



HUMAN CENTERED DIGITAL SOLUTIONS. TOGETHER

Start with Why  
**Our Vision**

We, the S.I.E team, are convinced that digital solutions must always be oriented towards **people and their needs**.

Everything we do serves to **sustainably generate real added value** along entire value chains, all the way to the end users of digital products and services. Together, we realize our vision of **human-centric digitaliation**.



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## 4-13 **Our products**

An overview of our platforms as the foundation for customized IPC, Edge & HMI systems.

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## 14-15 **Our service portfolio**

We accompany you throughout the entire product lifecycle – from the initial idea to long-term usage.

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## 16-17 **Why choose us?**

Together, creating added value for people along the entire value chain.

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## 18-19 **Contact**

We are looking forward to our first joint project. Get in touch now.

# CUSTOM EMBEDDED... OFF THE SHELF!



## OUR PRODUCTS

For over 30 years, we have been developing and manufacturing tailor-made systems as a specialist in embedded computing systems and human machine

interfaces (HMI). To optimize time-to-market while maintaining flexibility, we rely on our Ready-2-Adapt platforms.



### SYNTHERA® IPC PLATFORM

**SYNTHERA®** is our Ready-2-Adapt embedded computing platform that offers a broad portfolio of industrial PCs across different performance classes, designs and industry-specific configurations and enables fast and cost-efficient customization through partially standardized modules.

- Various designs and performance classes
- Certified base products
- Time and cost savings through partial standardization



### SYNTHERA<sup>EDGE</sup> EDGE COMPUTING PLATFORM

**SYNTHERA<sup>EDGE</sup>** is our Ready-2-Adapt edge computing platform that combines modular hardware, integrated secunet\* security features and optimized application management – for secure, scalable and future-proof edge solutions.

- Modular & customizable
- Integrated security middleware & management
- Container-based application environment

\*in cooperation with our partner secunet Security Networks AG



### SYNEXIS HMI PLATFORM

**SYNEXIS** is our Ready-2-Adapt HMI platform that enables three integration options with a single solution (panel, front and flush mount) and, thanks to partially standardized modules, offers targeted customizing where it counts – from interfaces to corporate design.

- One platform, three integration options
- Partially standardized & customizable
- Fast market launch & long-term availability

# SYNTHERA®

## IPC PLATFORM

SYNTHERA® is our **Ready-2-Adapt embedded computing platform** that offers a broad portfolio of industrial PCs across different performance classes, designs and

industry-specific configurations and enables fast and cost-efficient customization through partially standardized modules.

### SYNTHERAMICRO

- EDGE | Thin Client IPC
- AC, DC or USB4 power inputs
- Active & passive cooling options
- USB4 interface + Power Delivery = optional docking station operation

### SYNTHERALITE

- Compact fanless EDGE IPC
- Compact & powerful
- Broad interface portfolio
- Optional 52mm bottom rail



## SYNTHERA® IPC PLATFORM



### SYNTHERAVISION-S

- Compact & performant
- Powerful graphics card
- For 1 & 2 slot half height GPUs
- Numerous interfaces for image processing

### SYNTHERARACK-2

- 19" 2 U system
- Reliable and powerful
- Wide range of expansion options
- Optionally with stand for standalone operation

# SYNTHERA<sup>EDGE</sup>

## EDGE COMPUTING PLATFORM

SYNTHERA<sup>EDGE</sup> is our **Ready-2-Adapt edge computing platform**, developed together with secunet Security Networks AG, that combines modular hardware with integrated security and flexible customization, enabling secure, scalable and efficient edge data processing.

