Strong Podium for More Research

Discussion at the new premises of the Max Planck Society's Brussels office

Five experts with a single view: In the podium discussion on the topic "More investment in research – one way out of the European crisis?" conducted at the new premises of the Max Planck Society's Brussels office, there was broad consensus between the speakers. In front of more than 40 prominent guests, they highlighted the importance of science as an engine for economic growth, while also pointing out that not only the volume of funding but also the structures and principles of the research need to be improved. "The association is obvious: investment in science, especially basic research, is a key factor for technological leadership," said Max Planck President Peter Gruss. According to him, the contribution of elite research is particularly significant.

"The EU member states that have joined since 2004 attract only 2 percent of the European Research Council's grant, even though they account for 20 percent of the population. Enormous potential is still lying fallow here, and Europe needs to utilize it if it is to hold its own in the international context," emphasized Gruss. This is the aim of the EU's new Teaming Excellence instrument, in which leading research facilities join up with partners in less developed regions in a bid to develop internationally visible local research centers. "You could say that Teaming Excellence creates an evaluation system for excellent research structures," said the Max Planck President. The instrument's true effect lies in mobilizing significant sums from the structural funds for research sponsorship.

Taking part in the Brussels talks (from left): Robert-Jan Smits, Director General for Research and Innovation at the EU Commission, Maria da Graça Carvalho MEP (Member of the European Parliament), Max Planck President Peter Gruss, Stefan Marcinowski, former board member at BASF, and the Czech Republic's Education Minister Dalibor Štys. The podium discussion was moderated by journalist Jacki Davis (third from right).

License Goes to Dolby

Company aims to refine image processing technology

HDR imaging has been used in photography for many years, and is now also finding increasing application in movies. Such images are shot using a wide range of brightness levels, from very light to very dark. This broad spectrum makes it possible to reproduce realistic light intensity and coloration even more precisely than in previous digital images. However, the higher volume of data involved requires a more sophisticated processing method to ensure compatibility with standard LDR systems. Along with their team from the Max Planck Institute for Informatics, Hans-Peter Seidel and Karol Myszkowski developed a new method of HDR image data processing that greatly reduces the data volume. Dolby now wants to develop an application of this technique for its next-generation screens. "Dolby Laboratories is the perfect licensee, as the company has the capability to turn this invention into fantastic image processing technology that provides outstanding experiences in entertainment," says Bernd Ctortecka, License Manager at Max Planck Innovation.

Photo: Horst Wagner

"South Korea backs a success story"

Why the high-tech country is setting up research centers based on the Max Planck principle

Peter Fulde

Basic research according to the Max Planck Society model: South Korea's government has explicitly named the prototype to be used in founding its Institute for Basic Science (IBS). By 2017, it is due to comprise fifty research centers. This is the core of the "International Science and Business Belt (ISBB)" initiative. We interviewed Peter Fulde (77), who established the first Max Planck Institute in Dresden after German reunification, and is now advising the team responsible for the IBS.

Mr. Fulde, it's a long way from Dresden to East Asia. How did you get involved?
Peter Fulde: Shortly after the Max Planck Institute for the Physics of Complex Systems was founded in Dresden, the physics societies in the Asia-Pacific region decided to establish a similar institute. After my retirement, I was asked to drive forward the inception of the Asia Pacific Center for Theoretical Physics in Pohang as President. I have been there since 2007, and now spend more than half of my year in South Korea, and the Center has been established, thanks in part to the support of the Max Planck Society, which financed a junior research group. This type of model, giving a lot of freedom to talented young people, had not been seen in South Korea before. Now it's hard to imagine life without it, and it's being nationally funded. There are six of these groups at present. A similar program is also in place at the Institute for Basic Science, the Korean version of Max Planck.

South Korea is regarded as a high-tech country – why does it need the IBS program?
When it comes to industry, South Korea is certainly high-tech, and the same applies to its infrastructure. However – and this was also made clear by the country's President Lee Myung-bak when he introduced the ISBB Act – while applied and industrial research are well positioned, basic research still has a long way to go. The aim of the IBS is to fill this gap. The idea goes like this: up till now, South Korea has seen itself as a "close follower" in the high-tech world, with the ability to adopt the innovative basic ideas of others and to use them to develop products that are even better than their prototypes. The disputes between Samsung and the US corporation Apple are characteristic of this phenomenon. The government now feels that China will soon be taking over this role. South Korea wants to realign itself to become a technology leader and make its own groundbreaking discoveries. Sound basic research is to play a key role in this process.

How is the setting up of the IBS being guided by the Max Planck Society?
Every country needs to find its own format for an optimal organization, but it's always good to stay informed: how was it done by others who are particularly successful? For this reason, IBS employees have visited Max Planck Institutes and the MPS's Administrative Headquarters. General Max Planck principles now apply at the IBS Centers: autonomy and freedom for the researchers, along with the Harnack principle. To attract the best, international calls for applications are sent out and the bids subjected to a critical review by a Selection and Evaluation Committee. The evaluation process will be similar to that practiced by Max Planck. It's no coincidence that a foreign scientist has now taken the chair of the Committee alongside me, and that half of its members come from overseas. The aim is to make the appointment process – the key aspect in ensuring excellence – as objective as possible and to open it to international candidates. Incidentally, two more Max Planck scientists, Jos Lelieveld and Hans Wolfgang Spiess, have now been appointed to the Committee.

