

Science Builds Bridges



"Intelligence," Chaim Weizmann once remarked, "is the only raw material Israel possesses." And Israel's first president planned the future of this small and resource-poor country accordingly. Subsequent governments, too, have invested primarily in research and education. Today, with six universities, the Weizmann Institute and numerous other research institutions sponsored by the state, industry and public sector bodies, Israel is one of the world's leading scientific nations. For years now, Israel has topped the world rankings with the equivalent of almost five percent of gross domestic product given over to research and development, while at the same time hosting the highest density of scientists and engineers.

Israel has proven just how rewarding very high levels of investment in research and development can be in the long term:

After the US, Israel's most important partner is Germany

Since the State of Israel was first founded in 1948, this country, with a population of barely 7.8 million inhabitants, has already produced six Nobel Prize winners in the fields of chemistry, economics and space research – positive proof of the high quality of its science. Economically, within a short space of time, Israel advanced from a kibbutz country to a high-tech nation. It did so because its politicians made room and money available to encourage creative solutions in the fields of cancer and stem cell research, communication technology, bio- and medical technology and solar energy.

Nor can one help but be impressed by how far Israel is ahead of Europe in mobilizing private venture capital. The country's industrial laboratories and small and medium-sized high-tech companies are responsible for large numbers of research breakthroughs. Since the 1990s, the universities have also played an increasingly important role, as evidenced both by the emergence of commercial marketing agencies and by the high number of university-held patents and the industrial parks clustered in their vicinity.

The success of Israel's economy and its research efforts was also supported from the beginning by its close cooperation with the US and, later, increasingly also with Europe. Today, apart from the US, Israel's most important scientific partner is Germany. Whereas German-Israeli relations were initially influenced on the German side by the desire for restitution after the Holocaust, our two countries are now linked by a dialogue between equals. For me, the coming inauguration of the Max Planck – Weizmann Center for Integrative Anthropology and Archaeology developed by the Weizmann Institute and the Max Planck Institute for Evolutionary Anthropology in Leipzig symbolizes the equal partnership between us in the field of scientific research. We are currently discussing the possibility of another Center in the field of neurobiology with the Hebrew University in Jerusalem.

We have found some outstanding partners here who wish to exploit the synergies offered by such a Center that, in turn, is outstandingly well resourced by both the Max Planck Society and an Israeli research institution. This cooperation in promising fields of study gives cause for great expectations. Depending on the subject, annual funding of up to one million euros is available, half of which is contributed by us and half by

our partner institution. Cooperation in this form is possible because the Israeli universities allocate their funds on the basis of quality, while at the same time offering their scientists the necessary independence to exercise their creativity.

We establish Max Planck Centers worldwide with just a few selected partners of the highest caliber with whom we wish to co-

Max Planck Centers promote exchange and cooperation

operate intensively in research areas that hold great future potential. This cooperation goes far beyond a mere bilateral partnership. Through these Centers, we aim particularly to stimulate the exchange of junior scientists, whether through joint doctoral training at an International Max Planck Research School, through the development of joint postdoctoral programs, or through the establishment of junior research groups and partner groups. Laboratories, equipment and libraries are used jointly, and even funding applications to third-party sponsors are submitted jointly – a method that has worked well for years in terms of EU funding applications by Israeli and German researchers.

In the difficult climate that existed between Germany and Israel after 1945, it fell to science to become a builder of bridges. Science is, by its nature, transnational, and so it was that common research interests and curiosity became the driving forces in a mutual rapprochement. Nevertheless, after the horrors of the Holocaust, as a consequence of which many Jewish scientists

were murdered or forced to leave Germany, it would take until 1959 before the first meetings were held between German and Israeli researchers. Despite resistance in both countries, at the invitation of the Weizmann Institute, a delegation from the Max Planck Society led by its then President, Nobel Chemistry laureate Otto Hahn, traveled to Rehovot. This paved the way for fruitful scientific cooperation that continues to this day.

A year later, a politically momentous meeting took place in New York between Israeli Prime Minister Ben Gurion and Konrad Adenauer. Among other things, the German Chancellor promised the Weizmann Institute a donation of three million German marks, laying the foundation for close institutional cooperation between the Max Planck Society and the Weizmann Institute. Just four years later – and before official diplomatic relations were initiated – the Minerva Agreement set the seal on cooperation, at first exclusively with the Weizmann Institute, but soon with Israel's universities as well.

The Minerva Foundation, a subsidiary of the Max Planck Society, has played an important role in promoting research in Israel via a program that has been developing since the 1960s. This promotion is not a one-way street. On the contrary, it encourages scientific dialogue between the two countries. There are currently 34 Minerva Centers at Israeli universities and research institutions, conducting research in a wide variety of fields, from history to environmental technology, and from informatics to law. The Centers are financed in equal parts through capital made available over the years by the German federal government and matching contributions from the Israeli university operating the Center.

The program is currently in the process of being restructured: Minerva Centers will now be established on a competitive basis

The Minerva Foundation encourages dialogue between nations

and will focus for a limited period of five to ten years on new and innovative research areas of mutual interest. The Minerva Centers serve to stimulate intensive exchanges between Israeli and German scientists, many of whom also come from German universities. As Max Planck Society establishments, the Minerva Foundation safeguards their quality with the aid of excellent, tried and tested evaluation procedures.

It is clear from the history of scientific relations between Germany and Israel that, after the traumatic experiences of the Holocaust, the two sides have become reconciled with one another. For the Max Planck Society in particular, the history of its predecessor organization, the Kaiser Wilhelm Society, imposes a special responsibility, as the Kaiser Wilhelm Institutes offered no safe haven for Jewish researchers, many of whom were expelled during the National Socialist dictatorship. The role of the Max Planck Society as a builder of bridges is and remains a matter of importance to us, and is supported by the desire of our scientists to work together with their finest colleagues to advance the cause of science.



Peter Gruss,
President of the Max Planck Society