
Science Policy

Franco-German relations in research and technology need a new spark

by Emmanuel Grenier

Franco-German cooperation in research and technology has a pivotal role to play in the world. As Lyndon LaRouche recognized in 1989 when he launched his proposal for a "Paris-Berlin-Vienna Productive Triangle," the area included within the curvilinear triangle connecting those three great capitals, encompasses the world's most powerful industrial machine and skilled working population.

A glance at the map of Europe shows that two nations, France and Germany, cover most of the territory in that triangle. Only if they cooperate broadly in applying the frontiers of knowledge to great projects, will the European heartland enjoy a nonlinear leap in production capable of catalyzing economic development—and with it, lasting peace—in the formerly communist East Europe, in Africa, and in the Middle East. This mission requires a rebirth, at the level of the state, of the spirit of the de Gaulle-Adenauer years from the late 1950s to the early 1960s, but on a far vaster scale, with programs that cut across the key sectors.

Germany remains Europe's preferred partner in research, as in other sectors—a result of the political impulse of the 1960s, when a climate of growth was dominated by the optimism of building Europe. But today, in a world bristling with restrictions, each new great project has become the object of fierce haggling—fertile ground for ulterior motives, pettiness, and suspicions, all things which radically undermine bilateral relations.

In general, the French and Germans are in the middle of the major European joint research programs: the European Center for Nuclear Research (CERN) particle accelerators in Geneva, the synchrotron radiation machine in Grenoble, the Laue-Lanvegin Institute, the European Space Agency, etc. By a rough estimate, between the two of them, France and Germany represent 50% of Europe's contribution. This ongoing association is augmented by bilateral collaboration, which is increasingly coming to resemble full interlocking.

One example of this is the National Center for Scientific Research (CNRS), France's biggest research institute, which works closely with the Max Planck Institute (MPG) and the German Research Community (DFG). Exchanges of young researchers are frequent, although the flow from one country

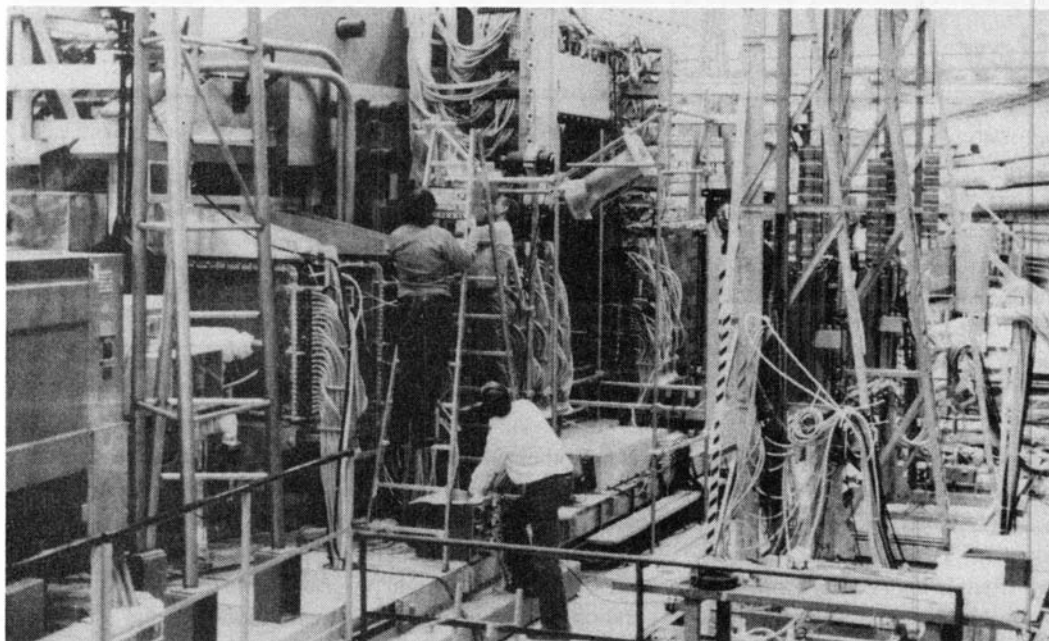
to the other is not always balanced. The freeze in genetic research in Germany has caused numerous researchers to settle in France, where regulations are more flexible. Several years ago, the CNRS set up International Programs in Scientific Cooperation. "Eight programs were the object of a cooperation accord between a French laboratory and a German laboratory," stated Raymond Seltz, who directs the CNRS branch in Bonn. "It is double what we have with any other European country, and equals what we have with the United States for countries outside of Europe. The CNRS also created some associated European laboratories in 1991. Two of them, with the Tübingen University and the Max Planck Institute for Microstructural Physics in Halle, are already in operation. Others are in the course of preparation."

