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INTERNATIONAL COMPARATIVE STUDY OF SYSTEMS FOR THE GOVERNMENT
ADVANCEMENT OF RESEARCH AND DEVELOPMENT

M. Ripke and R. Foerst

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16. Abstract This book describes and compares the reorganization, structure and instruments of government advancement of re- search in three countries: France, Sweden and the USA. In France the powers are centralized; in Sweden and the USA, decentralized. Assistance to projects is provided with grants and contracts in all three countries. France and Sweden also give loans with conditional waiving of reimbursement in case of failure. In all three countries indirect assistance is provided only with small tax breaks.			
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Foreword

The Federal Ministry for Research and Technology assigned the APF (Working Association for Planning Research) in October 1982 an international comparative study on the procedures used abroad in the government advancement of research and development. The basis of the study was a catalogue of impressions established by the client for the advancement of nonuniversity research establishments and for project advancement.

After a first phase of evaluation, France, Sweden and the USA were selected for case studies, in which inquiries were conducted at the most important promotional organizations:

France:	January 23 to January 28, 1983 February 6 to February 11, 1983
USA:	February 27 to March 28, 1983
Sweden:	April 24 to May 7, 1983

The foreign inquiries were prepared by the officers in charge of scientific sections of the German embassies and supported effectively by having the way paved to contacts with the sponsoring organizations.

Particular thanks is expressed to the members of the sponsoring organizations, who made possible this study by their willingness to cooperate.

The participants in this study completed in November 1983 were:

Michael Ripke, Holder of a Degree in Economics
Renate Foerst, Holder of a Degree in Economics

The study was conducted with the advice of:

Doctor Dieter Schumacher, Physicist

Heidelberg, November 1983

INTERNATIONAL COMPARATIVE STUDY OF SYSTEMS FOR THE GOVERNMENT
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M. Ripke and R. Foerst

1. Summary

/1*

This study describes and provides a comparative analysis of administrative procedures as instruments for government advancement of research in France, Sweden and the USA. The study arrived at the following results:

The organization, structure and instruments of the government advancement of research are organized differently in the three countries:

In all three countries, the advancement of research and development only concerns the level of central government. The powers are centralized at this level in France, they are decentralized in Sweden and in the USA. In France and Sweden the procedures for the advancement are delegated to subordinate institutions; in the USA there is hardly any delegation.

In the USA the advancement of the technological capacity and international rivalry is not a priority goal, unlike the other two countries. Research and development in the economy is indirectly advanced by government research and development procurement contracts.

In France the institutional advancement, amounting to 80% of the disbursements of the research ministry represents a much greater contribution than in Sweden (10%) and in the USA (30%).

Project advancement takes place in the three countries by grants and contracts. In France and Sweden, moreover, loans with conditional disregard of repayment are common (in case of failure).

The indirect advancement is hardly developed in the three countries and limited to small tax allowances. France advances the external contract research of small and medium companies with a bonus.

The basic differences hardly have an adverse effect on the comparability of the procedures, since the sponsoring organizations are faced, as regards details, with similar tasks and problems.

*Numbers in the margin indicate pagination in the foreign text.

1.1. Institutional Advancement

In France and in the USA, the research institutions have partly unusual forms of organization:

The French government institutes are operated as official or government economic companies. The latter can establish commercial subsidiaries subject to the law of private companies. For the research institutions built up to now as official ones in 1982, a new government organization form was created with greater independence. /2

New means for the association of government and the economy in the advancement of research were offered by the French form of organization "Groupement d'intérêt public" (GIP [Public interest groups]). They include government and private institutions as carriers of research and development institutions.

The government centers in the USA are partly operated privately. They belong to the government. Their current operation is transferred for five years at a time to private contractors.

Sweden concentrates the institutional advancement in university institutions and in joint research institutions, which are conducted jointly by the government and the industry.

In the control of research centers through the government sponsoring organizations the principle of "overall control" is applied in Sweden, in the USA that of "detail control". France assumes a middle position.

In the financial economy and in accounting, the nongovernment institutions in the three countries enjoy greater freedom of operation than the government institutions. The government centers have problems with the possibility of reimbursement of the funds, one year appropriation, and the transfer of nonspent funds.

In the control of the accounting, France relies particularly on an accompanying control. In Sweden only subsequent checks are common. The USA controls and checks constantly with a large number of instruments. In France and the USA evaluations are conducted on basic questions (reimbursement system, personal status etc.).

The personnel economics is oriented in the government centers to government rules; in private sectors, the operators are basically free. Employment plans are set up beforehand in government centers.

Most of the recipients of advancement have, besides the institutional funds, other income (project advancement, contracts, secondary businesses, charitable donations, legacies). Limitations

are obtained from regulations on the prevention of double sponsorship, the maximum fraction of the total budget, the danger of disturbances of competition, the use of the funds and their handling in the budget.

The rights for the inventions and developments belong to the government in government research institutions. The receivers of funds subject to private law can, under certain circumstances, be owners of primary rights. The government reserves certain rights in these cases. In the USA, small recipients of funds and public organizations have priority. /3

Technology transfer is a special concern of the sponsoring organizations in the three countries. It is advanced by:

Strengthening of the bond between the research and development institutions and the industry,

Advancement of the dissemination and evaluation of the results of research and development by the recipients of the funds,

Regulation of the rights of use and profit facilitating conversion,

Measures of of the sponsoring organizations for conversion.

1.2. Advancement of Projects

The advancement takes place by grants and contracts. Moreover, the following are common:

The "cooperative agreement" in the USA, a special form of grant, in which a special involvement of the grant giver is provided (collaboration, equipment, control).

Loans (interest free in France, with interest in Sweden) with conditional waiver of repayment (in case of failure).

"Project insurance" in Sweden: the pledged funds are only claimed in cases of failure.

Research and development contracts with the client's participation in costs (USA).

The procedures for applications for grants are, to a great degree, structured beforehand by forms and conditions. The forms of some sponsoring organizations are characterized by brevity, comprehensibility and practicality. The requirements for describing the project, the cost plan and additional data and documents go very far from some sponsoring organizations.

Discussions for the proposals are usually invited.

Some organizations maintain regional contact secretariats and offices. These sponsors offer personal discussions of the project.

The American sponsoring organizations provide a complete notification of the sponsoring possibilities. The prior publication includes even limited calls for bids, so that anyone has a chance of making offers. /4

Simple and easily understandable sponsorship conditions are provided by the French Research Ministry and the Swedish STU. The other sponsoring organizations use extensive catalogues of conditions and establish partly laws and ordinances for the contract components. In particular, the American conditions regulate even the smallest details.

Regulations on the costs allowable for the sponsorship are, to a great extent, lacking in Sweden. In France there are clear simple rules, the regulations in the USA are comprehensive and complicated.

Some organizations regulate with prescriptions the extent of the sponsorship, but excluding certain types of costs (for example, the indirect cost) from the sponsorship or basing the assistance only on the limiting costs.

Other regulations exclude undesirable costs such as entertainment costs, provisions, reimbursement above the limit fixed by the sponsorship.

The indirect costs are replaced in the USA by a uniform rate fixed individually for each grant recipient, which applies to all government grants and contracts.

Profits are not permissible basically for grants. Profits in research and development contracts in the USA cannot be defined as a percentage of the cost and cannot exceed altogether 15% of the cost.

The regulation assistance rates are established as:

Research funds (France): 100% of the limiting cost for the public recipient, 50% of the total cost for private recipients,

Assistance to inventions (France): 50% (in exceptional cases, up to 75%) of the total cost,

Invention bonus (France): 25% (plan: 35%) of the external cost,

Scientific research counsel (Sweden): 100% of the direct cost, /5

STU (Sweden): 50% of the total cost,

Industrial funds (Sweden): 50% of the total cost,

USA: actual participation of the receiving institution and at least 1% of the total cost for the sum of all grants from a sponsoring organization (therefore, not for each individual project).

Repayments of the assistance are required in Sweden (STU) and in France (ANVAR). In the project is not successful, it is waived.

In the USA, special conditions regulate the use of yields from the projects.

The rights for inventions and development belong, in the three countries, to the receivers of the assistance. (Exceptions apply in the USA for larger companies). In particular, in the USA the government reserves the right (rights of use of benefits, issuing of licenses).

The procedure for evaluation and decision is formalized to a great extent in the USA, unlike the other two countries. All sponsoring organizations base their decisions on certificates.

In Sweden and in the USA, all applicants receive comprehensive data on the evaluation of the proposal.

In the USA, a two-stage decision procedure is implemented in calls for bids for research and development contracts. In calls for negotiations with all the applicants concerned, they are invited to make another final offer.

For the payment procedure most sponsoring organizations combine preliminary payments and the reimbursement of calculated costs. In research and development contracts, the USA pays only later and only costs which were really paid by the recipient. Some sponsoring organizations provide for security retainers until the accounting.

For payment the USA uses a letter of credit which assures the constant supply of funds for the grant recipient and minimum cash stocks, without the administration of the sponsoring organization having to make payments.

A delegation for promotion of the ministry and topmost government authorities to subordinate institutions takes place in France and in Sweden. In Sweden the administrative implementation of university projects is transferred to the university administration. The American NSF transfers with certain prerequisites their reserve powers in the development of the project to the administration of the grant recipient.

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The sponsoring organizations accompany the current development

of the project with many reservations of consent, especially in administrative and financial areas.

Ending the sponsorship without reason is possible for certain sponsoring organizations. The nonrenewal of the grant which has to be approved every year is more common.

A publication of the research and development results by the sponsoring organization is permissible under special assumptions.

The award of subcontracts requires approval for most sponsoring organizations.

The obligations of reports are regulated differently. A concluding report and intermediate report are common. The Swedish NFR waives all reports.

In the three countries the grant is included basically in the income for which tax is due, if it does not need to be repaid. In France value added tax applies.

The proof of use is given by overall accounts, which are controlled in checks. Checks take place on given occasions or as random checks. The NSF checks systematically the fund recipient, starting from a certain level of volume of assistance.

TIME REQUIREMENT AND ADMINISTRATION COST

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Country	Organization	Time Requirement (months)	Administration Cost (fraction of the budget)
France	MIR	6 - 9	1%
	ANVAR (invention assistance)	3 - 6	9%
	ANVAR (invention bonus)	1	
Sweden	STU	3 - 5	10%
	NFR	5	4%
	Industrial funds	6	4%
USA	NSF	6 - 9	6%

1.3. Development and Extrapolation of the Program

The contents of the research assistance are described and outlined in France and in the USA by programs. In Sweden most of the technological research and development has no pre-given program to give chances to all applicants.

Only France has national research planning.

The procedure for the development and extrapolation of programs are partly formalized in the three countries.

All sponsoring organizations have developed special instruments and programs for improving technology transfer.

2. Results of the Analysis of Selected Problems of the Procedure of Assistance

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This chapter contains the most important results of the comparative analysis, which was carried out on the basis of the inquiry guidelines (printed in chapter 6). The analysis is supported on the results of the inquiry which are described in detail in chapter 4 and indicated in chapter 3 in a comparative survey.

2.1. Comparison of the Funding Systems

This study will not give a survey nor an analysis of the system of government research and development advancement in the three countries. Rather, the problem was to describe and analyze comparatively the administrative procedures of research administration on the basis of some examples.

Nevertheless, the study had to deal with systems of advancement, to identify the instruments suitable for a closer analysis. Basic data on the organization and instruments of government research advancement proved to be, moreover, useful for understanding and analyzing the procedures. The most important structural characteristics are summarized at the beginning of the detailed description for the three countries in chapter 4.

An exact knowledge of the structure of the assistance in the three countries is not absolutely necessary for understanding the other parts of the study. In the investigation it was found that the detailed problems of research management are very similar, and quite comparable with each other, although the advancement systems of the three countries differ greatly from each other.

The most important characteristics which play a role in the analysis and comparison of the procedures are:

- the organization of the advancement of research
- the structure of research measures.

2.1.1. Organization of the Assistance to Research

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In organizing the assistance to research the distribution of tasks between the government levels and the distribution of powers within the levels is important. Differences arise in the assignment of functions to the topmost authorities and the subordinate institutions.

In the three countries, the sponsorship of research is concentrated at the level of the central government.

France has a central government par excellence. All sponsorship activities start from the central government.

In Sweden the powers for promoting research also lie exclusively with the central government.

The sponsoring activities of the individual states in the USA are insignificant as compared with those of the federal government.

On the other hand, the powers within the central government are regulated differently: centralization in France, division into sectors in Sweden and in the USA.

In France up to 1981, the powers for sponsoring research were distributed among many ministries and subordinate organizations. The powers and sponsoring activities were so unclear, that new coordination offices were constantly established: government secretariats, delegations, commissariats. In 1981, and in the following years, the first measures were taken to unravel and tighten these organizations. The most important event was the establishment of the Ministry for Research and Technology, which was converted later to the Ministry for Research and Industry (today: Ministry for Industry and Research). Most of the powers for government advancement of research were transferred to this Ministry, although even today important sectors (aeronautics, defense, post and telecommunications) lie outside its powers.

In Sweden the decentralization of the promotion of research was a clear goal of the policy. Each ministry is responsible for promoting research in his area of competence. The coordination of the advancement is to be taken over by the newly created government secretariat.

The system in the USA is also organized in a decentralized manner. The advancement of research is in the hands of ministries and agencies which have, to a great extent, equal rights (such as, the NSF and NASA). A coordination of the objects of sponsorship only takes place in estimates by the authority of the president's science advisor. The uniform administrative procedure is assured by the "Office for Management and Budget".

In the USA the sponsoring functions are taken over completely /10 by the topmost federal authorities. In France and Sweden much of the development is delegated to subordinate institutions.

The French ministry, itself, implements only to a small extent promoting activities. Almost 80% of the funds are assigned to research centers and other institutions, who, for their part, also act as research promoters (such as, for example, the CNRS [National Scientific Research Center] or ANVAR).

In Sweden the powers of all ministries are limited basically to political and conceptual functions. The assistance to research is transferred to subordinate institutions, for example, the Research Council and the STU.

The ministries and agencies in the USA accomplish, themselves, all the functions of sponsoring of research; there is no delegation to subordinate institutions.

2.1.2. Structure of the Advancement of Research

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In the basic goals for the advancement of research the USA differs from the two European countries. Whereas France and Sweden pursue with their advancement of research, among other things, the promotion of competitions and performance of national economy, this goal is taken in the USA only as a secondary or subsidiary goal.

The USA relies more than the two European countries on the initiative of the economic companies and their willingness to take risks. They encourage research in the economy (apart from exceptions such as the "Small Business Innovation Research Program"); by research contracts, whose results should contribute directly to the solution of government problems in sectors such as defense, energy supply, astronautics, health and agriculture. This advancement reinforces at the same time the technical performance of the recipient, which is, in general, the intention of the government research and development policy. The research and development of the companies, independent of contract, is promoted directly by the acknowledgement of costs for "Independent Research and Development" in establishing the costs for government contracts of all types.

France and Sweden also award research and development contracts on a large scale. Besides this they sponsor with grants and loans research activities in industry, whose results will be useful mainly for the assisted companies and, only as a secondary result, the general public.

In the assistance for fundamental research there are no serious differences between the goals of the countries.

Indirect measures such as tax allowances, increases in salaries and special allowances are only of little importance in the three countries. In France there are allowances of funds for research and development investments and for participation in the development associations. Sweden assures a free sum which may be subtracted from the profit for research costs of 10 to 20% of the research development cost. In the USA such an investment (tax write-off of 25% for extra research and development cost as compared with the level of the previous years) was introduced only in 1981.

2.2. Institutional Advancement

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This chapter contains the comparative analysis of forms of institutional advancement (complete or partial financing of the budget of research and development institutions) in the countries France, Sweden and the USA.

The study and subsequent descriptions concern exclusively the advancement of research institutes outside universities.

To understand the analysis, the knowledge of the rating which the institutional advancement of institutions outside universities has, is important: it is very high in France (about 80% of government cost), in the USA it is average (about 30%) and in Sweden it is low (about 10%).

The common forms of institutional advancement in the three countries are so diverse that a complete determination, description and analysis would go far beyond the scope of this study. Therefore, this chapter just like the descriptions of the countries and the comparative survey, is limited to a few chosen instruments:

France: government research centers on the example of the CNRS and the CEA [Atomic energy commission]

Sweden: government Institute for Nuclear Physics and government research institutions

USA: privately operated government centers (GOCO).

2.2.1. Organization of Research Institutions

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The form of organization of research institutions, particularly their legal form, is decisively important for many questions of institutional advancement. The purpose is to give the research institution an organization which would allow the company to expect the maximum benefit from government advancement.

The discussion about the suitable organization of research institutions is concentrated on the alternatives: government research institutions or institutions with private rights. Secondly, the degree of autonomy in government institutions or the exact form of rights in private institutions is of interest.

For government institutions it is assumed that the government could determine the work contents, use the reserves and control the use of funds in the optimum manner.

The partisans of private institutions consider the government budget and personnel rights as unsuitable for providing the necessary flexibility to the centers. They stress the better

conditions prevailing in private institutions for transferring the reasearch results to industry.

With regard to the opposite arguments and the heterogeneous nature of the research, a basic decision regarding this question cannot be expected. Therefore, it is surprising that, until recently, all the sponsored institutions in France were government institutions, naturally of different types. The other two countries assist government institutions and private enterprises.

France has several types of organizations for government research and development institutions. Differences exist among them regarding the autonomy and the admissibility of economic activities. There is a new form of organization for a project or program oriented collaboration of several (even private) organizations: the GIP.

In Sweden the assistance is given to government institutions which are organized as official ones, and joint research institutions (foundations and combines).

In the USA government centers (federal laboratories) are financed, which are operated partly as government institutions, partly by private contractors.

The most interesting solutions are:

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the French forms of organization for government research institutions,

the public interest group (GIP),

the Swedish joint research institutions,

The privately operated government centers in the USA (GOCO).

2.2.1.1. The French Government Institutions

For the French institutions until 1981 two forms of organization were used predominantly: Etablissement public administratif (EPA) [an administrative public establishment] and Etablissement public industriel et commercial (EPIC) [Industrial and commercial public establishment]. The EPA is organized as an administrative body, the EPIC as a (government) economic enterprise. The CNRS [National Center of Scientific Research] is an EPA, the CEA [Atomic Energy Commission] is an EPIC.

Most institutions do not carry out any economic activities, they are therefore organized as administrative bodies (EPA). This form of organization corresponds so little to the characteristics and requirements of research, that in 1982 a new form of

organization was created specially for research, the Etablissement public à caractère scientifique et technologique (EPST) [Public establishment of scientific and technological nature], which has an independent administration and financial autonomy. The EPST should be reinforced in the independence of the management, the financial controls should be slackened by reservations of consent, and the financing converted to general allocations. The concrete organization of the statutes has not yet been completed, there is no practical experience yet.

The form of organization at EPIC gives the research institutions better autonomy. The EPIC are, to a great extent, independent in their business management and financial economy. In France there are no objections against economic activities of the government. This takes place partly through the EPIC itself, partly through subsidiaries. Thus, for example, the CEA carries through participation (up to 100%) in capital countries operating under private law, whose turnover reached the same order of magnitude as the CEA financed 85% by subsidies of the government (about 15 billion French francs).

Considerable problems arise in the government institutions because of personnel economics. The researchers are, and remain, officials or employees of the government, even though special statutes apply to them. These problems do not exist for the companies under private law carried by the EPIC. Further, information about personnel economics may be found in section 2.2.5.

In France a discussion regarding the adequate form of organization for research institutions is still in progress. The previous solutions are not satisfactory; new forms are introduced, regarding which little information and experience is available, so far.

2.2.1.2. Public Interest Group (GIP)

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The GIP is the form of law for a company in which several government organizations as well as government organizations and private enterprises cooperate temporarily to carry out research and development projects. They should, moreover, facilitate collaboration of research and development institutions.

The GIP are nonprofit organizations; they can be established without capital. The government holds the majority of votes in the management council, the topmost body of the GIP; it is represented in the GIP by a controller. The accounting of the GIP is controlled by government authorities (audit office). For the rest, the GIP are independent.

Unfortunately, little experience has been acquired so far with this new instrument. Regulations for personnel economics, the financial economics, the profit rights to developments,

and government influence are only being worked out. It is still not known whether the attempted collaboration of several institutions and the cooperation of government and private sectors fulfills expectations.

2.2.1.3. The Swedish Joint Research Institutions

There are more than 30 joint research institutions, which receive institutional advancement from the STU [Swedish Royal Office for Technical Development].

The institutions are organized as foundations or combines under private law. The carriers are, on one hand, the industry (sectoral economic associations, ad hoc groups of companies, foundations), on the other hand, the government, through the SDU. The institutions have their own private juridical personality.

The Swedish government keeps aloof in the control of the joint research institutions. It shares in the financing amounts, in any case, only to about one third; the other funds come from industry or are reimbursements for contracts.

The most important provisions for the organization and activities of the institutions are taken by the management council. The STU is not directly represented in it; it has indirectly considerable influence, since it appoints half the members of this board. In program and budget separations the influence of the STU is limited. Besides business management and industrial unions, it is only one of several business partners.

Only a few conditions for business management are connected with government basic financing of the institutions (financial economics, personnel economics, etc.). The institutions must operate within the framework of the regulations applying to all research enterprises (accounting, social regulations, etc.); they are not found with any regulations of the government (for example, budget law, public tariffs).

The Swedish joint research institutions are an example of the successful collaboration of government and industry in the sponsorship of research and development. They show, moreover, that government financing of institutions can be assured, without the government reserving comprehensive control rights and imposing detailed conditions for the business activities with the assistance.

/16

2.2.1.4. The Privately Operated Government Centers of the USA

Part of the nearly 700 American research centers (federal laboratories) are not operated as government institutions ("Government Owned, Government Operated Laboratories", GOGO) but by private contractors. These are "Government Owned, Contractor

Operated Laboratories" (GOCO). The best known GOCOs are the Jet Propulsion Laboratory (JPL), sponsored by NASA, the Fermi National Accelerator Laboratory (FERMILAB), sponsored by the Energy Department and the National Center for Atmospheric Research (NCAR) sponsored by NSF.

The legal structure of the GOCO system is complicated and difficult to survey. The contract partners are the government authorities, the carrier of the center and the center itself, which has its own juridical personality. On one hand, the cession and fiduciary administration of the plots of land, buildings and plants belonging to the government are regulated by contract. Further contracts are signed on the operation of the center. Often contracts are also awarded for implementing individual projects (contract research).

The carriers of the centers are often universities or combinations of universities; some centers are operated by industrial enterprises (for example, General Electric).

The centers themselves are legally independent, non-profit organizations subject to private law (non-profit corporations, not for profit corporations).

The legal assistance is connected with detailed conditions in all areas; the government contractor reserves extensive control and intervention rights.

The following reasons are put forward for this type of institutional sponsorship:

The government can, in this way, leave an important portion of the research and development activity in private hands and thus reinforce the activities especially of private universities.

The private form of organization is moreover, more suited to the requirements of research as regards flexibility and self determination than the organization of research as a government institution.

The time limitation of the contract (as a rule five years) will have a positive effect on the motivation and the mobility of the work. /17

A US presidential commission presented in 1983 a report on the government centers. It contains indications about a series of defects, which will be discussed further below, in greater detail. In the commission's opinion the complaints apply to all government centers; but the GOCOs were judged better in the area than management, organizations and personnel than the government operated centers.

The government sponsoring organizations have a justified interest in determining the contents of the research and development activity in the centers. They are, moreover, responsible for the correct and economic use of funds. The control of the contents must orient the activity of the research institutions towards the politically oriented tasks. Therefore, they should not determine the procedure. Bureaucratization of decisions must be avoided in the administrative control. Forcing research to remain in a corset of administration regulations can eliminate the politically oriented control.

The control of the contents of the research institutions can be carried out by the determination and control of the programs of assignment and work (overall control); it can also consist in the involvement with daily decisions (detailed control). The formal status of the research institutions is important in this connection; only independent institutions are suitable for general control. The form of organization is, however, not of decisive importance. Overall control and detailed control are equally possible in government centers and private enterprises. Detailed control by involvement in daily decisions can destroy the purpose of control. The independence connected with the overall control of the research institutions is a prerequisite for the government to succeed at all with the research goals.

The administrative control can likewise be organized as overall control or detailed control. The organization as government centers suggests a detailed control, but does not make it compulsory. The organization of the centers as government enterprises naturally requires the regular application of government budget and personnel rights. These bureaucratic systems arranging for safety, planning, hierarchy and control are inconsistent with the uncertainty of research and the independence and responsibility required by it.

There are great differences in this sector between the three countries: France has established very independent government administrative bodies (overall control); the Swedish authorities have waived almost completely, controlling influences; the sponsoring organizations in the USA implement detailed controlled (called there "micromanagement") even in the centers operated by private contractors.

In France the receivers of institutional assistance were, up to now, government organizations; thus extensive control possibilities are available to the government. The structure of institutions frequently used, up to now, for research and development institutions as administrative bodies (EPA) was connected with frequent interventions by government authorities (detailed control). The EPIC established as industrial enterprises had even before greater independence. The reorganization

of the EPA as EPST (Etablissement Public a caractère Scientifique et Technologique) [Public establishment of scientific and technological nature] should provide greater independence to the centers.

The principle of overall control will apply in future to the government control of centers in France. The main points of control are personnel appointments for the controlling and business management boards (administration council, institute managements). In the administrative sector there are a series of reservations of consent of the competent authorities; they will, however, be eliminated, to a considerable extent, by the current reformation of structures.

/19

In Sweden the principle of delegation applies to the entire administration. All subordinate government institutions have a form of organization assuring extensive independence for them. The superior authorities in each instance limit themselves to conceptual and controlling functions.

The institutional advancement of institutions outside universities is rejected politically. Instead of this, the (government) universities of the country are assisted. The few government research and development institutions outside the universities have a status which corresponds with that of the universities. There is a clear lack of control. The competent ministry is not represented in the administration council of the institutions. There is no obligation for establishing reports. The independence goes so far that complaints have been expressed on the lack of communication between the institution and the ministry. An exception may be found in the Institute for Defense Research, in which the competent ministry has a project oriented influence.

In the promotion of the joint research institutions, the competent authorities (STU) influence the allotment of the annual programs. For the rest, it limits its control to the appointment of representatives in the administration council.

In the USA the private sector of GOCO's assures only a limited independence from government intervention in the business management. Basically the centers should be free of their management, while the government reserves a right of being able to determine, at any time, by intervention the progress on the work desired by it.

Partly original instruments are available for influencing the management. The internal organization centers require the approval of the client. The procedure in important areas such as personnel economics is to be established in handbooks, which cannot be changed without the prior consent of the client. NASA uses for uniform regulation of important procedural questions a

so-called "issuance system", in which even the privately operated centers are included. Moreover, there is a series of reservations of consent, for example, for the appointment of the management personnel, financial economics, the activity regarding third parties, etc.

Only little independence exists in the determination of the contents of the work. The government clients reserve the right to determine the activities at any time by intervention. Instruments for government influence are the five year contracts, the yearly program plan, the council and inspection boards, in which the government is represented to a decisive extent, as well as reservations of consent and intervention in the daily work.

/20

The extent of the influence by the client is clearly shown in the the size of his office in the centers. These (resident offices) are partly occupied by 10 to 20 persons.

The US Presidential Investigation Commission has, in its commission, objected to the too great extent of government control and recommended more independence of the centers in the area of management and in establishing work content not determined by contract (free research).

The comparison of the solutions in the three countries shows that the form and extent of government control does not depend on whether it is a private or a government enterprise. Overall and detailed controls occur for the different types. Rather, the principles and the instruments of government influence are decisive. The French example of the EPST is an attempt to combine the necessary independence of the enterprises with government overall control in the content and administrative sectors.

2.2.3. Insurance and Building Projects

/21

Consequences from the government financing occur in the three countries for the procedure in insurance and for the development of construction projects.

In the three countries the "self insurance principle" of the government applies, according to which the government property is not insured.

Following this principle, in the French government institutions there is no insurance; however, reserves may be formed for possible damages.

The government institutions in Sweden have no insurance. The non-government joint research institutions do not have any insurance for the land, buildings and plants made available for their use

by the government. They insure their own property and risks like industrial enterprises.

In the USA the rules for the GOCO's correspond to those in Sweden: no insurance for government property, insurance for all other risks through the centers. Costs for the insurance against claims of the centers for damages to government property are not provided by the clients.

Construction projects have been carried out in France by the centers themselves; in Sweden and the USA implementation is taken over by government authorities, which are competent centrally for all construction projects of the government. The same regulations as for other government buildings apply to the construction projects.

2.2.4. Financial Economics and Accounting

/22

2.2.4.1. Form of Financing

The financial sponsorship can have, according to German terminology, three forms of implementation:

- allocations to government institutions
- allocations to nongovernment institutions
- reimbursements for contracts to nongovernment institutions.

The French sponsorship was directed (previously) exclusively through government companies and in the form of grants, which were given according to the public budget law. Basically, the same regulations as for other government institutions apply to research institutions. The allocations are granted in the generally valid subdivision (subdivision according to current and investment disbursements, as well as according to the types of disbursement). Besides the basic financing (original budget), the research institutions receive, partly from government offices, further funds for implementing special projects.

In Sweden the government institutions are assisted by grants, in whose allocation and administration the public budget regulations apply. The institutions receive additional means from project assistance, while there is no difference for grants which are received by the nongovernment recipients. The joint research institutions receive from the STU for their annual program a basic financing, which is assured like a grant. They can receive further means for individual projects, also as grants.

The privately operated government centers in the USA (GOCO's) are financed by public contracts. They receive a cost reimbursement (as well as a fixed profit) according to the regulations

generally valid for public contracts and the contract agreement. Although the contracts for the operation of the centers are assigned for five years, the financial appropriation must be approved again every year. The centers may receive further funds for implementing projects for other government offices; basically the corresponding agreements are made with the main client of the center, not the center itself.

2.2.4.2. Budget Implementation

The independence and flexibility of the financing economics is concentrated by government regulations on the mutual compatibility of budget sections and permissible margins of deviation. Such limitations are common, most frequently, in government institutions, but also in the USA in financing privately operated centers.

In France there is basically no correspondence between administration budget (current allocations) and investment budgets (investments). Within the allocation, deviations of 5 to 10% are permissible. As a result of the current structural reform, the research institutions should be increasingly assisted by overall allocations. /23

In Sweden public budget laws apply to government institutions. Between the headings (administration costs, operating costs, material costs and investments) there is no correspondence; within the section the validity of reimbursements is unlimited. The joint research institutions receive assistance as overall allocations; thus, the validity of coverage is not limited.

In the USA the reimbursements are paid to the GOCO's in the USA as a settlement of costs. Considerable deviations from the amounts indicated in the preliminary calculations (for example, more than \$250,000) require approval. If the financing comes from several contracts, then mutual coverage is possible only in exceptional cases.

The continuity of research projects can be affected adversely by short periods of approval. The principle of annual validity applies, without any exceptions, in all three countries. All assistance must be approved again every year. The American research commission has omitted this and promoted long financing periods.

Another narrowing of the possibilities of financial funds is connected with the ban on the transfer of funds to the following year.

In France and Sweden this limitation applies for the current allocations (in particular, for personnel allocations), whereas, the transfer of funds for investment is permissible. In Sweden

funds from material budget can be transferred. The transferability of funds for property allocations for the French institutions is facilitated by the fact that equipment and similar property can be adjusted in the section for investments.

The GOCO's in the USA can transfer the funds received arbitrarily to the next year. Naturally strict rules apply to the recall of funds, which should prevent the recall of the funds not immediately required.

2.2.4.3. Organization of the Accounting

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The organization of accounting in research institutions follows either cameralistic or commercial principles.

In the cameralistic system, which applies in the three countries to the public budget, the incomes and expenditures of the period are noted. Since the expenditures and income of a period concern materially parts, costs and income of other periods, in the cameralistic system a period referred cost and receipt accounting is impossible. The determination of costs and their accounting for the projects is, however, an important prerequisite for the economic use of funds by the institutions.

In the accounting organized commercially, costs (expenses) and receipts are listed. A period-referred cost accounting is therefore possible.

Whereas a cameralistic accounting procedure does not allow a cancellation of costs and receipts, the commercially organized accounting procedure corresponds, basically, through the simultaneous recording of costs and receipts, on one hand, and expenditure and profits on the other hand, to government requirements. In the government assisted institutions therefore a suitably expanded commercial system should be used.

Actually, the government institutions of the three countries proceed according to the cameralistic principles. However, there are exceptions. The accounting procedures of the institutions following private law in Sweden and in the USA are organized in a commercial manner.

France's government institutions follow predominantly a cameralistic accounting procedure (for example, the CNRS). The CEA uses both systems: cameralistic for public sector, commercial for the subsidiaries following private law. The government CNES has a commercial accounting procedure, through which it is proved that the government form of organization and commercial accounting procedures are compatible.

In Sweden the cameralistic system is prescribed for government centers. The joint research institutes use a commercial accounting procedure.

The USA allows the privately operated government centers to use a commercially organized accounting procedure, but makes some conditions. Legal regulations on the recording and calculation of costs for the interpretation of public contracts must be maintained. Moreover, the categories of the accounting procedures should be easily convertible into those of the government client. The disbursements and income should be recorded in the accounting records and financial reports.

2.2.4.4. Checks

/25

The correctness of the financial processes in the sponsored institutions can be monitored by current accompanying control and by subsequent checks.

In France the accompanying control is the more important instrument. In the government research and development institutions, officials of the superior authority or the Finance Ministry officiate and give endorsements for important disbursements of commitments. The subsequent control takes place, for example, every 4 to 5 years by a check by the auditor's office.

In Sweden the research institutions are independent in the current budget implementation. The institutions belonging to the universities are checked every year by the Swedish university office: checks by the government inspection office are possible, but rarely occur. The checking of the joint research institutions is conducted every year by a delegate from the STU, who presents his report to the administration council (in which the STU is not represented).

The privately operated government centers in the USA are subjected every year to a large number of subsequent checks by different offices. The government client either checks himself or delegates the checks to special government offices specialized in this area. Moreover, it allows the client to carry out internal checks and to present the results. Lately, the government clients are experimenting with the award of additional contracts to the private accounting examiners of the centers and waiving separate checks by government offices.

Besides the accounting checks, the sponsoring organizations in France and the USA carry out evaluations of the organization, management and the working procedure in the assisted research institutions:

In France for example, the finance inspection for the CNRS

carries out, every three to four years, studies of topics such as program development, management structure, personnel status.

In the USA the government clients carry out cross evaluations (for example, the reimbursement level in the centers) and establish management reviews. A report established for the US president on the government centers criticizes the lack of a suitable evaluation and control system for the centers. Such a system could contribute to the prevention of the harmful consequences for the productivity of the centers resulting from their isolation and the lack of competition.

2.2.5. Personnel Economics

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The government sponsorship organizations are influenced by different instruments, the personnel economics of research institutions:

Regulations on the personnel law to be applied and the reimbursement system

Preassignment of employment plans

Influencing personnel policies

2.2.5.1. Personnel Law and Reimbursement System

In the government institutions in France, Sweden and the USA, the public personnel law and public reimbursement system are applied.

The public system is hardly suitable for a research agency. It is based on lifetime employment, offers hardly any possibilities for incentives and differentiation based on abilities and limits the mobility of the employees and the exchange with industry.

In France there are a large number of supplementary individual regulations (statutes) for the different centers, which should take into consideration the conditions prevailing there and the special requirements of the research agency: classifications, regular advancements, time contracts, increments, bonuses, etc. The statutes are not clear, and differ from center to center; they limit the personal mobility between the institutions. With the reform of the research structures, simplification and uniformity will be achieved.

The Swedish government institutions apply also the public personnel and reimbursement law. Employment for a certain period is possible; these employees received the same reimbursement as the holders of indefinite contracts. Compensation up to one year's salary may be paid, if an employee paid from project funds,

(third party funds) does not find any new employment after the sponsorship is over.

For the American government institutions, the same rules apply as for the other employees of the federal government. Notices of termination for justified reasons (for example, because of inadequate abilities) are possible. In the investigative report on the government centers in the USA, it is objected that the public reimbursement system hardly offers incentives to the researchers.

The institutes subject to private law assisted by the government in the three countries are not obligated to apply the public personnel law and reimbursement system.

In France the subsidiaries of the CEA are not bound to the public system for their personnel economics, as applies to the CEA itself. /27

The Swedish joint research institutions apply general rules for the private sector. Various tariff contracts regulate the reimbursement for the individual professional groups. On the whole, the reimbursements are similar to those at the (government) universities.

The privately operated government centers in the USA are basically free in the establishment of reimbursements of personnel. The study commission gives this as a positive aspect of the GOCO's but regrets, at the same time, that the government clients impose partly on the GOCO's maximum limits for reimbursements.

2.2.5.2. Preassignment of Employment Plans

The preassignment of employment plans by the government allocator of funds has a harmful effect on the capacity for negotiation and adjustment of the research institutions. The preassignment of employment plans for the government institutions is common in all three countries.

For the French government centers, the employment plans are established according to the levels and number together with the budget and possibly discussed in the Parliament. The deviation from the employment plan is, as a rule, impossible.

In Sweden the employment plans of the government institutes are first discussed and decided in the Parliament, but only the number and total financial frames. The institute management can determine and adjust the level by agreement with the unions.

For the institutions operated under private law in France (for example, the subsidiaries of the CEA), in Sweden (joint

research) and in the USA (GOCO), there is no preassignment of employment plans. In personnel the personnel appointment is decided by the administration council of the institution; it can vary by 10 to 20%. In the GOCO's in the USA, a general frame is agreed upon with the client or personnel. The man years are established, the number of employees or their classification.

2.2.5.3. Influence on the Personnel Policies

/28

In the three countries the sponsoring organizations have only a discrete effect on the personnel policies in the research and development institutions.

The authority of the government sponsoring organizations for influencing personnel measures is comprehensive in government centers. Practically, however, the sponsoring organizations confine themselves to reservations of consent or rights of determination in the appointment and recall of the management personnel.

The Swedish STU does not influence at all the personnel policies of the joint research institutions which it assists.

