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FRANCO-GERMAN COOPERATION WITHIN EUROPEAN SCIENTIFIC INSTITUTIONS

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The development of the Franco-German scientific cooperation after the Second World War is considered through the prism of the activities of European research centers. Attention is paid to the influence of the international situation on the development of European scientific cooperation. The role of the Franco-German tandem in European scientific cooperation is analyzed.

After the end of the Second World War, the state of science in France and Germany was catastrophic, and its restoration required great efforts at the national level. Therefore, it soon became clear that it was easier to reconstruct scientific capital in cooperation with other countries, both at the bilateral level (due to the successful denazification and democratization of Germany) and at the European level.

During the occupation of Germany by the Allies (1945 - 1949), there was almost no Franco-German and European scientific exchange. The Franco-German scientific cooperation began to develop more intensively after the formation of the Federal Republic of Germany, which was due to the foreign policy situation in the context of the escalation of the Cold War. Now Germany became a full partner and ally of European countries in the confrontation with the Soviet camp. In addition, the European integration that had begun (symbolically represented by the Schumann plan in 1950) required, first of all, reconciliation between "irreconcilable enemies".

Franco-German scientific cooperation in the European framework began in the 1950s and was concentrated mainly in the technical sciences, which was due to strategic needs. As practice showed at this time, the French and German sides had sometimes found it easier to contact in the context of European agreements than to establish bilateral contacts themselves. The most striking example was cooperation in the framework of the European Organization for Nuclear Research (CERN), established in Geneva in 1954 - the first major European project in the field of particle physics. Nuclear physics demanded resources beyond the capacity of countries, so it became the engine of internationalization [5, p. 61-76]. The center was created in order to catch up in the area, where the United States was the pioneer and flagship and served as a model for other European centers.

In 1957, with the signing of the Rome Agreements, the European Community entered a new level of relations. In addition, important changes are taking place in the international situation of that time. The USSR launches its Sputnik in 1957, then in 1961 sends the first man into space. This gave a push to European cooperation in the field of space, where France and Germany participated: The European Launcher Development Organization (ELDO) and the European Southern Observatory (ESO) were formed in 1962, and the European Space Research Organization (ESRO) was established in 1964.

Thus, European cooperation focused primarily on strategic areas. However, this did not exclude the development of cooperation in the "civil" sciences". In 1964, the European Molecular Biology Organization (EMBO) was created to solve the problems of the population. In addition, France and Germany were at the origin of the European Coordination Center for Research and Documentation in Social Sciences in 1963 in Vienna, established as an autonomous body of the International Social Science Council (ISSC). The center was to serve as a bridge between Western and Eastern Europe during the Cold War.

In 1963, the famous Élysée Treaty was concluded between France and Germany, stating the need to intensify bilateral scientific cooperation and the creation of centers in the field of military [4, p. 42 - 43]. However, the treaty did not give the necessary push to bilateral scientific cooperation between France and Germany. In addition, cooperation in the European framework was profitable in the context of the Cold War: on the one hand, to protect Europe from the Soviet threat, on the other hand, it was aimed at independence in the scientific field from the United States.

The energy and financial crisis of the 1970s forced the Europeans to cooperate more closely and more widely. In 1971, the Cooperation in Science and Technology (COST) program was created - an intergovernmental coordination structure with the aim of strengthening the scientific and technological exchange between European countries through the financing of scientific events: joint colloquiums, conferences, scientific visits, etc. In 1974 European Action Program to support research in the field of energy, health, environment was adopted.

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According to the program, new scientific institutions were created. For example, France and the Federal Republic of Germany actively participated in the creation of the European Science Foundation in 1974 - an association of European scientific organizations for research strategically important issues and promote mobility of researchers. The development of cooperation in the field of molecular biology continued: in 1974, the European Molecular Biology Laboratory (EMBL) was opened in Heidelberg. A new area of European scientific cooperation appeared in 1975 - France and Germany became one of the founders of the European Center for Medium - Range Weather Forecasts (ECMWF).

