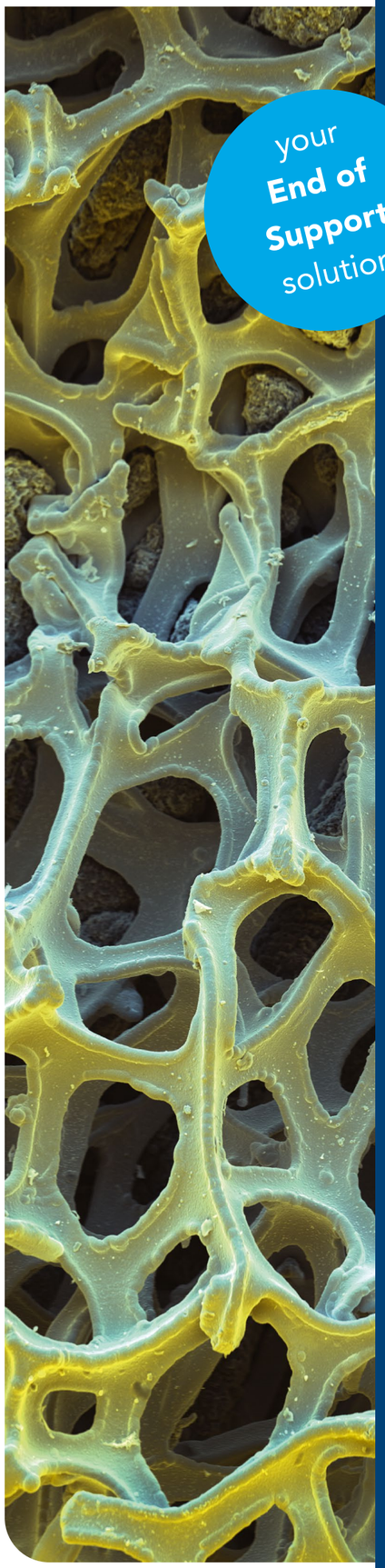
make · explore · discover



SEM Modernization

A second life for your SEM -
new electronics, software and controls.

point electronic



your **End of Support** solution

Extend the lifetime of your microscope – with new hardware and software.

Our modernization **adds the latest technology for image acquisition, controls and software** to your electron microscope.

You keep a fully **serviceable system** - 10+ years spare part guarantee for point electronic products.

Bespoke solution - we provide you with a modernization **customized to your specific needs**.

Maintain many of your **established/certified workflows** and **customized add-ons**.

We **simplify operations** through automation.

We handle the deinstallation of your old equipment and the on-site **installation** of the SEM modernization for you, in most cases directly in your lab.

Modernizations take around **3 days**. This keeps downtime to a minimum.

With our **included training** you will be fit for our applications within 1 day.

point electronic

We modernize your SEM

Increase performance and efficiency.

State-of-the-art technology

- The most powerful and versatile image acquisition system available (DISS6)
- MS Windows 11 with network compatibility
- Simultaneous acquisition of multiple signals and detectors
- Fully integrated automation functions
- High-quality control panels for imaging and stage control, trackball or joystick
- User-friendly, manufacturer-independent control software - faster results from sample insertion to final image

Reduce costs

- Extended lifetime
- Lower costs of ownership
- Reduced/no downtime
- 10+ years spare part support
- Maintain proven/certified workflows
- Keep customized add-ons, avoiding time and costs for reconfigurations
- Save lab space thanks to compact and integrated design
- Configure customized workflows
- Efficient service with online diagnostic tools

Sustainable use of resources

- Reduce your company's environmental footprint by upgrading an existing and reliably working instrument instead of scrapping
- Up to 70% lower power consumption
- Shorter repair times & remote support
- Cost effective - save time by avoiding long lasting tenders and purchase processes

Modernization instead of buying new

Modernizing an existing SEM offers several advantages.

Watch it happen!