### Modular & customizable

combinable expansion modules for flexible interfaces & performance classes

### Integrated security

tamper-proof hardware & secunet security stack

### Efficient deployment

Kubernetes and docker based app environment

### Future-proof & reliable

scalable, fail-safe and optimized for industrial applications

### Multi-service ready

based on different trusted execution environment runtimes

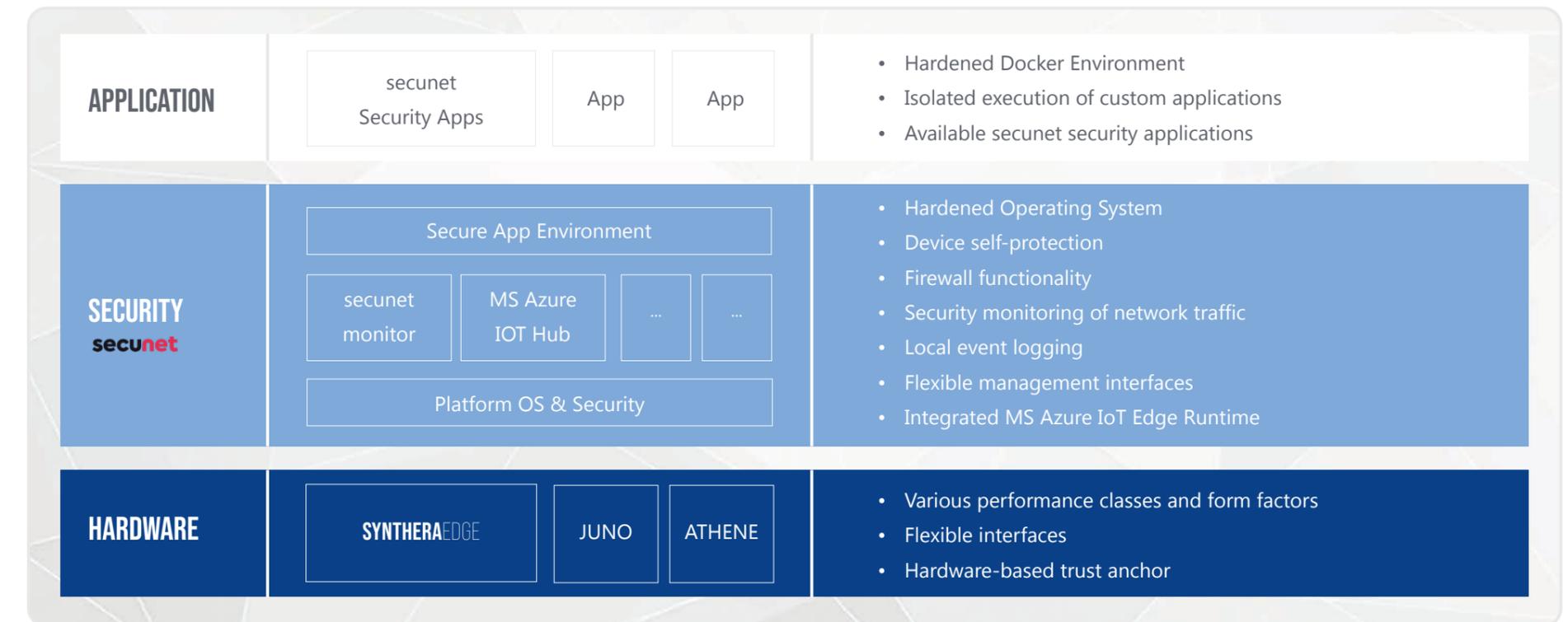


## SYNTHERA<sup>EDGE</sup>

### FOCUS ON THE ESSENTIALS – the S.I.E & secunet framework

With SYNTHERA<sup>EDGE</sup> you can focus entirely on your own application – in a secure, isolated Docker environment, perfect for your individual software solutions. You don't have to worry about hardware, security or middleware – we've already solved that for you.

The modular and tamper-proof platform provides you with everything you need for an efficient, scalable and secure edge computing solution. This allows you to focus on the essentials: innovation and added value in your application.