Reservations for consent to measures concerning the management personnel are provided to American clients in contracts with the carriers of GOCO's. They influence, moreover, personnel policies, by allowing the clients to set down their procedures in this sector in handbooks whose change requires approval. The centers are, like all employers, legally obliged to maintain certain standards, for example, non-discrimination (sex, age, race).

2.2.6. Third Party Funds

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Most government sponsored institutions have, besides institutional assistance, other income.

- Project sponsorship by government offices
- Secondary business (editing of publications, establishment of electron data processing services)
- Contracts from industry
- Donations and grants from legacies.

In project assistance by government enterprises in some countries there is danger that a double financing project by the same sponsoring organizations may be involved in project sponsorship, which have been the object of institutional advancement. The sponsoring organizations encounter this problem when

they provide for a precise formulation, both for the programs of basic financing and for project promotion. But no sponsoring organization excludes basically, institutionally assisted institutions from project sponsorship.

Some sponsoring organizations limit the share of third party funds, to make sure that the activities of the research institutions are concentrated on the approved programs.

In the USA limitations of the third party funds to 25% are customary. The government clients reserve the right to approve the assignment of employment and bids to other offices. The contract activities for other government offices are agreed upon by the client, not the research institution.

If research institutions which receive institutional advancement from the government implement contracts for private or government offices, they find themselves in competition with other institutions. The equality of opportunity can be injured by the institutional sponsorship, if the latter is used to financing the basic material and personnel equipment of the institution and only limiting costs are calculated as reimbursement for contracts.

The sponsoring organization solves this problem by different means:

In France the research institutions can establish subsidiaries subject to private law, which are financially autonomous and therefore cannot enjoy the advantage of institutional sponsorship.

In the USA the sponsoring organizations reserve the right to approve the bids for other offices. The latter are only awarded when the competition is not disturbed. The presumption is, among other things, that the reimbursements for prime costs are calculated, and in particular, the indirect costs are calculated totally. NASA makes its approval depend, moreover, on whether there is a special company requirement and whether there are no private bidders. The study commission on the research centers favors research under contract to centers, insofar as rivalry interferences can be avoided.

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The few government institutions in Sweden do not work for private employers and do not compete with industrial enterprises. The joint research institutions, on the other hand, must finance a large portion of their budget from contracts awarded by industry. The STU makes it a condition that such contracts should be calculated with total costs.

Regarding the use of third party funds, the sponsoring organizations do not impose any regulations on research institutions. In most institutions, naturally, it is a general rule that a

uniform procedure must be assured for the entire institution, regardless of the origin of the funds. This refers, in particular, to the personnel sector. The CNRS cannot employ any additional personnel from third party funds.

The proceeds from third party funds are taken into consideration in establishing the project. The intent of the institutional assistance does not change if the actual values deviate from the nominal values.

Donations and legacies can be used freely. If they are not bound beforehand with a special purpose, they are established by the management boards of the institutions. The donations are listed in the budgets of the institutions, but are not used to balance the budget.

2.2.7. Rights to Inventions and Development

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A regulation of rights of use and profits for results of the institutionally assisted research and development is required, in particular, when they refer to a nongovernment recipient of assistance. In government research centers, the government is automatically owner of the rights.

In recipients subject to private law, it must be established by contract what are the rights of the government and the recipients of the funds of the results of the research and development.

In regulating the rights to benefits, the government is concerned on one hand with the possibility of evaluating the results of research and development for fulfilling their own tasks. In special cases the rights or benefits of the government are also used to keep secrecy regarding the results of research. On the other hand, the government has an interest in the use by the public of the developments financed by tax money.

For the private recipient of institutional assistance, government rights of use or reservation represent a limitation of their capacity of disposal. He is therefore interested in reinforcing his own position regarding rights.

The rules obtained in the studies for rights to use and benefit are simple in France and in Sweden:

In France the recipients of institutional assistance are government institutions; thus all rights belong to the government.

In Sweden the government is owner of all rights to developments obtained in government institutions. The joint research institutions are owners of the rights to developments which were obtained from the basic financing. They must award

licenses to interested companies. The government reserves rights only when military matters are concerned. The rights to development of the research by contract belong to the corresponding client.

The regulation of the rights for use and profit in the USA favor, so far, the government. Recently regulations are in force which award more rights to the recipients of assistance.

The "Bayh-Dole Act" of 1981 established the basic principle that recipients of grants and reimbursements of the government can become owners of patent rights to inventions, if they are not profit organizations (including university centers) or small enterprises (less than 500 employees). For larger enterprises a decision is made from case to case by the client or giver of the grant, while the mutual interest must be taken into consideration in a balanced manner. Exceptions to favoring of nonprofit organizations and small enterprises are permissible, if security matters are involved.

To take into account the interest of the partner who is not owner of the patent rights, the latter has a right to a free irrevocable, nonexclusive, nontransferrable license. For the government, this license right is limited to the evaluation for its own need; in particular cases, the recipient of assistance can obtain an exclusive license, which is limited in place and time.

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To assure the general use of the results of research and development, recipients of assistance who are owners of the user rights are obliged to award a license to third parties under ordinary marketing conditions. If agreements in this connection fail, the government can assure this license to the third party interested (forced license, "march in right").

The regulation of the rights for use and profit according to the Bayh-Dole Act has been applied only partly in privately operated government centers. However, they already apply to one of the most important centers of NASA, the Jet Propulsion Laboratory (JPL).

2.2.8. Technology Transfer

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The dissemination and use of the results of institutional assistance outside the research institutions assisted is an important condition of the sponsoring organization in the three countries.

The initial problem for the technology transfer from institutionally assisted institutions is their isolation from other sectors, in particular from industry. Therefore, a number of measures are imposed to reduce the danger from the beginning.

The study has given a catalogue of instruments which are used for technology transfers. They may be divided into the following categories:

- Reinforcement of the bonds between research institutions and industry,
- Dissemination, evaluation of the results by the research institutions,
- Regulation of the rights of use and profits,
- Measures of transfer of the sponsoring organizations.

Reinforcement of the Bonds Between Research and Development and Industry

These include the assignment of private companies to the operation of government research institutions in the USA. We are dealing here, partly, with industrial enterprises, partly with groups of universities, which maintain in the USA closer connections with industry than in other countries.

The connection between the centers and industry is further promoted in the USA by the centers being allowed to assign sub-contracts.

The establishment of subsidiaries operating as private industries by government research centers in France, is another means of promoting the transfer of research and development results.

A strengthening of the connections between government research sponsorship and private industrial transfer can, moreover, be expected by the nonprofit research enterprises (GIP) in France, when their carriers can be jointly government and private companies.

Similar effects may derive from the Swedish joint reasearch institutions, which are also carried simultaneously by the government and the industry.

A privately operated research center in the USA (Fermilab) has established very successfully a club of interested companies, whose members are presented with the research results at meetings.

In the French CNRS there is a committee for industrial relationships (CRIN) which should reinforce the connections between industries. Among other things, the CNRS sends advisors to industry whose salary is paid at the beginning by the CNRS.

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Dissemination and Evaluation of Results by the Research Institution

All government sponsoring organizations insist on the

assisted institutions publishing data on the research results. Here there are different forms, such as reports, newsletters, pamphlets, meetings, press conferences.

A special role is played in France by ANVAR (Agence nationale de valorisation de la recherche [National Agency for Development of Research]). This government institution signs contracts for evaluation with research centers, which cannot themselves use commercially their development.

Regulation of the Rights for Use and Benefits

The regulations described in the previous section for the rights to inventions and developments must promote, among other things, the broadest possible evaluation of the research and development results. In this connection the rights existing in the USA for interested third parties to obtain a license from the patent holder and the power of the government to secure itself this license for them if necessary are particularly important in this connection.

Transfer Measures of the Sponsoring Organizations

Of the three countries, the USA has proceeded furthest with the measures for sponsoring organizations to transfer the research and development results from institutionally assisted institutions. A showpiece example is NASA, which maintains an extensive technology transfer program. The program includes, among other things:

- the maintenance of working staffs for technology transfer in the research centers,
- the promotion of improvement of methods for the application in the industry in collaboration with NASA institutions and interested enterprises (Technology Utilizations Program),
- the dissemination of data on available technology in printed form and in data banks.

2.3. Project Assistance

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The assistance for individual projects arises as a third sector of measures besides institutional assistance and indirect measures.

A high measure of government activity is connected regularly with project promotion, for example: establishment of the areas of promotion, development of preassignments for the proposals, evaluation of the incoming proposals, decision regarding the assignment, establishment of individual conditions of sponsorship, implementation of payment, follow-up of the project, accounting and checks, evaluation and use of the results.

Projects are either sponsored from general political reasons (for example, future supplies, reinforcement of the national technological ability regarding performance and competition) or because the government requires the result of research and development for fulfilling their own missions (for example, defense, health care). In the first case, the projects are promoted with unilateral grants, in the second place with contracts.

Of the many instruments for advancing projects in the three countries, the objects of study included:

In France: assistance to innovations (ANVAR);
bonus for innovations (ANVAR);
research funds (Ministry of Industry and Research).

Sweden: loans by the Swedish royal office for technical development (STU);
grants of the scientific research council (NFR);
loans from industrial funds.

USA: grants and contracts, for example, from NSF, NIH, NASA.

2.3.1. Proposal Procedures

A brief and simple procedure of proposals for smaller projects can have a positive effect on administration costs and processing time. At the same time, small and medium enterprises or individual researchers are not to be frightened by extensive forms and vast requirements for documents. On the other hand, with a too simple organization of the procedure, there is danger of errors being committed in selection of projects and recipients of assistance.

The labor costs connected with the establishment and processing of applications should be in correct proportion to the magnitude and complexity of the projects. Large projects justify and require greater costs than small projects.

Procedures for applications, which provide different formalities for large and small projects, are not common in any sponsoring organizations; all use a uniform procedure for all projects.

A summary form of application and a small catalogue of documents are to be handed over where established at the French Research Ministry and at the Swedish STU. The other sponsoring organizations in the three countries require detailed applications and a large number of documents. /36

Sponsoring organizations require the presentation of proposal or an offer, a description of the project and a cost plan.

Further documents are also required; differences exist, moreover, in the information and discussion with the applicant.

Whereas for applications for grants, detailed regulations apply for all sponsoring organizations, the organization of the bids for research and development contracts, especially in the USA, is left to a great extent to the bidders.

2.3.1.1. Application Forms

Most sponsoring organizations give out application forms of different length. In France 10 to 12 page forms are available. The Swedish forms are 2 or 4 pages long; the NSF gives out 4 individual forms. An interesting solution was found by the National Institutes of Health. They give out an "application brochure" with forms, explanations, examples, conditions, description of the program, etc.

What is decisive for the applicants is not the length, but the comprehensibility and practical nature of the sets of forms. In this respect, the Swedish and American application forms are exemplary. The example of the "application brochure" is worthy of imitation.

2.3.1.2. Description of the Project

By preassignment of the content and subdivision of the description of the project, the sponsors make it possible for the applicant to present the data required for evaluation and decision. The key words are similar, to a great extent (statement of the problem, initial position, level of research, goals, prospects, bibliography, personnel).

In all three countries the applicants are required to provide information on the transfer of the results of research. ANVAR and STU proceed furthest in this direction. The applicants are thus emphatically reminded of the importance and problems of transfer of research results.

The NSF requires a summary of the project description in 200 to 300 words to be published, among others, in data banks. The style is prescribed for this purpose to the applicants: understandable to reader with scientific education, informative for scientists of the same or neighboring fields, omission of the use of pronouns "I" and "we". Summaries of projects descriptions are also common for other sponsoring organizations.

The personnel appointment for the project conceals in the opinion of some sponsors so many problems that detailed data on the employees are demanded in the project description. The naming of the project director is common everywhere. Information on

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names and resumes of other employees is more important for the sponsors, the closer the project comes to fundamental research. The Swedish research council requires the resumes of all project participants. The NSF makes, for example, the project director the contract partner (or co-applicant) and requires declaration of agreement by the employee mentioned.

Several sponsors are content with two copies of the project description. STU: 3, ANVAR: 5, NSF and NFR require the applicant to provide 15 or 20 copies. The reason is in the evaluation procedure. If (as in the case of NFR and NSF) commissions or panels meet on the applications, more copies are needed than when only one or two experts are concerned. Nevertheless, this requirement of more than 5 copies is unpleasant. If they are really required, then the sponsor has sufficient possibilities for duplication.

2.3.1.3. Cost Plan

The preassignments of the sponsoring organizations for the cost plan differ with regard to shape and details.

Most sponsors require a summary on one page, whose principles will be given in detail, discussed and justified in appendices. This is, for example, the procedure for NSF, ANVAR and STU. On the contrary, the French research ministry requires a detailed (4 page long) cost plan in the project application itself.

For all sponsoring organizations, data on the division of costs in time are commonly required (budget or project phases).

For all sponsoring organizations, current costs and capital disbursements differ. For capital disbursements, as a rule, detailed data are required. The NSF requires, for example, a listing of equipment worth more than \$1000.00, and a separate justification for items worth more than \$10,000.00.

There are great differences in the detailed description of the types of costs. Several reasons are decisive in this connection: control of costs, checking of economy, consistency with the public budget categories.

For example, in the NSF, the French research ministry and the Swedish NRF, control is in the foreground. The required detailed divisions of personnel reimbursements (name, monthly reimbursements), exact data on the planned trips etc.

The preliminary data for ANVAR and STU should allow, on the other hand, rather the evaluation of the economy. They require a cost plan based on commercial principles.

The differences in the preassignments for cost plans depends on the nature of the sponsorship. Wherever subsidies are assured (NSF, NFR, MIR) there must be more control than for repayable loans (STU industrial funds, ANVAR). The same applies to the extent of the sponsorship. For high sponsorship levels (NSF, NFR) more control is required when the applicant makes, himself, a greater contribution. For carrying out the preliminary calculations, a considerable role is played by the fact of whether the results of the work can be evaluated with objective criteria (such as for application oriented development) or whether it is impossible to evaluate (as, for example, in fundamental research).

The degree of the detail in the preliminary calculations is, moreover, related to their legal position. In most sponsoring organizations, the precalculation is compulsory in detailed items for later financial implementation (deviations mostly require approval). A great division into detail can cause the "muzzling" of the recipient and high administration costs for the approval of deviations.

It is very difficult for preliminary calculation to be simultaneously a control instrument and a basis of evaluation. It is preferable to assign only the function of evaluation to it. Control measures can easily be implemented during the project.

2.3.1.4. Information on the Applicant

The sponsoring organizations in France and the USA assign particular importance to the solvency and efficiency of the applicant. The information required in this field is very great. For example, the ANVAR requires the presentation of budgets, gain and loss accounting, operation accounting, turnover figures, economic reports for the last three years. The applicants for the French research funds must describe, in detail, their scientific and technical resources. The NSF requires documents on the solvency of the applicant and checks them every two years. Swedish sponsors seek information on the applicant, but require from them no documents regarding solvency. In individual cases companies which have been established only for the research and development mission require a security from the parent.

Data on the property situation are required by most public organizations, without a reason always being apparent for this purpose. For example, in ANVAR, the sponsorship is open to all enterprises, but the property conditions must be described. The Swedish STU asks questions for good reasons: according to the size of the enterprise, the obligation for repayment is regulated. The same applies, also, to the NSF: in the USA the regulation of patent rights depends, among other things, on the size

of the company. Most programs are limited to applicants from the USA. Moreover, in the USA small enterprises and enterprises which are owned by women or disabled people must be preferred. No company is excluded from any advancement, because capital is in foreign hands.

Clearance certificates from the finance office are required by the NSF and ANVAR. ANVAR also requires a certificate from the Social Security authorities. /39

Some sponsors (ANVAR, NSF, NFR) require data on the total financing of the applicant. They should indicate the total extent of government financing and contributions to the prevention of double financing of projects or of workers. Such data are provided when the same research institution receives government funds from several sources.

The suitability of requirements for additional information and documents to be evaluated differs according to the type of information and from project to project. Additional data are needed if they represent a direct basis for decisions (for example, in property conditions). The actual need for other data depends on the nature and magnitude of the project. Large projects will be checked more thoroughly than small ones; grants are more problematic than loans, projects with participation of the applicant are less critical than the totally financed ones. There is danger of requiring too much and too detailed information because of bureaucratic anxiety. The conditions for the application should apply to the characteristics of the individual project and not apply uniformly for all projects.

2.3.1.5. Deliberations on the Application

All sponsoring organizations attempt to discuss their application procedure in written documents. Thus, the application for assistance can be made and mistakes in the application can be avoided. The sponsoring organizations in all the countries attempt to avoid discrimination against smaller applicants because of conditions of application which are hard to understand.

Almost all organizations have considerable costs in issuing the brochure and pamphlets. Usually there are, among other things, graphic representations, organizational charts, explanatory drawings, explanations of the conditions of grants, explanations of forms, examples. An exception is found in the French Research Ministry, for which the material consists a few typed text pages.

In addition to the written documents, some organizations (STU, ANVAR, industrial funds) offer personal discussion of the application. STU maintains contact secretariats in the Swedish

universities. ANVAR is organized in one main office and 22 regional offices. The NSF and STU publish the telephone numbers of the responsible officials and their names (STU). Interested parties can obtain advice by telephone.

2.3.1.6. Announcements, Advertisements

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The initiatives of the sponsoring organizations are different according to whether research and development is promoted from general political considerations (research sponsoring in the proper sense) or whether the results of the research and development activity are required directly for government needs (research contract).

For the research advancement in the proper sense, the sponsoring organizations establish the frame within which they are prepared to accept, and possibly to sponsor, applications. The applicants are allowed to establish the exact topic, the procedure and the plan of implementation. Existing sponsoring possibilities are made known by press announcements (NSF: program announcements), information sheets and brochures, letters (USA: "Dear Colleague"). If a large group of interested parties is to be addressed, the announcements are formulated in an easy and understandable manner and are widespread.

For research contract projects, the government sponsors develop extensive data. They establish concretely the procedure, the implementation of the project and the results. The announcement of such contract possibilities is directed to all sponsors according to general rules for awarding public contracts. Public advertisements hardly occur; limited advertisements or pre-assignments are the rule. For the latter, the custom in the USA is noteworthy and ideal: each planned request for bid (request for proposal) is published, first in the "Commerce Business Daily" and in the corresponding data bank. Thus even parties who are not approached have the opportunity apply for the announcement documents and to make a bid, which must be treated on an equal footing as the other bids.

2.3.2. Nature and Conditions of the Advancement

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2.3.2.1. Legal Forms

The following sponsoring instruments are commonly used:

- nonrepayable grants (allowances from published plans, for which no return is required): research funds of France, NFR of Sweden, NSF of the USA;

- repayable grants, partly also organized as loans: ANVAR

France (interest rate), Sweden (with interest) industrial funds of Sweden (with interest);

- research and development contracts, which will be discussed in this study on the example of the USA.

Grants are provided in all three countries, when the government is promoting the research for political reasons and the results of the research are not made available to the sponsoring organization, but through the recipient of the fund or the public. Nonrepayable grants are used, particularly, extensively, to promote fundamental research. The French research funds and the NSF promote a partial program, even applied research, with non-repayable grants.

The grant is generally considered as a unilateral administrative act, in which the functions of the sponsor are limited to the decision regarding the sponsorship, the disbursement of funds and the control of the use of the funds and no further involvement of the giver of the grant is provided or permitted. Nevertheless, some sponsoring organizations (for example, the Swedish NFR and the STU) sign bilateral contracts on a grant.

Since in promoting research the inclusion of the grantor (by the introduction of scientific surfaces, by offering instruments, material, etc.) is occasionally desired, a special instrument is available in the USA for such cases. This is the "cooperative agreement", a special form of grant.

Wherever a repayment of the assistance is provided (examples: STU, industrial funds, ANVAR), the assistance is organized from the beginning as a loan. It has the nature of a grant, if repayment is waived.

Sponsorship through the Swedish STU and the industrial funds must be paid with interest, and specifically on a non-subsidized basis (at present, about 3.75% above discount). Some Swedish enterprises therefore, do not go for the assigned assistance but consider the sponsorship as the project insurance against failure.

Research and development contracts are used when the result of the research contributes directly to solving the problems of the sponsoring organizations. Mostly we are not dealing with actual sponsored research, but the supply of research results, required by the government for fulfilling its mission. Typical examples are research and development contracts in areas of missions for which the government is responsible: traffic, space, air, energy supply, defense.

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The research and development contracts are common in the three studied countries. They are always bilateral contracts, providing for quid pro quo services. This instrument is particularly

highly developed in the USA. The contracts are there predominantly of the type "reimbursement of cost plus (fixed) profit".

Research and development contracts of a special form are possible in the USA, providing for a participation of the applicant in the cost. This type of contract is suitable, if the benefit which the applicant obtains from a contract is high above the normal level. For example, this is the case if the result of the research is used by the contractor to obtain profit.

2.3.2.2. General Conditions of Sponsorship

Sponsorship conditions are the details of the decisions regarding grants or contracts. They are partly established by the individual decisions or contracts, partly "general conditions".

Simple and easily understandable sponsoring conditions reduce the costs of administration for the organization of the sponsorship and for the receiver. The degree of the detailed description of conditions depends, however, very much on the nature of the sponsoring instrument. Many stresses and differentiations, as are needed for large projects, lead automatically to complicated sponsoring conditions.

Nevertheless, extensive conditions of sponsoring are often the expression of an exaggerated worry about the diversion of the object of the sponsorship and the desire to be able to regulate all eventualities.

Simple sponsorship conditions may be observed in the French Research Ministry and the Swedish STU. The conditions of the other French and Swedish, as well as the American sponsorship organizations, are complicated and difficult to understand.

Particularly important conditions (permissible costs, level of assistance, repayments, rights to inventions, payment procedures, reports, publications, ending of the assistance, invoicing and checking) are the object of the following sections. Here we should indicate general situations, which are considered necessary to regulate by the sponsoring organizations. These include:

- Standards for the accounting procedure of the recipient of assistance (ANVAR, NSF),

- Legal status (ANVAR),

- Indication of nonexistent employer function of the sponsoring organization (STU),

- Procedure for dispute (NFR, NSF),

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- Changes in the project implementation (NSF),
- Changes in the personnel employment (NSF),
- Delegation of decisions of the sponsoring organization (NSF),
- Obligation of advisors (NSF),
- Regulations for procurement (NSF),
- Non-discrimination (NSF),
- Subcontracts,
- Protection of animals (NSF),
- Behavior for genetic research (NSF),
- Use of national airlines (NSF),
- Environmental protection (NSF),
- Human rights (NSF),
- Behavior abroad (NSF).

The general conditions for the research and development contracts of the NSF and other American sponsoring organizations contain additional decisions, partly as indications of legal regulations, making these part of the contract. Such indications refer, among other things, to:

- Qualification of officials for reimbursements,
- Ban on provisions etc. for awarding contracts,
- Government property,
- Preference for American suppliers ("Buy American Act"),
- Establishment of the rate (percentages) for payment of the indirect costs,
- Quality standards for work,
- Technical direction by the client,
- Procedure for default,
- Assurances for liability towards third parties,
- Remuneration for overtime,

- Convict labor,
- Procedure for open places,
- Favoring of the handicapped, women, regions with high unemployment, small enterprises.

2.3.2.3. Permissible Costs

The indication of which costs are permissible for the sponsorship is particularly important, when the assistance is not paid back. If a loan is paid back, then the use to which it is put is less important. For research and development contracts, within whose framework the costs are reimbursed to the contractor, the permissibility of the costs is just as important as for nonre-payable grants.

The investigation in the this area has shown remarkable differences between the sponsoring organizations. In France there are clear and simple rules. The regulations in the USA are comprehensive and complicated. In Sweden the awareness of the problem in this area is hardly developed. Regulations on permissible costs are, to a great extent, nonexistent there.

The regulations on the permissibility of costs for sponsorship /44 or reimbursement are aimed at different purposes:

Some sponsoring organizations control the extent of assistance with regulations on the permissibility of the costs.

Most regulations on the topic "permissible costs" should assure that (only) those costs are reimbursed or paid which arise actually in the implementation of projects. The identification of these costs and the separations from other projects of the recipients of the assistance cause problems, which the sponsoring organizations attempt to solve, often unsuccessfully, with regulations. The Swedish STU keeps aloof from these problems. It waives any regulations of its own and requires only the maintenance of general commercial principles.

The regulations should assure, moreover, that only the costs which arise in economic and thrifty business management would be covered or reimbursed.

With some regulations undesired costs (for example, entertainment costs, provisions, personal reimbursements above a certain amount) should be excluded from the assistance.

The conditions regulate, moreover, the validity of profits. The latter are generally excluded for grants and loans, permitted for research and development contracts.

The following procedures should be mentioned, in particular:

Limitation of the extent of assistance:

The Swedish NFR limits its assistance in the university sector, mainly to direct costs (personnel costs for scientific and technical workers and costs of the equipment) and does not allow, at all, indirect costs or only at a low rate (3%). The same applies for the STU and the French Research Ministry. The Swedish industrial funds and the French Research Ministry sponsor (in case of recipients in the public sector) only the limiting cost, that is, the additional costs occurring for the implementation of the project. The remaining sponsoring organizations take as basis of the assistance or reimbursement the production costs possibly with the addition of a profit.

Actual Costs:

Difficult problems arise in the establishment of the actual cost of a projects for the indirect cost. Most sponsors allow the use of a total or differentiated addition to the direct costs which will possibly be checked later on. An exception is found in the sponsoring organizations of the USA. Each institution which is awarded their contracts or grants from the government must submit preliminaries to a special check procedure by a government office, in which a compulsory "indirect cost rate" is established for all government offices. The indirect costs are based on this rate for the assistance.

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Further regulations concern the disbursements and costs for investments (plans, instruments, buildings) whose lifetime is longer than the project sponsored. The sponsoring organizations proceed by different means in this area. Special loans (STU, ANVAR), acknowledgement of only the cost of use (research funds, NSF).

Undesired Costs:

With the exception of costs, the sponsoring organizations create ethical requirements or special principles for their sponsoring policies:

- Reimbursement of personnel costs only on the basis of the tariffs of public service (NFR),

- Maximum limits (on the basis of tariffs of public service) for the reimbursers of advisors (NSF),

- Nonpermissible: costs of publicity, depreciation of the assistance, entertainment costs, provisions, taxes (NSF).

Profits:

Profits can be valid in the three countries only within the

framework of the reimbursement for research and development contracts (exception: grants of the NSF, which are formally written out and were required for the bids, so-called solicited proposals).

The regulations in force in the USA for profits are most widely developed. A separate agreement must be made and it can in no case be defined as a percentage of cost. A fixed profit or an incentive profit is permissible (the quicker the completion of production, the lower the costs, the higher the profit). On the whole, the profit must not exceed 15% of the total cost.

2.3.2.4. Level of Assistance

The level of assistance is only identical to the fraction of the assistance in the total costs, if the total costs of the project are taken as basis of the assistance. This is, as shown in the previous section on the examples of the Swedish NFR and the French Research Ministry, not always applicable. If certain costs are lacking (for example, indirect costs or investments) from the basis of evaluation, the actual level of assistance decreases correspondingly. /46

In France a regular level of about 50% applies to the assistance to innovations (in exceptional cases: 75%). The regular rate of assistance for the innovation owner is 25% (an increase to 35% is provided). In research funds the public recipients receive all the permissible costs, the private recipient 50%.

In Sweden the NFR provides 100% of the permissible costs, the STU and industrial funds provide up to 50% with exceptions upwards (STU) and downwards (industrial funds).

For a grant in the USA by law the participation is to a level of at least 1% by the applicant is prescribed. This regulation does not refer to each grant, but to all projects financed by a certain sponsor to a certain recipient.

For research and development contracts basically the full costs as well as a profit are reimbursed. Exceptions are represented by special contracts in the USA, which provide for cost sharing (compare section 2.3.2.1).

Different sponsorship conditions were not established according to the level of the assistance.

A regular level of assistance contributes, on one hand, to simplifying the sponsorship procedure. On the other hand, it has an adverse effect on the flexibility of the sponsorship. Countries with regular assistance levels (France, Sweden) therefore permit exceptions.

2.3.2.5. Repayments, Share in the Results

Repayments which are not due to claims because of violations from the sponsorship conditions are only common for application oriented research and development. For this reason repayments are waived in the NFR and NSF who sponsor, predominantly, fundamental research.

The repayment is waived, moreover, generally, for research and development contracts, since, in this case, the sponsorship represents a reimbursement for the services rendered by the contractor. In the USA for projects whose implementation will provide the recipient of the assistance with a particular profit, instead of repayment or share in the results, an agreement is made on the cost sharing by the contractor.

ANVAR, industrial funds and STU pledge the recipient of assistance to repayment. They waive the repayment if the project is not successful. All three institutions define the repayment as "normal case". The recipient of assistance must therefore prove failure if he wants to avoid repayment of the assistance. This procedure leads politically to the same result as an obligation of repayment in case of success. But it has a positive effect on the recovery of the funds, if it is not a success (which must be proven by the grant giver), but a failure (by the recipient of the grant). The STU achieves recovery of 30% of the total assistance. Higher recovery would be evaluated there as an indication that too many projects were assisted, in which the support was not justified by the government because of the too low risk. /47

The STU defines "failure" for smaller and medium sized companies differently than for large ones. Whereas, for smaller ones, the failure of an economic success is sufficient, larger companies must pay back, if the development was technically successful, but no economic exploitation was achieved. The reasons for the nonutilization do not play any role here. Therefore it does not matter whether the recipient of the assistance had wrongly estimated the market chances or whether he had purposely held back the development. The sponsorship conditions of ANVAR follow the same direction, without being as precise as those of the STU: the ANVAR excludes the waiver of repayment, if the development was not applied (without legitimate reasons).

In France and Sweden the grant must be paid back if the recipient stops the project without justified reason. The industrial funds apply similar regulations, if the sponsored enterprise is sold.

In the case of the French research funds, a repayment is provided for only in exceptional cases. The Swedish NFR provides for repayment of the grant as a prerequisite for its agreement to the application of a patent by the recipient of the grant.

The amount of the repayment corresponds to the grant received in the case of ANVAR, industrial funds and the STU in Sweden, with interest. In the research funds, the repayment is limited to 70% of the grant received. The means of payment provide, in both countries, for a connection with the profits obtained (proceeds of sale, license fees).

Instead of a repayment the American sponsorship organizations regulate the use of the project proceeds, which are achieved from the project during and after the end of the assistance. The NSF provides different regulations for "royalties" (honoraria, revenues) and for other income. The royalties belong to the recipient up to a fixed limit; above it they must be handed over to the NSF. Of the remaining income, the recipient disposes freely of the portion "belonging" to him (this corresponds to his own share in the costs); the other portion is added to the project funds. In research and development contracts, all the project income must be handed over to the client. In France and Sweden, the sponsorship conditions allow the unregulated use of the proceeds from the project.

The maximum duration of the obligation for repayment is 10 years in Sweden; but a waiver can be declared even earlier. For the research funds, the obligation of repayment also ends after 10 years; the ANVAR agrees with the recipients on an individual repayment plan. For the NSF the obligation for repayment starts 3 years after the end of the sponsorship.

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2.3.2.6. Rights to the Invention

The regulation to the rights for using the development itself is one of the most difficult problems of the sponsoring procedure: on one hand, the public, which has promoted the development with tax money, should receive some return: with this argument, a use of the result by the government and by interested third parties is justified. On the other hand, the recipient of the grant should have sufficient margin to use the development. These requirements are difficult to reconcile.

The conditions of the grant of the sponsoring organization concern, in general, the following areas:

- obligation for the recipient of the grant to provide information,
- licenses for the needs of the government or licenses for use by the recipient of the grant,
- licenses for the interested third parties,
- exclusive rights of the grant recipient to the benefits.

The right to apply for patents is predominantly granted to

the recipient of the assistance. Only when the protective rights are not applied for or not extended, can the government become the owner. The regulations are, however, very different in details in the three countries.

In France the research fund provides that those grant recipients who can neither apply for or use patents (for example, university institutions) should sign a contract with ANVAR for the use, according to which ANVAR can also become owner of the patent rights.

In Sweden the government reserves the right to results of the research projects which were sponsored 100%. The NFR makes sales agreements for the application of the patent by the grant recipient depend on whether the grant is paid back.

In the USA since 1981, small enterprises, institutions from the educational sector and nonprofit organizations can become owners of patent rights. For medium and large enterprises, the government reserves the right to decide from case to case and after considering the mutual interests. These regulations apply for grants and for research and development contracts. It is planned to extend the regulations favoring small companies to the other enterprises. /49

In all three countries details and comprehensive obligations for providing information apply to all recipients of grants, according to which they must provide reports regarding practical developments, applications for patents and intended nonextensions on patent rights. Rights could, in part, be obtained without the approval of the sponsoring organizations. These regulations should make sure that patent rights are applied for and maintained as long as is needed in the interests of the public.

In the USA and for the French Research Foundation, the grant recipients are obligated to grant a free license to the government. In Sweden (apart from totally financed research projects), the government has no rights to the development results, just as for ANVAR. In the USA, in cases where the government becomes owner of the user rights, it is provided that the grant recipient should receive a free license.

The purpose of the sponsorship conditions in the USA is to prevent the danger that the grant recipient should not use fully the results. Therefore they reinforce the position of interested third parties who want to receive a license from the grant recipient, who has become owner of the patent rights. The grant recipient must award these third parties these licenses under common market conditions. If he refuses, the third party can receive the license from the government (forced license, march-in-right).

In the USA it is acknowledged that in special cases the grant recipients can use a development with prospects for economic benefits only when he obtains the rights to exclusive use (for a limited period and a certain market). The sponsorship conditions provide for suitable needs. In France and Sweden, there are no such regulations. Neither are they needed, since as owner of the patent rights, the grant recipient is only limited in the use of the development results by the obligation to grant licenses to third parties.

When comparing the regulations in the three countries, it is striking to note that the most far reaching regulations are imposed in the USA, whereas France and Sweden consider certain areas (forced licenses, government licenses) as not requiring regulations.

2.3.3. Current Settling By the Grantor/Client

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2.3.3.1. Establishment and Decision About the Contract

The decision regarding the amounts of assistance is made only in the USA in a formalized procedure, with previously established and published criteria and evaluation scales for individual or total awards. The sponsoring organizations in both the other countries generally make their decisions informally.

All sponsoring organizations protect their decisions on evaluations of the applications or bids. Some sponsors (the American organizations, ANVAR) carry out a separate evaluation of the scientific/technical and economic/organization aspects.

Only in the USA are the general and special evaluation criteria made known in advertisements or announcements. Only these criteria must be used in the evaluation. To judge the criteria, lists are established with individual aspects. Even the weighting of the criteria is established beforehand. General criteria are obtained, moreover, from the Swedish industrial foundation and ANVAR.

The evaluation of the applications takes place at the NSF on a 5-stage evaluation scale, which is used for the overall evaluation and partly also, for the individual criteria.

The evaluations are mostly assigned to external experts; this is the procedure of the ANVAR, the French Research Ministry for part of the projects, the NFR and the industrial foundation in Sweden, the NSF. The industrial foundation awards contracts for feasibility studies for the larger projects. The NSF and NFR use, in the selection of experts, the principle of "peer reviews", that is, they have the research applications evaluated by the specialized colleagues of the applicants. The STU only uses experts when the expertise of their own technical personnel is not sufficient.

Instead of individual experts, the evaluation of the project can be assigned to commissions or panels. This is the procedure, for example, of the French Ministry for the so-called combined action and NASA, in decision making regarding bids for research and development contracts.

The participation of the applicants in sessions of decision making commissions is not customary for any of the sponsors studied. Often however, a dialogue develops between the applicant and the case workers of the sponsoring organization.

As regards the information on the applicants, considerable differences exist between the sponsoring organizations. The most public information is provided by the American sponsors and the STU. There all applicants receive, on inquiry, a detailed description of the reasons for refusal as well as (anonymous) copies of the judgements. This procedure is legally justified in both countries. All administrative processes are there basically public, unless they were expressly classified as secret ("freedom of information act", "sunshine act"). The administration therefore is obliged to provide extensive information. The rights of the applicant are regulated just as openly, by which they can demand a checking of the (negative) decisions. The French Research Administration limits their refusals to formal communications.

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For the decision making inside the organization, the larger sponsoring organizations (STU, ANVAR, NSF) have put regulations in force, which according to the volume of a project, can make the involvement of higher levels of the hierarchy of the organization necessary, or unnecessary.

Special mention should be made of the exemplary American procedure in processing offers from a limited advertisement (request for proposal). The decision process begins with the establishment of an evaluation panel and the establishment of an evaluation plan. The panel obtains a first survey and conveys their definite refusal to the applicants who, in their opinion, are not in line for further competition. Negotiations are conducted subsequently with all other applicants, additional information requested and given. Finally, these interested parties are asked for a final offer (best or final offer). In a second round of evaluations one of these offers is selected for signing the contract. This somewhat tedious procedure allows the client to combine the advantages of an advertisement with those of negotiations. (In a public announcement in the USA, the applicant with the most economic offer is awarded the bid, provided it corresponds to the conditions of the advertisement and the reliability of the applicant has been established).

The method of evaluation for grants is characterized in the USA by its methodical standard of development. On the other hand, it involves high costs and extends the processing time for the application. It has not proven that it leads to better results

than other methods. A study has been conducted recently, seeking to prove that the decisions made by the NSF do not differ much from those which are made accidentally, for example, with dice.

The information of the applicants and their right to checks regarding negative decisions are regulated in an exemplary manner in Sweden and in the USA.

2.3.3.2. Payment Procedures

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The most important questions which are involved in determining the payment procedures are:

- Will preliminary payments be made or will proven costs be reimbursed?
- At what time/on which occasions will payments be made?
- Will security deposits be held back from the payments?

In the case of grants the grantors included in the study make prior payments. They take into consideration thus, the fact, that the recipient of the grant is often not in a position to refinance the current project. The procedures of the sponsoring organizations differ considerably in details. The method most frequently used is that in which the recipient of the grant receives, at the beginning of the sponsorship, a preliminary payment, while the other payments then depend on the presentation of invoices and possibly other documents. This is the procedure of ANVAR, the Research Foundation (for private grant recipients), the STU, the NFR (for private recipients), the industrial foundation and the NSF.