Costs

Extending the lifetime of an existing SEM through our modernization is more cost effective than the acquisition of a new microscope and all the add-ons you might need for your work. In addition new electronics reduce service costs.

Service support

End of support notice from manufacturer due to obsolete electronic parts currently applies to many instruments. We guarantee full service support of your modernized system for 10+ years for all point electronic GmbH products. As the manufacturer of the modernization electronics, we are in full control of our own spare parts supply.

Lead time

For a new SEM purchase, lead times can be up to 1 year. Applying for the respectively very high budgets also takes time and effort. The delivery time of our SEM modernization electronics is usually very fast*, and we install it just within 2 - 3 days.

* Depending on availability of the components.

Technology and performance

Does your device require better resolution, faster image acquisition or to acquire simultaneously multiple signals? Is it not network compatible, or does it require a remote control option? These functions are included as standard in our SEM modernization.

Workflow

New devices often mean redeveloping and retraining of existing workflows and add-ons. We keep the modernization as user-friendly as possible. By maintaining established/certified workflows you can keep your customized equipment.

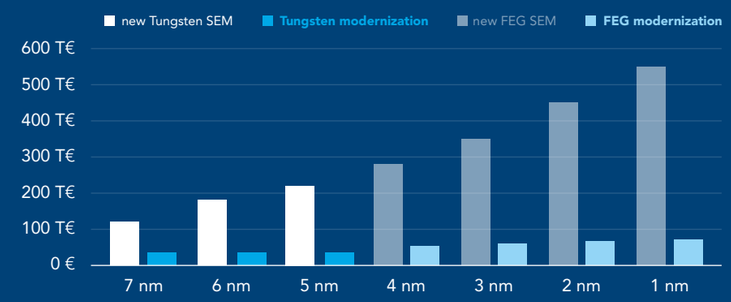
Your SEM is as unique as your imagination

We change everything that needs changing and retain the core of the column.

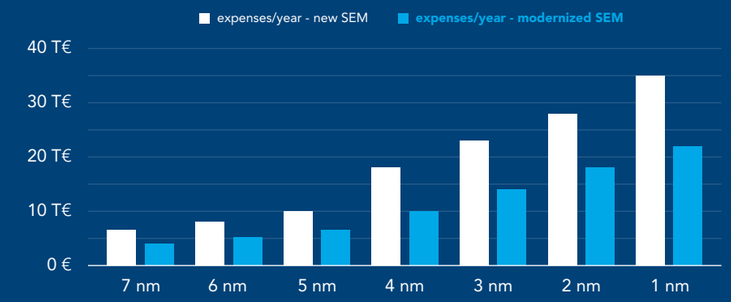
• You keep	+ We add
Your column incl. HV-PSU and pumps	State of the art electronics
Your add-ons, according to functionality and your requirements (such as EDX, EBSD, etc).	User friendly software with efficient workflows
Your established/certified workflows	Improved performance
Your laboratory layout and ancillary equipment	Network compatibility
	Additional techniques
	Reduced costs
	Environmental friendlyness

Costs of ownership

Compared to a purchase of a new electron microscope, our SEM modernization significantly saves costs in the long and in the short term.



Purchase costs for a new SEM, compared with a modernization in relation to resolution capabilities*



Annual service costs of a new SEM, compared with a modernized SEM in relation to resolution capabilities*

*depending on model and configuration

From old into state-of-the-art

Every modernization we offer is a specifically tailored solution for our customer's needs and the continuous development of our products.