Need for bilateralism

The problems posed by multilateral collaboration are well illustrated by the breakdown in the space effort. Historically, the European Space Agency (ESA) has always been under French domination, because of the strong political desire in France to see Europe get an independent space launch capability. In the 1980s, Germany concentrated on space laboratories and manned missions, working with the United States in an effort to balance out the French influence in ESA by other foreign partnerships.

Indeed, there are more bilateral Franco-American and German-American relationships than between France and Germany. Meanwhile, Germany, France, and the United Kingdom competed to secure adoption of their ideas on recoverable launchers, each one presenting a different project, respectively the Sänger, the STS-2000, and Hotol. But with the economic crisis—and this goes for the other multilateral efforts, too—cooperation is now only seen as a stopgap, something one is forced to resort to for lack of money. It is not the chance to do something bigger, but the solution you fall back on because you have not succeeded in imposing your own. The final result is usually that there is no project, as in the case of the unfortunate demise of the Franco-European Hermes spacecraft.

Telecommunications suffers directly from this state of af-



Experimental equipment is installed at the European Center for Nuclear Research (CERN) in Switzerland. The CERN is one of several major European joint research programs in which France and Germany participate, but stagnating bilateral relations have hampered the advance of science and technology.

fairs. Since 1987, cooperation in this sector between France and Germany has fallen apart, despite the success of the Symphonie satellites. Germany is now pouring everything into the Luxembourg company SES, which manages the ASTRA satellites, and—here the ultimate irony—has them launched by American rockets. In the “Vegetation” program, which consists of observing the Earth to obtain information on ecology and land use, France at first turned to Germany to launch its research. When it was turned down, France went to Sweden and the European Community. Similarly, the Topex/Poseidon program for research in geophysics and very fine-tuned measurements of the sea level, was finally carried out between France and NASA, although initially it was supposed to be mainly a Franco-German operation.

Why talk about bilateral relations at a moment when the 15-country federal Europe is being built up? Why not do everything through the EU bureaucracy in Brussels? First of all, because the programs run in Brussels bear the stigma of the European bureaucracy, a burden of administration and negotiation which makes long-term vision difficult. Second, because Europe must above all be constructed on the basis of projects which are common to *persons*, rather than *institutions*. In the myriad of direct relations between laboratories (the above-mentioned interlocking) and in the few large-scale programs which are decided bilaterally, Europe will arise out of the desire to do something in common.

Seltz emphasizes, “After one and a half years of heading the CNRS office in Germany, I have become convinced that the best trump for the Europe of Research is a living fabric of bilateral relations. And bilateral Franco-German [relations] are an essential factor in this process. The danger today is not in ‘not enough Europe!’ but in the lack of imagination of all the

partners to explore with their neighbor new ways of working jointly.” In the French embassy in Bonn, there are some 20 persons in the research and technology office (the figure is 20 in Japan, 35 in Washington, and only 5 in Great Britain).

The nuclear sector

Given the freeze in the nuclear sector in Germany, nuclear collaboration between the two countries has been kept to a strict minimum. It is essentially concentrated on the issues of nuclear safety and on the end of the fuel cycle (highly radioactive wastes). In the former area, things are going well because the two nations’ nuclear safety agencies have created, beyond their already very close ties, a joint structure: Riskaudit International. The creation of Riskaudit was especially motivated by the two countries’ common desire to cooperate in helping eastern Europe, a desire expressed when French President François Mitterrand met German Chancellor Helmut Kohl at Lille in May 1991 (see *EIR*, July 1, 1993). Since its founding in 1992, Riskaudit has set up an office in Moscow directed by Mr. Teske (Germany) and one in Kiev, Ukraine run by Mr. Golicheff (France).

The other positive aspect of nuclear cooperation relates to Nuclear Power International (NPI), a joint subsidiary of France’s Framatome and Germany’s Siemens. This company is supposed to jointly build and then export a reactor; but its special task is to build the next-generation reactor, the European Pressurized Water Reactor (EPR). Riskaudit has already started its preliminary examination of the NPI project. This will require “a convergence of French and German technical approaches to safety, which is healthy for the joint development of new reactor concepts by the industry of the two countries. In the long run, this convergence will favor

the harmonization of approaches to safety in the European Community countries.”