Some sponsoring organizations proceed partly according to other principles:

After the preliminary payment, the French Research Foundation establishes for the payment to the private grant recipients, equal shares and pays them only when it is proved that the funds from the previous payment have been disbursed. Otherwise, the share is withheld and shifted to the next period. Public grant recipients receive the shares without proof of disbursements.

Bsides an invoice regarding the expenditures, the ANVAR requires as basis for all payments, after the preliminary payment, a certificate that the taxes and Social Security have been paid.

The Swedish STU grants funds for university institutions beforehand and in one sum to the university administration, to whom the further financial settlement is handed over. The same procedure is adopted by the NFR with university institutions,

associations and companies.

The most interesting is the usual "letter of credit procedure" in the USA for payments to large grant recipients. This applies for grant recipients who receive altogether, at least \$100,000 from the sponsoring organization and are obligated to keep the cash balances low. These institutions receive a "letter of credit" which enables them to call currently for the required amount from a bank at the cost of the government. Thus the continuous supply of funds for the recipient are ensured and very large overpayments are prevented. At the same time, the administration cost is reduced to the minimum, since the payment requirements of the recipient and the payment instructions for the sponsoring organizations are omitted. The payment procedure is supplemented by quarterly invoices regarding the proceeds and disbursements for the project.

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The payment conditions for research and development contracts are harder in the USA than for grants. Preliminary payments are not provided; payments take place on application by the grant recipient for proven costs. The grant recipients must, additionally, prove that the direct costs made are not just due, but actually paid.

The payment schedules and periods fluctuate among the sponsoring organizations studied between two weeks (shortest period for payment in research and development contracts in the USA) and one year (ANVAR). In the NSF the grant receivers determine the payment periods by choosing the "letter of credit" themselves. For those who do not use this procedure, payments are made every three months. Three months is also the payment period for the STU. The industrial foundation pays twice a year. The French Research Ministry differs between public recipients, who are paid every six months, and private ones who can receive payments every four months. In the case of ANVAR, unlike the annual rate in the payment plan, it is also possible to agree upon payment schedules on the completion of certain project phases.

Safety deposits are only common for the French Research Ministry (10% of the grant) and for research and development contracts in the USA (15% of the profit up to \$100,000).

2.3.3.3. Delegation of Functions in the Execution

Two different situations are described in the delegations of function in research sponsoring. On one hand, delegation designates the independent safeguarding of entire task sectors (for example, the promotion of fundamental research) by an office subordinate to the Ministry, which is fully responsible for this partial sector. In this sense, for example, the French Research Ministry delegates a partial area of the sponsorship to ANVAR.

On the other hand, partial tasks of execution are delegated to other institutions, for example, the administrative execution without this decreasing the responsibility of the delegating office. This type of delegation is often connected with uncertainties regarding competencies and double work.

In France and Sweden there is a tendency to delegate entire area of tasks to subordinate organizations. /54

In France a small portion of project sponsorship is executed directly by the Research Ministry. Mostly it is delegated to special government sponsoring institutions, such as, for example, ANVAR, or implemented by the large government research center (the NRS, CEA, etc.) within the framework of the working program.

In sponsoring research, Sweden also follows the principles of keeping the ministries small and limited to consensual and political tasks. The operational portion of research promotion is mostly delegated to subordinate bodies (for example, the STU) research councils (for example, NFR) and for foundations (for example, industrial foundations). These institutions have partly a private organizational structure and form of law.

In the USA the research is promoted simultaneously by various ministries and agencies. The agencies and ministries are to a great extent top federal authorities with equal powers. Within these very large organizations, the operational tasks of research promotion are executed partly by special units, for example, by the National Institutes of Health in the area of competence of the Department for Health and Human Services, or by individual operational centers of NASA.

In both countries the delegation operates apparently without friction, that is, without double competencies and double work. The reason for this is the fact that all the powers are delegated to the executive institutions, the top government offices have therefore only to deal (very rarely) with appeals. In Sweden they are faced openly with the problem that private institutions execute sovereign acts. Thus there are no difficulties.

The delegation of some functions of the sponsoring organization is implemented in Sweden and in the USA.

In Sweden the STU and NFR delegate the entire financial handling of the sponsorship of project in universities to the university administration. The latter is given the grant approved in one amount. They take over the handling of the payments, possibly agreements to budget changes and the checking of the use. The NFR reimburses to the universities the administrative costs arising in this connection. Good experience has been obtained with this procedure.

Another form of identification is used by the Swedish industrial foundation. It delegates the financial handling to a bank, which takes over independently the payments, checks the proofs and follows the repayments.

The NSF uses a system in which individual powers of division basically reserved for them are delegated to the institution of the grant recipient. For example, this refers to approvals of trips, deviations from the budget. This decision can be made by the competent officers of the sponsoring organization, who are not involved directly in the implementation of the project. The experience with the "organization prior approval system/OPAS" is positive; it is intended to extend it to a wider range.

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All sponsoring organizations delegate functions of invoice checking to institutions competent (partly legally) for this purpose. The NSF tests, in some areas, conditional contracts to private checkers of the grant recipients.

2.3.3.4. Follow-up and Control

The extent of the involvement of the government offices in the progress of the sponsored projects is very different in the individual countries, but all three start from a basic principle: in research projects, which are promoted for general and political purposes by grants, and whose results are not directly required for government tasks, little government involvement should be maintained.

This basic principle is followed by all sponsoring organizations, by refraining in the case of grants from direct intervention in the implementation of the project and limiting their functions to the decision for sponsorship, the current control of the progress, the checking of the use and partial functions in the checking of the results and their application.

In cases when cooperation of the grantor is desired in the case of allocations (for example, by using personnel or the allocation of special funds for a project) in the USA a special form of "grant" is used, the "cooperative agreement". This instrument combines the properties of the bilateral agreement with the unilateral nature of the grant.

The involvement of the client is greater for research and development contracts than for grants. Here the client remains in control of the procedure and retains for himself important decisions. In this area the government client goes furthest in the USA, where they retain the management of the contents of the project awarded in the contract, and can decide changes in the procedure at any time.

In the three countries a concentration and restriction of the grantor to the financial handling of the sponsored project may be observed. As compared with this, the concern with contents of the project work is in the background. Most case workers in the sponsoring organizations have also neither sufficient qualifications nor sufficient time for this purpose. Some sponsoring organizations, in particular the NSF, retain the right to approve the important decisions, such as, for example, the change of management personnel, serious changes in the procedures, foreign trips and publications in special cases.

The involvement of the grantor in the financial handling is represented as a control of the invoices and as approval of the expenditures in special cases. In this case, the current control of invoices, for which proof need not be given to any grantor, plays a smaller role.

The catalogue of expenditures requiring approval is categorized differently in the different organizations. In this connection, we are dealing with special expenditures, such as, for example, for equipment, foreign trips, subcontracts, etc., when the sponsoring organizations consider individual control necessary.

On the other hand, most grantors confine themselves to approval of expenditures, connected with deviations from the approved cost plan. Some grantors are relatively generous: the ANVAR and Swedish industrial foundation require only a "approval of deviations" and the French Research Ministry is content with a notification from the grant recipient for deviations up to 30%. The STU retains a right of approval deviations of more than 10%, and in the case of NSF all deviations from the cost plan require approval. Naturally, the NSF delegates the power of approval partly to the administration of the grant recipient.

For research and development contracts in the USA, deviations from the cost plan are possible without the approval of the client. The exceeding of the total cost must not be made in cost reimbursement contracts without suitable additional approval by the client, nor must this excess sum be financed by the client.

The expediency of approval reservations to deviations from the cost plan is doubted even by members of the sponsoring organizations which implements it. The fact that the expenditures for a research and development project with all its uncertainties, deviates in the execution from the preliminary plan, is the rule. The need for maintaining the budget items would involve drawbacks for executing the project. A reservation of approval of the client should be limited if at all, to serious deviations, which are related to a deviation of the procedure. In this connection, the deviation should be defined in amounts, not in percentages. In this way the larger projects would be subject to greater control

than the smaller ones.

The grantors in the three countries naturally reserve the right to end the assistance for serious reasons (false data in the application, change of personnel, financial irregularities, nonobservance of other conditions). On the other hand, different regulations apply to termination without justification. For the French Research Foundation, such a termination is possible, but earlier, 6 months after beginning the sponsorship. For ANVAR and for the Swedish industrial foundation, termination without indication of reasons is excluded. The same regulations apply to the STU; naturally the latter can refuse without indicating reasons, the assistance which has to be reviewed annually. The same procedure is followed by grantors in the USA. The Swedish NFR uses a regulation which falls outside the framework: it can end a project without justification at the end of the year, but it finances the personnel paid from the project for another year, if otherwise social hardships cannot be avoided.

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The ending of research and development contracts is possible at any time without indicating reasons. Naturally the client who is giving notice must reimburse the contractor who has been terminated without reason, for damages and possibly a lost profit.

The nonuniformity of regulations for terminating grants without giving reasons show the difficulty of the situation. On one hand, the government should be in the position of ending an undesired project, which it promotes without any return. If it had to give the reasons, then this would be subject to legal checking, possibly with repercussions. On the other hand, the engagement and possibly also the recipient's own share must also be taken suitably into consideration, as well as the hardships he suffers in this adjustment. Moreover, the security and continuity of government research promotion would be adversely affected by easy possibility of termination. Of the solutions implemented by the grantors in the three countries, none are totally satisfactory.

A systematic control of the results of the projects promoted by grants is not implemented in any of the three countries. The grantors are concerned with the results of the projects primarily only for given reasons (pending decisions on continuation, participation in economic and/or technical results). Some sponsoring organization refer, in this connection, to the evaluation of the project report; but it was impossible to find any systematic procedure for closer inquiries. Some sponsoring organizations (ANVAR, STU, NFR, NSF) conduct cross section evaluation of selected programs for project areas, sometimes at great cost.

To decide the questions as to whether the grantor/client should or must publish the results of the project sponsored by him, one must take into consideration the interest of the recipient

of the grant in maintaining secrecy and the interest of publicity for a widespread use by the public. The sponsoring organizations in the three countries arrive at different results in these matters.

The conditions in France forbid publication by the grantor against a justified objection of the grant recipient. Even after 5 years for the ANVAR, the objection of the recipient of the grant can prevent publication.

In Sweden the STU can publish the results, if no repayment of the assistance is demanded. Naturally the waiver is only given for failures of the project. The NFR and industrial foundation do not publish anything.

In the USA the grantors are entitled to publish the results, insofar as they are not confidential (for example, patentable). But they do not generally make use of this right, but encourage and support the publication by the grant recipient.

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For research and development contracts, the publication rights belong to the sponsoring organization, insofar as no other rights of the recipients of the grant (copyright, patent protection) are violated in this connection.

All administration processes in the USA and Sweden are basically public. Interested parties receive therefore comprehensive information also on research and development projects and their results. To protect confidential information, grant recipients can, in these countries, declare expressly that certain data are secret. Detailed special regulations apply in this case.

2.3.3.5. Award of Subcontracts

The award of subcontracts is probematic for several reasons. A careful check and selection of the recipients of the grant is hardly reasonable, if it is not the recipient, but an unchecked third party who implements the project in important areas. Administrative difficulties arise when applying conditions which are valid for the immediate recipient of the grant to the subcontractors also. On the other hand, subcontractors may have a favorable effect on the implementation of the project, if, for example, the economy of the practical interpretation of the project is improved by subcontractors.

In France subcontractors are viewed under the positive aspect, and the recipients of the research are, to a great extent, free in awarding them. This applies in particular for the research foundation, which according to its nature (combined action) promotes immediately the collaboration of institutions, which partly are involved in the projects under subcontract conditions. The ANVAR

assigns experts to evaluate the question of subcontracts when judging the applications.

The Swedish STU reserves itself the right to approval of subcontracts, insofar as they are not listed already in the project application. The NFR considers subcontracts to be a right of the recipient of funds, also the industrial foundation, which imposes an upper limit of 90% of the project volume which should not be exceeded.

In the USA subcontracts require approval, which is only given when it is certain that the obligations and conditions imposed on the primary recipient of the assistance also apply to the subcontractors. Principles of competition must also be maintained in selecting subcontractors.

2.3.3.6. Obligations for Reports and Communication

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Reports and communication by the recipient of the grant are important bases for the sponsoring organization to follow up the course and results of the promoted project. The sponsoring organizations therefore tend to impose comprehensive obligations for communications and reports on the recipients of grants. At the same time, there is a danger that the case workers of the sponsoring organizations would be overburdened with the evaluation of the reports, in terms of lack of working time, qualification and interest.

The regulation of the obligations as regards reports will be adjusted to the nature of the sponsored projects. The more strongly structured the limitation plans, the higher the risks and the greater the chances of use in case of positive progress, the more important are communications and reports, which allow quick reaction on the part of the sponsoring organization. Reports of the projects of fundamental research with uncertain outcome are, therefore, less important than reports on the application oriented research and development, in which the results obtained should be worked out according to an exact plan.

Progress reports are used to control the course of the project and the justification for the intervention of the sponsoring organization. On the other hand, the concluding reports represent the basis for the evaluation of the results and for its dissemination and application. Whenever, during the time of execution of a project, no interventions are to be expected, or the sponsoring organizations have no powers of intervention, progress reports are less important than in projects which require constantly decisions on the part of sponsoring organizations.

The regulations for the obligations of providing reports by the sponsoring organizations show hardly any differentiation:

The ANVAR requires annual progress reports and a final report; the NSF has the same procedure.

The research foundation establishes individual schedules for intermediate reports according to the type of project. A technical documentation must be presented as a document for the final report, allowing the implementation of the results.

The Swedish STU also establishes individually the schedules for intermediate reports. Besides the final report, it requires after the end of the sponsorship, annual reports on the use of the results, on which the repayment modalities depend.

The NFR has made a radical decision: total waiver of reports.

The Swedish industrial foundation requires semiannual reports, NASA also.

Most sponsoring organizations require that the grant recipients /60 should, besides the current report, communicate important results (difficulties, successes).

2.3.3.7. Handling of the Assistance As Regards Taxes

For the handling of the assistance under the aspect of taxes, a distinction is made between application taxes and profit taxes.

Reimbursements from research and development contracts are totally subject to taxes for all sponsoring organizations.

The treatment of grants under the tax aspect by the Swedish STU, the Swedish industrial foundation and the French ANVAR raises problems. The grants are organized as loans. Only when (because of failure) the repayment obligation is waived, do they become company income. This would be that up to this time neither indirect nor direct taxes are involved. The finance authorities in France and Sweden follow this structure with reference to direct taxes; the exemption from sales tax is disputed.

For other grants (in Sweden: NFR, in France: research foundation and in the USA: NSF) in the opinion of the financial authorities in Sweden and the USA, there is no exchange of services as the prerequisite for the obligation of sales tax. In Sweden and in the USA, these grants are therefore free from sales tax, but not in France, where an exchange of service is assumed and the VAT must be paid out for all grants.

The grants are considered consistently as operating income by the financial authorities in the three countries and are therefore considered as subject to profit taxes.

Insofar as individual grant recipients operate tax free because of their status (government institutions, nonprofit institutions), this tax exemption also applies for other income subject to taxes.

2.3.4. Proof of Use, Checking of Invoice

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For proofs required for reimbursements, in the three countries procedures have been established, seeking to reduce to the minimum the costs in accounting and to maintain possibilities of control. The recipients of the funds present only summary invoices. The sponsoring organizations reserve the right to comprehensive checks.

The invoices of the recipients of grants are mostly listed in the subclassifications of the cost plan. In no case should cost or expenditure proofs be appended to the invoice. In the USA the recipients of reimbursement for research and development contracts must prove that the costs incurred validly were really paid. Together with the invoice the ANVAR requires the proof that taxes and Social Security have been paid.

The frequency of accounting varies. It depends closely on the payment schedules. Most grantors require accounting as a basis for the next payment. In the USA grants must be accounted for uniformly every three months. In France, the MIR distinguishes between private and public grant recipients. Public offices give accounting every six months, private ones every three months. ANVAR and the NFR require annual accounting, the industrial foundation semiannual accounting. From 1984, the NFR is waiving totally accounting for projects which are managed by public offices. The recipients of the funds of the NSF and STU must give quarterly accounts.

The checking rights of the sponsoring organizations are very expensive to compensate for low costs in accounting procedures. They include the right to demand, inspect or allow the inspection of all original documents of the accounting process, including all proofs.

ANVAR and NSF go one step further and provide the recipients of grants with the conditions for establishing the accounting procedure. This should ensure that the costs are indicated correctly, the project is accounted for correctly and should be controllable at any time.

The sponsoring organizations themselves are not satisfied with the low frequency of checks. Systematic checks are common only for the NSF, which checks or has checked the grant recipients starting from an annual volume of assistance of \$100,000 every three years. The other grantors conduct checks on certain occasions or random checks. The number of random checks is insufficient in the opinion of members of the sponsoring organizations to cause the intended awareness of checking among the grant

recipients.

The grantors use partly other public offices or private inspectors. The STU and NFR delegate for projects whose funds are managed by universities the inspection to the Swedish university office.

The NSF is testing a new system, first on universities: the private industrial inspectors of the institutions receive from the NSF an additional contract to check the use of the funds. /62

The complaints arising from the checks refer, predominantly, to mistakes in the listing, accounting or documentation of the cost. Only rarely are deliberate misuses established.

The consequences of the check consist predominantly, therefore, in indication or conditions for the future organization of accounting. Recoveries are rare, and only in individual cases is there a criminal prosecution. A special statement of the state of affairs regarding the subsidy has not been established in these countries.

2.3.5. Time Requirements and Costs of Administration

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For want of exact data for the time required by the sponsoring organizations for processing the application from the time of receipt of the application until the decision on the acceptance or refusal, we can only refer to estimates of the organization.

<u>Country</u>	<u>Organization</u>	<u>Time Required</u>
France	MIR	6-9 months
	ANVAR (aid for inventions)	3-6 months
	ANVAR (bonuses for inventions)	1 month
Sweden	STU	3-5 months
	NFR	5 months
	Industrial foundation	6 months
USA	NSF	6-9 months

The short processing time in the case of bonuses for inventions is affected adversely by the fact that the approval is supported only on the application received and the appended documents, therefore there is no concern with the contents of the projects nor any need for experts.

A formalized evaluation and decision procedure, for which external experts are called, extends the time needed, as may be observed on the example of the NSF.

The long processing times for the NFR and for the NSF are influenced, particularly, by the fact that for all (NFR) or some (NSF), all program applications can only be submitted at one time in the year.

Data on the administrative costs for promotion of research show a relationship between the total budget of the sponsoring organization and the portions of it referring to the administrative tasks. Such data are difficult to obtain and must be interpreted carefully.

To obtain administrative costs in institutions which execute other tasks than promoting research, a functional division must be carried out of the budget and administration costs. To this end an exact knowledge of the distribution of tasks and organization of the work is necessary, which outsiders do not possess. For this reason the following representation is lacking in data on the French Ministry for Industry and Research and NASA. Data are only available for the predecessor organization of the French Ministry, the Ministry for Research and Technology.

To obtain exact data, even for the institutions concerned exclusively with the promotion of research, an exact analysis must be carried out of the tasks, organization and budget. In this way it is possible to exclude from calculations funds such as contributions to international organizations, which are not concerned with the actual sponsorship of research. Likewise, administrative costs which are not related to the sponsorship of research would not be taken into consideration.

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In determining the administrative costs, every cost must be included, which arises through a delegation of the functions of the sponsoring organization and which is reimbursed by the sponsoring organization. This was possible only incompletely in the organizations included in the study.

The determination of the data for the administrative costs was not part of the original catalogue of subjects of this study. The following data are based on analysis of the budget plans.

Country	Organization	Share of the Administration Costs in the Total Budget
France	MRT (Predecessor of MIR)	0.6%
	ANVAR	9 %
Sweden	STU	10 %
	NFR	4 %
	Industrial foundation	3-4 %
USA	NSF	6 %

In the interpretation of the data for the French MRT it was not taken into consideration that in this Ministry (just like the Ministry preceding it) almost 90% of the volume of assistance concerns insitutional assistance which causes less administrative costs than project sponsorship. Moreover, the Ministry delegates, to a great extent, the administrative tasks to other government institutions, whose cost was determined only incompletely.

In the Swedish STU, it must be taken into consideration that 40% of the administrative costs (4% of the budget) apply to measures to promote technology transfer.

In interpreting the data, moreover, the structural characteristics of the sponsorship must be taken into consideration, which determine partly the amount of the administrative costs: /65

- Distribution of assistance to direct project assistance, indirect assistance, institutional assistance,
- Extent of the concern of sponsoring organizations with the contents of the sponsored projects,
- Size and number of projects,
- Shares for fundamental research, applied research and development in the volume of assistance,
- Organization of government promotion of research (centralization, coordination, delegation).

2.4. Development and Extrapolation of the Program

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Government research programs must divert government funds to wherever there is greatest need and maximum benefit from government assistance. Government programs conceal, at the same time, the danger that the the wrong research areas will be sponsored and the government will determine the direction and content of research,

even where this can be left to the predetermination by science and industry.

In the three countries different principles apply to the extent of prestructurization of government research and development assistance through programs.

In France and the USA all sponsorship regions are covered by research programs whose contents are described. Applications for assistance which do not coincide with government priorities have no prospects of success.

In Sweden the government sponsorship is likewise based on programs described as regard contents. In a large area of technological research and development, however, the preassignment of programs is waived, to offer possibilities of assistance to interested enterprises in all areas.

Only France implements a national research planning, in which the planning from the top (National Plan) which existed until 1981 is supplemented by planning from below (proposals of research centers, regional commissions and committees). In Sweden and in the USA the sponsoring organizations develop the programs themselves, without any coordination taking place.

The procedure for the development and extrapolation of research programs is not formalized in the countries studied. The research programs are decided by ad hoc groups, working staff, partly with the participation of outsiders and by the management of the organizations. In France the general program areas and goals are the result of the democratic procedure (for example, law on the national research framework plan of July 1982). Modern planning procedures, which include an establishment of the programs from higher goals and an evaluation of the costs and benefits, are not applied. A systematic determination of the level of research and science as well as the available research capacities are not taken as basis of the planning.

The development and extrapolation of sponsoring criteria are just as informal in the three countries. In France and Sweden there are no official sponsoring criteria; in the USA, for example, in the NSF there are general sponsoring criteria as well as special criteria for individual programs. The general criteria are decided by the management of the NSF; the program criteria are developed for the program and decided by the same procedure as for the programs themselves. /67

An important basis for the continuation (or termination) of the programs is represented by evaluations. The French authorities would like to pay more attention to this aspect in the future. In Sweden cross evaluations are common, both in the technological

research and development and in fundamental research. Considerable funds are assigned for this purpose. Foreign scientists are often taken for evaluation in Sweden. The American NSF also attributes great importance to evaluation.

Special attention is devoted by the sponsoring organizations of the three countries to the transfer of the research and development results.

In France the transfer of the research and development results is one of the four goals of the new research policy decided in 1982. Many measures have already been taken to intensify the connections between research centers and industry (see chapter 2.2.8). Important transfer functions are adopted by ANVAR, who finds with the research centers and other grant recipients, contracts on the use of the results of research and development. Further activities concern the support and advice for companies in receiving and using results of research and development.

In Sweden particularly the STU sponsors the transfer of research and development results. About 4 % of the STU budget is provided for this purpose. It assists in product development, promotes contact between manufacturers and users regarding know-how, assists in opening markets, advises on patent questions, makes information available in pamphlets and other publications about new developments, etc.

The large sponsoring organizations in the USA maintain staffs at research centers whose functions include the implementation of transfer processes. Data on available technologies are widely disseminated, among other places, in public data banks. Lately, organizations such as NASA also promote the improvement of procedures and projects until they are ready to be marketed. The regulations of the rights of use and benefits in the USA is aimed at a vast and widespread transfer of the results of research and development.

The following synopsis gives a comparative description of the most important procedural details for the government sponsorship of research and development in the three countries: France, Sweden, USA.

A description follows the subdivision of the guidelines for enquiries (compare chapter 5):

1. Institutional Assistance
2. Project Assistance
3. Development and Continuation of Program

The different sponsoring instruments in each country are established each time, jointly; if required, the text contains differentiations.

The comparative description gives only a survey of the procedures. Details and sources of data may be found in the detailed descriptions concerning the countries (chapter 4); chapter 2 also contains a cross analysis according to areas of topics.

The abbreviations used are explained in the list of abbreviations (chapter 7).

COMPARATIVE DESCRIPTION OF SPONSORING PROCEDURES

Procedure	France	Sweden	USA
<p>1.01 Organization of the research institution</p>	<p>According to the skeleton law on research of 1982, the research authorities are assuming a new status as corporations of public law with independent management and financial autonomy.</p> <p>The research centers organized as <u>government industrial enterprises</u> remain.</p> <p>To promote the collaboration between the different research centers, and also with industry, for certain projects and for a fixed period "Groups of public interest" are erected which are financially autonomous.</p>	<p>The extra-university institutions sponsored exclusively by the government are organized as government institutions (offices). Their status corresponds to that of universities.</p> <p>The combined research institutions sponsored jointly by the government and by industry are legally independent foundations or associations.</p>	<p>Research centers are the property of the government. They are operated as government enterprises (GOGO) or leased to private contractors (GOCO). GOCO's are legally independent.</p>
<p>1.02 Accounting procedure</p>	<p>Research authorities have cameralistic accounting, government industrial enterprises have cameralistic and commercial or only commercial accounting.</p>	<p>The accounting procedure of the government institution is cameralistic.</p> <p>The joint research institutions use a commercial accounting procedure with calculation of the costs and allocation of the cost to projects.</p>	<p>Detailed legal regulations for the accounting procedure of the GOCO's to assure exact proof of costs. Commercial organizations of the accounting procedure, cost accounting compulsory. Additional accounting for income and expenditure for purposes of accounting with the government client. Categories of the accounting procedure must be convertible to those of the client. Reservations of approval of the government client for the organization of the accounting procedure.</p>

3.1. Institutional Assistance cont.

COMPARATIVE DESCRIPTION OF SPONSORING PROCEDURES

Procedure	France	Sweden	USA
<p>1.03 Awarding of funds</p>	<p>The funds are awarded according to the public budget law and are included in the budgets of the ministries. The largest portion of the funds is provided by the MIR. Funds for personnel and current operation are given in the administration budgets under the item III, under any heading, deviations of up to 5% of the estimates are allowed. There is no interchangeability between the headings.</p> <p>To give more freedom of movement to the research centers, a special decision allows the funds for current operation to be included in the investment budget.</p> <p>There is additional financing through the "research foundation" for special projects.</p>	<p>The budget of the government institutes is decided by parliament as a special individual plan in the budget of the corresponding ministry. The public budget law applies to the execution. Covering facilities are available under the same heading. Besides the original budget, further funds are available from the project sponsorship.</p> <p>The government contribution for joint research institutions is managed as a lump sum grant. Further funds are available from grants from industry, project sponsorship and contract research.</p>	<p>The basis for awarding funds is in the signing of contracts between the government authorities (department or agencies) and the carrier of the GOCO. The contracts are for a period of 1 to 5 years and provide for the reimbursement of permissible costs and a fixed profit (about 2%).</p> <p>The permissible costs are regulated in legal provisions. Indirect costs are reimbursed according to a rate which is established uniformly in a separate procedure for the institution.</p> <p>The funds are provided in part of the centers as program budgets; other centers receive only individual contracts. Besides basic financing, the centers may implement special projects for the client or third party.</p> <p>The budgets for investments and current costs are established partly jointly, partly separately. Investments (construction projects, equipment) are held in trust for the government, which is the immediate owner.</p> <p>The flexibility in handling the</p>

COMPARATIVE DESCRIPTION OF SPONSORING PROCEDURES

Procedure	France	Sweden	USA
<p>1.04 Personnel economics</p>	<p>The employment plans are pre-assigned in the budgets of ministries according to number and level. The personnel consists of officials and employees with indefinite contracts. Only the initial stage for researchers has a time schedule or probation time. The personnel rights are regulated for the institution and</p>	<p>In government institutions employment plans are preassigned in number. The level is flexible. Public remuneration laws and public tariffs are used. Employment plans are discussed as part of the budget in parliament. Ministries must approve the appointment of professors. Holders of permanent positions are officials.</p>	<p>budget is different, as a whole it is poor. The reservations for the decisions and possibilities of intervention (regrouping, shortening) for the client are comprehensive.</p> <p>As problems we may mention the duration of the approval process, the uncertainty caused by the annual renewal of the budget and the insufficient leeway for the centers for research independent of contracts</p> <p>The influence of the client on personnel economics is great. The personnel is partly limited in number, the employment plans are discussed in negotiations regarding the approval of funds. The centers are only formally independent in the implementation of this section and in establishing the system of reimbursement.</p>
		<p>In government institutions employment plans are preassigned in number. The level is flexible. Public remuneration laws and public tariffs are used. Employment plans are discussed as part of the budget in parliament. Ministries must approve the appointment of professors. Holders of permanent positions are officials.</p>	<p>Public personnel law or public tariffs are not applied. The payment of bonuses and severance pay is possible according to the criterion of legal provisions. Tariff contracts apply only for the corresponding institution.</p> <p>The centers have party provided in writing their</p>

Institutional Assistance

COMPARATIVE DESCRIPTION OF SPONSORING PROCEDURES

Procedure	France	Sweden	USA
	<p>Specifically in many ordinances and decrees.</p> <p>For researchers, there are bonuses to promote incentives, provided from funds of the center.</p> <p>The previously hardly invoked cooperation laws will be extended.</p>	<p>Special conditions apply for temporary employees.</p> <p>The employment plan of joint research institutes is part of the annual program on which the sponsorship is based. Deviations up to 20% are possible without approval. The members are private employees. There are joint control structures at several levels.</p> <p>Severance pay is possible in special cases for employees who leave.</p>	<p>procedure (policy) in the personnel sector in handbooks. Any change requires approval.</p> <p>The appointment of management personnel must also be approved by the client.</p> <p>The employees have few joint control rights.</p> <p>A study commission asks for the elimination of the government reservations and interventions in the personnel sector because of insufficient freedom of the centers with regard to decisions.</p>
<p>1.05 Particular Income</p>	<p>Some incomes may be received. Additional income outside the budget provisions can be disposed of freely. Only research officials cannot appoint any additional personnel with them.</p>	<p>Government institutions have income from the government project sponsorship, which is not included in the institutional assistance. They are to be freely disposed of within the framework of the ordinary administration practice.</p> <p>Joint research institutions have several sources of income available, of which they dispose freely within the scope of the budget plan. Work for industry will be calculated at full cost.</p>	<p>The centers may receive further income by working for third parties. The main contractor imposes upper limits for this, for example, 25% of the total volume. Each contract requires approval.</p> <p>Work for third parties is carried out partly within the framework of the main contract with the client, instead of contracts between the center and the third party.</p> <p>For contracts with third parties, the centers receive direct costs, uniform rates for indirect costs</p>

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURES

Procedure	France	Sweden	USA
1.06. Donations	The grants are not reduced by the amount of donations. Their level is small.	The institutions receive no donations.	and a fixed profit. Limitations are imposed for competition with industrial enterprises. In establishing the budget the income from work for third parties is estimated. If their level deviates from the plan, the main assistance is not altered. Personnel can be appointed from this funds. The same regulations apply as for the main sponsorship. The centers and their carriers can avail themselves freely of the donations received. Assistance from the government is not reduced because of donations.
1.07 Transfer of funds	The rest of the funds under heading III (administration budget) are not transferable. From them reserves are kept for 2 months of the current operation and to cover damages. Remaining funds under heading VI (investment budget) are transferred automatically to the next year.	Joint research institutions: funds received can be transferred without limitations. Government institutions: funds for material costs can be transferred; other funds are forfeited.	Unused funds at the end of the budget year remain with the contractor and can be transferred to the next year. The ordinary payment procedure ("letter of credit") naturally makes sure that the extent of the residual funds remains low: the contractor is justified to draw the immediately needed funds (but not more) at short intervals (for example, twice a month) from a bank at the expense of the federal treasury without the supply of funds or instructions of payment by government offices

Institutional Assistance

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
<p>1.08 Rights to use and benefits</p>	<p>The patent and application laws belong to the research centers and therefore to the government.</p>	<p>Government institutes; the government owns all the rights. Joint research institutions: rights for development in the area of basic financing belong to the institutes, in case of research under contract, to the client.</p>	<p>A transfer of tasks which have not been implemented to the next year is only possible with approval of the client. Reserves can be formed for investments and for research independent of the contract.</p> <p>The legislation of 1981 (Bayh-Dole Act) applies to centers as well as for overall government sponsorship of research and development. Accordingly (apart from examples) small enterprises (less than 500 employees), institutions of the educational sector and non-profit organizations may acquire patent rights.</p> <p>The actual regulation is different in the centers. There are centers in which a decision is made from case to case, or the government is basically the owner of patent rights.</p> <p>If the government is the owner of the patent rights, then the contractor is awarded a free license. If the contractor is owner of the patent rights, then the government receives a free license.</p> <p>If the contractor is owner of the patent, he must award a</p>

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
<p>1.09 Technology transfer</p>	<p>The technology transfer was implemented, mainly, by a special industrial operation of the research centers. This was considered as inadequate. Thereafter, in previous years, further measures were taken and new institutions were created, for example by:</p> <ul style="list-style-type: none"> - Research application services for each government research establishment - ANVAR - Regulations of personnel laws. 	<p>Traditional method: publications, research reports, meetings, etc.</p>	<p>license to third parties in usual market conditions. If he refuses, the party concerned may receive this license from the government (march-in right).</p> <p>Exclusive rights of use can be transferred to the contractor.</p> <p>The obligations of the contractor must be transferred to the subcontractors.</p>
		<p>The centers are obliged to publish nonconfidential research results and to disseminate them by publications, exhibitions, seminars, etc.</p> <p>The large centers maintain their own services for technology transfers.</p> <p>Results of research are transferred to industry through a center. For an annual amount of \$1,000.00, companies can take part in seminars, receive research reports and publications and use library services.</p> <p>NASA promotes special projects, in which, together with enterprises, technologies are improved and adjusted until they</p>	

Institutional Assistance

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
1.10 Insurance	Risks are not insured by government research centers. Reserves from what is left over in the budget may be formed for damages.	Government institutions: no insurance. Joint research institutions: no insurance of property of the government (buildings).	are ready for application in industry. The collaboration of centers with industry was considered, on the whole, as unsatisfactory by the US presidential study commission.
1.11 Construction projects	Construction projects are executed by the centers themselves.	The execution of the construction projects is carried out by central government authorities.	Plots of land, buildings, structures and equipment of centers are the property of the government. They are not insured. The contractor is only liable for faults. Insurance costs against this liability are not permissible for inclusion in assistance. Insurance against liabilities are prescribed; the costs are permissible to be included in the grant.
			Government projects are implemented in trust for the government, which becomes, immediately, the owner. They are partly implemented by the "General Service Administration" responsible for all government buildings. Regulations for government buildings must be maintained.

Institutional Assistance

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

	France	Sweden	USA
<p>1.12 Obligations for reports and communications</p>	<p>Centers report regularly on plans, programs and results (annually or every 2 years).</p>	<p>No formal obligations for reports.</p>	<p>The many reservations for approval and possibilities for intervention of the client can only be implemented with comprehensive information.</p> <p>The formal reports are only one instrument of many which provide information to the client. More important is the close collaboration between the competent officials of the client and the management personnel of the centers. The information is also supplied in the centers by the client's offices (resident offices) in the centers.</p> <p>The type, extent and schedule for reports are regulated in different ways. Financing reports must be established every month. Reports on contents and plans must be provided at intervals of 3 months to 1 year.</p> <p>In all cases the client reserves the right to ask for special reports at any time.</p>

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
<p>1.13 Intervention of the grantor</p>	<p>Basically an "overall control" takes place at the centers through the administrative councils, in which the the grantors are always represented. Through the close budget regulations and many reservations of approval for expenditures and the appointment of management personnel, the possibilities of intervention are actually assured well. As a result of the skeleton law for research, the possibilities of intervention may be reduced.</p>	<p>Only low level control and intervention by the grantor.</p>	<p>The relationship between the government offices and the centers is regulated formally as a relationship between client and contractor, in which the client determines the progress of the work.</p> <p>The client does not confine himself to general controls, but uses possibilities of control and intervention at all levels. The approval of the client is, for example, required for program planning, for personnel planning and management, for the appointment and reimbursement of management personnel, for subcontracts, for offers from third parties, for official trips abroad.</p> <p>The extent of the involvement of the client in the work of the centers is also found in the fact that the authorities maintain representative offices in the centers, which are occupied at times by 15-20 employees.</p> <p>The study commission for the centers appointed by the US President criticized the intervention of the client and called it micromanagement.</p>

Institutional Assistance

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
<p>1.14 Checks</p>	<p>For each center, the checks are regulated in their statutes. For research authorities, the financial control lies within the finance ministry, which also provides the endorsements which the centers must obtain before the budget funds are disbursed.</p>	<p>Government institutions are checked by government offices, joint research institutions are checked every year by private industrial inspectors.</p>	<p>The centers are checked by different offices, internal revenue divisions, private industrial inspectors, specialized checking enterprises of some ministries (defense, energy, health), inspectors of the financial office, checking institutions of the client, audit office.</p> <p>At present an attempt is made to reduce the number of checks. by, for example, the private industrial inspectors receiving additional contracts from the government offices.</p>
<p>2.15 Application documents</p>	<p>Aid to inventions: file in 5 copies with details on: applicant, initial state, project, financing, operating capital.</p> <p>Invention owners: application form with description of the work in 2 copies, receipted invoice.</p> <p>Research foundation: file with details of project, project director, institution, available scientific and technical means, time, budget.</p>	<p>STU: application with description of project and budget in 3 copies.</p> <p>NFR: application with documents (description of project, cost plan, resumes) in 20 copies.</p> <p>Industrial foundation: first inquiry, later application (applicator for loans).</p>	<p>Present (for example, NSF): project application with summary, description of project, bibliography, resumes, cost plan, declaration of financing from other sources, exact data for: subdivision of the application, length and language of the summary, content of the description of the project and details about the budget. The applications are generally required in 15 copies.</p>

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Project	France	Sweden	USA
2.16 Preprints of the application	Aid for invention: set of forms (12 pages). Invention premium: 1 page form. Research foundation: set of forms (10 pages).	STU: 2 page application form. NFR: 4 page application form. Industrial foundation: no form.	"Application brochure" of the National Institutes of Health with sets of forms, examples, indications and regulations. The NSF publishes specimen forms with copy by the applicant. Some offices without any forms.
2.17 Property conditions	Aid to inventions: disclosure required, grant open to all applicants. Invention bonus, disclosure necessary, bonus limited to small and medium enterprises. Research foundation: sponsorship of government research institutions, universities and enterprises.	STU: conditions of possession must be disclosed. Important for repayment. NFR: no disclosure, no importance. Industrial funds: only Swedish applicants.	Property situation must be disclosed. It is important under different aspects: small enterprises and enterprises belonging to women or disadvantaged groups are preferred. Some programs and budget headings are reserved for small enterprises. The property situation determines basically, the regulation of patent rights. The assistance to applicants outside the USA is only permissible in exceptional cases.
2.18 Deliberation on the application	Aid to invention: deliberation by 22 regional agencies of ANVAR Invention bond: legal document, execution by ANVAR agencies. Research foundation: recent documents.	STU: personal debates, brochures, contact secretariats for the universities. NFR: information sheets. Industrial foundations: publications, application, personal deliberation.	Written discussion of application (program announcements, requirements for applicants, information brochures). The brochures contain names and telephone numbers of the competent case workers. All conditions are disclosed beforehand to the applicants.