We modernize selected models of all microscope manufacturers:

- ZEISS / LEO / Cambrigde
- Philips / FEI / Thermo Fisher Scientific
- other models on request

We modernize your SEM

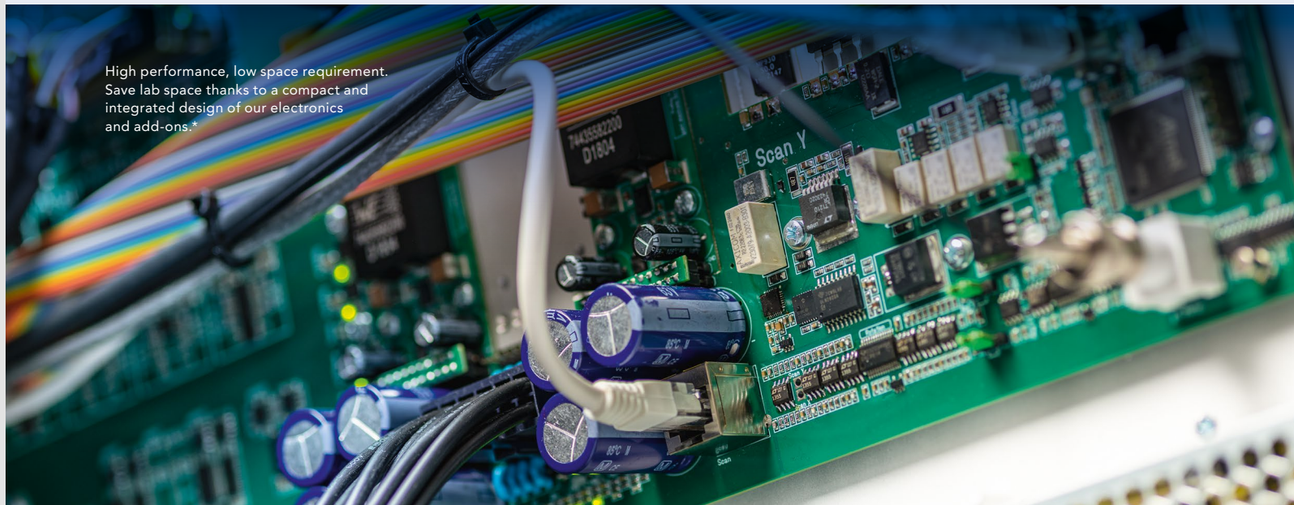
What's included.

Controls and acquisition modernization

- New SEM control electronics and software, based on latest Windows version
- Versatile and fast scanning system, based on DISS6 - simultaneous signal acquisition for up to 20 signals (SE, BSE, EDS, WDS, etc.), image resolution of up to 500 MPixels, scanning speed down to 10ns dwell time
- Automatic vacuum, gun, stage and detector controls
- New control panels for column, detector and stage control: SEM control, plus trackball or joystick
- Software for MicrosoftWindows 11, with full network compatibility
- Existing detectors and add-ons are supported down to Windows 7
- PC and display(s)

The modernization unlocks access to techniques like

- Electrical failure analysis with EBIC and EBAC/RCI
- Atomic-number discrimination with BSE detectors
- Live and quantitative topography measurements with BSE
- Micro-analysis with EDS detectors and mapping





point electronic GmbH - an expert you can rely on.

We are **among the pioneers in the field of electron microscopy** and developed one of the world's first digital image acquisition systems. Today - over 30 years later - its further developed version is one of the **best image acquisition systems on the market**.

We look back on a long tradition in the **development of highly specialized instruments and technologies for imaging and signal processing**. We are driven by the mission to improve the performance of electron microscopes and to enable our customers.

Service is in our genes. point electronic GmbH started as a service company for electron microscopes. The company evolved through the development of our own products.

Trust is very important to us. We are a 2nd generation **family business**, motivated from the beginning by the passion and engineering principles to **get the best out of an electron microscope**.

Our team of **engineers, software developers and production employees** contribute to that commitment.

Extensive modernization experience - **global customers** already benefit from the performance enhancement for their SEM.

point electronic GmbH
Erich-Neuß-Weg 15 | 06120 Halle (Saale) | Germany
Tel.: +49 345 1201190 | info@pointelectronic.de
www.pointelectronic.de

point electronic

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