

Speech by the President of the Max Planck Society

Professor Dr. Patrick Cramer

on the occasion of the meet-and-greet event with the Trustees of the Max Planck Institutes

23 June 2023

FORUM WISSEN – the Knowledge Museum of the University of Göttingen

Translated script,
speech was delivered in German -

Ladies and Gentlemen,

When I moved to Göttingen ten years ago, I noticed a green laser beam darting across the rooftops to Johanniskirche at night. Only after a while did I learn that this laser installation was a tribute to an old Göttingen invention.

Ten years have passed since then, and today we are at the Forum Wissen – a place devoted to explaining how inventions - and new knowledge in general – make their way into the world. Many thanks to the Director, Christoph Bleidorn, and the President of the University, Metin Tolan, that we can be here today.

So what is the story behind that green laser beam? Let me begin with telling you about a citizen of Göttingen: Wilhelm Eduard Weber. He was a great physicist, a pioneer of electrodynamics.

The Weber unit for magnetic flux is named after him. He passed away on this day 132 years ago. Wilhelm Weber was one of the legendary Göttingen Seven – as were the Grimm brothers: the famed university professors who were dismissed from their posts in 1837 and in some cases expelled from the country because they had stood up for a liberal constitution.

But at least as remarkable as this story is another side-story that is inseparable from it. Once the professors had been evicted, citizens all over Germany showed solidarity with them.



They joined forces to support the scholars financially. This fundraising campaign is probably one of the first examples of the public standing up for scientists – and thus also for science!

200 years later, we no longer need to fear feudal despotism in Germany. Nonetheless, the embedding of science at the centre of society remains essential. And that is what you are committed to, dear Trustees! It is great to meet you here today. I welcome you all very warmly!

Let's get back to Weber – and to his close and much older friend: Carl Friedrich Gauss. In terms of the history of ideas, we are in the time of the last polymaths: Gauss lived and worked at the Göttingen observatory, even though we know him today as a mathematician. The boundaries between the disciplines were not exactly rigid at that time. As a result, Gauss, the mathematician, and Weber, the physicist, jointly invented the first electromagnetic telegraph.

The two primarily pursued their interest in basic science – but who knows, maybe they would have ventured into application and registered a patent if Weber had not had to leave Göttingen a little later as a member of the Göttingen Seven.

At any rate, people of later generations do not send messages in Gauss or Weber code, but in Morse code. After all, the American inventor Morse would eventually open a new chapter in messaging. Actually, I still learned Morse code when I did my military service one year before the fall of the Berlin Wall.

But for now, let's rewind history to the present day. Today's academia is composed of a vast catalogue of clearly distinguished disciplines. On the other hand, the separation between research and application is being lifted progressively.

As a consequence, new technologies are more and more changing the reality of our lives. This is another reason why we must remain in dialogue with society through transparency and communication.

This is where you, dear Trustees, become involved again. You receive an insight into the work of the Max Planck Institutes. You look into the research topics and carry your experiences into society.

We are very grateful for this. But you also help us in other ways to cope well with the acceleration in the technosphere.

Let's think of Al: Researchers today also act as inventors. But they need help with implementation. And in the case of Cyber Valley, for example, it also came from members of Boards of Trustees. By the way, Cyber Valley is Europe's largest Al research consortium today.



We are promoting a new spin-off culture – also in the MPG! To achieve this, it is important to venture outside the front door and have a chat with the hidden champions in the neighbourhood three doors down. Because they exist in many places. They often also care about the region – and they are fortunately often active on our Boards of Trustees!

Allow me one last mental recourse to Gauss and Weber. The two used the distance between Gauss's observatory and Weber's physics cabinet as a test track for their first telegraph. So the green laser beams I saw that very night when arriving here long time ago, they illustrated the world's first telegraph line.

In a bold move, Weber had stretched a thread across the roofs by his own hand, over a total distance of more than one kilometre. The thread was supposed to be a supporting line (to which he would later attach the actual wires).

After having finished his work, Weber reported it to the city authorities and asked them to, and I quote, "kindly commend to the attention of police officers, night watchmen, etc., that no damage be done to it through wantonness."

From today's perspective, this was a rather unconventional way of proceeding. We are nowadays rightly a little more precise about the order of application, approval and execution of plans. And often the first step is to achieve a basic understanding of the concerns of science.

This helps us in our exchange with politics, business and the media – especially at the local level. Your sympathetic ear and valuable advice are of great benefit to us. I have experienced it at my own Institute. There, the Board of Trustees energetically supported the creation of our new biotope, thus contributing to the preservation of biodiversity. One thing was clearly noticeable: we commit ourselves jointly!

I thank you for all of this – for your time, your ideas, your support!

By the way, Gauss and Weber raved at the time about the possibility of communicating across distances by telegraph. Nowadays, Zoom and Webex enable us to be in contact worldwide. Sometimes, however, it also makes sense to return to the "stone age of messaging" and communicate directly, from person to person.

You can see how important this exchange is to us by the fact that our Secretary General Simone Schwanitz, the Deputy Secretary General Maximilian Prugger, the Head of the Institute Liaison Office, Katja Ketterle, the Head of the Communications Department, Christina Beck, and my Institute colleague and Nobel Laureate Stefan Hell are here. We look forward to talking with you!