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Dweden	USA
<p>2.19 Awarding of funds</p>	<p>Aid to inventions: loans with conditional waiver of repayment in case of failure, 5 page form of contract with 2 pages of conditions of approval.</p> <p>Invention bonus: government subsidy, payment on the basis of application.</p> <p>Research foundation: government subsidy, 2 page "decision" with special conditions (for example, 1 page) budget plan (1 page) and general conditions (11 pages).</p>	<p>STU: conditional repayable and tax grants. Special form: project assurance by agreement in case of failure. Short, simple conditions of approval.</p> <p>NFR: Grants. Short, simple conditions of approval.</p> <p>Industrial foundation: tax loans with conditional waiver of repayment (in case of failure). Special forms: grants with participation in results and taxed "project insurance". Short, brief conditions of approval.</p>	<p>Assistance in the shape of grants or as contracts.</p> <p>Grants in the case of the absence of return services by the recipient. A special form of the "grant" is the "co-operative agreement". It is applied if a grantor takes part in the work with his own services.</p> <p>Uniform decisions for grants and contracts of the federal authorities, who regulate the general procedures, special regulation for research and development.</p> <p>Public advertisements are rare for the research and development center. The common procedure is to have program announcements (programs) and requests for bids (in the case of contracts). The publication of limited advertisements (participation possible for people who have not been called).</p> <p>The contracts in the research and development sector are mostly of the type "reimbursement of costs, with (possibly) profit". The profit must not be taken as a percentage of the costs.</p>

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURES

Procedures	France	Sweden	USA
2.20 Decision on sponsoring contracts	<p>Nonformalized procedure.</p> <p>Aid to innovations: 2 certificates for each application (technical and economic, financial). Outside experts from the public sector. In the reformulated evaluation criteria.</p> <p>Invention bonus: approval according to formal criteria on the basis of data in the application.</p> <p>Research foundation: in joint actions the decision is made by a committee with external participation, for program contracts, the ministry on the</p>	<p>STU: nonformalized evaluation procedure. Outside experts are needed. Comprehensive information by the applicant.</p> <p>MFR: nonformalized evaluation procedure. Two outside experts called regularly.</p> <p>Industrial foundations: nonformalized evaluation procedure. Funding by external certificates, for example, study contracts for consultations.</p>	<p>Common procedure: contracts with participation in the cost (without profits) of the contractor. Cost sharing should correspond to the special potential benefit to the contractor from the project.</p> <p>Comprehensive and detailed regulation of rights and obligations of the recipients assistance. The decisions regarding grants and contracts are subject to extensive "general conditions" and instructions for legal regulations.</p> <p>Formalized procedure:</p> <ul style="list-style-type: none"> - Appointment of outside experts - Application of previously established and disclosed criteria - Use of evaluation scales for the overall judgement - Separate and independent evaluation of technical/scientific and economic/organizational aspects - Comprehensive information to the applicant on the evaluation (including sending anonymous copies) - In contract negotiations all applicants of "competitive" proposal; subsequent requests for "best and final offer".

Project Sponsorship

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURES

Procedure	France	Sweden	USA
<p>2.21 Delegation of awarding of funds</p>	<p>basis of certificates.</p> <p>Besides direct sponsorship through the Ministry, delegation of research promotion to a number of public companies (ANVAR, NP³, AFME, etc.). In the , in part, further delegation to local institutions (for example, 22 establishments of ANVAR).</p> <p>Aid to inventions: decision of projects up to 2 million French francs by regionally competent ANVAR establishments.</p> <p>Bonus for inventions: award by competent ANVAR establishments.</p> <p>Research in foundations: no delegation.</p>	<p>STU, NFR: in the promotion of university institutes, delegation of financial execution and checking to central university authorities, for NFR with repayment of costs.</p> <p>Industrial foundations: financial handling (disbursements, taxes, repayments) delegated to the bank.</p>	<p>Hardly any delegation of administrative functions of the government sponsors. No system corresponding to the German project carrier or project guide. In large agencies (for example, NASA) the research contracts are awarded only by the operational institutions, the subcontracts by the recipients of institutional assistance.</p> <p>The individual assignments (for example, checks) are transferred to central government offices.</p> <p>Individual decisions reserved, basically to the giver of the grant or client delegated to the institutions of the recipient of the assistance.</p>
<p>2.22 Checking of solvency</p>	<p>Aid to invention: careful check and monitoring.</p> <p>Invention bonus: presentation of clearance certificate of the finance office.</p> <p>Research foundation: no checking of solvency.</p>	<p>STU: checks of solvency on given occasions.</p> <p>NFR: no solvency checks.</p> <p>Industrial foundation: solvency checks for small enterprises, possibly guarantees.</p>	<p>Careful checks of solvency.</p> <p>Legal standards for recipients of assistance: financial soundness, previous development, performance, integrity, ethics, declarations and support of the recipient of assistance on this point every 2 years.</p>

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
2.23 Calculation of the grant	<p>Aid to invention: the basis is represented by detailed preliminary calculations of prime costs (direct cost, overhead cost, no profit), special regulation for investments and project types.</p> <p>Invention bonus: the basis is in the value of the contract awarded.</p> <p>Research foundation: differentiation between public and private recipients of assistance. The basis for public recipients is represented by the limiting costs without personnel costs for permanent employees and expenditures for investments. The basis for private recipients are total costs (prime cost). In investments only, depreciation can be objects of grants.</p> <p>Reimbursement of overhead costs for universities and public institutions is limited to 4-8% of direct costs.</p>	<p>STU: the principles of calculations are the costs (prime cost) obtained on commercial bases. The details of preliminary calculations are given in 9 groups. Investments are financed by special equipment loans.</p> <p>NFR: The calculation is based on direct costs, personnel cost according to the tariffs of public service. Lump sum for overhead costs (3% for universities).</p> <p>Industrial foundations: the calculation is based on the prime cost (limiting cost!) obtained according to commercial principles.</p>	<p>Basis of the grant: presentation of calculations with various degrees of details.</p> <p>Basis of the grant: "permissible costs": direct cost (costs of production) and indirect costs (overhead costs). Legal regulations for the permissibility of direct cost. Some types of costs (for example, publicity, depreciation of grants, entertainment, taxes) are not permissible. The provisions correspond to general industrial operating principles. The grants for investments are only for costs of use of depreciation during the course of the project.</p> <p>Reimbursement of indirects cost according to rates which are established for each institution in a separate procedure. Use of the "indirect cost rate" for all contracts and grants of the government to these institutions. The rate also contains the administrative overhead costs, distribution overhead cost, general depreciation, risks and hazards.</p> <p>Profits permissible for contracts, as well as for grants, if they refer to applications which were</p>

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
<p>2.24 Financial implementation</p>	<p>Aid to invention: deviations from the preliminary calculation to be agreed upon with ANVAR. Reimbursement of overhead costs by addition to direct costs. Balance of investments is credited to the project at the end of the grant. Research foundation: mutual coverage up to 30% between current costs and equipment with notification of the ministry. Reimbursement of overhead costs by extra payment. For investments (in case of</p>	<p>STU: deviations from the preliminary calculation up to 10% possible without approval. Overhead costs are reimbursed by additions to direct costs. Recipients of grants in the public sector become owners of the investments, industrial enterprises reimburse the balances of investment. NFR: grant as framework sum. Deviations within the framework of the project plan possible without approval. The NFR is the owner of the investments.</p>	<p>formally requested (solicited proposals). Fixed profits or incentive profits (incentive fees: for example, higher gain for lower cost or quicker completion). Not permissible: profit as a fixed percentage of costs, limit for the profit: 15% of total cost. Ban on betterment for consultation fees: daily reimbursement not higher than the principle corresponding to a certain salary bracket (1983: \$245.00). For personnel, trips, investments and equipment costs: separate rules on details, discussion, justification, etc. Deviations from the preliminary calculations are possible. For grants the approval of the grantor is required, the latter delegates the powers partly to the institution of the grant recipient. For contracts the approval of the Client is not necessary. In case of exceeding the total cost frame: new agreement, otherwise the contractor and client are not obligated to pay or reimburse the higher costs.</p>

Project Sponsorship

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
	<p>private grant recipients) only the depreciations are covered.</p>	<p>Industrial foundation: deviations from preliminary calculations must be approved.</p>	<p>Overhead costs are reimbursed as lump sums, as a percentage of direct costs.</p> <p>After the end of the assistance, investments remain the property of the recipient, if the latter belongs to the indicational sector or is a non-profit organization. In the case of industrial enterprises, the government becomes the owner. Settlement of the balance is possible.</p>
<p>2.25 Rate of assistance</p>	<p>Aid to invention: regular level of assistance 50%. Exceptions (for example, 75%) among other cases for independent inventors.</p> <p>Invention bonus: 25% of the expenditure without sales tax, at maximum 1 million French francs per company and year, increased to 35% and extension of the eligible group planned.</p> <p>Research foundation: public recipient: all permissible costs (limiting costs without permanent personnel), private recipients: generally 50% of the total costs without sales tax.</p> <p>No different regulations according to the level of</p>	<p>STU: regular grant rate 50%: in exceptional cases up to 100%. No effect on sponsorship conditions.</p> <p>NFR: the grant includes direct costs and a small portion of the overhead costs (3% of direct costs). The recipient's own share covers the rest of the overhead costs.</p> <p>Industrial foundation: regular rate of grant 50%, in exceptional cases, lower amount of grant.</p>	<p>In the case of grants, the recipient's own share is regulated regularly (exception: grants for which offers have been formally requested: solicited proposals). The recipient's own share is not prescribed for each individual grant, but for the institution as a whole. Minimum of participation by the recipient is (for NSF) 1%; effective shares of the average 17%.</p> <p>The level of assistance for contracts is generally 100%. Exception: contracts with cost sharing of the contractor.</p>

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
2.26 Award of contracts	<p>assistance</p> <p>Aid to inventions: subcontracts sponsored if the transfer is favored by this agency. Fees not require approval.</p> <p>Research foundation: no limitations.</p>	<p>STU: no limitations or conditions for subcontracts which are included in the project application.</p> <p>NFR: no limitations or conditions.</p> <p>Industrial foundations: subcontracts maximum 90% of the project volume.</p>	<p>Subcontracts require approval of the government sponsor (except for minor cases). The obligations of the grant recipients (for example, rights of inspection, price structure, patent regulations) apply also to subcontractors. Competition should apply in selecting subcontractors.</p>
2.27 Payment procedure	<p>Aid to invention: single preliminary payment at the beginning of the projects, then annual or according to project phases against proof of expenditures.</p> <p>Invention bonus: subsequently against proof of expenditures.</p> <p>Research foundation: public recipients: preliminary payment and similar semi-annual rates up to 90% of the total fund. Rest after accounting with proofs.</p> <p>Private recipients: preliminary payment and similar quarterly rates against intermediate accounting for the expenditures up to 90% of the total grant. Rest after invoicing with proofs.</p>	<p>STU: preliminary payments against application for quarterly needs with current accounting. Funds for university institutions are assigned in one amount to the universities. Interest must be paid on the total funds.</p> <p>NFR: funds for government agencies, combines, companies are paid out in one sum. Otherwise partial amounts for proven costs. Advances on application.</p> <p>Industrial foundation: twice a year beforehand, or afterwards.</p>	<p>Grants: preliminary payment to the amount of the current need with sufficient accounting by the recipient and obligation to reduce to a minimum the cash on hand. Otherwise, reimbursement of proven costs, possibly, single preliminary payment for the initial period (working capital in advance). Payments (for larger grant recipients) by "letter of credit" (the recipient of the payment is allowed to call for the required means currently at the expense of the government). Control of calls for payment by quarterly accounting. No payment of interest for overpayment.</p> <p>Contracts: Reimbursement of proven and paid costs. Current payment of profit according to the progress except for a security reserve.</p>

Project Sponsorship

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

	France	Sweden	USA
<p>2.28 Obligation for providing reports and communication</p>	<p>Aid to invention: establishment of annual report standardized report form (course, results, rights of use, utilization, financial position of the recipient, etc.); final report, obligation to communicate important events. invention bonus: no report or communication. Research foundation: intermediate reports by agreement. Final report with technical documentation.</p>	<p>STU: status, annual and final report according to the nature of the project, obligation to report important events. After ending the grant, annual reports until the repayment is completed. NFR: waiver of reports. Industrial foundation: financial and progress reports twice a year.</p>	<p>Different conditions of the government sponsor for the time, content, and schedule of reports. NSF: final report 90 days after the end of projects; for longer projects, annual progress reports. NASA: reports every 6 months.</p>
<p>2.29 Publications</p>	<p>Aid to invention: after 5 years publication possible by ANVAR, if no objection is made by the recipient. Invention bonus: no publication by ANVAR. Research foundation: the publication of results with the approval of the recipient. Refusal must be justified.</p>	<p>STU: the giver of the grant can publish the results if the repayment is waived. All administrative documents in Sweden are basically accessible to the public. Project documents are often classified as confidential, to avoid publicity. NFR: no publication by the grantor. Industrial foundation: no obligations by the industrial foundations. No obligation as foundation for publicity bid for the administration.</p>	<p>The grantor is entitled to publish the research results: exception: patentable inventions, etc.). They do not generally publish them, themselves, but encourage and support publications by the recipient of the grant. In research and development contracts, all publication rights belong to the public contractor. Indications about research reports and summaries are announced in the public data bank, NTIS.</p>

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
<p>2.30 Participation in the technical results</p>	<p>Aid to invention: the obligation regarding communication about the application for rights, the granting of rights requires approval. No free government rights to license. ANVAR becomes the owner if repayment is waived.</p> <p>Invention bonus: no government rights.</p> <p>Research foundation: differentiation between recipients, who usually use rights and others. The users are owners of the rights, the government can become an owner in case of nonapplication or waiving of rights. The availability of rights requires approval. Cost-free license of the government for its own requirements.</p> <p>Non-users: signing of an agreement between recipient and ANVAR for use of the results.</p>	<p>STU: results of research projects assisted up to 100% of public property. No rights of the giver of the grant in case of development projects with repayment obligation.</p> <p>NFR: reservation of approval for application for patents (possibly repayment).</p> <p>Industrial foundation: no rights to the research results.</p>	<p>For grants and contracts, decisive legislation was signed in 1981: Bayh-Dole Act. Small enterprises, institutions of the educational sector and non-profit organizations become owners of the patent rights. For other grant recipients, the decision of the client or grantor after considering mutual interests.</p> <p>Cost free license for the grant recipient, if the government is the owner of the patent rights. Free license of the government, if grant recipient is owner of the rights.</p> <p>The grant recipients must give interested parties a license after the usual marketing conditions. In case of refusal: granting by the government (march-in right).</p> <p>The grant recipients can be given exclusive rights for use.</p>

Project Sponsorship

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
2.31. Participation in the financial results	<p>Aid to invention: repayment of the grant. Modalities by agreement. Waiver of repayment in case of technical or economic failure.</p> <p>Invention bonus: no repayment.</p> <p>Research foundation: share on the basis of a special decision of the minister possible. At maximum 70% of the grant, at most 10 years.</p>	<p>STU: Basically payment of interest and repayment. In case of failure, waiver of interest and repayment. Facilities for pure research projects. Success for enterprises from 500 employees is the achievement of the technological goal. The end of the repayment obligation not later than 10 years.</p> <p>NFR: no repayment (exception: in the application for patents).</p> <p>Industrial foundations: interest and repayment from the commercial use of the results. Waiver of repayment in case of failure. Special provisions in case of change or ending of the project or sale of the company.</p>	<p>No repayments of grants in case of success.</p> <p>NSF: up to 3 years after end of the project, "royalties" above \$10,000 must be paid to the grantor. Other project income: the use of the share (according to cost sharing) by the grant recipient; the government share corresponding to the grant level is added to the project funds.</p> <p>In NASA contracts, no share of the state in the economic results. Project income is to be given to the client.</p>
2.32. Control of results	<p>Aid to invention: control of the result on the basis of the annual reports. Activities to resolve the problems arising.</p> <p>Invention bonus: no control of the results.</p> <p>Research foundation: reservation of content checks by the ministry.</p>	<p>STU: control of results at the time of decision about repayment.</p> <p>NRF: cross evaluations of program areas.</p> <p>Industrial foundation: control of results within the framework of the establishment of the report.</p>	<p>No systematic control of the results. Evaluation of some programs and projects on given occasions (extension, etc.).</p>

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
<p>2.33 Interruption of the project by the grantor</p>	<p>Aid to invention: no termination by the grantor without reason. Research foundation: termination possible by ministry without reasons, at earliest, 6 months after beginning.</p>	<p>STU: no termination of project by the grantor without justification. Refusal to continue the grant possible for the next year. NFR: termination without reasons possible at the end of the budget year. But in this case, there is further financing of personnel for 1 year, if otherwise social hardships could not be avoided. Industrial foundation: no termination possible without justification.</p>	<p>In the case of grants termination is excluded without reasons. For projects running for a long period, the approval to be renewed every year can be refused without giving reasons. Termination of contracts without indicating any reason is possible at any time.</p>
<p>2.34 Tax situation</p>	<p>Aid to invention: free from sales tax (disputed) for operational income only where repayment has been waived. Invention bonus: free from sales tax, operational income. Research foundation: subject to sales tax, operating income.</p>	<p>STU, NRF, Industrial foundations: no value added tax because of lack of exchange of services. STU: calculation of grants as operational proceeds (disputed). NFR: grant is counted as operational proceeds. Industrial foundation: in case of waiver of repayment loans are considered operational proceeds.</p>	<p>Grants are free from sales tax, but they are included in proceeds subject to taxes. Unlimited tax rates for reimbursements in research and development contracts.</p>

Project Sponsorship

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
<p>2.35 Proof of use</p>	<p>Aid to invention: current summary indication without proofs when applying for payments. Presentation of detailed accounting documents and original documents of accounting on request. Control by outside agent.</p> <p>Inventor bonus: presentation of the invoice right of checking of the recipient of the grant and contractor reserved.</p> <p>Research foundation: public recipient: summary invoices without proofs after 12, then every 6 months.</p> <p>Private recipient: summary indications of the expenditures in every application for payment (every 4 months).</p> <p>Final invoice: 2 months after ending the grant.</p> <p>Rights for local checks reserved for ministry and representatives.</p>	<p>STU: current summary indications together with applications for payment in the division of the preliminary calculation without proofs. Random controls by inspector of the STU. Checks for the university sector delegated to the university office.</p> <p>NFR: the grant recipients in public sector present indications about use without documents. Other recipients: certified invoices, documents only when requested. Right of inspection reserved by the NFR. From 1984 invoices and proofs for projects waived for universities.</p> <p>Industrial foundation: detailed statements without documents from the second payment, separate accounting, control by appointed inspectors.</p>	<p>Grants: quarterly invoices: indication of expenditures in one total.</p> <p>More detailed invoicing obligations provided, they are partly waived (for example, NSF). No special final statement, no presentation of documents.</p> <p>Control of invoices in local checks by various government offices and their representatives. Checks of grant recipients with a volume of assistance of more than \$100,000 per year: every 3 years; otherwise random checks or inspection on special occasions.</p> <p>Contracts: invoicing with summary statements of the costs according to type of costs and the effective expenditures without documents. The control is accomplished by inspections just as for grants.</p> <p>To secure control, standards are provided for the accounting procedure of the recipient of the grant.</p>

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
2.36 Improper use	<p>Aid to invention: return of payments, payment of interest.</p> <p>Invention bonus: recalled, payment of damages.</p> <p>Research foundation: return and/or end.</p>	<p>STU, NFR, industrial foundations: different consequences according to the gravity of the case. Penal consequences are rare. No special statement of the situation.</p>	<p>In case of improper use of funds (except in trivial cases): recovery. Schedules and possible partial payment are agreed upon by negotiations. Rarely: criminal prosecution in general situations of fraud.</p>
2.37 Time requirements for processing application	<p>Aid to invention: 3-6 months.</p> <p>Invention bonus: about 1 month.</p> <p>Research foundation: 6-9 months.</p>	<p>STU: time required 3 months. To appoint outside experts 4-5 months.</p> <p>NFR: time required 5 months. Only one period of application per year.</p> <p>Industrial foundations: 6 months.</p>	<p>Time needed for processing applications for the NSF, 6-9 months. Different time requirements for processing applications for NASA. Longer time requirement in case of two-stage procedure for limited advertisements.</p>
2.38 Administrative costs	<p>Aid to invention, invention bonus, administration costs of ANVAR between 6% and 10% of the total budget.</p> <p>Research foundation: administrative costs cannot be established separately (altogether about 1% for the ministry).</p>	<p>STU: administration costs about 10% of the total budget.</p> <p>NFR: administration costs about 4% of the total budget.</p> <p>Industrial foundation: administrative costs 3-5% of total budget.</p>	<p>Administration costs of NSF: about 6% of the total budget.</p>

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
2.39 Seminars, conferences from the pro- gram status	Seminars and meetings at different stages to prepare the budgets and plans.	STU: seminars and meetings at intervals with outside participation. NFR: sessions of commissions for the different program sectors. Industrial foundations: no development of program.	Status seminars in NSF every 18-24 months at management level ("formal program reviews"). Seminars for individual programs at shorter intervals, for example, three times a year, partly with outside participation. For the energy department, evaluations at 5 year intervals.
2.40 Program screening	No systematic program screening.	STU: no systematic program screening. Controlled program evaluations. NFR: No program screenings. Systematic cross evaluations. Industrial foundation: no program screening.	No formal program screening for the activities described in item 3.39.
2.41 Extrapolation of the sponsor- ing criteria	Explicit sponsoring criteria are not given. The extrapolation is the result of national program planning.	STU, NFR, industrial foundations: no systematic extrapolation of the sponsorship criteria.	Extrapolation of the sponsorship criteria within the framework of the studies of the development and continuation of the program. For changes in the general NSF criteria, the approval of the National Science Board is needed. Special criteria are formulated separately for each program announcement or advertisement.

Program Development and Continuation

COMPARATIVE DESCRIPTION OF SPONSORSHIP PROCEDURE

Procedure	France	Sweden	USA
<p>3.42 Measures for transfer of the results of research and development</p>	<p>Special program line ("technological development of the economy") in the mobilization programs for the following goals:</p> <ul style="list-style-type: none"> - increase of the level of technical training - regional action such as technological advisors and pool, agencies for scientific and technical information - technology transfer between government enterprises and small and medium enterprises - transfer to the public research and development and opening for small and medium enterprises - dissemination of technology in industry - financial incentives. 	<p>STU: broad catalogue of sponsoring measures: product development, contacts, marketing, patents, publications.</p> <p>NFR industrial foundation: no special transfer measures.</p>	<p>Measures for government grantors and clients for the transfer of the research results:</p> <ul style="list-style-type: none"> - promotion of publications - dissemination of indications of available research results and technology in publications and data banks - promotion of joint projects of universities and industrial enterprises - establishment of organization units for technology transfer and technology use in research centers - promotion of projects for further development and adjustment of existing research results for application in the industry (NASA) - maintenance of independent centers for technology application (NASA) - award of forced license (compare item 2.30).

4. Description of Countries

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This chapter describes the study instruments of advancements in the countries France, Sweden and the USA.

The description includes the results of the study in a classification and sequence of the guidelines of inquiry, which is given in chapter 5. For each country, thus, there are descriptions of one or several instruments in the areas:

1. Institutional advancement
2. Project advancement
3. Development and continuation program

For each country only selected sponsoring instruments are described. The purpose of the study is not to provide the comprehensive survey of the research sponsorship of the countries, but to describe the administrative procedures of the countries on the basis of some examples.

The description does not include instruments of so-called indirect promotion. They are not the object of the study.

The various elements and the details of the procedure should be considered and evaluated against the background of the corresponding national promotion system. This should be facilitated by the pages preceding the individual descriptions, in which the most important structural features of the promotion system are described for each country.

Considerable importance was laid on detailed indications of sources. They are used not only as a proof. Even in the detailed description many questions on the guidelines for inquiries could not be answered exhaustively. The indications of sources make it possible to obtain additional information at no great cost. Moreover they make it easier in later studies to refer to the indicated source and obtain the latest position. In the individual descriptions, the indications of sources appear with an abbreviation for the institution from which the document comes, an identification number (for example, NSF 51.810). The meaning of the abbreviations may be taken from the heading in the descriptions and the list of abbreviations (chapter 7). The identification of the document is possible from the list of material (chapter 6).

C-2

Structural Characteristics of the Government Sponsorship of Research and Development

Country: FRANCE

Source

(CEA - Commissariat á l'énergie atomique (Atomic Energy Commission); FuE - Research and Development; JO - Journal officiel de la République Française; MIR - Ministère de l'Industrie et de la Recherche (Ministry of Industry and Research); OECD - Organization for Economic Cooperation and Development; RF - French government).

1. Government Levels Included

The government research and development sponsorship is financed almost exclusively by the central government.

2. Extent of Government Advancement of Research and Development

The government advancement of research and development (1982): 49,292 million French francs (credits for payment and operation)

RF 51.401 p. 33

Sources of financing:

MIR	19,190 million	39%
Education Ministry (especially university research)	6,008 million	12%
Military sector	17,700 million	36%
Post and communications	2,565 million	5%
Other ministries	3,329 million	7%
Others	400 million	1%
	<u>49,292 million</u>	<u>100%</u>

3. Receivers of Government Advancement of Research and Development

(1977)	Industry	29%
	Government research centers (excluding universities)	41%
	Universities	29%
	Private nonprofit institutions	1%

OECD 51.434 p. 24

Country: France	Source
<p>4. <u>Sectors/goals of Sponsorship of Research and Development</u></p>	
<p>In the research skeleton law of 1982 4 categories of activities and 4 goals are indicated for government advancement of research and development.</p>	JO 51.420
<p>The <u>categories of activities</u> are:</p>	
<ol style="list-style-type: none"> 1. Mobilization program (programmes mobilisateurs). At present there are 7 large program lines, which again are subdivided in main programs and subprograms. The program lines: <ul style="list-style-type: none"> - efficient use of energy - biotechnology - electronics - scientific research and technological inventions in the service of the third world - employment and improvement of labor conditions - advancement of French as a scientific language and dissemination of scientific and technical culture - technological development of industry 2. Fundamental research. This includes, on one hand, the long term uniform financing of all sectors of fundamental research without program preassignments and, on the other hand, the advancement of very large (international) research establishments (for example, CERM, EMBO). 3. Applied and purpose oriented research. This category is divided into two: <ul style="list-style-type: none"> - social and cultural objectives with 6 main programs - economic goals with main programs for 16 industrial centers. 4. Technological development programs. They include 4 large programs, which have been intensely promoted for many years: <ul style="list-style-type: none"> - nuclear energy - space - civil aeronautics - world oceans 	

Country: France	Source																		
<p>For the budget year 1983, the following distribution of public (civil) research and development funds has been established for these categories:</p> <table border="0"> <tr> <td>1. Mobilization program</td> <td>8.5 bil.</td> <td>25%</td> </tr> <tr> <td>2. Fundamental research</td> <td>7.8 bil.</td> <td>23%</td> </tr> <tr> <td>3. Applied and purpose oriented research</td> <td>4.5 bil</td> <td>13%</td> </tr> <tr> <td>4. Technological development programs</td> <td>8.1 bil.</td> <td>23%</td> </tr> <tr> <td>5. Indirect funds</td> <td>5.5 bil</td> <td>16%</td> </tr> <tr> <td></td> <td>34.5 bil</td> <td>100% (including 2 bil in proceeds from the CEA)</td> </tr> </table> <p>The indirect funds include those which cannot be divided into categories and programs such as grants for general services, electronic data processing, immovable property.</p>	1. Mobilization program	8.5 bil.	25%	2. Fundamental research	7.8 bil.	23%	3. Applied and purpose oriented research	4.5 bil	13%	4. Technological development programs	8.1 bil.	23%	5. Indirect funds	5.5 bil	16%		34.5 bil	100% (including 2 bil in proceeds from the CEA)	
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<p>(CEA - Commissariat a l'energie atomique (Atomic Energy Commission); EG - European community; FuE - Research and development; JO - Journal Officiel de la Republique Francaise; MIR - Ministry of Industry and Research; OECO - Organization for Economic Cooperation and Development; RF - French government)</p>	/85																		
<p>The <u>goals</u> indicated in the research skeleton law for public research are:</p> <ul style="list-style-type: none"> - development and progress of research in all areas of knowledge - transfer of research results - dissemination of scientific knowledge - training for research and by research 	JO 51.429																		
<p><u>5. Most Important Government Institutions for Promoting Research and Development</u></p> <p>Ministries: The MIR is the largest giver of grants; it is followed by the Defense Ministry, whose assistance reaches also research categories "mobilization programs" and "technological development programs" (but is not included in the above indicated point 4) and the Ministry of National Education (university research). The contribution of other Ministries to the promotion</p>																			

Country: France	Source
<p style="text-align: center;">of research and development is negligibly small.</p> <p>Planned: Topmost council for research and technology in MIR to adjust and continue the research planning, which can form work and study groups.</p> <p>Planned: Regional advisory committees for research and high technological development in the regional council for each region, which will be called up for all research and development questions of the region.</p> <p>ANVAR (Agence nationale de valorisation de la recherche) (National Agency for application of research). It is subordinate to MIR and promotes research in industry.</p> <p>The CNRS is one of the establishments conducting research, but it also has the missions of coordinating research in universities.</p>	<p>JO 51.429</p> <p>RF 51.401 p. 24</p>
<p>6. <u>Structure of the Advancement of Research and Development</u> (institutional advancement, project advancement, sponsorship programs).</p> <ul style="list-style-type: none"> - Indirect advancement of research and development by tax breaks takes place only to a small extent (50% of the construction costs for research buildings can be depreciated the first year, current research expenditures can be written off every year, degressive depreciation for research reimbursement). - The institutional support is very important. Government research and development is mostly promoted, which concerns partly research offices, partly government industrial enterprises. There are also a number of intermediate forms. As a result of the research skeleton law of 1982, new forms of organization are being established. - The project sponsorship is laid out, on one hand, as an additional promotion for new projects of government research and development, on the other hand, as a promotion for inventions in industry. - Research programs cover, like a network, all research and development activities (except the pure fundamental research). Research 	<p>EG 51.410</p> <p>JO 51.429</p>

Country: France	Source
<p>projects can only receive grants if they can be incorporated in a program and one of the 4 categories of research activities.</p>	
<p><u>7. Main Characteristics of Insitutional Promotion</u></p> <p>The organization of establishments is regulated in specific statutes, which have the form of laws, ordinances and decrees. The public law research establishments are closely related with the budget law. This affected adversely the efficiency of research in wide regions and led to the fact that special forms of law were developed for individual research establishments. The result of this was then that the collaboration between different research establishments became difficult. In the research skeleton law it is provided that research insitutions should be provided more independence and the collaboration between them and industry should be promoted by project oriented forms of organization on a temporary basis (GIP - groupement d'interêt public (public interest group)).</p> <p>Scme research establishments pursue economic activities in a wide range.</p>	
<p><u>8. Main Characteristics of Project Promotion</u></p> <p>The most important instruments of project promotion are:</p> <ul style="list-style-type: none"> - the research foundations of the MIR - the aid to inventions of ANVAR <p>The CNRS implements project promotion in the university sector.</p> <p>An important point of project promotion is based on the fact that the collaboration between government research establishments and industry is promoted. In research establishments the limiting costs (without personnel) can be covered by a grant, in industry, the total costs of the project.</p> <p>The research and development projects of industry receive generally a grant of 50% of the planned total costs, whose repayment is waived if the project is unsuccessful.</p>	

<u>Country:</u> France	<u>Source</u>
<p data-bbox="170 300 1055 362">9. <u>Main Characteristics of Development of the Program</u></p> <p data-bbox="170 383 1112 600">The total research and development in France is aimed, basically, at programs which are developed within the framework of 5 year plans. Many commissions and committees provide for the participation of all areas and establishments of research in the implementation of national research planning.</p>	

1. Institutional Advancement		
Country: France	Institution/Instrument: Government Research Centers	Source
(CEA - Commissariat á l'énergie atomique (Atomic Energy Commission); CNES(ES) National Space Research Center; CNRS (CNR) - National Scientific Research Center; FE - Research establishments; FuE - Research and development; JO - Journal officiel de la République Francaise; MIR - Ministry of Industry and Research; ZG - grantor)		
1.01. Organization of the Research Establishment		
<p>Institutional assistance is received only by government research establishments. There were previously two forms of organization for the FE (with modifications for individual FE):</p> <ol style="list-style-type: none"> 1. Independent imposition of public law with their own budget in the range of competence of the Ministry (EPA = Public administrative establishment, Agency). The most important is the CNRS. 2. Government industrial enterprise (EPIC = industrial and commercial public establishment). This most important are the CEA and CNES, 		
<p>Since neither of the two forms satisfies the requirements of the CNRS (on one hand, the official structure prevents the use of research results and programmed research, on the other hand, the industrial activity is not a mission of the CNRS) in the skeleton law on research No. 82-610 of July 15, 1982, two new forms of organization were established: the EPST as a permanent establishment and GIP as temporary establishment.</p>		JO 51.429 p. 2280
<p><u>EPST</u> (Public establishment of scientific and technological nature) is a body subject to public law, with independent administration and financial autonomy. The following would be achieved primarily:</p> <ul style="list-style-type: none"> - the FE's own responsibility will be increased, by extending the powers of the advisory board and loosening the financial control (the previous approval for expenditure of funds must only be obtained for particularly important projects and in a much lower number of cases); 		

Country: France <u>Institution/Instrument:</u> Government Research Centers	<u>Source</u>
<p>- the rules for the budget will be modified, by the FE receiving overall grants (average equipment, current operation, travel expenses); but this was not applied to personal grants.</p> <p><u>GIP</u> (Public interest groups) are associations of several government or government and private FE with financial independence to <u>implement joint projects for a limited period</u>. A GIP should not receive any profit, it can be formed without capital by contract, which must be approved by the MIR; the government FE must have a majority of votes; it is managed by a director, which is appointed by the administrative council; a plenipotentiary of the government is also appointed; the control is implemented by the auditor's office. With this form of organization, the close collaboration between different FE will be ensured, which is necessary for implementing new research programs.</p> <p>There is as yet no experience available for these new forms of organization. Hereafter the CNRS will be taken as an example of an FE of the agency type, and CEA as an example for an FE with industrial activities.</p> <p>The <u>CNRS</u> (Centre national de la recherche scientifique (National Scientific Research Center)) is an independent agency under public law with its own budget in the region of competence with the MIR. It conducts, mainly, fundamental research and consists of the CNRS itself and two institutions (INAG = National Institute of Astronomy and Geophysics; IN2P3 = National Institute of Nuclear Physics and Particle Physics)</p> <p>The <u>CEA</u> (Atomic Energy Commission) is a group consisting of a government establishment (scientific, technical and industrial) and companies under private law, whose capital is owned, totally or partly, by the FE. The tasks of the group range from fundamental and applied research to the industrial activities and military application. The subsidiaries of the group are predominantly stock corporations. The group is independent under the financial and administrative aspect.</p>	<p>JO 51.429 p. 2272 MIR 51.402a p. 8</p> <p>CNR 51.527</p> <p>CEA 51.444 p. 99</p>

<u>Country:</u> France	<u>Institution/Instrument:</u> Government Research Centers	<u>Source</u>
<u>1.02 Accounting Procedures</u>		ES 52.441
<p>The accounting procedure of the CNRS is cameralistic. But the CNRS has some laboratories and establishments which are specifically not juridical bodies, and for which, nevertheless, a commercial accounting procedure is applied. The commercial bookkeeping is applied, if the actual income from the rights of operation or services can be obtained. The CEA uses a cameralistic accounting system for the portion of the FE subject to public law and a commercial one for its subsidiaries; the CNES (National Space Research Center) uses a commercial accounting procedure and is developing new models in accounting procedures, starting from parameters for cost calculation and project evaluation.</p>		-
<u>1.03 Awarding of Funds</u>		
<p>For government FE there is only one grantor, the government. The MIR disposes of most research funds. The funds are awarded according to the public budget law. Each budget is represented in two different forms:</p> <ol style="list-style-type: none"> 1. Subdivision according to sectors, objectives, division according to contents of the funds 2. Division according to the type of funds (juridical budget). 		
<p>(CEA - Atomic Energy Commission; CNES (ES) - National Space Research Center; CNRS (CNR) - National Scientific Research Center; FE - research establishments; FuE - Research and development; GO - Journal officiel de la République Française; MIR - Ministry of Industry and Research; ZG - grantor).</p>		/87
<p>The budget of the MIR has 4 headings, heading III for administration budget, heading IV to VI for investment budgets. The grants for the FE appear under headings III (personnel and current operation with sales taxes) and VI (investments without sales tax). There is no possibility of interchange basically between these headings.</p>		MIR 51.439
<p>To give the FE somewhat more freedom of movement, there is the exceptional regulation that items for current operation and for</p>		CNR 51.510