# SYNEXIS HMI PLATFORM

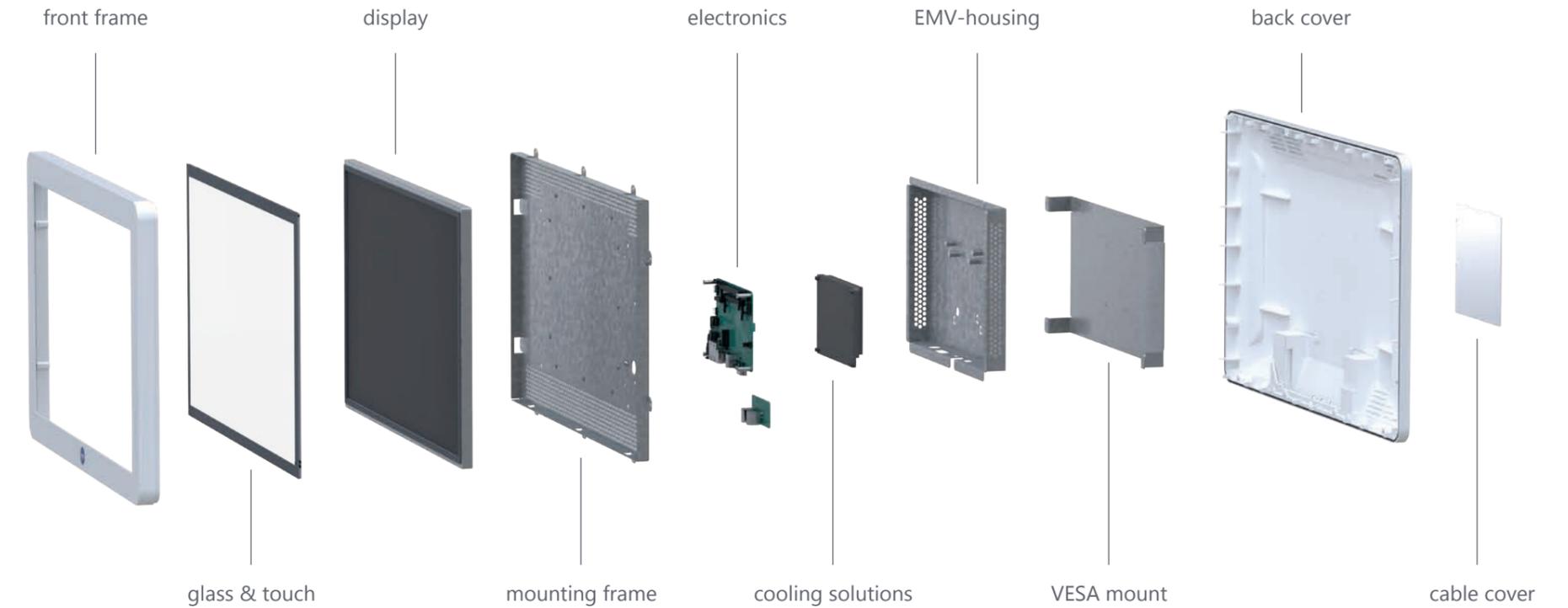


## SYNEXIS HMI PLATFORM

SYNEXIS – our **Ready-2-Adapt HMI platform** combines modern displays, powerful embedded electronics and partially standardized modules. Three integration variants (panel, front and flush mount) in a single mechanical

concept ensure fast, cost-efficient solutions – or the leap to a full-custom HMI if it needs to be even more individual.

### Customizable – Performant – Cost efficient





## SYNEXIS INTEGRATION OPTIONS



### Panel standalone

**Complete monitor | Panel PC:** Ideal when a stand-alone, fully functional HMI system is required.

**All-in-one solution:** Includes all layers for fast commissioning.

**Flexible and robust:** Perfect for applications that require a self-sufficient solution.



### Front mount

**Easy integration:** The system can be easily integrated into existing enclosures with little effort.

**Versatile application:** Without back cover for direct integration into existing front-mount designs.

**Stable and visible:** Perfect solution for systems that combine functionality and visibility.



### Flush mount

**Optically seamless:** Enables flush integration of the glass into the product.

**Elegant design:** The best choice for applications where the HMI system needs to be integrated in a visually appealing and seamless way.

**Minimalist:** Without front frame and back cover for a frameless aesthetic.



## SYNEXIS DISPLAY SOLUTIONS

### SYNEXIS PLATFORM PORTFOLIO



- Display sizes from 4.3" to 15.6"
- Cover glass: 2 mm or optionally 3 mm (step design)
- Standardized interfaces: 30 pin LVDS, USB & I<sup>2</sup>C
- 12 V backlight with PWM function
- Same touch driver code for all displays
- Optical bonding in automotive quality
- Anti-UV adhesive & anti-UV printing ink for maximum durability

### FULL CUSTOM DISPLAY SOLUTIONS

#### Customizable displays

- Industrial-grade LCD displays from 1.44" to 32"
- Long-term availability
- Flexible customization for cover glass, front frame, backlight, FPC, driver board, interfaces, etc.



#### Customizable touch solutions

- Industry-compatible touch panels from 1.44" to 32"
- Up to 16 simultaneous touch points
- High interference immunity for demanding environments
- Long-term availability
- Flexible minimum order quantities for all sizes
- Comprehensive customization options

