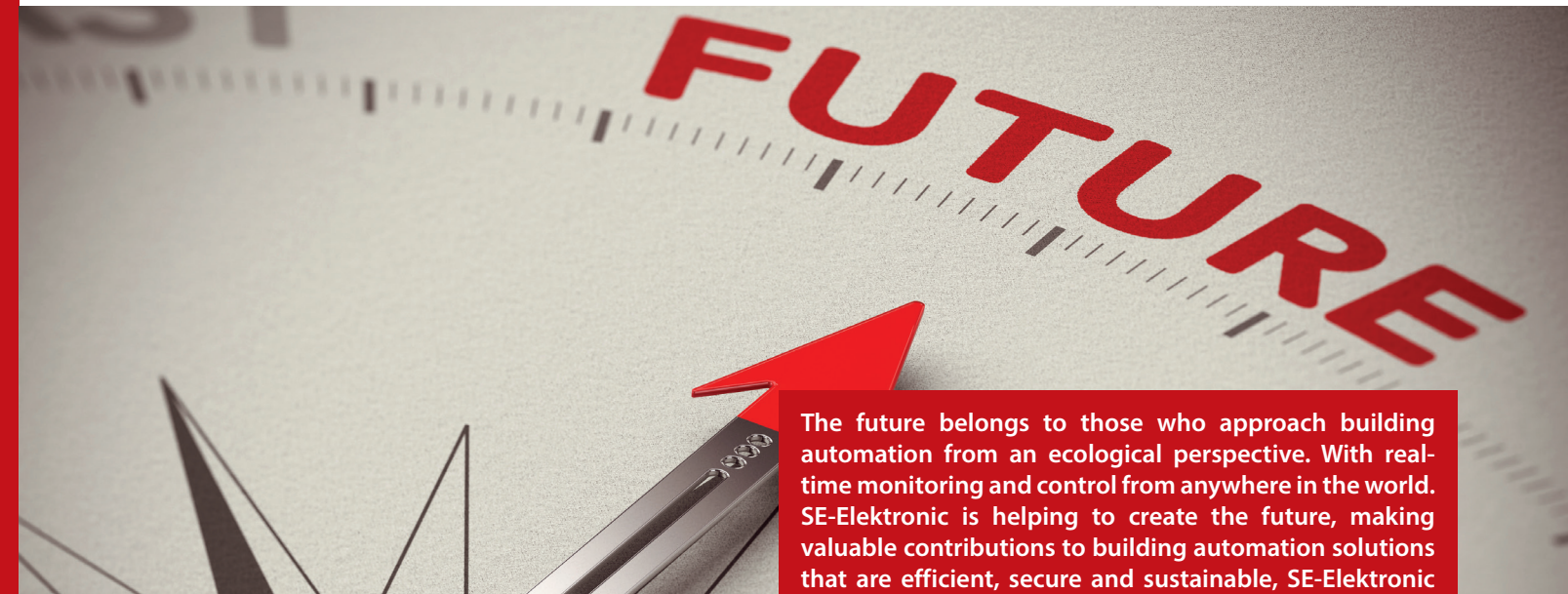
Through our partner network we are present at many locations in Germany and in a number of other European countries. In other words – we are in your area.

OUR CORPORATE CULTURE COUNTS

SE-Elektronik is a training center which is accredited by the Chambers of Industry and Commerce and offers commercial as well as technical vocational courses. As a medium-sized company, values such as a sense of family, team spirit and social responsibility within the region are very important to us. Further training at regular intervals, building and leisure activities are the basis for motivated and committed employees.

- | | |
|--|---|
| <ul style="list-style-type: none">■ 100% German engineering expertise■ Certified management system■ Own longterm test labour | <ul style="list-style-type: none">■ Acting with the customer in mind■ Living out a cooperate culture that incorporates every single employee |
|--|---|

HOW CAN WE SHAPE FUTURE TOGETHER?



The future belongs to those who approach building automation from an ecological perspective. With real-time monitoring and control from anywhere in the world. SE-Elektronik is helping to create the future, making valuable contributions to building automation solutions that are efficient, secure and sustainable, SE-Elektronik helps shape the future.

DEVELOPING SOLUTIONS

OPENING UP NEW HORIZONS

LIVING PARTNERSHIPS

SECURING THE FUTURE

TAKING RESPONSIBILITY

WE OFFER COMPLETE SOLUTIONS FOR

- HVAC systems
- lift and hoisting equipment
- security and access control
- sanitary facilities/water purification
- renewable energies

ENERGY MANAGEMENT

- web-based energy-monitoring solution
- innovative, high-performance building automation solutions

BACnet PROSPECTS

SE-Elektronik makes BACnet the communication standard of choice for all trades.

So come and talk to us about your most challenging projects.

WE LOOK FORWARD TO MEETING YOU!



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