Country: France <u>Institution/Instrument</u> Government Research Centers	<u>Source</u>
<p>smaller and medium sized equipment, which are normally under heading III, can be placed under heading VI for FE. This also includes the item for the unforeseen. In the implementation, the estimates may be corrected. Exchanges must be presented and recording for the administration council of the FE.</p> <p>Up to 5% deviation can be applied for the budget estimates within heading III, for the items under heading VI, up to 10%.</p> <p>For all greater expenditures, a list of the items formally in this category is given, the prior agreement by endorsement of the Finance Ministry must be obtained.</p> <p><u>Additional financing</u> for special projects, for example, to begin new projects, is given by the MIR within the framework of the "research foundation" (detailed description under Project Promotion: Research Foundation).</p>	
<p><u>1.04 Personnel Economics</u></p> <p>The employment plans of the FE are given in the budget of the MIR in total number and level. No deviation from the permanent plans is allowed.</p> <p>The personnel of the CNRS consists of officials and employees. The appointment, adjustments, classification, salary payments/reimbursement with stages, promotion, etc., are regulated by many ordinances and decrees. In connection with the reorganization of the CNRS into an EPST, the different types of personal law provisions are also harmonized, to facilitate the exchange between laboratories, between FE, functions (research, training, administration, evaluation research) and personnel categories.</p> <p><u>Bonuses</u>: for researchers of the CNRS there are research bonuses to promote motivation. They are paid from a fund which is reestablished every year; moreover, there are profits from the use of the rights of utilization and inventions as well as contracts with other FE. The bonus should not exceed 20% of the basic salary. Technicians in foreign service of the CNRS, who obtain direct results or took part directly in inventions and new</p>	<p>JO 51.530</p> <p>JO 51.429b p. 2272</p> <p>JO 51.530 p. 53</p>

Country: France <u>Institution/Instrument</u> Government Research Centers	<u>Source</u>
developments, can personally obtain bonuses, which are established by the director.	JO 51.530 p. 95
<u>Compensations:</u> for employed researchers of the group "officials in charge of research" (chargés de recherches), leaving the public FE, the Director General of the CNRS can approve a compensation of one years salary, if the researcher had been at least 10 years in the service of the CNRS.	JO 51.530 p. 72
<u>Code determination:</u> in the CNRS there are several selective boards with different functions, who, however, do not participate in the narrow sense, but only state their positions and give proposals. In all parity commissions, half of the members are appointed, always by the administration.	-
1. An advisory personnel committee, who advises the Director General in all general questions regarding personnel.	JO 51.530 p. 24
2. Parity administration commissions, of which each time half the members are appointed by the administration: - one commission with employed research directors - a commission with employees, who take part in the scientific management of the laboratories.	JO 51.530 p. 29
3. A central parity technical commission.	
The commissions mentioned under 2 and 3 are to be found in all public establishments. Their functions are regulated in the decree (décret) No. 59-307 of February 4, 1959.	
4. A parity commissions of the research personnel.	JO 51.530 p. 87
5. A parity commission of employed engineers, technicians and administration employees. The powers of the commission are limited to promotions, disciplinary measures and transfers.	JO 51.530 p. 129

Country: France	Institution/Instrument: Government Research Centers	Source
<u>1.05 Actual Income</u>		
<p>The CNRS may receive its own income beyond the institutional assistance from:</p> <ul style="list-style-type: none"> - products of FE: sale of publications, documentation, test animals, laboratory projects - use of patent rights - services (mostly on the basis of long-term contracts with enterprises) - renting 		CNR 51.501 p. 120
<p>(CEA - Atomic Energy Commission; CNES(ES) - National Space Research Center; CNRS(CNR) - National Scientific Research Center; FE - Research establishments; FUE - Research and development; JO - Journal officiel de la République Française; MIR - Ministry of Industry and Research; ZG - grantor).</p>		
<p>The CNRS income is relatively low (1.5% of the total income of 7 billion French francs), it is listed in the budget. Additional income does not reduce the amount of the grant, but additional personnel cannot be appointed with it.</p>		<p>CNR 51.500 CNR 51.510</p>
<p>The purpose of the CEA is also to operate economically. The economic activity is carried out by subsidiaries (companies), large subsidiaries such as COGEMA (1981 business turnover 7 billion French francs) and CISI (business turnover for 1981 0.5 billion French francs) have again a number of other companies. Consolidated balances are not presented. The actual income of the CEA is estimated at 16% of the total research funds of 12 billion francs. In the area of civil research, the funds are 1% in proportion to the earned income. It is considered difficult to correctly estimate the proportion of the establishment's own income for the budget. The grants are not increased, if the plan proceeds are not obtained. But if the proceeds are higher than planned, the grants are not reduced. Thus the CEA receives funds with which to start new projects, new positions can also be created with them.</p>		<p>CEA 51.544a CEA 51.544a</p>

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<u>Country:</u> France	<u>Institution/Instrument:</u> Government Research Centers	<u>Source</u>
<p><u>1.06 Donations</u></p> <p>The grants are not decreased because of donations and legacies. The administrative council decides about the use of the latter. In the CNRS, they are mostly made available to laboratories. Donations and legacies do not play a quantitative role.</p>		<p>CNR 51.510</p> <p>CNR 51.514</p>
<p><u>1.07 Transfer of Funds</u></p> <p>Residual funds under item III (personnel and current operation) must not be transferred to the next budget year. Since most of the items required for the current operation for the laboratories of FE are no longer given under heading III, but in heading VI (investment budget), the nontransferability is not considered problematic. From the balance, cash reserves are formed to establish an operating capital, which should cover two months of current operation, and which is available as extraordinary reserve for compensating damages.</p> <p>The balance from heading VI (investment budget) is automatically transferred to the following year.</p>		<p>CNR 51.510</p>
<p><u>1.08 Rights of Use and Benefits</u></p> <p>The patent and user rights belong to the FE and therefore to the government.</p>		<p>CNR 51.514 p. 5</p>
<p><u>1.09 Technology Transfer</u></p> <p>The technology transfer is considered an important purpose of public research. The technology transfer is promoted by various measures:</p> <ol style="list-style-type: none"> 1. By scientific activities of the FE themselves (for example, CEA, CNES), 2. By establishing research utilization services for each public FE in the coming year, 3. By close collaboration of the FE and industry within the framework of GIP's, 4. Through the ANVAR (National agency for application of research), which signs contracts of application with FE, which cannot use their results themselves. 		<p>JO 51.429 p. 2280</p>

Country: France <u>Institution/Instrument:</u> Government Research Centers	<u>Source</u>
<p>In the CNRS a committee was established a long time ago for industrial relations (CRIN - Comité des relations industrielles), subdivided into special areas. Thus, the contacts between industry and FE can be multiplied. The goals of the CRIN are primarily the following:</p> <ul style="list-style-type: none"> - Support of researchers to overcome the difficulties of the invention processes - Exchange of ideas and personnel between CNRS and other centers - Monitoring of "horizontal actions" - Promotion of the supplies of scientific instruments. <p>The CNRS sends researchers to industry (for a most, 3 years) as advisors and can also grant leave for 2 years to employees who wish to set up their own enterprises.</p>	CNR 51.507
<p><u>1.10 Insurance</u></p> <p>Risks are not insured by the FE, since they are the property of the government. In the CNRS reserves are formed from the budget balance under heading III, with which payments can be made in case of damages.</p>	
<p><u>1.11 Construction Projects</u></p> <p>Construction projects are implemented by the FE themselves.</p>	
<p><u>1.12 Obligations for Reports and Complications</u></p> <p>The FE must provide regular reports on plans, programs and results. The results appear every year or every 2 years and are published.</p>	CNR 51.523 CEA 51.444 CNS 51.441
<p><u>1.13 Intervention of the Giver of the Grant</u></p> <p>Basically there is "overall control" in the FE by the corresponding administration councils, in which the ZG are always represented, with different weights according to the form of organization. As a rule, the FE must satisfy all the requests for information by the ZG. In some FE, the ZG has great influence on the appointment of the directive and can intervene through their personnel policy. Through the narrow budget regulations and many reservations for approval, the ZG would have further possibilities of intervention. This will be reduced</p>	CNR 51.510

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Country: France Institution/Instrument: Government Research Centers	Source
with the establishment of a new form of organization, the EPIST.	
<p><u>1.14 Checks</u></p> <p>For each FE, the statutes regulate what checks should be carried out when, and by whom.</p> <p>The CNRS is checked every 4 to 5 years by the auditor's office. The financial inspection carries out, every 3 to 4 years, studies on certain topics such as development of programs, the direction of the laboratories, status of the personnel. The financial control is the responsibility of the finance ministry, which assigns about 10 persons for the MIR. This group also provides the endorsement, which must be obtained before the award of budget funds by the FE.</p>	CNR 51.510

<u>2. Promotion of the Project</u>		
<u>Country:</u> FRANCE	<u>Instrument:</u> Aid to Invention (Aide à l'Innovation)	<u>Source</u>
(ANVAR (ANV) - Agence nationale de la valorisation de la recherche (National Agency for Application of Research); FE - Recipient of grant; FuE - Research and development; ZG - grantor).		
The aid to invention (established in 1979) should promote inventions and technological progress. All stages of the process of innovations, which before the industrial and economic application, can be assisted (for example, patenting, marketing studies, experiments, development of new projects and new or better procedures, concept and manufacture of prototypes, models, pilot and demonstration plans). Great importance is assigned to the fact that the results of the government research establishments must be rendered economically useful.		ANV 51.572 p. 11
Number of projects promoted (situation July 1, 1982): 3500		
Sums granted: 1979 161.7 million French francs		ANV 51.575 p. 3
1980 548.2 million French francs		
1981 665.7 million French francs		
1982 640 million French francs		ANV 51.401 p. 148
1983 820 million French francs		
<u>2.15 Application Documents</u>		
ANVAR requires presentation of a file in 5 copies of the following items:		ANV 51.569 p. 13
1. Description of the applicant with historic development, legal forms, descriptions of the assets, activities, products, marketing positions, competition, distribution, turnovers.		
2. Description of the situation of the product or procedure to be advanced: technical state, expenditures already incurred, patent rights applied for and granted. Objectives of the project under the qualitative and quantitative aspects: technical, economical, financial.		
3. Description of the invention program to be promoted:		
- technical program and design, industrial patent rights, marketing research		

Country: France Instrument: Aid to Invention (Aide à l'Innovation)	Source
<ul style="list-style-type: none"> - cost plan according to types of costs and project phases; plan for disbursements - prospects for industrial application (manufacture, marketing, administration). <p>4. Indications of financing:</p> <ul style="list-style-type: none"> - description of the property conditions of the company applying for grant, - presentation of balance sheets for the last 3 years as well as operating accounting procedures, profit and loss accounting, reports on the main collections, turnover figures according to main products and activities, public funds received, operating invoices for the current year and plans for the next two years, - planned financing of the project and finance plan of the enterprise. <p>5. Obtaining the required operating capital.</p>	
<p><u>2.16 Application Documents</u></p> <p>Sets of forms are available (12 pages) whose use is recommended. These forms are shown in Appendix F-1.</p>	ANV 51.569 p. 33
<p><u>2.17 Property Conditions</u></p> <p>All natural and juridical persons can put in applications.</p>	ANW 51.569 p. 2
<p><u>2.18 Deliberation on the Applications</u></p> <p>Potential applicants are first informed and advised by written documents. ANVAR publishes brochures. Moreover, an important task of the 22 regional establishments of ANVAR is to advise the applicants and help them in establishing the file.</p>	ANV 51.569
<p><u>2.19 Awarding of Funds</u></p> <p>The aid to inventions is an interest-free, indefinite loan. If a project fails, it becomes a subsidy. In exceptional cases, single written off subsidies can be assigned to newly established companies. ANVAR is attempting further variants, to satisfy the different requirements of inventors.</p>	ANV 51.569 p. 5 ANV 51.575 p. 3
<p>Between the ZG and FE a contract is signed</p>	ANV 51.581

Country: France Instrument: Aid to Invention (Aide à l'Innovation)	Source
<p>("convention", 5 pages, shown in the Appendix under F-2). The "general conditions for granting aid" of the contract regulates, on just 2 pages, the rights and obligations of the ZG and FE:</p> <p>A. Payment of the aid to invention after the signature of the Agence Comptable (Accounting Agency) of ANVAR. Conditions in which ZG is not obligated to pay.</p> <p>B. Various obligations of the FE:</p> <ul style="list-style-type: none"> - the FE should be up to date with the payment of its taxes and social security, - the project to be implemented as plans, the assistance must be used according to the cost plan, - without prior notification of the ZG, the project must not be terminated or given up - annual establishment of report, - the FE allows the ZG to check the technical and financial implementation, - the ZG is informed about the application for patents, if they are granted, the first rights must be granted to the ZG, - without the approval of the ZG, no funds can be diverted which are needed to implement the economic application of the project, - the ZG must be immediately informed of any changes in the company capital and the majority conditions, also changed in status, - the FE must indicate for all the publications concerning the sponsored projects, the support from ANVAR. <p>C. Behavior in case the project fails or is given up.</p> <p>D. Accounting procedure.</p> <p>E. Conditions under which the aid to invention can be recalled.</p> <p>F. Place of jurisdiction: Paris</p> <p>The legal basis : Decree No. 79-616 of July 13, 1979.</p>	/91
<p><u>2.20 Decision of Applications for Grants</u></p> <p>Two certificates are appended with each application (the forms to used are shown in Appendix F-3 and F-4):</p>	ANV 51.409 p. 52

Country: France Instrument: Aid to Invention (Aide à l'Innovation)	Source
<ul style="list-style-type: none"> - one technical and economic certificate, which is processed by ANVAR, the technically competent Ministry or outside expert (predominantly from public research establishments). - A financial certificate is provided by the Crédit National or another institution approved for this purpose by the Ministry of Economics and Finance (CEPME - Crédit d'Equipement des Petites et Moyennes Entreprises (Credit for equipment of small and medium enterprises), SDR - Societes de development regional (Agencies for regional development)). <p>Evaluation criteria include:</p> <ul style="list-style-type: none"> - the technical quality of the project (degree of innovation, increase in competency, importance of the technology transfer between the research establishments and branches of the economy), - the economic interest and the marketing possibilities (national and international situation of the sector concerned; priorities of the economic policy and public interest), - the technical, economic and financial performance of the applicant. 	<p>ANV 51.572 p. 13</p>
<p>Projects with a volume of up to 2 million French francs are decided according to a report of the regional award commission, by the regional ANVAR establishment, which is competent for dealing with the applicant. Larger projects are decided by the central office of ANVAR after a report from the National award commission.</p>	<p>ANV 51.569 p. 5</p>
<p>In the regional awards commissions representatives of regional administration and regional representatives of the Ministry for Industry and Research, as well as the Ministry for Economics and Finance are appointed, the chairman is the director of the ANVAR establishment, who can appoint other suitable persons to the commission.</p>	<p>ANV 51.575 p. 5 ANV 51.580 p. 15</p>
<p>In the international awards commission there are also representatives of these Ministries and of the Crédit National. The chairman is the Director General of ANVAR, who can appoint further persons to form part of the commission.</p>	

Country: France Instrument: Aid to Invention (Aide à l'Innovation)	Source
<p><u>2.21 Delegation of the Award of Funds</u></p> <p>There is no delegation for awarding funds. The sponsored projects are handled by the ANVAR central office or its 22 regional establishments.</p>	<p>ANV 51.569 p. 3</p>
<p><u>2.22 Checking Solvency</u></p> <p>Since the solvency of the applicant is a decisive criterion for assuring help for inventions, it is checked carefully. On one hand, this is carried out in the technical, economic and financial certificate within the framework of decision making, on the other hand, the solvency is monitored on the basis of the annual reports of the FE.</p>	<p>ANV 51.569 p. 3 ANV 51.559 p. 23</p>
<p><u>2.23 Calculation of the Grant</u></p> <p>The basis for calculating the aid to invention is the cost plan to be presented by the applicant for the project, which contains the "overall costs" of the project, needed from the time of the application for implementing the project. In this connection, divisions are made into expenditures for:</p> <ul style="list-style-type: none"> - personnel (cost per man hour: direct cost, social allowances, overhead operating cost), - purchase of equipment and goods (on the basis of the repurchase value), - subcontracts (honoraria, costs of manufacture or external investigations on market costs or supported by precise preliminary calculations), - other costs (for example, travel, renting), - investments (complete, insofar as only applicable to the project, otherwise in proportion to use for other purposes), - for prototypes and pilot productions: repurchase value deducting the process occasionally received. 	<p>ANV 51.569 p. 20 ANV 51.576 p. 25</p>
<p><u>2.24 Financial Handling</u></p> <p>Deviations from the preliminary calculations must be discussed with the officials of ANVAR. A suitable appendix can be signed by agreement. In case of cost overruns, a competent award commission may be notified and they may be approved by them. In case of nonapproval,</p>	<p>ANV 51.559 p. 38</p>

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<u>Country:</u> France <u>Instrument:</u> Aid to Invention (Aide à l'Innovation)	<u>Source</u>
ANVAR determines that there is failure and stops the project. An increase of assistance is not provided.	
<u>2.25 Level of Assistance</u> The level of assistance is 50% of the total cost of the preliminary calculation. Special regulations apply for independent inventors (maximum 75%). The administrative council of ANVAR can, in exceptional cases, permit deviations, if they are justified by the special interest of the project, or because of the latter's specific nature.	ANV 51.408 p. 53 ANV 51.580 p. 6
<u>2.26 Award of Contracts</u> Subcontracts to implement part or all of the research and development projects sponsored by ANVAR are frequent and approved mainly when it is a question of cooperation of government research establishments with private enterprises. A formal approval is not necessary.	- ANV 51.572 p 12
<u>2.27 Payment Procedures</u> As usual, the aid to invention is paid in several installments. The amount of the installment is established in the contract. The first installment is usually paid within 3 months after signing the agreements to a bank account of the FE. The other installments are to be applied for by the FE. In this connection, the FE must prove that it has spent at least twice as much for the sponsored project than received in the assistance, and that it has paid its taxes and social security. The installments are paid every year or after the end of certain project phases.	ANV 51.572 p. 6
<u>2.28 Obligations Regarding Reports and Communications</u> The FE establishes, every year on February 28, a report by filling in a 4 page standardized questionnaire (shown in the Appendix under F5) and supplementary details to the answers. Page A contains all the general information regarding the patent rights connected with the sponsored project, the scientific application and the standards of	ANV 51.559 p. 16

Country: France Instrument: Aid to Invention (Aide à l'Innovation)	Source
<p>the FE.</p> <p>Page B provides information on the development of the project and the intermediate result achieved, on the difficulties which arose in implementing the project, on the level of expenditures made during the past year as compared with the early expenditures.</p> <p>An additional page need only be filled out if the sponsored project is completed. It provides information on the industrial and economic use of the invention, on the delays and difficulties occurring and on the income received in the course of the project.</p> <p>Page C contains information on the financial position of the FE (the turnover achieved, the expected turnover) and the prospects for the repayment of the aid to invention.</p> <p>After ending the project, the FE establishes a final report with final accounting, description of the results achieved as compared with the goal sought, prospects for the economic application, further procedures in the use, description of the planned financing for the use in the next 3 years.</p> <p>ANVAR must be informed immediately about all changes in the standards and in the division of the company capital. In press campaigns on the project and its results, the FE must always mention the aid received from ANVAR.</p>	<p>ANV 51.559 p. 29</p>
<p><u>2.29. Publications</u></p> <p>5 years after the end of the contract, ANVAR can publish information regarding the sponsored project, even if the FE puts up a written objection.</p>	<p>ANV 51.569 p. 8</p>
<p><u>2.30 Participation in the Technical Success</u></p> <p>Any application for patent rights connected with the project must be notified to the ZG. The FE should not give up such rights without previous approval of the ZG. Without the consent of the ZG, such patent rights, technical results or materials and documents required for the project must not be diverted. There</p>	<p>ANV 51.569 p. 8</p>

Country: France Instrument: Aid to Invention (Aide à l'Innovation)	Source
is no provision for the government obtaining free licensing rights.	
<p><u>2.31 Participation in the Financial Success</u></p> <p>In case of economic success of the project, the aid to the invention must be repaid in full. Since ANVAR considers success as the normal case, it is not defined, but only failure (technical or economic failure, nonapplication). In the contract signed between ZG and FE, it is decided how the repayment is to take place: as percentage of turnover, of the product sold, the proceeds from licensing.</p>	<p>ANV 51.559 p. 35</p>
<p><u>2.32 Control of the Result</u></p> <p>On the basis of the annual reports of the FE, the actual progress of the project is compared with the planning which was the object of the contract. Thus ANVAR is notified early regarding results which could have an adverse effect on the technical or economic success. An attempt is made to solve the problem in close contact between the ZG and the officials of the ZG calling upon experts. This may result in a modification of the project or its termination.</p>	<p>ANV 51.559 p. 36</p>
<p><u>2.33 Termination of the Project by the ZG</u></p> <p>ANVAR can terminate the sponsoring of the project in case of technical or economic failure and in case of nonapplication of the results.</p> <p><u>The technical or economic failure</u> occurs when the ZG establishes itself (or on the application of the FE) a failure of the project. Then the FE does not repay the grants used, and there is no further repayment. The diversion of the patent rights, intermediate results, etc. still depend on the approval of the ZG. Through the extensive obligations for notification by the FE, the ZG observes, almost continuously, the development of the project and can implement termination relatively quickly in case of deterioration of the prospects of success.</p> <p><u>The nonapplication of results</u> can have several reasons:</p> <ul style="list-style-type: none"> - inadequate economic or financial capacity of the FE: the official from ANVAR checks 	<p>ANV 51.559 p. 40</p>

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Country: France Instrument: Aid to Invention (Aide à l'innovation)	Source
<p>(appointing outside experts) whether the project can be transferred to another enterprise; this must be approved by the award commission. The rights and obligations of old and new FE must be negotiated.</p> <ul style="list-style-type: none"> - The inadequate ability or readiness of the market to receive the product. ANVAR checks whether a modification of the project can improve the marketing chances. Otherwise an economic (total or partial) failure is declared. - Lack of readiness of the FE. This case is handled like a <u>termination by the FE</u>. <p><u>In case of termination by the FE</u> within 3 years after the end of the contract, the FE must repay the aid to invention totally, or partly, (with interest), according to the decision of the ZG. If the FE is not able to pay back, he must return the patent rights acquired with the aid to invention, the results achieved, models, etc., to ANVAR and cannot object to their further use by other enterprises.</p> <p>ANVAR can <u>recall the assistance</u>:</p> <ul style="list-style-type: none"> - in case of liquidation, dissolution, composition proceedings of the FE, - on the initiative of the ZG, when the FE fails in its obligations, in case it owes taxes and social security payments, in case of incorrect declarations by the FE. 	
<p><u>2.34 Handling of Taxes</u></p> <p>In case of an advance against repayment, the aid to invention is not subject to taxes. If the project fails, the advance becomes a subsidy, and represents operational proceeds or a guaranteed discount, and must be taxed accordingly. The sales tax is omitted because the ZG has not rendered any services to ANVAR (legally disputed, position in October 1982).</p>	ANV 51.576 p. 36
<p><u>2.35 Proof of Use</u></p> <p>The FE engages to provide accounting of all important elements of proceeds and expenditures involved in connection with the sponsored project and must allow operational and accounting checks. Within 2 weeks after application by ANVAR, the accounting documents must be</p>	ANV 51.569 p. 9 ANV 51.576 p. 25

Country: France Instrument: Aid to Invention (Aide à l'Innovation)	Source
<p>presented together with the general accounting procedure. The control is carried out by outside experts appointed by the ZG. The account is according to the regulations of the "Conseil National de la Comptabilité" (National Accounting Council) and the recommendations of the "Conseil Supérieur de l'Ordre des experts-comptables et des comptables agréés" (Higher Council of the Order of accounting experts and registered accountants). The proof of use can be requested at any time by the ZG, to be able to follow the development of the project closely, in time, and to be able to react early to any difficulties.</p> <p>The final accounting contains, established annually, the comparison of the expenditures of the FE and the preliminary calculation of the invention program. One should indicate how the cost overruns were financed.</p>	
<p><u>2.36 Improper Use</u></p> <p>In case of improper use of funds, the ZG can immediately demand the return of the grant. The FE must pay back, with interest, the amount received.</p>	ANV 51.569 p. 9
<p><u>2.37 Time Requirements for Processing the Application</u></p> <p>The regional establishments decide within 2 months after the presentation of the application, the central office within 3 months.</p>	ANV 51.569 p. 3
<p><u>2.38 Administration Costs</u></p> <p>The share of the administration budget in the total amount of the funds available to ANVAR is 9%.</p>	ANV 51.401 p. 14

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Country: France	Instrument: Aid to Invention (Aide à l'Innovation)			Source
	1981	1982	1983	
Total budget funds	725 mil FF	737.33 mil FF	990.05 mil FF	
of which				
Aid to invention	650	640	820	
Invention bonus	33	30	80	
Administration	42	67.33	90.05	
of which				
Use of research results	3	3	-	
Certificates for aid to invention	8	13.6	-	
Personnel	256 jobs	278 jobs	348 jobs.	

<u>2. Project Sponsorship</u>	
<u>Country:</u> FRANCE <u>Instrument:</u> Invention Bonus (Prime à l'Innovation)	<u>Source</u>
(ANVAR(ANV) - Agence nationale de la valorisation de la recherche (National Agency for Application of Research); FE - Recipient of grant; FuE - Research and development; RF - French government; ZG - grantor).	
The bonus (established in 1979) should encourage small and medium enterprises to award research work to public research establishments or recognize private establishments or experts. The following are sponsored: research problems, expertise studies, product concepts, analyses of values, design, patent and scientific documentation, material and standard testing, as well as those items connected with planned research.	ANV 51.560 ANV 51.562
1980 1756 bonuses were awarded amounting to 12.8 million FF.	ANV 51.572 p. 6
1981 2857 bonuses were awarded amounting to 28.4 million FF.	
1982: the amount was 21.5 million FF	RF 51.401 p. 149
1983: the planned amount is 80 million FF.	
<u>2.15 Application Documents</u>	
ANVAR requires the presentation of a form (2 copies) with the receipted invoice for the external application research and with a description of the work carried out. The application must be made within 12 months after the start of the project with the recipient of payment.	ANV 51.560
<u>Application Documents</u>	
Forms are available (1 page) and are in the Appendix under F-6.	ANV 51.560
<u>2.17 Property Conditions</u>	
The bonus is meant exclusively for small and medium sized French companies, with less than 2000 employees who do not have majority positions of quota companies.	ANV 51.560

Country: France Instrument: Invention Bonus (Prime à l'Innovation)	Source
<p><u>2.18 Advice for the Application</u></p> <p>The potential applicants are given information in written documents. Because of the simplicity of the procedure, advice is not considered necessary. The regional ANVAR establishment in the area in which the company is located is competent for awarding the bonus.</p>	ANV 51.577 p. 12
<p><u>2.19 Award of Funds</u></p> <p>The bonus is awarded as a government subsidy. The legal basis is Decree No. 79-617 of July 13, 1979.</p>	ANV 51.560
<p><u>2.20 Decision of Sponsoring Application</u></p> <p>The bonus is given automatically if the legal provisions are satisfied. No certificates are prepared.</p>	ANV 51.577 p. 12
<p><u>2.21 Delegation of Award of Funds</u></p> <p>The regional ANVAR establishment in the area of the location of the applicant company awards the bonus.</p>	ANV 51.577 p. 13
<p><u>2.22 Checking of Solvency</u></p> <p>Solvency is not checked, but the FE must prove that it has paid its taxes and social security.</p>	ANV 51.560
<p><u>2.23 Calculation of the Grant</u></p> <p>The basis of the grant is the calculated net amount for the external contract research. The grant is limited to expenditures for scientific and technological research work. The following activities are excluded:</p> <ul style="list-style-type: none"> - work for office management and organization, - work for current production, - costs of advance training, - purchase of consumer and user goods, which are not used exclusively for the research project, - expenditures for the protection of patent rights, - bibliographic and documentary studies, - market studies and technical and economic studies. 	ANV 51.560

<u>Country:</u> France <u>Instrument:</u> Invention Bonus (Prime à l'Innovation)	<u>Source</u>
<u>2.24 Financial Handling</u> Not relevant.	
<u>2.25 Sponsorship Level</u> The sponsorship level amounts to 25% of the expenditures (without business tax) of the company for external contract research, at most 1 million French francs per year and company. The bonus should not be accumulated together with other government funds. An amount of the assistance rate of 35% is planned.	ANV 51.560 RF 51.424 p. 70
<u>2.26 Awarding Contracts</u> The award of contracts (external contract research) is a condition for the bonus. The research establishment or the expert can award part of the work as subcontracts. The name and amount of the services of a subcontractor must be indicated. ANVAR provides that the negotiations with subcontracts do not contradict the nature of the external contract research (no subcontracts to FE).	ANV 51.560
<u>2.27 Payment Procedures</u> Payment is made within 1-2 months after receiving the application and after the real payment of the invoice for the external contract research by the company.	ANV 51.577 p. 12
<u>2.28 Obligations for Reports and Communications</u> None	
<u>2.29 Publication</u> None	
<u>2.30 Participation in Technical Results</u> None	
<u>2.31 Participation in the Financial Success</u> None	
<u>2.32 Control of Success</u> None	

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<u>Country:</u> France <u>Instrument:</u> Invention Bonus (Prime à l'Innovation)	<u>Source</u>
<u>2.33 Termination of Project</u> Not relevant	
<u>2.34 Tax Handling</u> The bonus is free from business tax, but is subject as operation income to profit tax.	ANV 51.576 p. 38
<u>2.35 Proof of Use</u> Presentation of invoice for the external contract research is used as proof of use. The ZG is entitled to check the valid expenditures in the FE and the external research establishment.	ANV 51.560
<u>2.36 Improper Use</u> In case of improper use, the ZG can recall the bonus. The FE has to reimburse the ZG.	ANV 51.560
<u>2.37 Time Required for Processing the Application</u> A decision will be made about the application with 45 days, after presenting all the documents	ANV 51.560
<u>2.38 Administrative Costs</u> Cannot be established	

<p>2. <u>Project Advancement</u></p> <p>Country: FRANCE <u>Instrument:</u> Foundation of Scientific and Technical Research (Fond de la Recherche scientifique et technique)</p>	<p><u>Sources</u></p>
<p>(AC - combined actions; CCI - Chamber of Commerce and Industry of Paris; CP - Program contracts; EG - European community; FE - Grant recipient; FuE - Research and development; MIR - Ministry of Industry and Research; ZG - grantor).</p>	
<p>The foundation is set up basically as an instrument for additional financing for institutionally promoted research establishments and for the promotion of collaboration between various research establishments.</p> <p>With this foundation (established in 1975) which the MIR has at its disposal, new research areas will be covered, which are in the national interest (fundamental research and applied research). There are 3 sponsorship procedures:</p> <ol style="list-style-type: none"> 1. <u>Combined action</u> (actions concertées - AC). This promotes, basically, the collaboration between different research groups, different disciplines and between public and private sector (1980: 31 operations). 2. <u>Program contract</u> (contrats de programme - CP). This procedure often follows the AC. By this means exactly established projects are assisted in <u>individual</u> research establishments and companies, whose competency is recognized. 3. <u>Specific activities</u> (actions spécifiques). This is used to promote projects: <ul style="list-style-type: none"> - which are timely and extraordinary, and do not fit in the framework of other activities; - which are too specific to be the object of AC or CP; - which are of overlapping type, such as scientific and technical information services (data banks), regional activities, international exchange of research. 	<p>CCI 51.409 p. 34</p>

<u>Country:</u> France	Instrument: Foundation of Scientific and Technical Research (Fond de la Recherche scientifique et technique)	<u>Source</u>		
Sums involved in the assistance:		EG 51.410 p. 55		
Combined actions	Program contract		Special activities	
1979	189 mil FF		136 mil FF	62 mil FF
1980	180		186	82
1981	194		180	-
1982	165	221	-	
<u>2.15 Application Documents</u>		MIR 51.418 p. 1		
<p>The MIR requires the presentation of a file "request for aid to research" with the following components:</p> <ul style="list-style-type: none"> - description of the project with justification - name of the researcher responsible for the project - executive research establishment (F) - description of the most important scientific and technical funds available to the FE - period for which the government sponsorship is applied - preliminary calculation and division into expenditures for current work (fonctionement) (operation) and for equipment (équipement). 				
<u>2.16 Application Forms</u>		MIR 51.419		
Sets of forms are available (10 pages), which are reproduced in Appendix F-7.				
<u>2.17 Property Conditions</u>		EG 51.410 p. 56 MIR 51.419		
Government research establishments, universities and companies can be sponsored. Research establishments under private law must disclose their property conditions.				
<u>2.18 Advice on the Application</u>		EG 51.410 p. 55		
Advice to the applicant is not provided. But between the users of the result (management and industry), researchers and those responsible for the scientific policy, an agreement is to be made as to which areas should be sponsored, oriented as national research planning. For each AC an advisory committee is established. Subsequently, a limited group of participants				

<u>Country:</u> France <u>Instrument:</u> Foundation of Scientific and Technical Research (Fond de la Recherche scientifique et technique)	<u>Source</u>
are asked to give their bids (appel d'offres) (call for tender). The application is notified through the tendered documents.	
<u>2.19 Award of the Funds</u> The government promotion is a subsidy. The legal basis: Decree of October 29, 1975, modified by Decrees of November 19, 1976, February 23, 1978 (as concerns CP) and June 23, 1978 (concerns AC).	EG 51.410 p. 55
<u>2.20 Decision on the Applications for Assistance</u> Regarding AC, the decision is made by the advisory committee, regarding CP, the MIR decides only on the basis of certificates in non-formalized procedure. The decision for the award determines: <ul style="list-style-type: none"> - the FE and content of the project - the amount of the expenditures from which the calculation of the government grant is made - the percentage of the share of the ZG in the project - the amount of the grant and the presumable time schedule for individual payments - the position of the FE with regard to the patent rights - special provisions of the implementation. The division of awards becomes valid only after expressed or silent approval of the FE.	- EG 51.410 p. 57 MIR 51.418 p. 3
<u>2.21 Delegation of the Award of Funds</u> The funds are awarded by the MIR	
<u>2.22 Checking of Solvency</u> Solvency is assumed to exist. In research establishments under private law, we are dealing practically only with large enterprises.	
<u>2.23 Calculation of the Grant</u> The basis for calculation of the grant is the cost plan to be presented by the applicant.	MIR 51.420 MIR 51.418 p. 2

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<p>Country: France</p>	<p>Instrument: Foundation of Scientific and Technical Research (Fond de la Recherche scientifique et Technique)</p>	<p>Source</p>
<p>In this connection a distinction is made between the public and private law organized applicants.</p> <ul style="list-style-type: none"> - in <u>enterprises under public law</u> the cost plan should contain only additionally the means required for the project (not the salaries of the permanent personnel): <ul style="list-style-type: none"> - special equipment - additional costs for current work - travel costs - for <u>establishments under private law</u>, the cost plan should contain the total costs for the project. <p>If several companies apply for the joint project (AC), each company must lay out its cost plan and compare it with the general plan.</p> <p>The cost plan is divided into two groups: costs for current work and for equipment.</p> <ol style="list-style-type: none"> 1. The costs for current work (fonctionnement) (operation) include: <ol style="list-style-type: none"> 1.1 Salaries and social security (only in exceptional cases for foreign research workers) 1.2 Reimbursement of assistance with social contributions (only for a limited time and for part-time employees) at most 14,300 French francs (net) per person per year 1.3 Overhead operating costs (frais généraux de laboratoire) (general laboratory costs): <ul style="list-style-type: none"> energy and assumed materials documentation moving and travel costs maintenance and repair of the equipment used for the project depreciation services specific raw materials low cost equipment with a unitary value under 10,000 French francs (before taxes) computer hours miscellaneous (only after special proof) 		

<p>Country: France Instrument: Foundation of Scientific and Technical Research (Fond de la Recherche scientifique et technique)</p>	<p>Source</p>
<p>1.4 Administration overhead costs (frais généraux de siège): they are taken into consideration as percentage extra costs to total cost (without overhead costs). They may include the following expenditures:</p> <ul style="list-style-type: none"> insurance premiums financing costs office requirements general maintenance administration costs including salaries of office management mail and telephone fees rents and subsidiary costs <p>For <u>universities and comparable institutions</u>, a lump sum addition for overhead is allowed of at most:</p> <ul style="list-style-type: none"> 4% for equipment with unitary value of 10,000 French francs 8% for all remaining expenditures. <p>For <u>other public law institutions</u>, the maximum amount is 4% for all expenditures.</p> <p>For <u>private law institutions</u> low maximum level is fixed.</p> <p>2. The costs for the <u>equipment</u> (items with unitary value of more than 10,000 French francs) are taken into consideration for institutions subject to private law according to the purchase cost (without taxes). For institutions subject to private law, instead of the purchase cost, the depreciation during the time of the project is applied.</p> <p>Only expenditures which are disbursed under the approval of the application can be covered by the grant.</p>	
<p><u>2.24 Financial Handling</u></p> <p>In the handling of the project, the items within the two groups of expenditures are always interchangeable. The two groups can be interchanged up to 30% of their original amounts. The FE must notify ZG about the deviation. Further deviations must be applied for by the FE, and the Minister makes the decision.</p>	<p>MIR 51.418 p. 6</p>