# FULL CUSTOM SOLUTIONS

## Special challenges? We'll find solutions together!

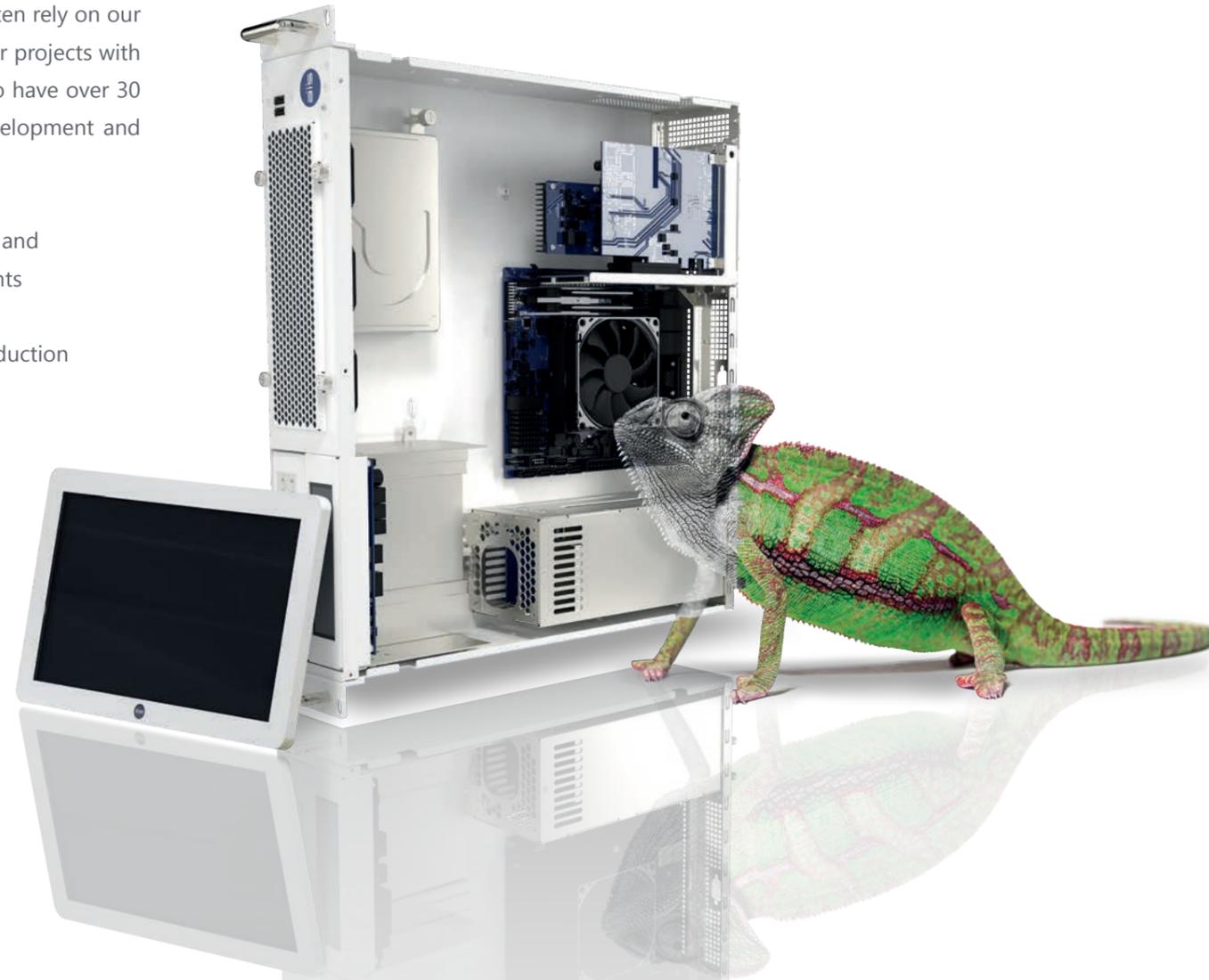
As a specialist for embedded systems, we often rely on our platform-based Ready-2-Adapt approach. For projects with special challenges and requirements, we also have over 30 years of experience as a partner in the development and production of full custom systems.

**Maximum flexibility:** Customized hardware and software development for unique requirements

**End-to-End expertise:** From concept to production – everything from a single source

**Reliability & longevity:** Components with long-term availability and professional lifecycle management

**Innovative strength:** Individual solutions for complex areas of application where standard products reach their limits



## OUR SERVICE PORTFOLIO

We accompany our customers throughout the entire product life cycle – from the initial idea to long-term usage. Our technological platforms and services form the

perfect symbiosis, ensuring not only efficient development and production but also long-term availability and active life cycle management.

