

Crossing the River Rhine

Professor Johannes Orphal Argues in Favor of Close Scientific Relations between Germany and France



Research par excellence on either side of the river Rhine: the German-French Initiative (DeFI) at KIT helps build science bridges. (Railway bridge Kehl, photo: H. Helmlechner – Eigenes Werk, CC BY-SA 4.0)

A long-term structural framework is needed: as Scientific Head of the German-French Initiative at KIT (KIT-DeFI), Professor Johannes Orphal, Director of the Institute of Meteorology and Climate Research (IMK) of KIT and Scientific Spokesperson of the “Atmosphere and Climate” Program, is committed to collaboration between the neighboring countries and calls upon politics.

25 years ago, Orphal was conferred his doctorate in France. Later, he was granted his post-doctoral lecture qualification there, contrary to what had been recommended to him: “People always told me that the US or the United Kingdom were THE countries of science. This bothered me a lot, because France also is a great nation, not only from the cultural point of view or in football, but also in science.”

He felt particularly attracted by the French perspective of science. “In Germany, we have a rather technical approach to science. We focus on machines, on down-to-earth innovation, on technology transfer, and industry. In France, by contrast, the approach also is of mathematico-philosophical character. People try a lot, look far into the future, ask fundamental questions. When I was a child, I was fascinated by the books of Jules Verne, because I found both in them.”

Also today, students and early-stage researchers in Europe are not only interested

in multidisciplinary, but also in transnational development, Orphal says. But he sees many obstacles: “During studies, these obstacles first are of organizational nature. It is not just academic education and learning, but also living, support, or healthcare. Graduates are interested in secure income over a long term, family support, and pension benefits. High risk – high gain is not everyone’s cup of tea.”

Orphal thinks that politics now is to establish program structures that better consider the researchers’ career planning. In his opinion, the Bologna Process with Europe-wide studies and the latest plans of Brussels for European universities need a stronger political commitment. “In my view, the big European framework is still lacking.”

Orphal, who was granted the German-French Gentner-Kastler Prize and the Humboldt-Gay-Lussac Prize of the Académie des Sciences in Paris in 2017, suggests to test closer collaboration between Germany and France first. Then, successful efforts can be transferred to the European level. In fact, Emmanuel Macron and Angela Merkel repeatedly declared that they intend to intensify scientific collaboration of both countries. “But it is not sufficient to launch another fellowship program. A reliable framework also is required for graduates. Why don’t the countries invest a billion euros each for this purpose? Compared to the other budgets, this is peanuts.” Orphal

thinks that too few initiatives have been started for this purpose so far.

In his field of work, Orphal proposed a German-French climate institute under binational administration. In the areas of nuclear and fusion research, such bridges across the Rhine have long been established, an example being the ITER Research Reactor in Cadarache. Other “topical areas” are artificial intelligence, cyber security, and data protection. Also in these areas, much money is spent for transnational research. “But only, because these investments would be made anyway. The science world, however, is much larger than one-sided interests. Collaboration is important, in particular regarding energy concepts for the future and in the area of environmental and climate research, because these topics should not be determined by national goals.”

In Orphal’s opinion, border-crossing research in these areas should be organized on the highest political level. “We can pave many ways bottom-up and are doing so already. But we will achieve more when there also is a corresponding top-down process.” Orphal considers the work for this his mission in life. He insistently argues for scientific collaboration across the river Rhine and, with a twinkle in his eye, adds: “A train from Karlsruhe to Paris needs just about 2 hours, a train to Berlin takes more than 5!”