<u>Country:</u> France	<u>Instrument:</u> Foundation of Scientific and Technical Research (Fond de la Recherche scientifique et technique)	<u>Source</u>
Any change in the research program and grant requires administrative decisions. The decision about the extension of the project must be renewed only when it exceeds 6 months.		
<u>2.25 Rate of Assistance</u>		
In case of public law FE, the assignment covers all the additional funds needed for the project (except for the salaries of the permanent employees). For private law FE, the grant covers part of the total costs of the project. The ZG establishes the share (about 50%).		MIR 51.420 EG 51.410 p. 55 -
<u>2.26 Awarding of Contracts</u>		
The FE may award contracts to third parties within the framework of the project.		
<u>2.27 Procedure for Payment</u>		
The procedure for payment is regulated in a different way for FE subject to public and private law:		MIR 51.418 p. 2
<u>FE under public law:</u>		
<ul style="list-style-type: none"> a) after approval the following are paid <ul style="list-style-type: none"> - the share of the grant provided for material purchases - the current expenditures for half a year. This grant can, if necessary, be increased by the item "miscellaneous" (indicated under 1.3 of the preliminary classification). b) 90% of the amount of the grant subtracting the payments indicated under a, is divided into equal semi-annual installments and paid at this rate. The first installment is paid 6 months after approval. c) after presenting the final report and documents, the last 10% of the grant is paid. 		
<u>FE under private law:</u>		
<ul style="list-style-type: none"> a) 3 months after approval the part of the grant is paid which is provided 		MIR 51.418 p. 3

<u>Country:</u> France	<u>Instrument:</u> Foundation of Scientific and Technical Research (Fond de la Recherche scientifique and technique)	<u>Source</u>
<p>for material purchases at the beginning of the project. This share should not exceed 20% of the grant.</p> <p>b) 90% of the amount of the grant, subtracting the payments indicated under a, is divided into equal quarterly installments (4 months) and paid out according to that schedule. The prerequisite for payment is the presentation of intermediate accounting documents of the actual expenditures of the previous quarter. If the installment was not used up completely, the next installment is shifted by a quarter. The first quarter is paid together with part a.</p> <p>c) after presenting the final report and documents, the last 10% of the grant is paid.</p>		
<p><u>2.28 Obligation Regarding Reports and Communications</u></p> <p>The obligations of the FE to provide reports and communications are established in the conditions of approval. However, always within 2 months after ending the project, a final report must be presented describing the results achieved. Moreover, the FE as required by ZG must provide a complete technical documentation, which allows the reproduction of the prototype or construction.</p>		MIR 51.418 p. 4
<p><u>2.29 Publications</u></p> <p>The ZG cannot hand over to third parties without the approval of the FE any study and manufacturing documents, test reports and all documents which the FE has declared confidential. But the refusal by the FE must be justified.</p>		MIR 51.418 p. 4
<p><u>2.30 Participation in the Technical Results</u></p> <p>The position of the FE is established in the decision of approval and regulates the procedure for inventions and patent rights. In general,</p>		MIR 51.418 p. 5

<u>Country:</u> France	<u>Instrument:</u> Foundation of Scientific and Technical Research (Fond de la Recherche scientifique et technique)	<u>Source</u>
<p>the following applies: for FE which usually use patent rights:</p> <ol style="list-style-type: none"> 1) Patents are taken in the name of the FE and as its costs (in France the support of the ZG must be included). Within 2 months after application the ZG must be informed. 3 months before a nonextension, the ZG is notified, so that it can have it extended and used by ANVAR (within the framework of special agreements between ANVAR and FE). 2) In case of collaboration with one or several FE's, which do not apply their patent rights, the patents are taken in the name and costs of the user FE, where the name of the inventor must be included. Before use, an agreement is signed between the FE's on the conditions of use. 3) If the ZG establishes that the FE has not applied for patents for the results (during the project and for a period of 1 year after its completion), then the ZG has the right to apply (after notifying the FE and after 2 months) in the name of the government or a government institution. The FE can, within 2 years after the obligation, receive a nonexclusive license. Within this period the government cannot transfer the patents obtained by this means. 4) If the FE transfers patents or assigns licenses, it must inform the ZG within 2 months. The ZG can establish in the decision for approval that transfers abroad or to foreigners must have approval. The approval is considered to be given if the ZG does not raise within a month any objections, furnishing the reasons. 5) The patents cannot be withheld from the government and from the government institutions mentioned specifically in the decision on the approval, if they are used for their own means. The government 		

Country: France Instrument: Foundation for Scientific and Technical Research (Fond de la Recherche scientifique et technique)	Source
<p>receives nonexclusive, free patent rights. In their use outside the government institutions, the property right of the FE is acknowledged.</p> <p>For FE who do not usually apply their patent rights:</p> <p>Such FE sign with ANVAR an agreement on the use. If there is no special agreement, the regulations on the agreement between ANVAR and CNRS apply.</p>	
<p><u>2.31 Participation in the Financial Benefits</u></p> <p>The Minister can decide that the FE should allow the ZG to share in the financial proceeds (on the basis of a special agreement). This share is limited to a period of at maximum 10 years after completion of the project and a maximum amount of 70% of the grant. Moreover, the annual repayment should not exceed 2% of the sales proceeds (without business tax, from the factory) or 30% of the license fees obtained.</p>	<p>MIR 51.418 p. 6</p>
<p><u>2.32 Control of Results</u></p> <p>Persons assigned by the Minister can, at any time after prior information from the FE check the results of the project under the technical and financial aspects.</p>	<p>MIR 51.418 p. 4</p>
<p><u>2.33 Termination of Projects by the ZG</u></p> <p>The Minister can terminate the grants for a current project without indicating reasons, but earliest, 6 months after beginning the project. The Minister announces this decision and establishes until what time expenditures for implementing the project can still be covered by the grant. This time must be later than the announcement.</p> <p>The grants can also be terminated if</p> <ul style="list-style-type: none"> - the project is not implemented - the FE does not fulfill its obligations - the director of the project is no longer in the service of the FE and a successor is not appointed within a month and approved by the 	<p>MIR 51.418 p. 7</p>

<p><u>Country:</u> France <u>Instrument:</u> Foundation of Scientific and Technical Research (Fond de la Recherche scientifique et technique)</p>	<p><u>Source</u></p>
<p>minister.</p> <p>In the first two cases the Minister announces to the FE and the director of the project his decision on the termination of the grant and establishes, at the same time, the time at which the expenditures for the project can be covered by the grant. If the director has left, the expenditures can still be covered by the grant for 28 days.</p> <p>Occasionally, the Minister can require the total or partial repayment from the FE.</p>	
<p><u>2.34 Tax Handling</u></p> <p>The grants are subject to business tax. In industrial enterprises, they are subject also to profit tax as operating proceeds.</p>	<p>MIR 51.419 p. 9</p>
<p><u>2.35 Proof of Use</u></p> <p>The invoices must be presented in 2 copies on sheets with the letterhead of the FE. Bookkeeping must be maintained for all expenditures concerning the projects.</p> <p><u>FE under public law</u> are required 6 weeks after the end of a period to provide an invoice of the use of the funds allocated. The first period includes 12 months, the following one 6 months. If the last period of the project is shorter than 6 months, the invoice must be presented later, 6 weeks after its end. The invoice consists in listing the expenditures, which are confirmed by an accountant (agent comptable).</p> <p><u>FE under private law</u> are required each time to provide an invoice of the expenditures disbursed before receiving the next installment of the grant. These invoices must contain:</p> <ul style="list-style-type: none"> - the sum of the salaries, the amount of the social security and the overhead costs, as well as the sum of the other expenditures, insofar as they were listed in the cost plan; - listing an amount of the investments which can be depreciated for the project with appended certificates or invoices; 	<p>MIR 51.418 p. 3</p>

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<u>Country:</u> France	<u>Instrument:</u> Foundation of Scientific and Technical Research (Fond de la Recherche scientifique et technique)	<u>Source</u>
- business tax, rate and amount.		
<u>2.36 Improper Use</u>		
In case of improper use the Minister can impose recovery of the grant, totally or in part, or end the sponsorship of the project.		MIR 51.418 p. 7
<u>2.37 Time Needed for Processing the Application</u>		
The period is from 6 to 8 months.		
<u>2.38 Administration Costs</u>		
Since the MIR conducts cameralistic invoicing, the administrative costs corresponding to it cannot be paid for in the foundation, the moreso, as the foundation is only one instrument among several used for the sponsorship of research.		

<p><u>3. Program Development and Continuation</u></p> <p>Country: FRANCE</p>	<p>Source</p>
<p>(FE - Research establishment; FuE - Research and development; RF - French government).</p>	
<p><u>3.39 Seminars, Meetings on the Program Status</u></p> <p>Seminars and meetings take place at different stages (within the FE, in sectors, regional and national committees and commissions) to prepare the budget plans, which are oriented in categories and programs of the national research plan and its extensions.</p>	
<p><u>3.40 Program Screening</u></p> <p>A systematic program screening does not take place. As a result of the research skeleton law a new procedure for program planning was tested for the 1983 budget, in which the start for the individual programs was on the basis of the researcher: the applications for assistance of all institutionally sponsored FE's were collected, arranged along broad program lines and compared with the research plan. In session of negotiations between the givers of the grants and the individual FE, an overall equilibrium was achieved, which ended, finally, once again, in an ordinary budget.</p> <p>In future, greater emphasis than heretofore will be laid on program evaluation.</p>	<p>RF 51.401 p. 59</p>
<p><u>3.41. Further Development of Sponsoring Criterion</u></p> <p>Explicit sponsoring criteria are not preassigned. The further development of program goals and content is a result of national program planning.</p>	
<p><u>3.42 Measures to Transmit the FuE Results</u></p> <p>The insufficient transfer of research and development results has been, for years, an important point of criticism in the research and development policy. As a reaction to this in the skeleton law on research, the transfer of research and development results has been called one of the 4 goals of government research. In the organization program, the seventh program line "technological development of the economy" is specially set for transfer</p>	<p>RF 51.401 p. 84</p>

Country: France Program Development and Continuation	Source
<p>of research and development results, and contains the widely classified catalogue of topics, on which suitable measures should be developed:</p> <p>a. Training: contracts between industry and universities for theses of engineers and technicians; various measures in training to increase the level of the technical education.</p> <p>b. Regional actions:</p> <ul style="list-style-type: none"> - technical support for small and medium companies by government research centers - regional technological pools - development of regional networks of technological advisors - agencies for scientific and technical information (establishment of ARIST - regional agencies for scientific and technical information). <p>c. Technology transfer between large companies and small and medium companies.</p> <p>d. Use of the research results in the public FE and disclosure for all small and medium sized companies:</p> <ul style="list-style-type: none"> - transfer policy (for example, contracts with industry, sharing, establishment of subsidiaries) - structural measures (for example, marketing studies, search for industrial partners) <p>e. Dissemination of technology in the economy.</p> <p>f. Financial incentives:</p> <ul style="list-style-type: none"> - direct government grants - supplementary tax breaks - preferred credit - facilitation of the company's own capital. 	

<u>Structural Characteristic of the Government Advancement of Research and Development</u>																																					
<u>Country: SWEDEN</u>	<u>Source</u>																																				
(FuE - Research and development; OECD - Organization for Economic Cooperation and Development; REG - government documents; SCL - government central office; SIND - government industrial authorities; STU - Royal office for technical development)																																					
<u>1. Promotion Activities at Different Cultural Levels</u> FuE advancement predominantly by the central government.																																					
<u>2. Extent of Government FuE Advancement</u> Government FuE advancement (1982/1983): 7.725 million Swedish crowns, corresponding to 1.2% of the GNP Ministries: <table data-bbox="391 922 981 1274" style="margin-left: 20px;"> <tr><td>Education</td><td>2.458 mil</td><td>32%</td></tr> <tr><td>Industry</td><td>1.628 mil</td><td>21%</td></tr> <tr><td>Defense</td><td>1.462 mil</td><td>19%</td></tr> <tr><td>Social</td><td>535 mil</td><td>7%</td></tr> <tr><td>Agriculture</td><td>583 mil</td><td>8%</td></tr> <tr><td>Labor</td><td>248 mil</td><td>3%</td></tr> <tr><td>Housing</td><td>230 mil</td><td>3%</td></tr> <tr><td>Communications</td><td>230 mil</td><td>3%</td></tr> <tr><td>Special Occasions</td><td>211 mil</td><td>3%</td></tr> <tr><td>Others</td><td>140 mil</td><td>2%</td></tr> <tr><td colspan="2" style="border-top: 1px solid black;"></td><td></td></tr> <tr><td></td><td>7.725 mil</td><td>100%</td></tr> </table>	Education	2.458 mil	32%	Industry	1.628 mil	21%	Defense	1.462 mil	19%	Social	535 mil	7%	Agriculture	583 mil	8%	Labor	248 mil	3%	Housing	230 mil	3%	Communications	230 mil	3%	Special Occasions	211 mil	3%	Others	140 mil	2%					7.725 mil	100%	SCB 51.606 p. 3 SCB 51.606 p. 6
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<u>3. Recipients of Government FuE Advancement</u> (Government advancement of FuE in sciences and technology, 1977): <table data-bbox="247 1481 821 1626" style="margin-left: 20px;"> <tr><td>Economy</td><td>28%</td></tr> <tr><td>Government (without universities)</td><td>21%</td></tr> <tr><td>Universities</td><td>51%</td></tr> <tr><td colspan="2" style="border-top: 1px solid black;"></td><td></td></tr> <tr><td></td><td>100%</td></tr> </table>	Economy	28%	Government (without universities)	21%	Universities	51%					100%	OECD 51.609 p. 24																									
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<u>4. Sectors/Goals of FuE Advancement</u> The most important goals for government advancement 1982/83 are:	SCB 51.606 p. 7																																				

Country: Sweden	Source																
<table border="0"> <tr><td>General scientific development</td><td>39%</td></tr> <tr><td>Defense</td><td>19%</td></tr> <tr><td>Energy and water supply</td><td>10%</td></tr> <tr><td>Health and medicine</td><td>7%</td></tr> <tr><td>Industrial development</td><td>5%</td></tr> <tr><td>Miscellaneous</td><td>20%</td></tr> <tr><td colspan="2"><hr/></td></tr> <tr><td></td><td>100%</td></tr> </table>	General scientific development	39%	Defense	19%	Energy and water supply	10%	Health and medicine	7%	Industrial development	5%	Miscellaneous	20%	<hr/>			100%	
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<p data-bbox="145 602 975 665"><u>6. Most Important government Establishments for FuE Advancement</u></p> <p data-bbox="145 679 919 712">Ministries: Education, Industry, Defense</p> <p data-bbox="145 727 1031 789">Coordination: State Secretariat (for the Prime Minister) for research</p> <p data-bbox="145 803 1046 837">Research councils and sponsoring establishments:</p> <ul style="list-style-type: none"> <li data-bbox="277 837 1046 899">Research council for classical and social sciences (HSFR) <li data-bbox="277 899 1031 961">Government research council for medicine (MFR) <li data-bbox="277 961 1031 1023">Government research council for sciences (NFR) <li data-bbox="277 1023 895 1056">Research council commission (FRN) <li data-bbox="277 1056 951 1118">National council of universities and technical universities (UHA) <li data-bbox="277 1118 975 1181">Council for forestry and agricultural research (SJFR) <li data-bbox="277 1181 1007 1214">Council for construction research (BFR) <li data-bbox="277 1214 919 1276">Commission for energy research and development (DFE) <li data-bbox="277 1276 1015 1338">National Swedish council for developing sources of energy (NE) <li data-bbox="277 1338 991 1400">Royal office for technical development (STU) <li data-bbox="277 1400 1078 1433">Commission for development research (SAREC) <li data-bbox="277 1433 695 1466">Industrial foundations <li data-bbox="277 1466 655 1500">Northland foundation <li data-bbox="277 1500 991 1533">Foundation for the protection of labor <li data-bbox="277 1533 847 1566">Northern industrial foundation <li data-bbox="277 1566 935 1599">Foundation for regional development 	<p data-bbox="1445 596 1517 629">/104</p> <p data-bbox="1062 803 1390 837">SIND 51.661 p. 48</p>																
<p data-bbox="145 1622 1007 1721"><u>6. Structure of Research and Development Sponsoring (Institutional Sponsoring, Project Sponsoring, Sponsoring Programs)</u></p> <ul style="list-style-type: none"> <li data-bbox="145 1736 991 1825">- Indirect FuE promotion with tax break takes place only to a small extent (about 130 mil Swedish crowns S.8 per year). <li data-bbox="145 1825 975 1858">- the insitutional promotion is concentrated 	<p data-bbox="1062 1736 1254 1769">STU 51.679</p>																

Country: Sweden	Source
<p>in university institutions and joint research institutions. Besides them there are only a few government promoted institutions.</p> <ul style="list-style-type: none"> - The principle: "sectoralized research and development advancement". The government authorities are not grouped in a central office. Each Ministry promotes research independently in his own area of competency. The coordination of government research sponsorship is still at its beginning. - Delegation of the sponsorship to subordinate institutions: as common in the Swedish institutions, the Ministries concentrate on conceptual and monitoring missions. The sponsorship is delegated to subordinate offices, councils, foundations, etc. - Most important procedures in project sponsorship: <ul style="list-style-type: none"> - direct (large) development contracts awarded to the Swedish industry (defense research, communication projects) - grants and loans by different sponsoring institutions (STU, industrial foundations, research councils, etc.) - "Project insurance" (providing the assistance only in the case of failure). - Advancement of joint research through the STU. 	
<p><u>7. Main Characteristics of Institutional Assistance</u></p> <p>For the organization of establishments and use of grants, the basic principles and regulations of the sector to which the establishment belongs apply (industry, government, combined). There are no special conditions of the grantor in the regions of organization, accounting, personnel, activity for other areas, financial economics, rights of use and benefits.</p> <p>Besides institutional assistance, the establishments also receive, as a rule, project funds.</p>	
<p><u>8. Main Characteristics of Project Assistance</u></p> <p>The conditions for FuE contracts are similar to those common in the USA.</p> <p>The other advancement of FuE takes place as grant, loan or "project insurance" (provision of funds only in case of failure). Projects of fundamental research are generally financed up</p>	

Country: Sweden	Source
<p>to 100% of the individual costs. FuE projects in the industry generally receive an assistance of up to 50%, which is to be returned with interest and repaid in case of success.</p> <p>Application procedures and conditions of approval are mostly arranged simply. The procedure for decision making is hardly formalized. There are no exact provisions for costs which can be covered by grants. Limitations of the grant recipient by government rights to patents or use do not exist.</p> <p>The STU emphasizes and supports the practical transfer of the FuE result by a broad catalogue of measures.</p>	
<p><u>9. Main Characteristics of Program Development</u></p> <p>Extrasectorial program development does not take place. Extraintitutional programs are developed and continue in the sectors of construction and energy. Special institutions (research councils) are competent in this area. Part of the assistance by the STU takes place in programs ("action area", "technical knowledge areas" and "selected program areas").</p> <p>The programs are established by the workers of the institution and the appointment of outsiders and decided by the management. There are no formalized procedures.</p> <p>In other areas of assistance, the overwhelming portion of the government FUE assistance, a prestructurization by programs is purposely omitted.</p>	

1. Institutional Advancement	
Country: SWEDEN Institution/Instrument: Research Institute for Nuclear Physics, Stockholm	Source
(AF - Nuclear Physics Institute; FE - Research establishments; (FuE - research and development; REG - government; ZG - grantor).	
1.01. Organization of the FE	
The government establishment in the area of competency of the Education Ministry, of the same status as universities. The topmost body: "board" with 9 members: 6 representatives from institutions, institute director, 2 personnel representatives, no government representative.	AF 51.722
1.02 Accounting	
Cameralistic accounting procedures as described in the government area. No cost calculation. Objects worth more than 3000 Swedish crowns are inventoried.	AF 51.722
1.03 Award of Funds	
Institutional assistance from only one giver of grant/allocation: the Royal Swedish Parliament decides the institute budget in the overall budget of the Education Ministry (1983/84: 14.7 million Swedish crowns). Budget headings: administrative costs (8.1 million Swedish crowns), site costs (4.4 million Swedish crowns); material (2.2 million Swedish crowns). The responsibility exists of interchange within these headings, but not between them.	REG 51.626 p. 548
There are no special provisions for the FUE activity. Additional financing is only secured for larger investments, not for projects or special plans. There is no intervention for execution, fund reduction, regrouping. Besides basic financing, the institute receives project funds from other sponsoring establishments (especially the scientific research council).	AF 51.722
1.04 Personnel Economics	
The workers in the institute are officials in public service.	
The budget shows: 52 personnel	AF 51.723

Country: Sweden	Institution/Instrument:	Source
Research Institute for Nuclear Physics, Stockholm		
<p>(researchers: 19, remaining personnel 33). Jobs are only given in number, there is the possibility of determining the levels, not with regard to the number. The public salary law and public tariff are used directly. Government and Royal Parliament must approve the appointment of professors. Further personnel cost is financed from material budget and the project funds.</p>		AF 51.722
<p>The institute management can appoint workers for shorter period (1 year or less). These workers receive compensation (fixed uniformly between the government and the unions), corresponding to that of permanent employees. These compensations are pensionable.</p>		AF 51.723
<p>Special regulations (increments, bonuses) for the workers because of their research activity or that of the institute do not exist.</p>		AF 51.723
<p>There are 3 categories for establishing the working contracts: "permanent, permanent extra and extra". Indefinitely appointed personnel (professors) cannot lose their job, even if the institute is dissolved. The government must, in such a case, offer them a comparable position. Employees of the other two categories may, in such a case, be discharged, but they receive an official aid in the search for a new job in government service.</p>		AF 51.723
<p>The dismissal of permanent employees is rendered extraordinarily difficult because of a number of Swedish laws on the protection of the employee against loss of job, even if objective criteria exist (absence from work, inadequate abilities, improper behavior).</p>		AF 51.723
<p>The dismissal of workers who are financed from project funds is possible after ending the project financing, after negotiations with the unions. As a transition regulation it was agreed upon individually in such cases that the worker concerned could receive for another 12 months the salary from the institute, if he cannot find any new job with the help of the Swedish personnel authorities.</p>		AF 51.723

<u>Country:</u> Sweden	<u>Institution/Instrument:</u> Research Institute for Nuclear Physics, Stockholm	<u>Source</u>
<p><u>1.05 Institution's Own Income</u></p> <p>There is no activity for the industry. The institute applies for and receives project assistance, especially from the NFR (1982/83: 1.1 million Swedish crowns). This income does not reduce the grant. Competition exists only with the other research and development institutions.</p> <p>There are no limitations imposed on the activity for other offices because of the institutional assistance. The income received is not counted in the sense of the reduction of the grant; the institute can freely use these means; additional personnel can be appointed. Special agreements which are based on public salary law apply for their compensation.</p>		AF 51.723
<p><u>1.06 Donations</u></p> <p>The institution receives no donations.</p>		AF 51.722
<p><u>1.07 Transfer of Funds</u></p> <p>The transfer of funds is possible in the material budget. The other balances are forfeited and must be repayed. However, this case has not occurred so far.</p>		AF 51.723
<p><u>1.08 Rights of Use and Benefits</u></p> <p>All rights belong to the government with certain limitations with regard to the individual rights of the inventor. The subject is not important practically, since the institute is confined to fundamental research; patent rights are not applied for.</p>		AF 51.722
<p><u>1.09 Technology Transfer</u></p> <p>Technology transfer takes place with the participation in an organization of meeting and congresses, as well as by publications and annual reports.</p>		AF 51.722
<p><u>1.10 Insurance</u></p> <p>The government institution does not have any insurance, the "self insurance principle" of government applies.</p>		AF 51.722

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<u>Country:</u> Sweden <u>Institution/Instrument:</u> Research Institute for Nuclear Physics, Stockholm	<u>Source</u>
<u>1.11 Construction Projects</u> Construction projects are implemented by a central government office.	AF 51.722
<u>1.12 Obligations Regarding Reports and Communications</u> The institute gives a report within the framework of the general provisions for accounting. The institute is not obligated to give further communications or reports to the ministry or other offices.	AF 51.722
<u>1.13 Intervention of the Grantor</u> Interventions of the ZG practically do not occur. The ZG is not even represented on the "Board". Reservations of approval by the government or the Royal Swedish Parliament exists for the appointment of professors. The institute desires an extension of communication with the ministry.	AF 51.722 AF 51.723
<u>1.14 Checks</u> Annual checking by the Swedish university council (UHA). Moreover, checks by the Royal Swedish inspection office are possible, but do not take place.	AF 51.722

1. <u>Institutional Assistance</u>		107
Country: SWEDEN	<u>Institution/Instrument:</u> Joint Research Institutions	<u>Source</u>
(FE - Research establishment; FUE - Research and development; STU - Royal Swedish Office for Technical Development; TF - Institute for Wood Research; ZG - Grantor).		
<u>1.01 Organization of FE</u>		
The institutions are organized as foundations or associations with their own legal personality. The carriers are the STU and industry (foundation, associations/or ad hoc groups of companies). The highest body of institutions is a "Board" whose members are chosen in equal numbers from the STU and industry. The STU itesef is not represented. At the lower levels there are other management boards: research board, industrial advisory committee. Special groups of interested companies are formed for individual research programs.		STU 51.711 p. 10 TF 51.712 STU 51.711
<u>1.02 Accounting Procedures</u>		
The institutions are not bound by the government system in the organization of their accounting procedures. As a rule, they apply commercial accounting procedures. The designation and division of the working times for the different projects is the ordinary one.		TF 51.712
<u>1.03 Award of Funds</u>		
The government contribution to basic financing from the institutions is provided by the STU as a lump sum on the basis of an agreement with industry on the research and development program and the cost sharing as a grant. The agreement covers mostly 3 and at maximum 5 years. The STU component is between 40 and 60%. The rest is given by industry; the institutions have therefore 2 grantors. (Besides this, they obtain partly from the same sources project assistance / compare 1.05). The assistance of the STU is given every year in advance as a lump sum, without subdivision of the individual items. Intervention in the budget implementation is not carried out by the STU; once the sponsorship funds are approved, they are not reduced. Investments are financed from loans, which are repaid from the current income. The institutions received from the STU grants of		STU 51.711 p. 14 STU 51.676 STU 51.679

<u>Country:</u> Sweden	<u>Institution/Instrument:</u> Jount Research Institutions	<u>Source</u>
<p>89 million Swedish crowns in 1979/1980.</p> <p>Overhead costs (rents, etc.) are divided in shares between the different sources of income. The equipment is often financed by the corresponding project.</p>		TF 51.716
<p><u>1.04 Personnel Economics</u></p>		
<p>The employees of the institutes are private employees; the contract status is the same for all workers, independently of the origin of the funds from which they are financed.</p>		TF 51.716
<p>The compensation for the employees is fixed on the basis of the tariffs in public service.</p>		TF 51.716
<p>The number of institute workers is established by the "Board". Deviations of 10 to 20% are allowed. Above this, prior approval is required.</p>		TF 51.712 STU 51.676
<p>The control of the workers is institutionalized by the following measures: (1) formal board at institutional level, in which the institution management, research directors and personnel organizations are represented and which has members; (2) information discussions between institute directors and directors of personnel organizations; (3) joint approval at the level of the research department.</p>		TF 51.716
<p>An ending of the employment contract is possible if the absence of work is proven. But many conditions must be fulfilled beforehand. Negotiations with the personnel organization are prescribed. Compensation is possible.</p>		TF 51.716
<p><u>1.05 Institute's Own Income</u></p>		
<p>The institutes have basically 5 different sources of income: basic financing from the STU, basic financing from industry, project assistance by the STU, contract research for industry, other means of advancement (for example, from NFR). In the agreement between industry and STU (content among others: establishment of the contributions of basic financing), a total budget is established with all proceeds and costs.</p>		STU 51.676
<p>The contract research must be calculated at full cost (market price).</p>		TF 51.716
<p>The institutional assistance does not impose any limitation on the institutes in the aquisition</p>		TF 51.716

Country: Sweden Institution/Instrument: Joint Research Institutions	Source
or availability of their own income. The income is not calculated in the sense of reducing the grants. The appointment of additional personnel is customary; for these workers the same tariffs apply as for the others.	
<u>1.06 Donations</u> Institutions receive no donations.	STU 51.676
<u>1.07 Transfer of Funds</u> Funds can be transferred without limitations, if they have reached the FE. The payments made are provided at most 12 months in advance.	TF 51.712 STU 51.676
<u>1.08 Rights to Use and Benefits</u> The rights for basically financed research and development belong to the institute, the companies concerned receive licenses. Prior government rights exists for development of military significance. The rights deriving from contract research belong to the client.	- STU 51.711 STU 51.676
<u>1.09 Technology Transfer</u> Research reports with different distributed keys: international offices, limited for the northern countries, exclusive for Swedish industry. Further instruments: newsletters, report announcements, conferences and seminars.	TF 51.712
<u>1.10 Insurance</u> For most buildings which are the property of the government, the government self insurance principle applies. The institution, equipment and liability are insured by the FE.	TF 51.712
<u>1.11 Construction Projects</u> Construction projects, as far as concerns government buildings, are implemented directly by the central government authorities.	TF 51.712
<u>1.12 Obligations Regarding Reports and Communication</u> There are no direct formal obligations regarding reports. The "Board" receives reports 3 to 4 times a year. The STU receives the annual final report.	TF 51.712

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Country: Sweden <u>Institution/Instrument:</u> Joint Research Institutions	<u>Source</u>
<u>1.13 Interventions of the Grantor</u> Constant control of the institute management by the inspection council, in which the STU naturally is represented only indirectly. Further influence by the STU occurs in decisions regarding new program agreements with industry. The intervention of the ZG in office management does not take place.	TF 51.712
<u>1.14 Checks</u> The STU appoints, every year, an inspector who gives his report to the inspection council. The STU receives the inspection reports from the inspection council.	STU 51.675 STU 51.676

<p><u>2. Project Assistance</u></p>	
<p><u>Country:</u> SWEDEN <u>Instrument:</u> Project assistance by STU</p>	<p><u>Sources</u></p>
<p>(FE - Recipient of assistance; FuE - Research and development; STU - Royal Swedish Office for Technical Development; ZG - Grantor).</p>	
<p><u>2.15 Documents for Application</u></p>	
<p>A description of the project as well as summary of the application in prescribed STU form. The instructions regarding the contents of the project are different for research and for development projects.</p> <p><u>Research projects:</u></p> <ol style="list-style-type: none"> (1) Statement of the problem and expected results (2) User of the results (3) Transmission of the results to the user (4) Value of the innovation for technical research, industry or other social sectors in Sweden (5) Importance of technical research, industry or other social sectors in Sweden (6) Current or completed projects in the research area in and outside Sweden (7) Use of their own developments, results (8) Project plan (work stages, procedure, technical risks and uncertainties, project director and coworkers, partners in corporations), time schedules, milestones and costs. <p><u>Development projects:</u></p> <ol style="list-style-type: none"> (1) Project idea and statement of the problem (2) Technical risks (3) Value as regards novelty; completing of other solutions (4) Earlier development studies of the same project (5) Marketing chances, prospects of repayment (6) Prospects of production and sale (7) Work plan with stages, direction of development, work hours. <p>The application must be presented in 3 copies.</p>	<p>STU 51.727</p>
<p><u>2.16 Forms of Application</u></p>	<p>STU 51.735</p>
<p>2 page printed form (shown in the Appendix under S-2) with the following categories:</p> <ol style="list-style-type: none"> (1) Identification of the applicant 	

Country: Sweden <u>Instrument:</u> Project assistance by STU	<u>Source</u>
(2) Project director (3) Title of the project (4) Time and cost schedule (5) Cost estimate (6) Other sources of financing (7) Patent questions (8) International cooperation (9) Project description (100-150 words) (10) Signatures	
<u>2.17 Property Conditions</u> The ownership of the company must be indicated, also the total number of employees in the enterprise (less than 500/more than 500). For FE with more than 500 employees, special payment rules apply. The STU assistance is not limited to certain groups of applicants. The average amount of assistance for industrial enterprises with 150,000 Swedish crowns in 1979/80 was awarded more to small and medium than to larger enterprises.	STU 51.679 p. 18
<u>2.18 Advice on Application</u> Potential applicants are advised directly by the STU. In information brochures, the names of the competent employee, the times of possible conversation, etc. are indicated. Moreover the STU maintains contact secretariats in the 9 universities and technical colleges in Sweden.	
<u>2.19 Award of Funds</u> Sponsorship funds are given, as a rule, as grants which must be repaid with interest in the case of success. In special cases loans are made. In exceptional cases, the assistance is in the form of financing guarantees which only apply in the case of failure. There are no provisions for the use of the funds besides the (summarized) conditions of grants. In particular, there is no public budget law.	STU 51.727
<u>2.20 Decision Regarding the Applications for Assistance</u> The powers for making decisions are partly delegated through the employees. For example they may decide about projects with a volume	

Country: Sweden <u>Instrument:</u> Project assistance by STU	<u>Source</u>
<p>of up to 0.3 million Swedish crowns, after notifying the colleagues in their working group. Formalized procedures are not applied for examination and decisions. Outside experts are used according to the estimated need without fixed rules existing in this connection. Participation of the applicants in the sessions is not provided. Applicants who have been refused are informed upon request, about reasons for the refusal.</p>	STU 51.728 Index 19
<p><u>2.21 Delegation of the Award of Funds</u></p> <p>The administrative implementation is delegated to the university sector. The STU transfers funds for FE in the university sector to the central university office (UHA). The latter takes over the transfer of the funds to the FE according to the prescriptions in force. It also checks, on behalf of the STU, the use of the funds.</p>	STU 51.740 p. 1
<p><u>2.22 Checking of Solvency</u></p> <p>Checks of solvency take place only in certain cases in case of doubts. The STU requires in such case the presentation of balance sheets, calculations of proceeds, etc. Checks of solvency can be repeated on certain occasions.</p>	STU 51.672 p. 4
<p><u>2.23 Calculations of the Grant</u></p> <p>There are no published rules and internal administration prescriptions on permissible costs. In summarizing the project application (prescribed form, compare appendix S2) a division of the estimated costs is required according to the following categories: total costs/assistance requested, distribution of the grant by budget years, types of cost. The following types of cost are listed: personnel costs, secondary personnel costs (social security, etc. for government institutions 39% of the personnel costs), consultation costs, equipment, material, travel costs, patent costs, administration costs (only in universities, technical colleges and suchlike) as well as "other" costs to be specified. Further details regarding preliminary calculation are not required. There are no types of costs which are explicitly</p>	STU 51.672 p. 4 STU 51.735

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Country: Sweden Instrument: Project assistance by STU	Source
<p>excluded; the guidelines for the approval of the cost are the principles and rules of the accounting procedure applied to the applicant (commercial, government, tax principles). The inclusion of profits in the cost is not permitted. Increases of salaries during the period of the assistance must be anticipated; they do not apply as reason for increasing the assistance. Overhead administrative costs are approved, in universities and similar institutions to a smaller extent (3%) than for applicants from industry.</p> <p>Funds for investments (instruments, etc.) with a purchase cost of more than 50,000 Swedish crowns must be applied for as special equipment loans.</p> <p>The cost estimate is checked by the STU and in case of doubt discussed with the applicant and subsequently occasionally modified.</p>	<p>STU 51.739 - 41</p> <p>STU 51.672 STU 51.739 ¶ 1</p> <p>STU 51.727 p. 3</p> <p>STU 51.672</p>
<p><u>2.24 Financial Handling</u></p> <p>Deviations from the preliminary estimate up to 10% are possible without previous consultation. Above this, they require approval by STU; this is awarded in a routine manner. Equipment items, if not otherwise decided by the STU, are the property of the FE, if the latter is a government institution. For the other FE, the STU decides the question of ownership. The FE is entitled to become the owner by paying its value, established by the STU. The overhead costs are paid in a lump sum.</p>	<p>STU 51.738 STU 51.741 ¶ 4</p>
<p><u>2.25 Rate of Assistance</u></p> <p>For researchers and technicians in technical colleges and universities, for individual persons or groups of persons and for inventors, STU may approve grants covering the entire development costs. For applicants from industry, STU rarely approves more than 50% of the total costs. In exceptional cases development projects of industry may receive grants up to 100%, if the results can be used for social, medical or other public purposes.</p> <p>Obligations to repay, patent rights, etc., do not depend on the level of assistance but on the type of project (research versus development)</p>	<p>SIND 51.661 p 49 STU 51.679 p. 17</p>

Country: Sweden Instrument: Project assistance by STU	Source
and the FE (government institution versus industry).	
<p><u>2.26 Award of Contract</u></p> <p>Insofar as the award of contract was mentioned in the description of the project, and the cost for it listed, there is freedom in awarding the contracts. A change of the contractor is also possible without prior approval of the STU. Conditions of the ZG need not be considered in awarding the contracts; special regulations of the STU do not exist for awarding the contract.</p>	STU 51.627 p. 4
<p><u>2.27 Payment Procedures</u></p> <p>Basically the grants are paid subsequent to application on prescribed forms. On the forms the previously incurred costs must be listed in the same way as in the preliminary estimate. If required by the STU, the costs indicated must be proven. On the request of the FE, the STU makes direct payments for the project to third parties (for example, patent costs). On the application of the FE, the STU carries out preliminary payments of funds up to the amount of 25% of one year's needs. For each further prior payment, the previously used funds must be accounted for.</p> <p>Funds for FE, which are administered by the Swedish university office (UHA) are transferred by the STU to the UHA for handing over to the FE.</p> <p>Some companies do not call for funds, which must be presumably paid back, among other things to save the interest. They consider the STU assistance as a type of insurance against failure in development.</p> <p>Non-used grant funds must be returned. There are no regulations for repayment schedules.</p>	<p>STU 51.739-41 § 1</p> <p>STU 51.740 § 1</p> <p>STU 52.672 p. 4</p>
<p><u>2.28 Obligations Regarding Reports and Complications</u></p> <p>We distinguished between: status report, final report, annual report. The times for the presentation of status reports and final reports are established in the decision of the grant. Moreover, the STU can request reports at any time and ask for information regarding the</p>	<p>STU 51.740 § 5</p> <p>STU 51.738</p>

