



NINa-News

North European Initiative
Nanotechnology e.V.

No. 27 | October 2026

www.nina-sh.com

Dear Reader

When we began building a nanotechnology network in northern Germany in 2004, much of what we discussed back then was still a distant vision. Today, nanotechnology has found its way into countless applications. It is a key technology and a driver of innovation in nearly all relevant technological fields, from microelectronics and IT to alternative energy, biotechnology, and medicine.

The fact that it is sometimes less visible than in its early years has a simple reason: Today, it is often hidden behind other terms. When people talk about new materials, quantum technology, or the energy transition, nanotechnology is almost always involved. It has become the fundamental building block upon which other technologies are built.

This significance is reflected in our network, which is now active throughout the entire Baltic Sea region, and especially in our flagship conference, "Nanotechnology and Innovation in the Baltic Sea Region" (NIBS), which was hosted this year in Poznań in collaboration with Nanotech Poland (page 5).

The change in NINa's chairmanship (page 2) is a good opportunity for both of us to look ahead together. After all, the tasks that lie ahead are at least as



Prof. Dr. Rainer Adelung (l.) und Prof. Dr. Franz Faupel (r.)

exciting as what lies behind us. It will be crucial to leverage the strengths and opportunities of the Baltic Sea region and to continue expanding our network together with our international partners.

In our view, three points will remain particularly important: technology transfer especially across borders, the initiation of joint projects with strong industry participation, and the support of further spin-offs from our universities and research institutions. Precisely where science, business, and young companies come together, the added value is generated that NINa has stood for since its inception.

We thank everyone who has joined us on this journey so far, and we look forward to continuing it together with you.

Warm regards

Prof. Dr. Franz Faupel, Founder of the North European Initiative Nanotechnology e.V.

Prof. Dr. Rainer Adelung, First Chair of the North European Initiative Nanotechnology e.V.



Change in Leadership at NINa e.V.: Rainer Adelung Takes Over as Chair from Franz Faupel

After heading the network for nearly 15 years, the Faupel era is coming to an end, though the founder will remain with NINa.

It is a change that has long been planned, and yet it marks a genuine turning point in the history of NINa e.V.: Nearly 15 years after the network's founding, Prof. Dr. Franz Faupel is handing over the chairmanship to Prof. Dr. Rainer Adelung. When Faupel founded the association in August 2013, he did so with a clear vision: nanotechnology and materials research in the region should not only produce excellent science but also have an economic impact through sustainable networks. As an initiator, visionary, and networker, he shaped the association and became its public face. Without his dedication, his persuasiveness, and his ability to bring people and institutions together, NINa would not be the strong network it is today. Fortunately, he will remain with NINa even after the handover and will serve on the expanded board in the future.

Rainer Adelung, who has known NINa intimately for many years, is now taking over as chair.

As a long-standing member of the expanded executive board, he was already closely connected to the network before assuming its leadership. His connection to his predecessor goes back a long way: Adelung completed his habilitation under Faupel in 2006 at Kiel University, and their scientific collaboration has evolved into a close friendship over the years.

As head of the Chair of Functional Nanomaterials at CAU Kiel, Adelung is known for research that spans from basic science to industrial applications, such as in medical technology, energy technology, and nanoelectronics. He has personally mentored several spin-offs from his research group, and last year he was also awarded the 2025 Innovation Prize by the city of Kiel, affirming his reputation as a bridge-builder between science and industry. The association hopes his tenure will bring new momentum without disrupting the continuity of the successful networking efforts established by Faupel. For NINa, the leadership change thus marks not a break, but a handover to proven hands.

With Rainer Adelung and a broadly based executive board

With the change in chairmanship, the entire NINa Executive Board has also been reorganized:



Chair: Prof. Rainer Adelung
Chair of Functional Nanomaterials, Kiel University

2nd Chair: Prof. Horst-Günter Rubahn
Professor of Nanotechnology at the University of Southern Denmark and Director of the Mads Clausen Institute in Sonderburg



Treasurer: PD Dr. Ralf Zimehl



Chemist with many years of experience in scientific project development, previously in NINa's Board of Trustees

and board of curators supporting him, the network is well placed to further expand its role as a driving force for nanotechnology and materials research in Schleswig-Holstein and the Baltic Sea region in the coming years.