Beyond these points, collaboration has fallen to very low levels, because of the complete nuclear freeze imposed by the ecologists. The way things are going, it is not even sure that the existing nuclear reactors in Germany will be replaced when they reach the end of their lifespans.

When it comes to breeders, the French Superphénix reactor’s technical problems are well known. Run by NERSA, this 1,400-megawatt machine, the world’s biggest breeder reactor, was another example of good collaboration, this time three-way. NERSA was a company belonging 51% to the French shareholders EDF and CEA, 16% to a consortium of German electricity producers, and 33% to Italy’s national electricity company ENEA.

The initial plan was for NERSA to build a breeder reactor in each of the three countries. Sadly, the moratorium on all nuclear plants in Italy and the ultra-violent demonstrations by red-green terrorists in Wackersdorf, Germany decided otherwise during the 1980s. Even in France, the survival of the Superphénix is imperiled, and, as this article is being written, a “March of Europeans against Superphénix” is heading toward Paris, where it was supposed to arrive on May 8.

Nuclear fusion is an area of science which ought to have helped make things better. Because of tight credits for research, the European NET research reactor, which was initially supposed to replace the JET, vanished and gave way to a European participation in ITER, a reactor financed by four partners: the United States, Russia, Japan, and Europe.

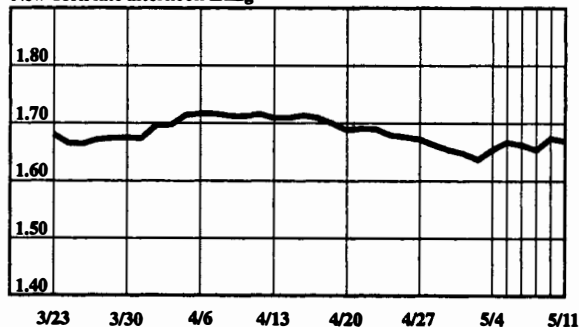
There is already a quarrel over the site. The Germans propose Greifswald. Unlike Garching, Greifswald has no great tradition in nuclear research. It is the old location of a nuclear plant which had been shut down right after Germany was reunified in 1990. The idea would be to create a technological pole and a university in the former East Germany. As for France, it proposes Cadarache as the site, where there is already a small Tore-Supra tokamak experimental fusion reactor. The risk is fighting rearguard battles, where what is needed is a higher-level vision in order to rally all the partners.

The ITER reactor is supposed to cost \$5.8 billion. This figure may seem high, but it is small when compared to even a fraction of the enormously inflated sums of taxpayers’ money spent this year to bail out companies which spent too much speculating on the derivatives markets (such as Crédit Lyonnais in France or Metalgesellschaft in Germany), and especially to the importance of what is at stake: the energy for tomorrow’s humanity. France and Germany ought to play a major role in this domain, and ought to launch a very broad initiative, in Greifswald as well as in Cadarache, in Garching or in the Lyon region, which would let them employ existing skills and relaunch cooperation which will otherwise be left in the lurch.

Currency Rates

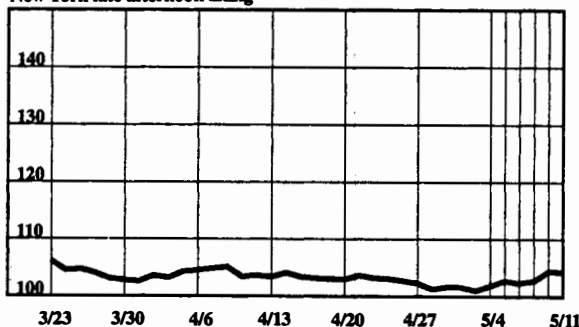
The dollar in deutschemarks

New York late afternoon fixing



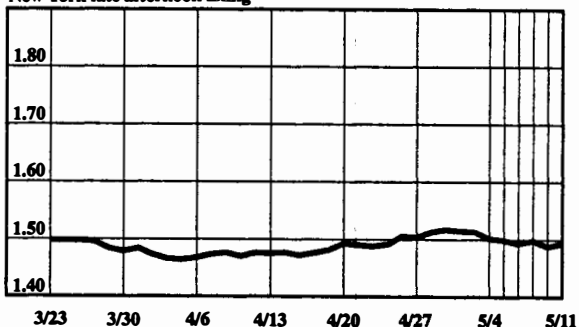
The dollar in yen

New York late afternoon fixing



The British pound in dollars

New York late afternoon fixing



The dollar in Swiss francs

New York late afternoon fixing