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Country: Sweden <u>Instrument:</u> Project assistance by STU	<u>Source</u>
<p>progress and situation of the studies. The FE must notify the STU about unusual events (termination, delay of work, etc.).</p> <p>In the final report the following must be included among others: possibilities of the commercial use and technical improvement of the results. Invoicing must be presented separately regarding the use of the funds according to the categories of the preliminary estimates, and a list of the equipment with purchase costs of at least 5000 Swedish crowns. Moreover a summary must be given, at maximum 150 words. After presenting the final report, the FE must also provide accounting in research projects on the use of the result (FE for development projects: annual reports). The STU provides guidelines on the establishment of reports.</p> <p>Annual reports are to be presented by FE in development projects after presenting the final report, each time before the end of February, as long as there remains the obligation of repayment for the funds received. In the report the use of the development results, the proceeds obtained or the savings of cost achieved, must be described.</p>	<p>STU 51.741 § 5</p> <p>STU 51.741 § 5</p>
<p><u>2.29 Publications</u></p> <p>Normally the results are not published by the ZG. The FE can object to publication by the ZG. It loses this right if the ZG gives up the right to the funds in spite of the existing repayment obligations.</p> <p>Basically all administrative councils and documents in Sweden are accessible to the public. The STU can classify project documents as confidential if desired by the applicant. In any case the following are public: name and address of the applicant, project title, sum applied for, amount of grant.</p>	<p>STU 51.740 § 12</p> <p>STU 51.727 p. 5</p>
<p><u>2.30 Participation in the Technical Results</u></p> <p>The participation of the STU in the results of the project by user rights is not provided. The results of the research project covered up to 100% are "public property". In development projects with the obligation for repayment, the ZG has no rights to the technical results.</p>	

Country: Sweden <u>Instrument:</u> Project assistance by STU	<u>Source</u>
<p><u>2.31 Participation in the Financial Proceeds</u></p> <p>Basically the grants must be repayed and with interest (with, at present, 3.75% above the bank rate).</p> <p><u>Research projects:</u> if within 10 years after presentation of the final report, the proceeds or savings of cost result from the project, the STU decides after a hearing with the FE, whether and to what extent the grant funds must be repaid. The obligation of repayment can be limited to the portion of the profit exceeding 20,000 Swedish crowns per calender year. The FE must disclose the profits and savings achieved.</p> <p><u>Development Projects</u> (general and companies with less than 500 employees): if profits or savings are achieved with the results, repayment of 50% of the license fees received, single payments, option payments, etc. at 7% of the amounts calculated for their own production or sale under their own management. Repayments can also take place in one sum. The STU can decide about changes in the repayment procedure after consulting with the FE. The obligation for repayment extends also to cost savings, know-how, spin-off and equipment.</p> <p><u>Development projects:</u> (companies with more than 500 employees):</p> <p>(A) If the technological goal was achieved and if the prerequisites for use exist: repayment and annual rates within 5 years, unless otherwise decided by the STU.</p> <p>(B) If the technical result was not achieved, but profits were obtained with the result, repayment just as for companies with less than 500 employees.</p> <p><u>Waiver of repayment:</u> 10 years after presentation of the final report the obligation for repayment ends (waiver of repayment), if by then the repayment has not started, or a decision is taken regarding the repayment. Under special assumption the ZG can issue a waiver of repayment before then.</p>	<p>STU 51.727 p. 5</p> <p>STU 51.741 § 9</p> <p>STU 51.740 § 9</p> <p>STU 51.739 § 9</p>
<p><u>2.32 Control of the Results</u></p> <p>The control and evaluation of the results takes place within the framework of checking</p>	<p>STU 51.672 p. 6</p>

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Country: Sweden <u>Instrument:</u> Project assistance by STU	<u>Source</u>
and decision regarding repayment of the grant. They are carried out by STU members or outside experts. After 10 years the process is, as a rule, finally completed.	
<u>2.33 Termination of Project by the Grantor</u> The stopping of the grant by the ZG is not provided for without indicating the reasons. Naturally, approval covering several years is issued on the condition that the grant funds are available to the STU.	STU 51.739 Condition 5
<u>2.34 Tax Handling</u> The grant is not subject to value added taxes for the recipient due to lack of an exchange of services. However, it is included in the operating income or profits of the FE and thus subject to tax. The inclusion with the operating profit is disputed because of the obligations for repayment and this will possibly be changed.	STU 51.676 p. 3 -
<u>2.35 Proof of Use</u> But the FE has at the time of the second request for funds and at the end of project to present an accounting of the costs or expenditures in the classification of the preliminary estimates. Proofs are only to be presented if required by the ZG. The proof of use must list separately purchases worth more than 5000 Swedish crowns. The accounting documents of the FE are checked randomly on special occasions by an auditor sent or appointed by the STU. The checking of the FE in university sectors is delegated to the Swedish university office (UHA).	STU 51.739-741 §§ 1,5 STU 51.675 p. 4 STU 51.739-740 § 1
<u>2.36 Improper Use</u> Improper use leads, according to the importance of the incident, to partial repayment of the grant received, the stopping of the grant or return of the grant already received. There are no fixed rules for the type of repayment (partial amounts, times); it is established in the proceedings. Criminal prosecution is possible in principle, but has only occurred in one case up to now.	STU 51.739-740 § 11 STU 51.675 p. 4

Country: Sweden Instrument: Project assistance by STU	Source
<p><u>2.37 Time Required for Processing Applications</u> Normally the processing of the application takes 3 to 6 months.</p>	STU 51.673
<p><u>2.38 Administrative Costs</u> Data on administrative costs can only be made for the STU as a whole and can only be estimated. The total budget for 1981/1982 amounts to 547.4 million Swedish crowns. That year the STU had 296 employees. If the same costs and compensation structure were taken as for the NFR (which is justified to some extent), then the administrative costs would amount to about 70 million Swedish crowns. According to the data of the STU, the administrative cost is just below 10%, of which 2/3 are salaries. In the evaluation of these costs it should be taken into consideration that the STU fulfills a series of services for the government, which are only indirectly related to the advancement of research.</p>	REG 51.621 p. 195 REG 51.621 p. 194 NFR 51.741 p. 25 STU 51.685 -

<u>2. Project Advancement</u>		
<u>Country:</u> SWEDEN	<u>Instrument:</u> Project advancement by the NFR	<u>Source</u>
(FE - Grant recipient; FuE - Research and development; NFR - Research Council for Sciences; ZG - Grantor).		
The NFR promoted in 1981/1982 1030 research projects. Total budget 240 million Swedish crowns, of which about 35% for institutional advancement.		NFR 52.747 p. 25-25
<u>2.15 Application Documents</u>		
Application for projects (on NFR form) as well as documents: detailed description of project, cost plan (possible other documents which appear important to the applicant (special printed material, curricula vitae)). For new employees, qualification profiles must be added. The research application and particularly important documents, for example, description of the project) must be provided in 20 copies, other documents in 10 copies.		NFR 51.753 p. 8
Data on the content of project description: statement of the problem, procedure, plan schedule, budget, previous results, long term project planning.		NFR 51.753 p. 2
The applications for the budget year beginning on July 1 must be presented in January.		NFR 51.753 p. 1
<u>2.16 Printed Forms for Applications</u>		
The 4 page printed form (shown in the Appendix under S-1) has the following categories: applicant (person, address, institution of implementation, administrative agency), project description (Swedish heading, English headings, category, program constitution), program required (personnel costs, material costs, travel costs, division over 3 budget years), personnel (names, group of compensation, scope of work, training, required funds, indication of years when NFR assistance was already received), material (above 0.2 million Swedish crowns, auxiliary personnel, operating materials, electronic data processing costs, etc.), travel (conference and symposia as well as other costs related to the research project), budget plan (survey of the financing of the total cost of all projects of the FE by UHA, NFR, FRN) as well as indication of all individual costs of		NFR 51.751

Country: Sweden Instrument: Project advancement by the NFR	Source
<p>more than 10,000 (Swedish crowns).</p> <p>Projects to be promoted jointly by NFR and NSF (National Science Foundation of the USA) must be applied for in English.</p>	NFR 51.753 p. 4
<p><u>2.17 Conditions of Ownership</u></p> <p>Conditions of ownership are unimportant.</p>	NFR 51.754 p. 2
<p><u>2.18 Consultation on the Application</u></p> <p>The applicant and interested parties receive information sheets. The latter lists the names of all the competent case workers of the NFR.</p>	NFR 51.753
<p><u>2.19 Awarding of the Funds</u></p> <p>The assistance is given as a grant. A contract is signed about it between the NFR, the applicant and the institutions in which the work takes place and which are in charge of administering the funds.</p> <p>Projects can be applied for 3 years. The assistance is only approved for 1 year; for the next year a "recommended budget" is decided. In this case no further application for the following year is required. The personnel funds of a "recommended budget" are ensured for the following year.</p> <p>The cost must be estimated at the time of application. NFR calculates the additional needs required on the basis of general salary increases and other price increases and provides these additional amounts automatically.</p>	<p>NFR 51.754 p. 2</p> <p>NFR 51.753 p. 4</p> <p>NFR 51.753 p. 1</p>
<p><u>2.20 Decision on the Applications for Advancement</u></p> <p>Decisions are prepared in the program commissions of the NFR (March to April) and made in the council. Outside experts are appointed to the session according to requirements. Each application is presented for certification as a rule, to two outside experts. There are no established criteria or procedures for certification by experts or in the commissions. Notification to the applicants is different from commission to commission. Invitations for the applicant to attend committee meetings occur only rarely. The applicants are then entitled</p>	NFR 51.753 p. 3 NFR 51.754 p. 2

Country: Sweden <u>Instrument:</u> Project advancement by the NFR	<u>Source</u>
to bring their advisors.	
<p><u>2.21 Delegation of the Award of Funds</u></p> <p>The NFR assisted projects to universities are administered by the latter. Projects to other institutions must be administered by the institutions. The NFR provides the administrative agencies with the costs incurred.</p>	<p>NFR 51.756 § 1 NFR 51.747 p. 24</p>
<p><u>2.22 Checking of Solvency</u></p> <p>There are no solvency checks.</p>	<p>NFR 51.754 p. 3</p>
<p><u>2.23 Calculation of the Grant</u></p> <p>The assistance includes personnel costs, travel costs, equipment (less than 0.2 million Swedish crowns) and material costs. Greater investments must be applied for from the NFR.</p> <p>Personnel costs are applied for and approved on the basis of a table established according to the compensation bylines in public service.</p> <p>Since July 1, 1983, an additional lump sum of 3% of personnel costs is awarded to the universities for overhead costs.</p> <p>Patent costs (see 2.30) are not provided.</p>	<p>NFR 51.753 p. 1</p> <p>NFR 51.753 p. 7</p> <p>NFR 51.753 p. 3</p> <p>NFR 51.756 § 11.</p>
<p><u>2.24 Financial Handling</u></p> <p>The assistance is approved as a skeleton amount. The FE can deviate from budget classifications. The implementation is basically consistent with the project plan. Changes require prior approval of NFR. After the end of the implementation of the project the non-use funds must be repaid to the NFR, if not otherwise decided.</p> <p>The purchase of equipment of more than 30,000 Swedish crowns must be implemented in cooperation with the office for equipment for universities and colleges. This office assures support, also, for small purchases. In case of imports an application can also be made for duty free imports. Equipment is to be inventoried. The owner is the council, the FE has user's rights. After the final accounting, the council decides the further use of the equipment.</p>	<p>NFR 51.753 p. 1 NFR 51.756 § 2</p> <p>NFR 51.756 § 10</p>

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Country: Sweden <u>Instrument:</u> Project advancement by NFR	<u>Source</u>
<p><u>2.25 Rates of Assistance</u></p> <p>Basically direct individual costs are covered (personnel, material, equipment). The institution in which the project is implemented takes part in the cost by bearing the total overhead cost, or most of it. (Since 1983, 3% of personnel costs are awarded to the universities as overhead costs).</p>	NFR 51.754 p. 4
<p><u>2.26 Award of Contract</u></p> <p>Subcontracts are not provided and regulated.</p>	NFR 51.754 p. 4
<p><u>2.27 Payment Procedures</u></p> <p>Approved funds for projects are paid out in one sum in the administration of government agencies, combines or associations, as soon as the contract is enforced and funds are available. In other cases, partial amounts are paid out as requested for proven costs. On the request of the FE, the NFR makes the payments of large amounts directly to third parties. If requested an advance may be paid to the FE.</p>	NFR 51.756 § 5
<p><u>2.28 Obligations Regarding Reports and Communications</u></p> <p>Reports must be presented at the times decided in the contract and presented as requested. At present annual reports are waived. Reports are only requested in special cases (for example, evaluations, compare 2.32).</p> <p>If during the course of the project, funds are provided or approved from elsewhere, the council must be notified.</p>	<p>NFR 51.756 § 8</p> <p>NFR 51.756 § 9</p> <p>NFR 51.756 § 13</p>
<p><u>2.29 Publications</u></p> <p>The ZG does not provide for publication.</p>	NFR 51.754 p. 4
<p><u>2.30 Participation in the Technical Results</u></p> <p>Results from sponsored projects must be available free to the public. Results which require patent applications must immediately be notified to the council. The council can agree to giving patent rights to the FE, if the latter engages to repay totally, or partly, the sponsorship funds. Repayment can be waived, if the FE shows that an economic result was not obtained</p>	NFR 51.756 § 11

Country: Sweden <u>Instrument:</u> Project advancement by the NFR	<u>Source</u>
and is not to be expected.	
<u>2.31 Participation in the Financial Profits</u> A participation by the ZG (for example, repayment) is only provided in connection with patent applications (compare 2.30).	NFR 51.754 p. 5
<u>3.32 Control of the Results</u> The NFR is entitled to follow up by suitable means the progress of the project study. In case of unsatisfactory progress the assistance can be revoked. The projects in the program range have been evaluated on behalf of the NFR since 1978 by internationally appointed study groups (5 to 10 evaluations per year).	NFR 51.756 § 6 NFR 51.748-9 NFR 51.754 p. 4
<u>2.33 Termination of Project by the Grantor</u> The ZG can terminate any project, even without giving reasons, at the end of a budget year (but: restriction for the automatic further approval of personnel costs for 1 more year). Moreover, termination is possible in case of dissatisfaction of the ZG and violations of the contract by the FE.	NFR 51.754 p. 5
<u>2.34 Tax Handling</u> The sponsorship funds are basically considered operating income.	NFR 51.754 p. 5
<u>2.36 Proof of Use</u> For projects which are administered by government agencies, indications of use are to be presented without supporting documents after the end of the implementation time. Combines and associations provide accounting by sending certified invoices. Other FE must present, on request, original documents for the council or appointed offices. In this case the council has a right to check the invoice and original documents also through delegates. From 1984 invoices and proofs will be waived in projects administered by universities.	NFR 51.756 § 5 NFR 51.754 pp. 4-5

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Country: Sweden <u>Instrument:</u> Project advancement by the NFR	<u>Source</u>
<p><u>2.36 Improper Use</u></p> <p>In case of improper use the problem is discussed and, as a rule, an agreement is arrived at (different use, repayment). Criminal consequences are only theoretical: fraud, embezzlement, no special situation regarding subsidies.</p>	NFR 51.754 p. 5
<p><u>2.37 Time Needed for Processing Applications</u></p> <p>The applications must be forwarded in January; the final decision takes place in May; signing of the contract in June with effect from July (beginning of new budget year). Thus the time of processing is about 5 months.</p>	NFR 51.753 p. 1
<p><u>2.38 Administrative Costs</u></p> <p>In the total budget of 241 million Swedish crowns in 1981/1982, the administrative costs of the NFR were 7.3 million Swedish crowns. Of this the share of the personnel costs of the NFR: 4.4 million, cost reimbursement for members and consultants 0.3 million, travel cost reimbursements: 0.6 million, site, inventory and telephone costs 1.3 million, other costs (publications and duplications, representation, etc.): 0.8 million.</p> <p>Another 2.5 million Swedish crowns were provided to the agencies administering the projects for their activities.</p> <p>The administrative costs thus amounted to 4% of the total budget. Important elements to evaluate this amount: share of the institutional advancement (primarily international establishments): 35%, number of research projects approved: 1030 (1981/82).</p>	<p>NFR 51.747 p. 31</p> <p>NFR 51.747 p. 25</p> <p>NFR 51.747 p. 24</p>

<u>2. Project Advancement</u>	
<u>Country:</u> SWEDEN <u>Instrument:</u> Project assistance through the industrial foundation	<u>Source</u>
(FE - Grant recipient; FuE - Research and development; IF - Industrial foundation; SIND - Statens industriverk; ZG - Grantor).	
The industrial foundation established as a foundation sponsors development projects from very large industrial companies with conditionally repayable loans requiring interest between 2 and 50 million Swedish crowns. Up to 1983, about 600 million Swedish crowns were provided in loans to about 60 projects. The annual budget of the industrial foundation is about 250 million Swedish crowns; 15 to 20 projects are sponsored per year. The basic capital is 300 million Swedish crowns, another 450 million Swedish crowns are available to the industrial foundation from tax funds between 1981 and 1984.	IF 51.762 p. 1 IF 51.761 p. 8 SIND 51.661 p. 53
<u>2.15 Application Documents</u>	
Short enquiry (1--3 pages), in which a project is described. The last annual report must be appended.	IF 51.761 p. 8
If the project falls in the area of activity of the industrial foundation, the content of the detailed project application (application for loan) to be presented is discussed. The latter should deal primarily with considerations regarding technology, marketing and economy, which might be taken into consideration by the company, in preparation of the project. The application should also show why a partial financing from the industrial foundation is necessary.	IF 51.761 p. 8
Special data do not exist for the subdivision of the cost plan.	IF 51.762 p. 4
<u>2.16 Printed Forms for Application</u>	
No printed forms are used for application.	IF 51.762 p. 2
<u>2.17 Conditions of Ownership</u>	
Only Swedish companies are entitled to apply; but the ownership conditions in the capital of this company do not play any role. Corporations with foreign companies are sponsored. The contract establishes the implementation of the project in Sweden.	IF 51.762 p. 2

Country: Sweden Instrument: Project assistance through the industrial foundation	Source
<p><u>2.18 Consultation on the Application</u></p> <p>Interested parties are advised individually by the individual foundation. The annual report is sent to all large enterprises and to the press.</p> <p>The industrial foundation carries out a large number of individual talks, to notify companies regarding the possibilities of sponsorship and to interest them in claiming them.</p>	<p>IF 51.762 p. 2</p> <p>IF 51.762 p. 4</p>
<p><u>2.19 Award of the Funds</u></p> <p>The assistance is provided as a loan with interest. The repayment must be done from the economic proceeds of the project. The repayment can be waived if a technical and/or economic success is not achieved.</p> <p>In special cases the assistance may be given as a grant, with the condition that the FE will give the industrial foundation a share in the project profits with "royalties".</p> <p>The FE can claim the assistance as "insurance" that is, they do not call for the amount of loan approved, nor do they have to deal with the obligation of repayment. Only when a project is certain to fail, the funds are asked for. An interest of 2% per year must be paid for this "insurance".</p> <p>No securities are required for the assistance.</p>	<p>IF 51.761 p. 8</p> <p>IF 51.761 p. 8</p> <p>IF 51.761 p. 8</p> <p>IF 51.762 p. 2</p>
<p><u>2.20 Decision Regarding the Application for Assistance</u></p> <p>Decisions on applications are proposed by the management of the industrial foundation to the inspection council of the industrial foundation (Industriefondens styrelse/9 members). Often outside experts are called to evaluate the proposed projects (rarely more than 3, often only 1 expert). Foreign consultants are also concerned in project testing.</p> <p>Of the 250-300 applications received (up to 1983) about 60 were approved.</p> <p>Criteria for the decision are: technical prospects, economic prospects, an evaluation of the requirements. There are no formalized procedures for making decisions.</p>	<p>IF 51.762 p. 3</p> <p>IF 51.762 p. 2</p> <p>IF 51.762 p. 2</p>

Country: Sweden Instrument: Project assistance through the industrial foundation	Source
<u>2.21 Delegation of the Award of Funds</u> The implementation of the payment procedures (payments, repayment) is entrusted to a bank.	IF 51.762 p. 3
<u>2.22 Checking of Solvency</u> For smaller companies, solvency checks are conducted. The sponsorship of development associations, which are established (only) for the development projects, can be made dependent on the security of the companies participating for paying back interest and loans (in case of success).	IF 51.762 p. 3
<u>2.23 Calculation of Grants</u> The calculation of the cost should be made on general commercial principles. The marginal costs should be applied for the project. The industrial foundation has no prescriptions or regulations of its own for calculating costs. The exact check is waived. This questions is not considered important because of the FE's obligation to repay the allocation.	IF 51.762 p. 3
<u>2.24 Financial Handling</u> Deviations from the cost plan established must be discussed with the industrial foundation.	IF 51.762 p. 3
<u>2.25 Rate of Assistance</u> The assistance rate amounts basically to 50% of the project cost. In individual cases lower rates (for example, 30%) may be implemented also. Higher assistance levels are not implemented.	IF 51.762 p. 1 IF 51.762 p. 3
<u>2.26 Award of Contract</u> Subcontracts are approved, as long as they do not exceed 90% of the project cost.	IF 51.762 p, 3
<u>2.27 Payment Procedure</u> Payments are made twice a year, mostly in advance, but also subsequently. The basis of the payments is the financial and technical report of the FE.	IF 51.762 p. 3

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Country: Sweden Instrument: Project assistance through the industrial foundation	Source
<p><u>2.28 Obligations Regarding Reports and Complications</u></p> <p>The FE must present, as basis for each payment (maximum twice a year), a financial and technical report.</p>	IF 51.762 p. 3
<p><u>2.29 Publication</u></p> <p>The ZG does not publish anything. As a foundation it can assure the companies a higher degree of secrecy for confidential information than government offices, which on request must release all information which has not been explicitly classified as secret.</p>	IF 51.762 p. 4 SIND 51.661 p. 53
<p><u>2.30 Participation in Technical Profits</u></p> <p>No participation of the ZG is provided. Patents are the unlimited property of the FE.</p>	IF 51.762 p. 2+4
<p><u>2.31 Participation in Financial Profits</u></p> <p>The industrial foundation shares in the economic profits by the interest payment for the loan and its repayment in case of success. The interest amounts for paid loans to 4% above bank rate. The procedures for repayment are agreed upon and adjusted individually for each case. The repayment should be carried out starting from the commercial use of the result or when the risk is reduced to a normal level.</p> <p>The obligation for repayment remains if the FE terminates a project without valid reasons or ends or alters a project because of the transfer of the ownership of the company to someone else. Negotiations regarding the sale of the company must be notified for this reason among others, to the industrial foundation.</p>	IF 51.762 p. 1 IF 51.761 p. 8 IF 51.762 p. 2 IF 51.761 p. 8 IF 51.762 p. 4
<p><u>2.32 Control of Results</u></p> <p>Up until the obligation of repayment ends, the FE must report at least once a year (in May) regarding the situation of the project.</p>	IF 51.762 p. 4
<p><u>2.33 Termination of the Project by the ZG</u></p> <p>Approved sponsorships cannot be withdrawn or recovered without reasons.</p>	IF 51.762 p. 4

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Country: Sweden Instrument: Project assistance through the industrial foundation	Source
<p><u>2.34 Tax Handling</u></p> <p>The sponsorship is implemented formally as a loan; only in exceptional cases is it a grant. The loan is not included in the operating income; the grant is included in it. The interest and shares of the industrial foundation in the profit are operating expenditures.</p>	<p>IF 51.762 p. 4</p>
<p><u>2.35 Proof of Use</u></p> <p>The FE provides a brief listing of costs (a few pages). The FE must maintain separate book-keeping for the project. The industrial foundation checks the invoices in the companies by sending auditors.</p>	<p>IF 51.762 p. 4 IF 51.762 p. 3</p>
<p><u>2.36 Improper Use</u></p> <p>In case of improper use, the industrial foundation can terminate the contract and claim back the assistance. Criminal prosecution is theoretically possible. In the industrial foundation such cases have not occurred so far.</p>	<p>IF 51.762 p. 4</p>
<p><u>2.37 Time Needed for Processing the Application</u></p> <p>The average processing time for a project until the approval is 6 months.</p>	<p>IF 51.762 p. 3</p>
<p><u>2.38 Administrative Costs</u></p> <p>The staff consists of 7 employees. The administrative costs according to the data of the IF are about 2% of the volume of assistance.</p> <p>The administrative costs amounted in 1981/1982 to 4.255 million Swedish crowns (personnel costs 2.0/consultation costs 1.4/other costs 0.8). For a volume of assistance of nearly 100 million Swedish crowns (loans: 71.7/grants: 28.9), the administrative costs were 4.3%. Here account must be taken of the fact that the industrial foundation is still being built up. If the 16 new projects (138.3 million Swedish crowns) of 1981/1982 are taken as basis, the administrative costs are 3.1%.</p>	<p>IF 51.762 p. 2 IF 51.761 p. 5</p>

<u>3. Program Development and Continuation</u>	
<u>Country:</u> SWEDEN <u>Program:</u> Research and development programs of the STU	<u>Source</u>
(FuE - Research and development; REG - Government; SIND - Statens Industriverk; STU - Swedish Royal Office for Technical Development)	
The STU promotes research and development predominantly (about 60% of the volume of assistance) without prestructurization by programs. Thus everybody in every sector should be given the opportunity to apply for assistance. In the area of the economically and socially oriented technical development research, only 12% (46.9 million Swedish crowns out of the 383.8 Swedish crowns in 1983/1984) were covered by research programs, the so-called "action areas" (at present, about 15). On the other hand, the other large sponsorship area, the development of technical knowledge (Kunskaputveckling) is pre-structurized completely by programs and specifically for "technical knowledge areas" and for "selected program areas".	STU 51.679 p. 24 ff. REG 51.621 p. 195
<u>3.39 Seminars, Conferences on the Program Status</u>	
Seminars and conferences take place at irregular intervals for individual programs. They are used to discuss the results obtained so far and further planning. They are attended by members of the STU, the members of the control groups formed by outsiders for the program and workers on the project.	STU 51.672 p. 6
<u>3.40 Program Screening</u>	
There is no systematic program screening. But special members of the STU are assigned to implement control evaluations of the program. At present, two STU members are working on evaluations.	STU 51.672 p. 6
<u>3.41 Further Development of the Sponsorship Criteria</u>	
Explicit sponsorship criteria are not commonly used in the STU. Each application which comes for program assistance is checked for its consistency with the program goals. The further development of the program goals and contents is the result of seminars and evaluation.	

Country: Sweden Program: Research and development programs of the STU	Source
<p><u>3.42 Measures for the Transfer of Research and Development Results</u></p>	
<p>The STU takes comprehensive measures to transfer to the practical sector the research of research and development. In 1983/1984 24.4 million Swedish crowns were provided for this purpose, that is, 4% of the total STU budget. Among other things, the following measures were implemented:</p>	<p>REG 51.621 p. 195 STU 51.679 p. 28 ff</p>
<p>Services to industry:</p> <ul style="list-style-type: none"> - Support of the development of products and financing of regional services for industry together with regional foundations - Sponsorship of contacts between know how producers, small/medium enterprises, universities and research centers. 	
<p>Marketing measures:</p> <ul style="list-style-type: none"> - technical and economic preliminary studies - feasibility studies - search for partners - negotiations - signing of contracts 	
<p>Patent consultation:</p> <ul style="list-style-type: none"> - patent research - consultation regarding the application for patents 	
<p>Publications:</p> <ul style="list-style-type: none"> - periodicals and pamphlets offering technology and products 	
<p>Contact secretariats:</p> <ul style="list-style-type: none"> - the STU maintains contact secretariats in 9 Swedish universities and colleges, which are also concerned in the transfer of the results of research and development. 	<p>SIND 51.661 p. 52</p>

<u>Structural Characteristics of the Government Sponsorship of Research and Development</u>															
<u>country: USA</u>	<u>Source</u>														
(FuE - Research and development; UNESCO - United Nations Education, Scientific and Cultural Organization; NSF - National Science Foundation; USG - United States Government; AAAS - American Association for the Advancement of Science; NASA - National Aeronautics and Space Administration)															
<u>1. Sponsoring Activities of the Different Government Levels</u> <p>The government sponsorship of research and development takes place almost exclusively through the federal government. The sponsorship by states and communities is insignificant as compared with that of the federal government. It is limited to public services such as, health, education, environmental protection, as well as scientific policy consultation. In the general representation only the federal government is indicated as source of government financing. The share of states and communities in the financing of research and development in universities and colleges was 10% in 1979 (federal government: 66%).</p>	<p>UNESCO 51.003 p. 135</p> <p>-</p> <p>NSF 51.800 p. 25</p> <p>NSF 51.800 p. 54</p>														
<u>2. Extent of the Government Research and Development Sponsorship</u> <p>In the budget year 1984, the government research and development sponsorship amounts to 47.8 billion dollars, corresponding to about 47% of the national expenditure for research and development, which, for its part, amounted to 2.4% of the gross social product. The share of the government research and development sponsorship in the total budget is 17.9%.</p>	<p>AAAS 51.820 pp. 13-15</p> <p>NSF 51.800 p. 2</p>														
<u>3. Recipient of Government Research and Development Assistance</u> <p>In 1981 the government assistance for research and development was awarded to the following areas:</p> <table border="0"> <tr> <td>Government (federal government)</td> <td>25%</td> </tr> <tr> <td>Industry</td> <td>51%</td> </tr> <tr> <td>Universities and colleges</td> <td>18%</td> </tr> <tr> <td>Nonprofit institutions</td> <td>4%</td> </tr> <tr> <td>States and communities</td> <td>1%</td> </tr> <tr> <td>Abroad</td> <td>1%</td> </tr> <tr> <td></td> <td style="border-top: 1px solid black;">100%</td> </tr> </table>	Government (federal government)	25%	Industry	51%	Universities and colleges	18%	Nonprofit institutions	4%	States and communities	1%	Abroad	1%		100%	<p>NSF 51.800 p. 35</p>
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	100%														

Country: USA	Source																		
<p data-bbox="142 300 997 362"><u>4. Sectors/Goals of Research and Development Assistance</u></p> <p data-bbox="142 379 1016 472">In 1981, the functional distribution of the government research and development assistance was as follows:</p> <table data-bbox="272 488 812 818"> <tr><td>Defense</td><td>51%</td></tr> <tr><td>Space research</td><td>14%</td></tr> <tr><td>Health</td><td>11%</td></tr> <tr><td>Energy</td><td>10%</td></tr> <tr><td>General science</td><td>4%</td></tr> <tr><td>Natural resources and environment</td><td>3%</td></tr> <tr><td>Agriculture</td><td>2%</td></tr> <tr><td>Other</td><td>3%</td></tr> <tr><td></td><td><u>100%</u></td></tr> </table>	Defense	51%	Space research	14%	Health	11%	Energy	10%	General science	4%	Natural resources and environment	3%	Agriculture	2%	Other	3%		<u>100%</u>	<p data-bbox="1068 379 1373 410">NSF 51.800 p. 34</p>
Defense	51%																		
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	<u>100%</u>																		
<p data-bbox="142 851 1052 913"><u>5. Most Important Government Establishments for Assistance to Research and Development</u></p> <p data-bbox="142 930 652 961">At the congressional level:</p> <ul data-bbox="272 977 1032 1100" style="list-style-type: none"> Congressional Research Service Various commissions of the House of Representatives and Senate Office of Technology Assessment <p data-bbox="142 1118 500 1149">Presidential level:</p> <ul data-bbox="272 1166 1032 1415" style="list-style-type: none"> National Research Council (NRC) Office of Science and Technology Policy (OSTP) Scientific advisors to the President (director of OSTP) Office of Management and Budget (issuing general compulsory rules for assistance to research and development) <p data-bbox="142 1433 444 1464">Advisory boards:</p> <ul data-bbox="272 1481 1032 1634" style="list-style-type: none"> National Research Council (NRC) American Association for the Advancement of Science (AAAS) National Academy of Science (NAS) National Academy of Engineering (NAE) 	<p data-bbox="1068 1069 1373 1100">USG 51.834 p. 53</p> <p data-bbox="1068 1195 1373 1226">USG 51.837 p. 88</p> <p data-bbox="1068 1321 1373 1353">USG 51.832 p. 81</p>																		

Country; USA	Source																
<p>Departments and independent agencies:</p> <p style="text-align: center;"><u>Share in the government assistance to research and development</u></p> <table border="0"> <tr> <td>Department of Defense</td> <td style="text-align: right;">47%</td> </tr> <tr> <td>NASA</td> <td style="text-align: right;">15%</td> </tr> <tr> <td>Department of Energy</td> <td style="text-align: right;">14%</td> </tr> <tr> <td>Department of Health and Human Services</td> <td style="text-align: right;">11%</td> </tr> <tr> <td>NSF</td> <td style="text-align: right;">3%</td> </tr> <tr> <td>Department of Agriculture</td> <td style="text-align: right;">2%</td> </tr> <tr> <td>Others</td> <td style="text-align: right;">8%</td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">100%</td> </tr> </table>	Department of Defense	47%	NASA	15%	Department of Energy	14%	Department of Health and Human Services	11%	NSF	3%	Department of Agriculture	2%	Others	8%		100%	<p>NSF 51.800 pp. 32-33</p>
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Others	8%																
	100%																
<p>6. <u>Structure of Advancement of Research and Development</u> (Institutional advancement, Project advancement, Advancement programs)</p> <p>The recipients of <u>insitutional advancement</u> are predominantly the "Federal Laboratories", receiving about 1/3 of the government advancement funds.</p> <p>The <u>project advancement</u> takes place apart from exceptions, as departmental research: results of the projects should contribute directly to the accompaniment of the mission of the client: health care, space, transportation, energy supply, etc. The sponsorship of technological performance and competitiveness in industry are not explicit goals of the advancement of research and development. An exception lies in the sponsorship of fundamental research by the NSF and the program for promoting innovation and research with small companies (Small business innovation research program).</p> <p>The <u>indirect measures</u> are not very important. In 1981 a tax credit of 25% for research and development costs above the level of previous years was introduced as well as an increase of the deductions and limits for donations and a shortening of the depreciation period for investments and research and development. An important role is played by the so-called "independent research and development/IR&D" companies who implement production for research and development contracts for government offices, they can within the framework of their total cost include costs for independent research and development. The total amount and use of these</p>	<p style="text-align: right;">/121</p> <p>USG 51.826 p. 1</p> <p>NSF 51.889 p. 15</p>																

<u>Country:</u> USA	<u>Source</u>
funds must be negotiated between the companies and the government offices.	
<p data-bbox="145 358 991 420"><u>7. Main Characteristics of Institutional Advancement</u></p> <p data-bbox="145 437 1061 654">The federal research centers are operated as government establishments (GOGO) or by private contractors (GOCO). The centers are criticized with regard to the problem statement, productivity, personnel economics, approval methods for finances and intervention of the government; reforms have been introduced.</p>	USG 51.826
<p data-bbox="145 689 1031 721"><u>8. Main Characteristics of Project Sponsorship</u></p> <p data-bbox="145 737 1061 924">Projects are sponsored by grants and contracts. A special form of grant is the "cooperative agreement". Grants are used if the government does not receive any service in return; contracts provide for a service, which should contribute directly to fulfilling the government mission.</p> <p data-bbox="145 940 1031 1127">The award procedure for grants and contracts is partly regulated by central frame regulations. The procedures are developed in particular for: evaluation and decision, permissible costs, financial handling, subcontract, payment procedures, patents and user rights.</p>	
<p data-bbox="145 1160 1015 1191"><u>9. Main Characteristics of Program Assistance</u></p> <p data-bbox="145 1207 1031 1359">The program development and continuation takes place differently in individual departments and agencies, without central regulations. The procedures used in this sector are hardly formalized.</p>	

I. INSTITUTIONAL ADVANCEMENT

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Country: USA	Institution/Instrument: Federal Research Centers (GOCO)	Source
<p>(AG=Client; AN=Contractor; Caltech=California Institute of Technology; DOE=Department of Energy; FE=Research Establishment; Fermilab= Fermi National Accelerator Laboratory; FuE= Research and Development; GOCO=Government Owned, Contractor Operated Laboratories; GOGO=Government Owned, Government Operated Laboratories; JPL=Jet Propulsion Laboratory; NASA (NSA)=National Aeronautics and Space Administration; NCAR=National Center for Atmospheric Research; NSF=National Science Foundation; URA=Universities Research Association, Inc.; USG=U.S. Government; ZG=Grantor)</p>		
<p>More than 700 federal research centers (federal laboratories) receive about one-third of the government research disbursements. The centers are the property of the government. They are operated as government establishments (GOGO) or their current operation is taken over by private contractors (GOCO). The description refers to the GOCO, especially the centers JPL, Fermilab and NCAR. In 1983 the report under recommendations of a study commission of the Federal Research Centers was published. President Reagan should decide whether to implement the recommendations.</p>		<p>USG 51.826, P.1 USG 51.826</p>
<p><u>1.01 Organization of the FE</u> The centers are <u>legally independent</u> non-profit organizations (corporations) under private law. The carriers are also universities or groups of universities, rarely industrial enterprises. The government, owner of the centers, makes available to the operator the land, buildings and establishment free of charge.</p>		<p>NSF 51.894 PPL 7</p>
<p><u>1.02 Accounting Procedures</u> The FE are committed by contract to maintain an accounting procedure, which secures the listing, assignment and establishment of costs according to the legal regulations (4 CFR Parts 401-402). These regulations provide for establishing the costs according to <u>commercial principles</u>. The financial reports to the AG give the expenditures and the commitments made. JPL, which</p>		<p>NSF 51.894 GP 109 NSF 51.894 REP 186</p>