NINa's extended board

Prof. Dr. Franz Faupel, Founder and long-time Chair of NINa

Prof. Dr. Frank Osterwald, Managing Director of the Schleswig-Holstein Society for Energy and Climate Protection

Dr. Michael Timmermann, Innovation consultant at WTSH specializing in grant consulting, digitalization, and technology transfer

Wolfgang Werner, Physicist at Vishay BCcomponents Beyschlag with many years of experience in industrial R&D

The association extends its heartfelt thanks to the current members and to all those who have helped shape the Executive Board and Board of Trustees over the past years for their support, expertise, and personal commitment.

The Board of Trustees

Outstanding figures from the fields of science, business, and politics guide the association's strategic development and advocate for its interests in society and politics:

Dr. Sabine Brock (DESY), Prof. Emerson Coy (Adam Mickiewicz University in Poznań), Dr. Rainer Döhl-Oelze, Dr. Peter Grambow (Nano in Germany), Axel Koch (Kiel University), Kerstin Kuchenbecker (Ministry of Economic Affairs of Schleswig-Holstein), Dr. Wiebke Müller-Lupp (Kiel Science Center), Dr. Bernd Roß (Ministry of Science of Schleswig-Holstein), Prof. Dr. Tomas Tamulevičius (Kaunas University of Technology), Dr. Alexander Vahl (Leibniz Institute for Plasma Research and Technology INP Greifswald), Prof. Dr. Berit Zeller-Plumhoff (University of Rostock), and Dr. Volker Zöllmer (Fraunhofer IFAM, Bremen).

Center for Hybrid Nanostructures: From Structure to Function

With the [Center for Hybrid Nanostructures](#) (CHyN), the Universität Hamburg operates a research building focused on hybrid materials — inorganic solids, soft matter, and biological systems combined at the nanoscale to yield functions none of the components has on its own.



Recommended for funding by the German Science Council in 2011 and opened in July 2017, [CHyN](#) was the first new university research building on the Science City Hamburg Bahrenfeld campus, directly next to Deutsches Elektronen Synchrotron (DESY). An ISO Class 4 cleanroom at CHyN supports complex nanofabrication across disciplines. It is jointly run by Universität Hamburg, DESY, and the Max Planck Institute for the Structure and Dynamics of Matter.

The scope of the center is defined by three professorships. The group of Robert H. Blick, founding director of [CHyN](#), works on high-frequency electronic quantum devices and nanoelectromechanical systems built on free-standing nanomembranes and reaches into the life sciences by combining nano- and microstructures fabricated by cleanroom processing or 3D printing with living cells. To tailor these interfaces, a dedicated lab led by group leader Robert Zierold specializes in atomic layer deposition, coating complex three-dimensional templates conformally with sub-nanometer precision with materials from simple oxides through ternary compounds to superconductors and metal-insulator transition systems. Wolfgang Parak focuses on the biological interface, developing colloidal nanoparti-