### Quality & Life Cycle Services

- Regulatory services
- Quality services
- Product life cycle services
- Technical services

### Production Services

- In-house design transfer
- Modular flow production
- Wide production range from electronics and electromechanics to display & touch
- Professional supply chain management
- Testing & quality assurance
- Logistics services

### Ideation & Innovation

- Creative workshops
- Design sprints
- MVPs and mock-ups

### Engineering

- Requirements elicitation & management
- System architecture & design
- Electronics development
  - Carrier board design
  - Circuit designs and layouts
  - COTS component selection
- Mechanical development
  - Complete mechanical design
  - 3D models & printing
- Software development
  - Embedded software (firmware, Linux, Windows)
  - BIOS modifications
  - Applications (control, regulation, GUI)
- Integration & verification
- Project management





## WHY CHOOSE US?



### Expertise

- People Centric | Value added focus
- Building blocks for faster development cycles
- Specific industry know-how



### Mindset

- Partnership approach
- Co-creation and co-ideation approach
- 100% transparency (shared work platforms)



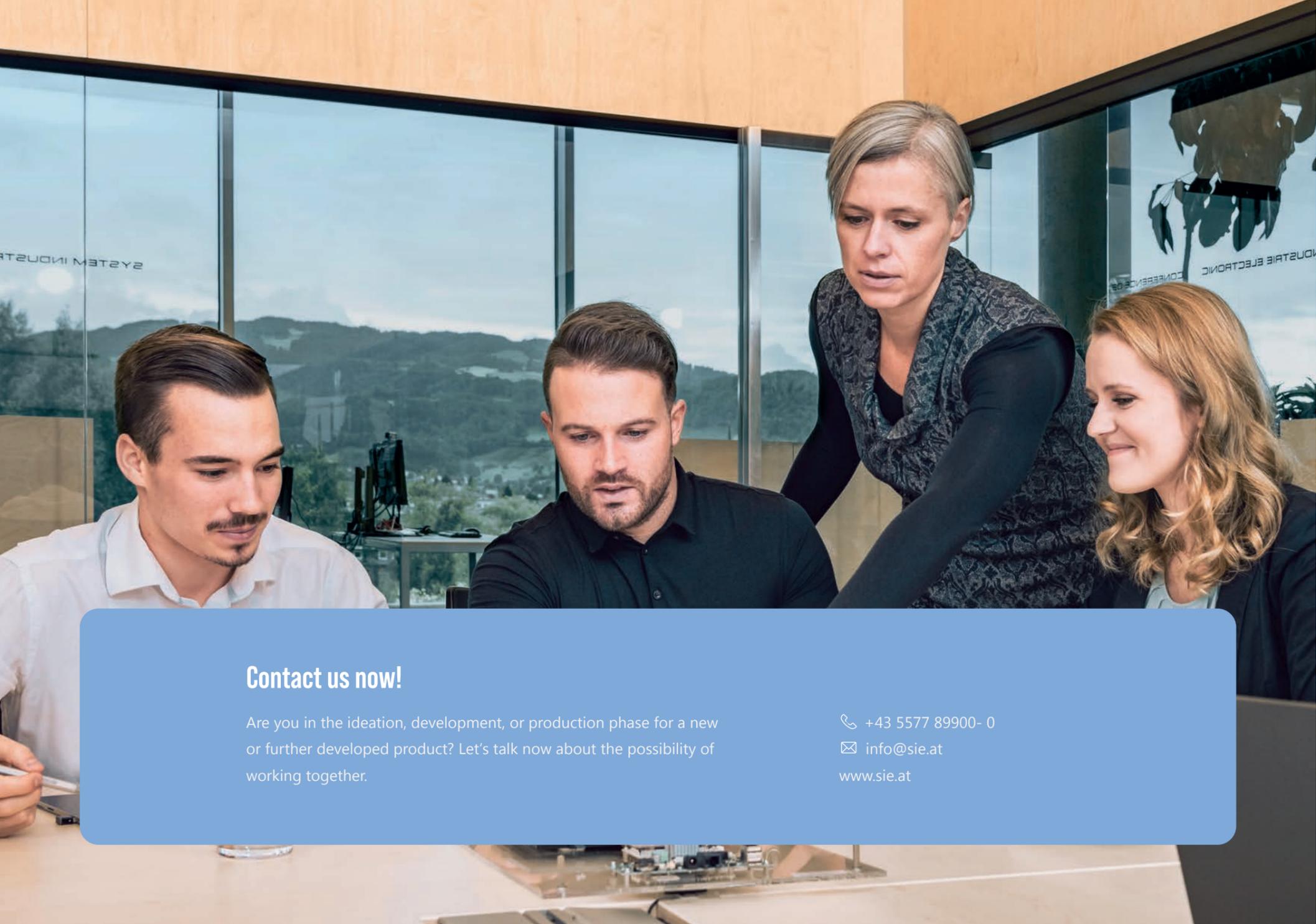
### Flexibility

- Adaptation to your processes
- Scalability in production
- Ready-2-Adapt Platform Logic



### Vision

- Creating added value together
- Value networking
- For the people



### Contact us now!

Are you in the ideation, development, or production phase for a new or further developed product? Let's talk now about the possibility of working together.

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Scan now and learn more!