The IBS started working over a year ago. How do things stand now?
The IBS itself is not an actual institute, but an umbrella organization under which fifty independent centers are to be established. Each center will have an annual budget of about 10 million US dollars, will be headed by a prominent researcher, and will employ around sixty other scientists. The focus is on natural sciences, including the life sciences. About twenty centers have already been founded. The headquarters office, headed by IBS President Se-Jung Oh, is being established in Daejeon. South Korea's new President has been in office since early this year. As the country is now focusing on various new issues, the setup process has slowed down a bit. But, since the IBS was founded with the aid of a law, it stands on solid ground.

How is the IBS integrating into the research landscape with its centers?
The universities are already conducting basic research, but not in such a concentrated way as at the IBS. Moreover, few of the many universities may be rated as excellent according to German standards. The IBS is therefore gaining a great deal of importance. After a lengthy political debate, it is now clear how the centers will be distributed regionally. This decentralization is plausible, because it is also being guided by research specialisms. If we add the existing centers for applied research, this seems to be a solid development that should give the system a bit of impetus.

Do you see parallels with the establishment of the Max Planck Institutes in the new federal states in Germany?
Prosperity, performance and quality in a country need to be developed where suitable conditions for them already exist. This becomes possible if particularly successful models are used as a guide, as was the case in the new federal states with the establishment of elite research there. The Koreans are now taking the same way forward: they are adopting Max Planck Society practices that have proved to be successful. This isn't copying; as we have said, that can't be the aim. It's more the ability to be open to the best way of doing things. In this respect, the Koreans are outstandingly good learners, and they are prepared to listen and then implement the necessary changes. This is impressive.

Interview: Jens Eschert

Photo: Private collection

A Systematic Understanding of Criminality

Max Planck Partner Group with the University of Zagreb established

Podium discussion at the inauguration: Partner Group Head Anna-Maria Getoš with Max Planck Director Hans-Jörg Albrecht, Davor Derenčinović and Dean Zoran Parać from the University of Zagreb, as well as Claudia Hillinger, Administrative Headquarters of the Max Planck Society (from right).

The Balkans live with prejudices, such as the one that says that the region is a particularly dangerous place. The fact that recent studies show the opposite, and that this reveals differences between reality and perception, is one of the aspects to be investigated by the new Max Planck Partner Group "Balkan Criminology." Anna-Maria Getoš, the group's head, is following a systematic approach to "pool criminological research in southeast Europe, develop it further and increase awareness of it in Europe and beyond." The criminologist obtained her doctorate at the Max Planck Institute for Foreign and International Criminal Law and is now working as an assistant professor in the Faculty of Law at the University of Zagreb. The Partner Group is being funded by both institutions. The inauguration symposium took place in Zagreb at the end of June. The main research areas are "Violence, Organized Crime and Illegal Markets," "Feelings and Perceptions of (In)Security and Crime" and "International Sentencing." The latter also involves research on the impact of the relatively lenient sentences imposed by the International Criminal Tribunal for the Former Yugoslavia on legal culture in the region and on the normative evolution of international criminal law.
www.balkan-criminology.eu

On the Net

PianoText
When pianists like Chinese virtuoso Lang Lang do it, it looks easy: expertly and at lightning speed, their fingers glide along the piano keyboard, playing pieces by Mozart, Rachmaninoff or Tchaikovsky. IT experts from Saarbrücken have used this dexterity as a model, developing a method that uses piano keys to write texts. How this works and sounds can be seen in a film on the Max Planck Institute for Informatics website.
pianotext.mpi-inf.mpg.de

Galactic Showdown
There is a supermassive black hole at the center of our Milky Way. Not even light can escape the pull of its gravity. But infrared cameras fitted to the Very Large Telescope in Chile are delivering fascinating images of stars that are circling the black hole, and of a gas cloud being attracted by this massive monster. The latest computer simulations, which can now be seen on our YouTube channel, show how the cloud is likely to be partially destroyed and sucked in over the coming years.
www.youtube.com/maxplancksociety

Human Images
Sculptor Andreas Kuhnlein doesn't work with gouges, mallets or woodcarving knives. When he makes sculptures out of elm or oak, he uses only his chainsaw. This results in human images that look rough at first glance, but radiate primal power and beauty. The artist's works were on show at the Max Planck Haus in Munich until November 29, and also during the "Lange Nacht der Münchner Museen" (Long Night of the Munich Museums) event on October 19. Art lovers can find a selection of the sculptor's current projects on his website.
www.kuhnlein-bildhauer.de/index-EN.html

The Power of a Breath
Taking a breath consciously is a very simple act – but it can create feelings of connectivity, empathy and compassion, the conscious feeling of being present to one another. The twelve-minute short film "Where mind and body swing back and forth" by Berlin-based artist Olafur Eliasson provides an opportunity for outstanding thinkers to have their say: What does our awareness of breathing do to our understanding of ourselves, of each other and the world around us? An exciting art project.
www.vimeo.com/74357590

Photo: OH

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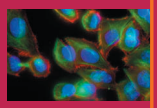


Max Planck Innovation is responsible for the technology transfer of the Max Planck Society and, as such, the link between industry and basic research. With our inter-disciplinary team we advise and support scientists in evaluating their inventions, filing patents and founding companies.
We offer industry a unique access to the innovations of the Max Planck Institutes. Thus we perform an important task: the transfer of basic research results into products, which contribute to the economic and social progress.

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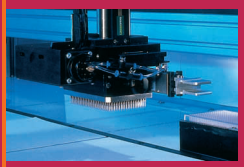


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