

Destination: *terra incognita*



The Max Planck Society has the freedom and the mandate, each time a senior scientist retires, to review its orientation and address topics that are particularly innovative and full of promise. This is part of the scientific inheritance bequeathed to us as the successor to the Kaiser Wilhelm Society. Our aim is to be pathfinders in unknown scientific territory – after all, now that all of the continents on our planet have been mapped, only science remains *terra incognita*.

It isn't imperative that we found new institutes to pursue this goal. Unbound as we are by the broader tasks of universities – a central tenet of Adolf von Harnack's founding concept for the Kaiser Wilhelm Society – the Max Planck Society can renew itself at will. And it does, as the following figures demonstrate: some 80 percent of the almost 200 successor appointments

and now addresses such future-oriented issues as international migration and cosmopolitanism and multiculturalism in the world's major cities.

However, making an appointment in a new area of research, let alone reorienting an entire institute, requires careful consideration. Each new field must be sustainable for 20 to 25 years. It is therefore a matter of identifying those individuals who can be guaranteed to adopt a particularly imaginative thematic and methodological approach to their particular areas of research. The Perspectives Commissions of the three scientific Sections of the Max Planck Society are thus tasked with deliberating at regular intervals on both new areas of research and new personalities.

Competition for the world's best minds has increased perceptibly. The relatively small group of scientists of excellent caliber now stands in stark contrast to the huge demand on the part of international research organizations, particularly in the US, but also in other European countries. And of course the number of potential candidates is very limited in some research fields anyway.

Despite a rejection rate of almost 30 percent – in which we differ very little from other cutting-edge institutions, such as Harvard – the Max Planck Society remains a very successful competitor: almost half of those appointed since 2002 come from abroad – including some German passport holders – from such prominent research institutions as Princeton, Caltech, Yale, and the Universities of California and Tokyo, but also from our European competitors such as Oxford, Cambridge and ETH Zurich.

"How good the research work is in any given country," wrote one of my predecessors, Hans Zacher, "is dependent on the talent of its researchers and the genius of the

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made during my term of office have been in areas of research other than those addressed by the retiring predecessors.

Five institutes have even undergone a complete reorientation, such as the Max Planck Institute for Metals Research in Stuttgart, which now combines expertise in biology and in the computer and materials sciences, and changed its name to the Max Planck Institute for Intelligent Systems. Or perhaps the Max Planck Institute for the Study of Religious and Ethnic Diversity in Göttingen, which emerged from the former Max Planck Institute for History

best of them. However, how good the researchers are, and the extent to which the geniuses among them are able to unfold their full potential, is dependent on the structures within which they work, on the resources available to them, and on the freedoms that society allows them.”

In a competitive environment, all of these factors must be attractive. We know from studies that small to medium-sized

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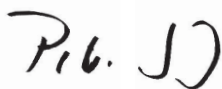
units are particularly well suited to stimulating creativity. But these units must be embedded in a wider context, so proximity to the university environment is of great importance to our Max Planck institutes. Not primarily as a source of personnel – the relationships, the atmosphere and the contact with the faculties are far more important. Just how fruitful this is has been demonstrated time and again by our centers of excellence.

But for all the care that is taken in selecting subjects, scientists and locations – a Nobel Prize is something that can't be planned for! The idea that these prizes go mainly to the United States can safely be dispelled as a myth: the leading scientific nations in Europe are the United Kingdom, Germany, France, Sweden and Switzerland, and together they have just as many Nobel laureates as the US. If we include the rest of Europe, the total is a hundred more.

Of course, the number of Nobel laureates is only a limited reflection of scientific capability. The number of citations per publication, on the other hand, is a very helpful scale by which to measure the importance

and influence of the scientific performance of a nation or organization. After all, works of great scientific importance are cited more frequently than those of lesser significance. It is a source of particular pleasure to me that the Max Planck Society's researchers not only succeed in publishing papers of a consistently high standard, but that we rank second only to Harvard in the top 1% of the most frequently cited publications in the natural sciences.

After all, what matters is quality, not quantity, as witnessed by the criticism recently expressed by scientists in *THE LANCET*, and now also making an appearance in the German media, that too many of the products of research are lacking in importance. In making appointments, the Max Planck Society has long since ceased to focus on numbers of publications. The sole deciding factor is whether the candidate is genuinely successful in exploring new scientific territory. We aim to continue to be the pathfinders in *terra incognita*.



Peter Gruss,
President of the Max Planck Society