In the same period important advances were made in the field of aviation and space navigation. As a result of the fusion of ELDO, ESO and ESRO in 1975, the European Space Agency was created with its headquarters in Paris, actually based on the Franco-German partnership, which became its intellectual and financial core [3]. The development of cooperation allowed the launch of the Ariana 1 satellite at the end of 1979, which marked the beginning of European participation in international space navigation and showed their independence from the United States.

The participation of France and Germany in joint European projects gave a sense of the dynamism of bilateral cooperation. In this period of time, French-German projects are also being Europeanized. Thus, for example, Franco-German Institut Laue – Langevin (ILL) - the world's biggest nuclear research institute created in 1967, acquired a European character with the accession of Great Britain in 1974. Today 13 European countries are members of the institute. The same thing happened with the European radio astronomy observatory – Institut de radioastronomie millimétrique (IRAM) created in 1979. Spain finally joined the institute in 1990.

In the 1980s. European scientific cooperation reached a new level. During this period of time, numerous European scientific programs were created, in which French and German research institutes actively participated. In 1983, they participated in the creation of the European Strategic Program on Research in Information Technology (ESPRIT), which was in force until 1998 [2]. In 1983, the Framework Programs for Research and Technological Development were created - EU funding programs to support and promote research in Europe [1].

Since 1981, against the backdrop of economic growth, France called for the creation of a European common technological space, including research and technology. Initially, the idea caused some doubts in European countries. However, with the deployment of the SDI program in 1983, countries were afraid of the vassalization of Europe by USA, and supported the French initiative. Thus, in 1985, the program EUREKA was approved - the European network of cooperation between organizations, research centers and universities in the field of informatics, space and biotechnological research, energy and other fields. Today the organization includes 41 member countries.

In the same period, old research centers received a push for development. Thus, a new phase began for CERN with the decision to create a Large Electron-Positron Collider from 1981, and then the Large Hadron Collider, which are located in France.

In addition, in the mid-1980s, the European Community gained real competence in science and technology. This was legally reflected in the Single Act of 1986 (Art. 130 F) [6], and then developed in the Maastrich Treaty of 1993 (Art. 130) [7] and other treaties of the European Union.

In the 1990s Franco-German cooperation continued its development in the context of European cooperation in the fields of aviation, plant genome research and oceanography. In the framework of the European cooperation based on the Franco-German initiative, in 1994 the European Synchrotron Radiation Center (ESFR – European Synchrotron Radiation Facility) was opened with its headquarters in Grenoble – a major research institution investigating issues of synchrotron radiation. Today the project involves 18 European partners, but, as before, France and Germany contribute one-quarter of the annual budget.

Today France and Germany continue their participation in the aforementioned European scientific institutions and programs. In addition, thanks to the legislative base, new coordination mechanisms for regulating European cooperation in the scientific field have appeared. Thus, in 2000 the European Research Area (ERA) was created – a system of medical, environmental, industrial, and socioeconomic research. Then in 2007 the European Research Council (ERC) was formed - a European organization designed to stimulate the development of research activities in the European Union. The program has become part of a new phase of the Framework for Research and Technological Development – Horizon 2020.

Thus, the scientific cooperation of France and Germany within the framework of European scientific institutions had a dual focus. On the one hand, European scientific cooperation contributed to the strengthening of the bilateral partnership of France and Germany and was seen as a means of overcoming Franco-German antagonism.

onism. This made possible to facilitate the Franco-German scientific exchanges by avoiding blocking, which happened at the one-on-one level. At the same time, the Franco-German tandem was the engine of European scientific cooperation and today it is core, intellectual and financial center of European Research Area. Franco-German cooperation in the European framework developed unequally according to sectors and evolved over time. Collaboration mainly developed in the field of peaceful nuclear energy and space research, and was due to the strategic needs of countries in the context of the Cold War and competition from the United States.

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