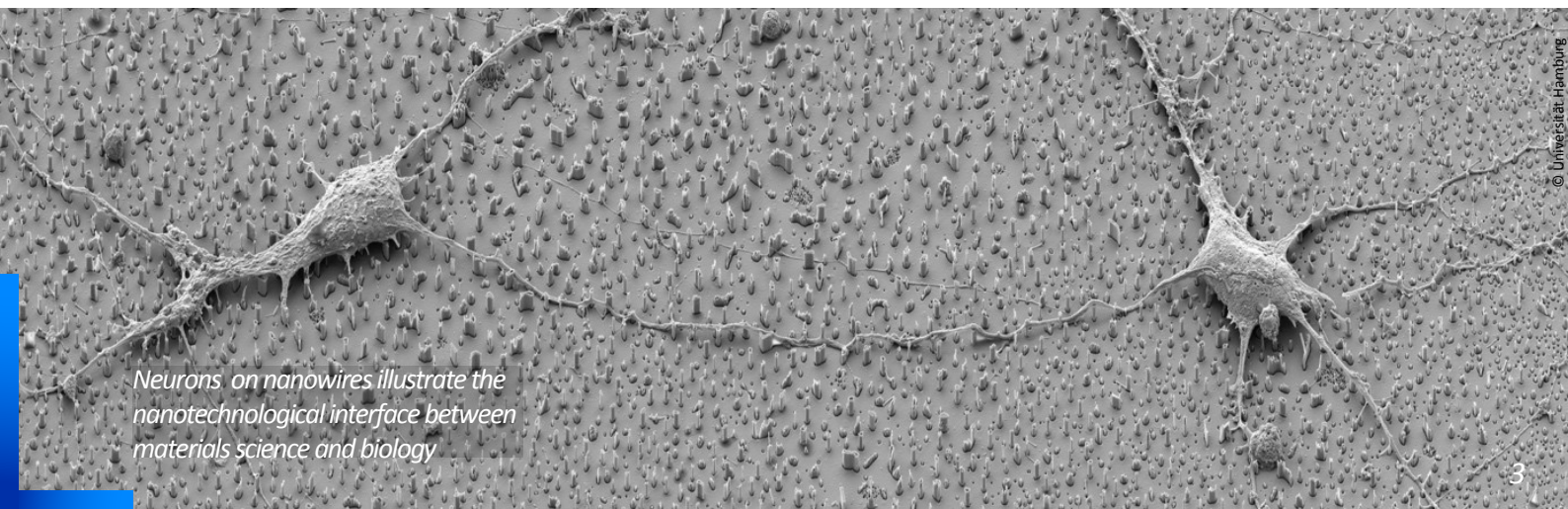
Inside CHyN's clean room

cles and studying how they interact with cells and tissue; his group's results feed directly into imaging, diagnostics, and nanoparticle-based therapies. Dorota Koziej approaches the field from chemistry and materials science: her group designs hybrid nanomaterials with improved sustainability and efficiency for catalysts, sensors, and energy applications, using synchrotron-based in situ methods to trace how nanoscale structure translates into device functionality.

The work at [CHyN](#) is embedded in Germany's Excellence Strategy, with researchers contributing to three Clusters of Excellence Ad-

vanced Imaging of Matter (CUI), Quantum Universe, and Water-Driven Materials (BlueMat). Physicists, chemists, biologists, and materials scientists from Universität Hamburg, DESY, and Hamburg University of Technology—among them Prof. Patrick Huber, spokesperson of the BlueMat cluster—pursue their research within the same building.

For the NINA network, this offers a specific point of contact: fabrication capacity for partners across the Baltic Sea region, method exchange between materials science and the life sciences, and a bridge to the large-scale facilities next door.



Neurons on nanowires illustrate the nanotechnological interface between materials science and biology

ECPE – The Industry-Driven European Research Network

Founded in 2003 by renowned companies from the power electronics industry, [ECPE](#) (European Center for Power Electronics e.V.) has grown into Europe's leading industry-driven research network for power electronics.

Over the past two decades, power electronics has evolved from a niche technology into a key enabler of the energy transition. Today, it plays a central role in renewable energy and grid systems, electric mobility, industrial automation, and

energy-efficient applications across industry, commerce, and households. It also enables intelligent, connected systems while contributing significantly to energy savings across industrial, commercial, and residential applications.



[ECPE](#) connects industry and academia to advance pre-competitive research, develop technology roadmaps, and strengthen Europe's innovation ecosystem. Through its Joint Research Programme, member companies and research institutions collaborate on strategic topics and accelerate the transfer of innovations into industrial applications. [ECPE's](#) workshop and advanced training programme equips engineers with up-to-date knowledge on the latest developments and technologies in power electronics.



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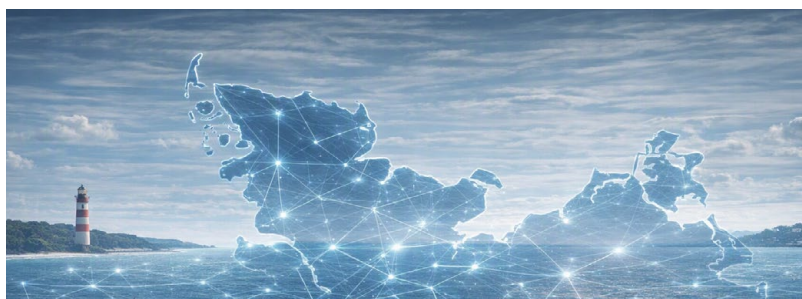
TechHUB SVI Nord

A new innovation network for Maritime Security and Defense Technologies has been in place in Schleswig-Holstein since September 2025: In Kiel, Minister President Daniel Günther, together with representatives from business, academia, and the German Armed Forces, officially launched [TechHUB SVI Nord](#).

