

STRUCTURE OF THE SCIENTIFIC RESEARCH SYSTEM IN FRANCE

by

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There are basically four major sectors involved in scientific research in France. The difference among these sectors lie in the scope and emphasis in research which varies over a wide range between fundamental and applied research. The National Scientific Research Center represents the sector that is engaged in fundamental research while the industries sector undertakes applied research mostly. Between the two extremes are the schools and universities which do more of fundamental research and some applied research and the technology centers which do more work in the applied field.

The structure of manpower engaged in scientific research would show that professors and students representing the school and university sector, and researchers and technologists representing the National Scientific Research Center and Technology Centers make up the larger group which is being coordinated by the Ministry of Universities. Industries may employ their own researchers or simply participate in the process through the granting of research contracts.

Funds for research come from several sources. About forty five percent (45%) of the total budget comes from the Ministry of Universities. Part of this amount is channeled through the National Scientific Research Center (35% of the total research budget) and the rest is granted as free research funds, meaning no obligation in return on the part of the grantees. Fifteen percent (15%) comes from the Ministry of Industry in the form of contracts for research and development work. Another fifteen percent (15%) comes from industries which also enter into contracts for applied research. The remaining twenty-five per cent (25%) comes from the Ministry of Research.

Research contracts are usually for one to three year duration. The funds for each contract are valued anywhere between the equivalent of seventy thousand (P70,000) to one hundred forty thousand (P140,000) pesos. Expenditures for a research project average forty percent (40%) for equipment, thirty percent (30%) for supplies and materials, fifteen percent (15%) for travel, and fifteen percent (15%) for grants to researchers (students).

Research organizations have to establish linkages with other groups in order to exert a wider influence along its fields of interest. As an example, the Laboratory of Physics and Materials Science at the University of Metz, where the author serves as

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director, linkages have been established with other laboratories associated with the National Scientific Research Center. It has linkages also with other industries, with the Group of Common Scientific Interest (GRECO), with the Laboratory Without Walls, with the military group, as well as international cooperating groups. This Center therefore which engages in areas such as rheology, plastic instability, superplasticity, rheocasting, deep drawing, multiaxial tests, and others with only thirty people in its staff has gained a wide recognition. The Center is also playing some part in scientific policy decision making through the involvement of its head in government committees and bodies. On the average also there is at least one paper coming from this Center every year which is published internationally.