

Press Release

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“Embrace risk and pursue what really fascinates you”

Interview with Professor Martin Stratmann, who served as President of the Max Planck Society until June 2023 and has now returned to his home institute, the Max-Planck-Institut für Eisenforschung

Prof. Martin Stratmann held the positions of section chair, Vice-President and President of the Max Planck Society, Germany's most successful research organization, for 17 years. In July, he resumed his role at the Max-Planck-Institut für Eisenforschung (MPIE), where he had been a director before being elected as President. He currently leads an emeritus group at MPIE. In the following interview, he sheds light on the dynamic interplay between science and policy, what a successful research environment in Germany requires, and the attributes that contribute to Nobel Prize-winning achievements.

You've spent 17 years in the realm of science policy. What do research and science policy have in common?

Nowadays, research is the driving force behind technological advancement. Pursuing forward-looking industrial strategies also means engaging in research and science policy. Both industrial innovations and scientific breakthroughs stem from human efforts. In this context, science isn't an abstract concept; it's deeply rooted in human nature. Consequently, our goal should be to attract the best minds to Germany. This requires investing in the future and fostering conditions that encourage the best minds to contribute their expertise in Germany.

What qualities are crucial for scientists and politicians to be successful?

The courage to take risks. Scientists naturally do this as part of their daily work, willingly venturing into uncharted territories, without certainty about the outcomes. The same applies to science policymakers. They must be willing to invest in future projects without a guarantee of achieving the desired outcomes. For instance, consider the establishment of the Campus for Artificial Intelligence in Tübingen, which the Max Planck Society initiated 15 years ago. Back then, this field wasn't in vogue, and predicting the subsequent scientific leaps in artificial intelligence and machine learning was challenging. The shared trait between researchers and policymakers is a willingness to take risks and let go of conventional approaches. Both roles require this flexibility. It's not about clinging to the old while merely adding something new on top.

To increase the likelihood of success you must invest in bright minds. In science, this means nurturing exceptional doctoral and postdoctoral researchers, and technicians – the individuals who make scientific progress possible. The more selective you are in this regard, the greater the odds of success. Similarly, science policy involves investing in skilled individuals, such as the directors of Max Planck institutes. Ultimately, success in both domains depends on those whom you work with.

What advice would you give to aspiring scientists or those aiming for success in the field?

Pursue what deeply fascinates you and enables you to explore uncharted territories. Avoid merely chasing external suggestions. A young scientist who simply follows their supervisor's instructions won't attain long-term success. Success stems from pioneering new paths, even ones that supervisors may initially dismiss as unfruitful. Therefore, a measure of defiance and innovation is essential. A passion for science and perseverance are critical. All the Nobel Prize laureates I know began with this approach. They nurtured unconventional ideas that initially found few believers.

Take Svante Pääbo, the 2022 Nobel Laureate in Medicine, for example. He aimed to sequence Neanderthal DNA, a notion many deemed implausible due to contamination and chemical degradation of the DNA. Thanks to tenacious determination and an unwavering belief in his pursuit, Pääbo overcame setbacks and ultimately succeeded. These pioneers also possess the resilience to endure challenging phases.

Of course, the scientific landscape has evolved considerably; a fact that has to be considered, too. The era I experienced involved relocating frequently, accepting appointments, and uprooting families. That period has passed. At the present time, it has become more challenging to uproot one's life constantly. Certain conditions must be met, such as accommodating dual careers, and providing quality childcare and international schools. The core responsibility of contemporary research policy is to consider the entire family when appointing international researchers.

What does Germany need to do to compete with global leaders in research and technology?

First and foremost, let's not underestimate our achievements. The Max Planck Society, for instance, enjoys a strong standing. During my tenure, we secured six Nobel Prizes and a Fields Medal. This surpasses many esteemed American universities. Thus, we're not lagging behind scientifically. We're capable of keeping pace, even in cutting-edge arenas like quantum science.

Germany's challenge lies in converting science into technology. This requires new approaches and unconventional methods. The trajectory leads towards integrated research sites where universities and research institutes collaborate closely, attracting modern businesses. These sites gain momentum that transcends the impact of individual institutions. I anticipate that the German national Agency for Leap Innovations (Agentur für Sprunginnovationen SPRIND), which was a suggestion of mine, will play a vital role in advancing innovation in Germany. While we do excel in fundamental research, we can definitely infuse more vitality into translating findings into novel products, a domain where other nations are more successful.

Another pressing issue in Germany involves limited industrial partnerships in certain sectors. Our strengths lie in materials, the chemical industry, mechanical engineering, and automotive sectors. However, we lag in modern fields like IT and software development, where domestic competitive partners are scarce. This lack of relevant companies issues in difficulties when translating research outcomes into practical applications.

A more personal question: What's next on your agenda?



I plan to dedicate more time to personal matters and family. This aspect suffered during my nearly 17 years in science policy. Additionally, I'm thrilled to return to MPIE with a small emeritus group. I'm looking forward to conducting a couple of experiments, including those involving electrochemistry in ultra-high vacuum. Collaborating with young scientists is another exciting prospect that motivates me.

You stepped out of your routine at MPIE, spent time in Munich, and now you're back. How does it feel to re-enter this new phase after such an extended absence?

I'm not certain that I can answer that just yet, as this new phase is in its beginning stages. During my tenure as President of the Max Planck Society, my days were meticulously structured, fully booked months or sometimes up to a year in advance. A team of dedicated secretaries precisely organized every available moment, including lunch breaks. Consequently, personal freedom to arrange appointments was limited; it was paramount that I adhered to preset timelines.

Now, I have gained a vast amount of freedom back. Adapting appropriately to this change is an ongoing process. I can structure my own days, and I'm eagerly anticipating this. Moreover, my family has grown. I now have six young grandchildren. During my time in Munich, I hardly interacted with the two youngest ones. Only recently did I get to know them better upon returning here. Life has become more private, and that's a significant positive change.

Thank you immensely for this insightful interview!

The interview was conducted by Yasmin Ahmed Salem.



The management of the Max-Planck-Institut für Eisenforschung (MPIE) together with Prof. Martin Stratmann, President of the Max Planck Society (MPG) until June 2023 and now head of an emeritus group at MPIE. From left: Dr. Michael Rohwerder, Prof. Dierk Raabe, Dr. Kai de Weldige, Prof. Martin Stratmann, Prof. Gerhard Dehm and Prof. Jörg Neugebauer. Traditionally, each retiring president receives a bust, which is placed in the general administration of the MPG and in the respective home institute. Copyright: Max-Planck-Institut für Eisenforschung GmbH



The international team of the Max-Planck-Institut für Eisenforschung conducts advanced basic materials research for the fields of mobility, energy, infrastructure, medicine and digitalisation. The focus lies on nanostructured metallic materials as well as semiconductors, which are analysed down to their atomic and electronic scales. This enables the MPIE team to develop new, tailor-made structural and functional materials embracing their synthesis and processing, characterization and properties, as well as their response in engineering components exposed to real operating environments.

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