The network is a joint initiative of the state government, the business community, economic development agencies, and academia. The state-funded administrative office is based at WTSH and is headed by Marcia Mimura. The [TechHUB](#) aims to bring maritime security and defense technologies to market more quickly by serving as a neutral platform and point of contact for companies, startups, research institutions, and the German Armed Forces. Its services include targeted matchmaking between specific needs and solution capabilities, access to testing infrastructure under real-world maritime conditions, support for project ideas,

and consulting on procurement processes. The focus is on autonomous systems and sensor technology, with a particular emphasis on dual-use technologies that can be utilized for both civilian and military purposes.

The location's strengths include a combination of direct access to the North Sea and the Baltic Sea, a strong maritime industry, a dense network of universities and research institutions, and proximity to the Navy. The network is correspondingly broad: Partners include, among others, Kiel University, GEOMAR, Kiel University of Applied Sciences, and Lübeck University of Applied Sciences, as well as companies ranging from Anschütz and



ELAC SONAR to north.io, TKMS, and Thales. The current TALOS 26 challenge, focused on underwater security for harbor basins, illustrates the network in practice: The challenge seeks solutions in sensor technology, robotics, and AI that will be tested under real-world conditions at the Kiel Naval Arsenal in November 2026.

Nanotechnology is a key enabler in the maritime environment, e.g. for sensing, lightweight construction and functional coatings. Thus, [TechHUB SVI Nord](#) certainly provides numerous opportunities for connection to NINA's members in nanotechnology and materials research. For more information, visit techhubsvinord.de.

NIBS 2026: The Nanotechnology Community gathered in Poznań

This year marked the ninth edition of the NIBS conference, with more than 200 participants gathering at the Faculty of History at Adam Mickiewicz University in Poznań. It was organized as a co-conference alongside the 15th International NanoTech Poland 2026 Conference, which returned after a pause, and thus provided NIBS with a particularly international setting.

In keeping with the spirit that the conference series has embodied since its inception, researchers, industry representatives, and young scientists exchanged knowledge at NIBS, presented new findings from their work, and forged international collaborations.

As a co-organizer of NIBS, NINa would like to thank all participants, speakers, partners, and sponsors who took part in this year's conference.

And we're already looking ahead: The next NIBS conference will take place in 2028, marking the 10th anniversary of the conference series, this time in Kiel. We are already looking forward to welcoming the international nanotechnology community to celebrate this special anniversary with us.

NIBS
conference 2026
Nanotechnology | Innovation | Baltic Sea Region



STA: How International Talent and Regional Companies Connect

For more than two years, the [Science and Technology Academy](#) (STA) has connected international master's students at Christian-Albrechts-University of Kiel with regional companies in Schleswig-Holstein. Initiated by Prof. Dr. Rainer Adelung, the project aimed to connect highly qualified international talent with suitable companies in the region to secure a skilled workforce in the technical sector.

Over the course of the project, a sustainable network has emerged: numerous companies in Schleswig-Holstein joined in, additional international degree programs were included, and a dedicated board of trustees guided [STA's](#) strategic development.

While funding from the state ended this June, the [STA's](#) work does not end. The established structures will continue, supported by Kiel University's International Center and NINa e.V. With follow-up funding being explored, the [STA](#) remains a strong link between academia and industry that lasts beyond the official end of the project.



Focus Meeting: Battery Technology and Energy Storage – From Materials to Applications

GEOMAR Kiel | 22 October 2026

Energy storage technologies are becoming increasingly important across a wide range of industrial and technological applications. Their performance depends not only on advances in battery chemistry, but also on developments in functional materials, components, power electronics, system integration and manufacturing technologies.

The focus meeting "[Battery Technology and Energy Storage – From Materials to Applications](#)" will highlight how innovations at the material and component level contribute to improved performance, efficiency, reliability

and scalability of future energy storage solutions. The event will also address broader questions concerning performance, lifetime, system design, manufacturability and requirements of different application environments.

Particular attention will be given to the interfaces between these fields and to the challenges involved in transferring technological developments from research into practical and industrial applications.

Visit NINa's website for more [information](#) and [registration](#).