Country: USA Institution/Instrument: Federal Research Centers (GOCO)	Source
<p>receives only project assistance, must list separately the costs for each individual contract and each program.</p> <p>The cost calculation system of Fermilab and JPL must be approved by the client.</p> <p>In the Fermilab the accounting procedure must allow a simple conversion into the categories of the DOE. The computers of Fermilab and DOE are connected with each other, thus the DOE can request at any time directly the information required. According to the contract between DOE and URA, the DOE is the owner of all accounting documents.</p>	<p>NSA 51.1007 P.9</p> <p>NSA 51.1007 P. 31</p> <p>URA 51.971 P. 3</p> <p>DOE 51.978 P. 18</p>
<p><u>1.03 Awarding Funds</u></p> <p>The basis of the award of funds is a <u>private contract</u> between the carrier of the FE and federal government, represented by the department or agency. The basis for the award of funds includes "Federal Procurement Regulations," in particular the regulations on the admissibility of the costs. It includes special regulations for research establishments. Further modification and specification are to be found in the contract. The contract is of the type "<u>cost reimbursement plus fixed profit.</u>" The latter amounts for NCAR to about 2.3% of the total cost, for NASA about 2.0%. The time of the contract is 5 years for NCR and Fermilab and one year for JPL. For NCAR and Fermilab a skeleton budget can be agreed upon for this period.</p> <p>For each budget year the <u>assistance must be applied for</u> and negotiated again. This involves the AN, the AG, the Office of Management and Budget as well as Congress. The long duration of the procedure and the uncertainty connected with it recently caused the Study Commission to suggest awarding the funds on a predictable multiyear basis.</p> <p>At the NCAR the <u>budget</u> is approved and managed jointly for operation and investments. In Fermilab there are 3 different budgets: operating costs, equipment, construction projects. Investments (equipment) are held in trust for</p>	<p>NSF 51.894 V</p> <p>USG 51.864 651 f.</p> <p>NSF 51.894 V</p> <p>NSA 51.1007 P. 14</p> <p>DOE 51.978 P. 6</p> <p>NSF 51.893 P. 3</p> <p>USG 51.826 P. 8</p> <p>USF 51.894 GP 43</p> <p>URA 51.971 P. 2</p>

Country: USA Institution/Instrument: Federal Research Centers (GOCO)	Source
<p>the government, who becomes immediately the owner. The remaining budget of NCAR is divided into rough categories (personnel, material, services, travel) each with 2 to 5 subdivisions.</p>	NSF 51.894 PPL 186
<p>The basis for the <u>budget implementation</u> in NCAR is the annual program plan established by the contractor and approved by the client. Changes to this plan require approval by the client, if under one budget heading more than \$250,000 are diverted within one year. There is no possibility of exchange in formula between the budgets for the operating current costs and for equipment.</p>	NSF 51.894 P. 13 URA 51.971 P. 2
<p>The contracts provide in agreement with "Federal Procurement Regulations" that the client can require <u>at any time changes</u> in the activities, insofar as remaining within the general framework of the contract. With this instrument it is possible to implement curtailing and re-grouping of the funds.</p>	NSF 51.894 GP 18
<p>Between NASA and Caltech a <u>one year skeleton contract</u> is signed without overall budget, which is used as the basis for individual orders (task orders). A transfer of funds between individual orders is possible under certain conditions. If in an order the fact arises of exceeding cost, an agreement must be made on the further procedure. Without this the contractor cannot disburse higher costs, the client is not committed to reimbursing the higher costs. The contract regulates the permissible costs and the profit (about 2% of the total volume) in agreement with the federal procurement regulations (FPR). The overhead costs are reimbursed according to a uniformly established (and tested) rate (indirect cost rate).</p>	NSF 51.1007 P. 5 NSA 51.1007 P. 14 USG 51.864
<p>Investments (equipment, building) are made by the contractor in trust for the client, which becomes immediately the owner.</p>	NSA 51.1005 P. 1
<p>The study commission for the Federal Research Center emphasizes the importance of independent research and development for the productivity of research and requires for this purpose</p>	USG 51.826 P. 8

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<p>the application of at least 5% (up to 10%) of the assistance. (In the procurement guidelines, the costs of independent research and development are acknowledged basically as reimbursement, but not the amount.) The JPL can spend for independent research at present about 1.35 million dollars per year, that is about 0.3% of the annual volume of funds.</p>	<p>USG 51.854 P. 671 NSA 51.1006 P. 8</p>
<p><u>1.04 Personnel Economics</u></p> <p>The appointment of the NCAR director must be approved, likewise the amount of his salary. The NCAR personnel financed totally from the funds of the NSF must receive no further reimbursement (for example, from project funds from other departments. Special rules apply for overtime reimbursements. The approval of NASA must be obtained for appointing the senior employees of the JPL.</p> <p>The NCAR contract and the secondary provisions contain moreover no explicit rules on the personnel economics. Indirectly however the client has a decisive <u>influence on the approval of the annual program plan</u>. The jobs are determined in number, the reimbursement structure should correspond to that of universities.</p> <p>Moreover NCAR must establish its procedure for personnel matters (of suspension, occupation, appointments, salaries, allowances) in <u>hand-books</u>. Any changes require the approval of the AG; the latter may himself require changes.</p> <p>JPL must name the "key personnel" for important NASA projects. Changes in appointment require NASA approval. JPL must make known its personnel policy including the reimbursement regulations of NASA, and make sure that these reimbursement procedures are applied in general. The appointment of the deputy institute director (assistant laboratory director) and higher ranking personnel must have NASA's approval. The personnel capacity of JPL (in work years) must not exceed a level established by NASA.</p>	<p>NSF 51.894 V 19</p> <p>NSF 51.894 GP 19,58 NSA 51.1006 P. 1</p> <p>NSF 51.893 P. 3</p> <p>NSF 51.894 V 25</p> <p>NSA 51.1007 P. 66 NSA 51.1007 P. 67</p> <p>NSA 51.1007 P. 68</p>

Country: USA Institution/Instrument: Federal Research Centers (GOCO)	Source
<p>URA must apply for the <u>approval of DOE in dis- missals and agreements on reimbursements of more than \$45,000. The amount of personnel re- imbursement is not required by the government. Because of the proximity to the university, the salaries correspond approximately to those currently paid there.</u></p> <p><u>Payments of severance pay to personnel may under certain assumptions be considered as permissible costs.</u></p> <p>The problem in the area of personnel resources has been raised by the <u>study commission</u> for the Federal Research Center in their report of May 1983: similarly though less seriously than the government operated centers, the GOCO are lack- ing in incentives and motivation for the workers. Although GOCOs do not fall under public service law, some agencies have introduced upper limits for the repayment of personnel emoluments. The commission is in favor of total freedom in GOCOs in personnel policy.</p>	<p>DOE 51.978 P. 8</p> <p>URA 51.971 P. 3</p> <p>USG 51864 P. 672</p> <p>USG 51.826 P. 6</p>
<p><u>1.05 Institution's Own Income</u></p> <p>The institutional assistance by the NSF includes about 80% of the budget of the NCAR. The other 20% comes from the <u>project advancement of other departments and agencies. The NSF must approve any research application. The share of these funds in the total budget should not exceed 25%. These projects are included in the cost reimbursements in which the permissible direct costs, the uniformly determined rate for in- direct costs, as well as (possibly) a fixed profit or an incentive represent the principles.</u></p> <p>The income obtained from the sponsorship of the project by other departments and agencies is estimated beforehand for the contract and in the annual program plan. If the contractor receives high profits, this does not represent any reduction in the assistance by the client. Lower proceeds are not compensated by addi- tional funds from the client.</p> <p>The JPL works only for government offices, not for industry.</p>	<p>NSF 51.894 V 19</p> <p>NSF 51.894 PPL 191</p> <p>NSF 51.893 P. 3</p> <p>NSF 51.894 V 27</p> <p>NSF 51.893 P. 3</p> <p>NSA 51.1005 P. 2</p>

Country: USA Institution/Instrument: Federal Research Centers (GOCO)	Source
<p>In 1975 NASA and JPL agreed upon <u>guidelines for research under contract for other clients, even industry</u>. In the case of activities for other clients, a distinction is made between two types of activities: activities within the framework for other programs of other agencies, supported explicitly by NASA, and activities in areas without programmed NASA support. These last activities, counted in man years, should not constitute over 25% of the total volume of the JPL activity. Normally JPL will only work for other clients in areas where it can use the technologies or abilities which come from the activity for NASA or for other clients. But basically NASA must approve any work of JPL for other clients. The approval is not applied for if JPL is in competition with industrial enterprises, that means that the work would contribute to the solution of an important public problem. Normally activities for other clients are carried out within the framework of the NASA-JPL contract. Only in special cases should JPL or the carrier Caltech sign contracts.</p> <p>The study commission for the Federal Research Center favors in its report the research under contract of centers for industry, insofar as a control instrument is introduced, which prevents interference with competition.</p>	<p>NSA 51.1006 P. 2 NSA 51.1006 P. 5</p> <p>NSA 51.1006 P. 7</p> <p>USG 51.826 P. 12</p>
<p><u>1.06 Donations</u></p> <p>NCAR and JPL receive no donations. Fermilab can use freely donations for cancer research. Donations in favor of the carrier organizations can be used by the latter without any restrictions.</p>	<p>URA 51.971 P. 1 NSF 51.893 P. 3</p>
<p><u>1.07 Transfer of Funds</u></p> <p>Approved funds of the NCAR can be transferred to the following year. This increases the funds available altogether in the following year.</p> <p>For NASA the funds provided for JPL are transferable, if they were available by contract.</p>	<p>NSF 51.894 PPL Tab. 2</p> <p>NSA 51.1005 P. 3</p>

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Country: USA Institution/Instrument: Federal Research Centers (GOCO)	Source
<p>The study commission for the Federal Research Centers in its report of May 1983 favored the approval of the transfer of remaining funds to the next budgeting year, to avoid the waste of funds by <u>hasty expenditure at the end of the budget year</u>. This assistance could refer only to the GOGOs operated only by the government.</p>	<p>USG 51.826 P. 8</p>
<p><u>1.08 Rights of Use and Benefits</u></p> <p>The rights of use and benefits are regulated differently for <u>data</u> and <u>inventions</u>.</p> <p>The <u>data</u> are subdivided into "subject data" and "other data." The subject data are those which arise for the first time from the work for the client. The client can require the transfer of the "subject data." "Other data" are data given to the client which do not come for the first time from the work. For both types the government has an unlimited right of use; for copyright protected data it should be given in free, nonexclusive irrevocable license for its own requirement. Third parties should be given access to the data banks established in the course of the work against the repayment of the cost or other benefits, insofar as the client has not been given an exclusive commercial use by the applicant.</p> <p>The NSF decides about the rights to <u>inventions</u>, taking into consideration the public interest and those of the contractor. The contractor must ensure this position of the NSF in sub-contracts. The contractor can award 15% of the net proceeds from patents to the inventor/inventors; the rest must be credited to the contract.</p> <p>According to the NASA-Caltech contract Caltech can become the <u>owner of patent rights</u>. The government receives a nonexclusive, non-transferable, irrevocable free <u>license</u>. The contractor must grant a license to third parties under normal marketing considerations. If he refuses, the government can give the license (<u>march-in right</u>). If the government acquires the rights, the contractor receives a nonexclusive, free license. The contractor</p>	<p>NSF 51.894 GP 91</p> <p>NSF 51.894 GP 94</p> <p>NSA 51.1007 P. 49</p> <p>NSA 51.1007 P. 53</p> <p>NSA 51.1007 P. 51</p>

Country: USA Institution/Instrument: Federal Research Centers (GOCO)	Source
<p>must inform the client about all inventions. The obligation of the client must when necessary be notified to the subcontractors. Net proceeds of the contractor from inventions must be used for promoting research or educational projects.</p> <p>The DOE-URA contract at Fermilab provides practically for the government to be the <u>owner of the patent rights</u>. The contractor receives an <u>irrevocable nonexclusive free license</u>. The contractor can apply for patents in foreign countries if the government does not do so. Fermilab must notify a subcontractor of obligations to the government.</p>	<p>NSA 51.1007 P. 54</p> <p>NSA 51.1007 P. 56</p> <p>DOE 51.978 P. 53</p>
<p><u>1.09 Technology Transfer</u></p> <p>Through the contract with the NSF, the NCAR is committed to <u>disseminate and publish the research results obtained</u>. The technology transfer also applies to collaboration with foreign scientists and institutions, for example Brazil.</p> <p>The contract with the client commits the NCAR to a public information policy, through which it is ensured that interested people can receive information and documents just as they are entitled to in government offices ("Freedom of Information," "Sunshine Act").</p> <p>The contract agreement between NASA and Caltech provides for <u>technology transfer activities</u> for all three establishments. JPL maintains its own organization unit for technology transfer. NASA allows Caltech, the carrier of JPL, to use establishments and plans from case to case free of charge on the basis of special agreements.</p> <p>The DOE-URA contract at Fermilab does not mention technology transfer. Fermilab has established its own <u>organization for technology transfer</u>. It publishes research results, organizes seminars and conferences, makes available library information services. Employees of enterprises which provided a contribution of \$1,000 per year can take part in these seminars.</p>	<p>NSF 51.894 V 12</p> <p>NSF 51.893 P. 3</p> <p>NSF 51.894 V 25</p> <p>NSA 51.1006 P. 3</p> <p>NSA 51.1006 P. 9</p> <p>URA 51.971 P.5</p>

Country: USA Institution/Instrument: Federal Research Centers (GOCO)	Source
<p>The study commission on Federal Research Centers regrets in its report the isolation of the centers and the lack of cooperation with universities and industry. Moreover the complicated public procurement law which makes the award of a contract to private parties much more difficult than the assignment of work to a federal center and thus leads to the unjustified detriment of universities and industries, is criticized.</p>	USG 51.826 P. 11
<p>The commission favors the opening of the centers and their establishment to the universities and industry, the reinforcement of the cooperation with industry by exchange of information, joint projects and research under contract for industry (insofar as interference in competition can be avoided). Moreover the commission recommends the simplification of the public procurement rules and thus the facilitation of the award of contracts to universities and industry.</p>	USG 51.826 P. 12
<p><u>1.10 Insurance</u></p> <p>The land, building, establishment and equipment are the property of the government. They are not insured (<u>self-insurance principle</u>). The contractor has only a qualified liability for damages. The cost of insurance for this purpose would not be considered a permissible cost.</p> <p>The contractor is entitled and obligated to obtain <u>third party insurance</u>. Costs for this purpose can be reimbursed.</p>	NSF 51.894 GP 44 NSF 51.894 GP 50 NSF 51.1005 P. 3 NSF 51.894 GP 52
<p><u>1.11 Construction Projects</u></p> <p>Construction projects require approval by the client. They are occasionally handled by the central General Services Administration (GSA) competent in the matter of government buildings. The regulations valid for offices are also decisive for these buildings.</p> <p>URA/Fermilab carries out construction projects on trusts for the government, which immediately acquires ownership.</p>	NSF 51.894 GP 22 DOE 51.978 App. A

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Country: USA Institution/Instrument: Federal Research Centers (GOCO)	Source
<p><u>1.12 Obligations with Regard to Report Communication</u></p> <p>NCAR has to establish reports according to the content and time provisions of the client. The latter include without limitation: quarterly management reports (including financial reports)</p> <ul style="list-style-type: none"> - program evaluation - annual scientific reports. <p>JPL must present monthly <u>reports of expenditure</u> as well as quarterly "<u>technical reviews</u>" and semiannual detailed technical reports.</p> <p>The DOE-URA contract provides for monthly <u>financial reports</u>. The computer link between DOE and Fermilab assures the DOE information at any time even beyond accounting by access to the management information system. Moreover the DOE has an office with 10 employees (resident office) in Fermilab.</p>	<p>NSF 51.894 V 15</p> <p>NSA 51.1007 P. 9 NSA 51.1005 P. 4</p> <p>URA 51.971 P. 5</p>
<p><u>1.13 Interventions in the Award Given</u></p> <p>The <u>five year contract</u> and the annual <u>program plan</u> are the most important control instruments of the NSF. The contract through NCAR provides in accordance with the "Federal Procurement Regulations" that the client can require at any time changes in the activities.</p> <p>Additional possibilities of overall control arise from the obligation of the contractor to establish its procedures in <u>handbooks</u> (policy manuals) in certain areas (for example personnel matters, visitors, use of the establishment and plant, information) and which can only be changed by approval of the client.</p> <p>The director of the JLP is supported by an <u>advisory board</u> in the areas of science, technology, programs. The members of this board are appointed by agreement with NASA.</p> <p>The DOE reserves the right of approval of the <u>organization and management system</u> of Fermilab. Just as for the JPL the Fermilab has an advisory board.</p>	<p>NSF 51.894 NSF 51.984 GP 18</p> <p>NSF 51.894 V 25</p> <p>NSA 51.1006 P. 8</p> <p>DOE 51.978 P. 20f URA 51.971 P. 5</p>

Country: USA Institution/Instrument: Federal Research Centers (GOCO)	Source
<p>The instruments of overload control are supplemented by a <u>catalogue of reservations of approval of the client for the current operation in areas such as: appointment and emoluments of the director, agreements with foreign offices, applications for research to third parties, signing of subcontracts, procedures for patents, deviations in budget implementation, reimbursement of consultants, matters regarding land.</u></p> <p>NASA maintains an office with 20 employees at the contractor (NASA resident office). The DOE office in Fermilab has 10 people.</p> <p>NASA uses a system of <u>issuances</u> ("NASA issuance system") by which questions of basic importance can be related uniformly.</p> <p>The <u>study commission</u> for Federal Research Centers criticizes particularly the excessively detailed control of research work in the centers, calling it <u>micromanagement</u>.</p>	<p>NSF 51.894</p> <p>NSA 51.1005 P. 4 URA 51.971 P. 5</p> <p>NSA 51.1007 P. 12</p> <p>USG 51.826 P. 9</p>
<p><u>1.14 Checks</u></p> <p>The government is entitled to carry out or have carried out at any time inspections or evaluations of the contractor. In particularly important cases moreover there are <u>inspection rights</u> by the "Comptroller General of the United States." So far the government has carried out these checks itself; in the future it will have the annual inspections of the centers made by private industrial inspectors, that is award the latter additional contracts.</p> <p>Besides the financial inspections the NSF conducts <u>management reviews and cross-evaluations</u> (for example regarding the competition level in the centers).</p> <p>JPL is evaluated at least once a year by a board appointed by NASA. The formal accounting procedure is conducted by NASA itself or delegated to the officials of the Defense Department.</p>	<p>NSF 51.864 GP 9 NSF 51.864 GP 38</p> <p>NSF 51.896 P. 1</p> <p>NSF 51.896 P. 3</p> <p>NSA 51.1007 P. 44 NSA 51.1005 P. 4</p>

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Country: USA Institution/Instrument: Federal Research Centers (GOCO)	<u>Source</u>
<p>Fermilab is inspected by several offices: private industrial inspectors, inspectors of the DOE, inspectors of the "General Accounting Office," inspectors of the finance office (Internal Revenue Service). In the DOE-URA contract, the contractor is obligated: to conduct an internal inspection of books, operations and expenditures and present this to the DOE.</p> <p>The study commission on the Federal Centers indicates as a reason for many problems the lack of <u>checking and competition</u> (lack of accountability). The researchers of the centers are not under any pressure of competition as in the universities, nor must the centers compete with research and development establishments of industry. This defect will not be made good by a suitable evaluation and checking system. The commission favors the establishment of external <u>evaluation boards</u> and a system of decision for fundamental research on the basis of <u>peer reviews</u>.</p>	<p>URA 51.971 P. 6 DOE 51.978 P. 17</p> <p>USG 51.826 P. 9</p>

II. PROJECT SPONSORSHIP

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Country: USA Instrument: Grants	Source
<p>(FE=Grant recipient; FUE=Research and development; ZG=Grantors; NASA (NSA)=National Aeronautics and Space Administration; NIH=National Institutes of Health; NSF=National Science Foundation)</p>	
<p>Grants are the traditional instrument for advancing fundamental research. About 80% of the funds of the NSF (volume of assistance about 1 billion dollars) are used as grants. The instrument correspond to the German grants. The description given below refers to the NSF and mentions NIH and NASA, who also award many grants, wherever their practical implementation differs greatly.</p>	NSF 51.810 121-2
<p><u>2.15 Application Documents</u></p> <p>NSF provides a <u>sequence</u> for the application: title sheet, table of contents, summary of project, description of project, bibliography, curriculum vitae, budget, financing of personnel costs ("current support," activity of the employees for the project for which assistance is applied for and others, and the financing of personnel emoluments resulting from them), appendices (for example documentation on the establishment).</p> <p>The <u>project summary</u> should consist of 200 to 300 words and be publishable. The NSF prescribes among other things for this purpose: do not use "I" or "we," use language understandable to readers with scientific education, be informative for scientists of the same or related technical areas.</p> <p>It proposes as contents for <u>description of the project</u>: description of the <u>proposal including the goals and importance</u>, general plan for achieving the goals, relationship between the application and the state of the art, previous activities in the area of knowledge, plans for dissemination and availability of the results of the project, assurance of the assistance of suitable establishments and equipment, location of the activities, collaboration with persons</p>	NSF 51.810 203.5

Country: USA Instrument: Grants	Source
<p>(not mentioned in the budget) (with a note on each such worker). The description of the project should not exceed 15 closely filled pages (exceptions for projects with several applicants or special complexity).</p> <p>A short <u>curriculum vitae</u> must be appended for each member of the "senior personnel." and a list of the most important publications of the last 5 years.</p> <p><u>Budget</u>: if not otherwise required for the individual case, each application must contain a total budget and a budget for each year. The budget is to be represented as a summary with appended discussions and documentations. These are prescribed for personnel costs (names of the "senior personnel members," number of personnel months, principles of salary payment), equipment (listing of items costing more than \$1,000; justification for items worth more than \$10,000), travel costs (time and extent of trips, in connection with the project, individual data on foreign trips), costs of support of delegates to conferences et cetera, other direct costs (material publication, advisors, accounting costs, subcontracts), indirect costs (compare in this connection item 2.6 and appendix US-3).</p> <p><u>Financing of personnel salaries</u> (current support): For project management and "senior personnel" compare item 2.16 and appendix US-4.</p> <p>The applications should generally be presented in <u>15 copies</u>. In exceptional cases 20 or even 10 copies are prescribed.</p>	<p>NSF 51.810 II-16</p> <p>NSF 51.810 203.5</p> <p>NSF 51.810 203.3</p>
<p><u>2.16 Printed Application Forms</u></p> <p>No sets of forms are provided for NSF applications. For certain parts of the applications, they must "follow" the NSF format, that is the applicants should generally send these forms in copies of the NSF formats. This applies to: cover sheets, project summary, budget summary and financing of personnel reimbursements. These formats are reproduced in the appendices US-1 to US-4. NASA gives no printed forms as</p>	<p>NSF 51.810 203.5</p>

Country: USA Instrument: Grants	Source
<p>sample forms. The NIH gives the applicants a 70 page brochure, which contains besides a description of the programs and the application procedure, all necessary forms and discussions and completed examples.</p>	<p>NSA 51.988 A 3 NIH 51.937</p>
<p><u>2.17 Ownership Conditions</u></p> <p>Assistance is provided only in special cases to foreign research and development establishments.</p> <p>Individual programs (for example Polar Programs) are limited to applicants from the US.</p> <p>The "Small Business Innovation Research (SIBR)" Program is reserved for <u>small and medium enterprises</u> (up to 500 employees, independent management and ownership). In this and other programs, applicants owned by or under the direction of minority groups are taken into account especially.</p>	<p>NSF 51.810 203.1</p> <p>NSF 51.809 P. 41</p> <p>NSF 51.809 P. 46 NSF 51.883 P. 2</p>
<p><u>2.18 Advice About Applications</u></p> <p>Potential applicants are provided with information and advice primarily in <u>written documents</u>. Every year the brochure "Guide to Programs" is published, describing the contents and main points of the NSF assistance. Further contents and technical information are found in the different program announcements, for example "Small Business Innovation Research" or "Ethics and Values in Science and Technology." The NSF indicates in the "Bulletin" published monthly program announcements and publications. Scientific results of NSF sponsorship are described in the bi-monthly periodical "Mosaic." The NSF also publishes annual reports. Applicants may obtain information about the rules and regulations for application, implementation and accounting for research projects from the brochure "Grants for Scientific Engineering Research" and "NSF Grant Policy Manual."</p>	<p>NSF 51.809</p> <p>NSF 51.883 NSF 51.871 NSF 51.872 NSF 51.873</p> <p>NSF 51.811 NSF 51.810</p>

Country: USA Instrument: Grants	Source
<p>Personal advice about applications is not commonly given. The brochure "Grants for ... Research" contains, however, the telephone numbers of the NSF employee responsible for application processing in the different programs.</p>	NSF 51.811 P. 26
Country: USA Instrument: Grants	Source
<p>(FE=Grant Recipient; FUE=Research and Development; ZG=Grantor; NSF=National Science Foundation; OMB=Office of Management and Budget; USG=United States Government)</p>	
<p><u>2.19 Award of Funds</u></p> <p>A "Grant" is defined as a legal instrument which allows a government authority to transfer money, property, services or anything of value to a recipient without basic collaboration being provided between the grantor and recipient during the implementation of the intended activity. Wherever closer collaboration of the ZG is needed, the "cooperative agreement" is used, a special form of the grant, which provides instead of a unilateral administrative document, a bilateral agreement on mutual rights and obligations, without affecting adversely the nature of the grant.</p> <p>The NSF distinguishes between the "standard grant" (assistance to a project for a certain period, without prospect of extension and the "continuing grant" (assistance on a project for a certain period connected with a declaration of the intention to provide further funds, provided the latter are available and the results justify further assistance).</p> <p>The "award instrument" (comparable to the German "decision of approval") consists of:</p> <p>(1) award document (with special provisions for the sponsored project) (2) budget (with amounts according to type of expenditures/costs as basis for the NSF sponsorship)</p>	<p>NSF 51.810 122 b.c</p> <p>NSF 51.810 122e,f</p> <p>NSF 51.810</p>

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Country: USA Instrument: Grants	Source
<p>(3) research application of the recipient (4) general contract conditions (5) NSF brochures, NSF program guide or other NSF documents, mentioned in the grant letter.</p>	NSF 51.903
<p>The award of the grant is regulated by <u>special prescriptions of the OMB</u>, which apply uniformly for all grantors at the federal level, for example "Grants and agreements with institutions of higher education, hospitals and other non-profit organizations," Indirect cost rates, audit and audit follow up and educational institutions" or "Cost principles for educational institutions." For grants to industrial enterprises, the applicable prescriptions are in the "<u>Code of Federal Regulations No. 41: Public Contracts and Property Management.</u>" These prescriptions are listed by the NSF in "Grant Conditions" as contract components with the indication of the exact designation and source.</p>	<p>OMB 51.929 OMB 51.900 OMB 51.902 USG 51.964 NSF 51.903 § 1</p>
<p>The "<u>Grant general conditions</u>" regulate in 34 paragraphs on 6 closely filled pages the rights and obligations of the recipients:</p> <ol style="list-style-type: none"> (1) permissible costs (2) payment procedures (3) content changes (4) personnel changes (5) management standards (6) delegation of decisions (7) advisors/consultants (8) cost sharing (9) use of income (10) naming the NSF in publication (11) publication by the grant recipient (12) establishment of reports (13) ownership of equipment (14) copyright, rights of use (15) records, inspection (16) ending of assistance (17) non-discrimination (18) protection of animals (19) genetic research (20) use of US aircraft (21) human rights (22) visits abroad 	NSF 51.903

Country: USA Instrument: Grants	Source
<p>These prescriptions, along with the decreases of the OMB and the "Code of Federal Regulations No. 41" valid as <u>contract components</u> represent a comprehensive, thorough and detailed set of regulations.</p>	
<p><u>2.20 Decisions Regarding the Application for Assistance</u></p> <p>All applications are evaluated by a scientist acting as an NSF program officer. Further evaluations are carried out generally by 3 to 10 other scientists, who are experts in a special area concerning the application. Some program officers ask for the judgement of advisory boards before they make a proposal regarding the decision. The decision proposal of the program officer is checked at higher NSF levels for its consistency with the general NSF assistance policy and decided upon. The applicants receive a communication about the decision together with anonymous copies of the evaluations.</p> <p>The recourse to outside experts is basically prescribed for all grants. But there is a very long catalogue of exceptions. The evaluations are usually given in writing. The applicant may be visited.</p> <p>Since 1981 the NSF has used the following criteria to evaluate the application:</p> <ol style="list-style-type: none"> (1) research performance, competence (2) intrinsic merit of the research (3) utility or relevance of the research (4) effect of the research on the infrastructure of science and technology <p>The Criteria (1), (2), and (3) are applied generally to all applications. Criterion (1) is equally important for all projects. The relative weights of Criteria (2) and (3) depend on whether we are dealing with a fundamental research (greater weight for Criterion (2) or applied research (greater weight for Criterion (3))). Criterion (4) encompasses aspects which are not covered by Criteria (2)</p>	<p>NSF 51.811 P. 8</p> <p>NSF 51.922</p> <p>NSF 51.811 P. 8</p> <p>NSF 51.811 P. 8</p> <p>NSF 51.810 232</p>

Country: USA Instrument: Grants	<u>Source</u>
<p>and (3). A list of aspects is pre-assigned for evaluating the criteria (for example for Criterion 1: education, previous performance, future potential). Further criteria may be found in the announcements for the individual NSF programs.</p> <p>For each program a specific set of criteria is established from the general criteria and program oriented criteria, decided upon by the management of the NSF and published with the program announcement. The only criteria to be used in the evaluation process are those which were known to the applicant.</p>	<p>NSF 51.922 P. 2</p> <p>NSF 51.922 P. 5</p>
Country: USA Instrument: Grants	<u>Source</u>
<p>(FE=Recipient of assistance; FUE=Research and Development; ZG=Grantor; NSF=National Science Foundation; OMB=Office of Management and Budget</p>	
<p>The <u>evaluation procedure</u> is formalized. The overall judgement in individual programs and the individual criteria also are evaluated on a 5-scale (excellent, very good, good, fair, poor).</p> <p>Within a scientific sector, the applications are classified in the sequence of their evaluation and as many of them are assisted as allowed by the funds. In the case of equivalence of applications, further aspects such as "geographic distribution" and "distribution of grants" among topic areas are considered.</p> <p>Unsuccessful applicants are notified by the competent program officer on inquiry about the reasons for rejection. Moreover they receive anonymous copies of the evaluation. The competent deputy director of the NSF checks the evaluation if requested by the applicant.</p>	<p>NSF 51.922 Att B. NSF 51.907</p> <p>NSF 51.810 231</p> <p>NSF 51.811 P. 9</p>
<p><u>2.21 Delegation of the Award of Funds</u></p> <p>The NSF does not include any other institutions (for example project carriers) or persons (for example project leader) in the processing of</p>	<p>NSF 51.810 Chap. VI</p>

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<u>Country:</u> USA <u>Instrument:</u> Grants	<u>Source</u>
<p>the application and current verification of the project.</p> <p>The "<u>Organization Prior Approval System</u>" (OPAS) provides for the possibility of recipients who have a structure oriented toward a division of labor making certain decisions themselves (otherwise reserved to the NSR), if there are persons dealing with the decisions who have nothing to do with the project work. Such decisions apply for example to exceeding budget on occasions or awarding subcontracts. The decisions according to the OPAS must be suitably documented.</p>	NSF 51.903 §§ 5-6
<p><u>2.22 Checking of Solvency</u></p> <p>Applicants who have not received any NSF assistance in the last 2 years must if required declare or present among other things:</p> <ol style="list-style-type: none"> (1) data on the identification of the applicant (2) ownership of the organization (3) description of the goals and (possibly) non-profit status (4) list of the management personnel and their deputies (5) connection of management personnel with university, government offices or international organizations (6) list of public sponsorship funds received currently or recently (7) certificate on agreement regarding indirect costs (compare item 2.23) (8) for all applicants besides colleges, universities or government offices: <ul style="list-style-type: none"> - certified <u>confirmation of the financial status</u> for the present and the last 2 years - <u>References</u> from banks or other places. <p>In cases of doubt the NSF provides for local checks to be made.</p>	NSF 51.810 340.2
<p><u>2.23 Calculation of the Grant</u></p> <p>The basis for the calculation of the grant is a budget proposed by the applicant. The summary of this budget is to be presented in categories,</p>	NSF 51.810 203.5

Country: USA Instrument: Grants	Source
<p>which are prescribed by the NSF in a sample format (compare appendix US-3).</p> <p>The <u>admissability of the costs</u> is regulated in agreement with the general federal prescription of the OMB and the code of federal regulations (compare item 2.19). The NSF gives indications for the applicant regarding the following details:</p> <p>The following are approved as <u>direct costs</u>:</p> <p>Personnel costs for persons taking part directly or indirectly in the project. For scientists named, scope of activity and salaries must be listed, for technical and administrative personnel, the token and total remuneration. The remunerations must be consistent with the normal ones of the institution. Remunerations (for college lecturers) must not represent double payment for the same activity. The costs are given including the social security contributions, but not the overhead costs.</p> <p><u>Equipment</u> (over \$1,000 and owned for at least 2 years) must be listed separately and justified. For equipment items worth more than \$10,000 the applicant institution must confirm the need and non-availability. The effective procurement requires the prior approval of the NSF.</p> <p><u>Travel costs in the country and abroad:</u> domestic trips must be specified as to type and extent, foreign trips must be listed individually. The use of American aircraft is prescribed, under certain assumptions travel cost for accompanying family members is allowed.</p> <p><u>Consulting services</u> must be justified and proved by suitable qualifications. The number of working days and the remuneration must be indicated. The remuneration must not exceed \$245 per day.</p> <p><u>Subcontracts</u> must be listed in the budget, and require prior approval by the NSF (compare also item 2.26).</p>	<p>NSF 51.894 NSF 51.811 PP. 4-6</p>

Country: USA Instrument: Grants	Source
<p>Other direct costs must be listed exactly, for example, material, publication costs, computer costs, renting of special halls.</p> <p>The <u>indirect costs</u> are approved in the form of a percentage added to the direct cost. This quotation "indirect cost rate" is used for all contracts and grants of the federal government. It is established individually for each institution by standard federal authority.</p> <p><u>Calculation costs</u> such as depreciation and ventures are included in determining the addition for indirect costs.</p> <p><u>Non-allowable costs</u> include among others; cost of advertisement, depreciation of assistance, entertainment costs, interest.</p> <p>Selling costs are permissible costs.</p> <p>In general fees are not permissible. But fees are approved if the NSF formally asks for applications (Solicitation of proposals). The profit (either "fixed fee" or "incentive fee") may not exceed 15% of the cost. Profits are only allocated to industrial enterprises.</p> <p>The NSF prescribes for the <u>preliminary estimate</u> considerable detail in the format for the summary of the budget (compare appendix US-3).</p>	<p>NSF 51.811 P. 5</p> <p>USG 51.864 § 1-15.205</p> <p>USG 51.864 § 1-15.205</p> <p>USG 51.864 § 1-15.205-37</p> <p>NSF 15.898 P. 3 NSF 51.810 131-4 USG 51.864 §1-3.405-4/5</p>
<p><u>2.24 Financial Handling</u></p> <p>A <u>deviation from the preliminary estimate</u> is basically possible, but requires prior approval of the NSF (at present within the framework of OPAS, compare item 2.2 delegated to the carrier institution). The approval of the NSF must be applied for in writing by the project director and the competent official of the carrier institution.</p> <p><u>Overhead costs</u> are regularly covered without proof on the basis of "indirect cost" rate (compare 2.23). Naturally checks of the "indirect cost rate" can also give rise to additional allowances or curtailments.</p>	<p>NSF 51.810 632.1</p>

Country: USA Instrument: Grants	Source
<p>The <u>ownership of investment items</u> (equipment) belongs to the recipients, if they are universities, colleges, or other non-profit organizations. If the recipients are industrial enterprises, the government becomes the owner. After the end of the assistance the NSF decides about further use according to the case. If necessary the recipient is paid for his cost participation in the purchase. If the NSF does not make any decision regarding the further use within 120 days after the end of the project, the ownership reverts to the recipient. Where there are no regulations regarding the reimbursement of the residual value to the ZG by the FE, the latter receives or retains the property rights.</p>	<p>NSF 51.810 772</p> <p>NSF 51.810 773</p>
<p><u>2.25 Rates of Assistance</u></p> <p>The federal budget provides that all recipients should take part in the cost. An exception is represented by applicants formally requested by the NSF ("solicited proposals"). The <u>cost sharing</u> should reflect the interest of the recipient in the research, the potential utility which it expects from it and the financial capacity.</p> <p>There are no fixed rules for the amount of cost sharing. It can either be decided jointly for each individual project, or for all the projects sponsored in a particular institution. The minimum for cost sharing is 1%. The cost sharing of the recipient lies effectively between 1 and 17%.</p> <p>The amount of cost sharing does not affect the other conditions of assistance.</p>	<p>NSF 51.810 641.1</p> <p>NSF 51.810 641.2</p> <p>NSF 51.810 643.4</p> <p>NSF 51 898 P. 4</p>
<p><u>2.26 Award of Contracts</u></p> <p>Subcontracts for accomplishing part or all of the research and development sponsored by the NSF are only permissible with prior consent by the NSF. Normally subcontracts are justified in the research application, and the approval</p>	<p>NSF 51.810 623</p>

<u>Country:</u> USA <u>Instrument:</u> Grants	<u>Source</u>
<p>is given together with a decision on the assistance. According to the type and content of the subcontract, the NSF determines the contract conditions, which are to be "transferred" to the subcontractor, to assure the maintenance of the conditions of assistance. The service of consultants applies as a subcontract. Consultants must receive at maximum \$245 per day (1983). Applications for manufacture and for bookkeeping etc. are also considered sub-contracts.</p>	<p>NSF 51.810 204.1</p> <p>NSF 810.761</p>
<p><u>2.27 Payment Procedure</u></p> <p>If no other agreement has been made the recipient receives <u>preliminary payment</u> according to the level of the current requirement. Normally these payments are made by "<u>letter of credit</u>" (Appendix US-6). With it the recipient is empowered to obtain from the banks money up to a fixed upper limit at the cost of the government. Recipients who do not have the prerequisites for payment through "letter of credit," present an application for payment to the NSF (Appendix US-5). In most cases <u>periodical pre-payments</u> are agreed upon. The agreement must be made in such a way that the FE keeps as little cash as possible on hand. Monthly payments are most frequent, but shorter and longer intervals are also possible. No interest needs to be paid on overpayments, the interest received for pre-payments must be handed over to the NSF. The prerequisite for pre-payments is that the recipient has proven to the NSF its willingness and ability to reduce to the minimum the time between receiving the funds and the expenditure, and that it has an accounting procedure which satisfies the OMB standards. If these prerequisites are not satisfied, the recipient is reimbursed for <u>proven costs</u>. Wherever this procedure is not suitable, an agreement may be made for "<u>working capital advance</u>": the recipient receives an advance for a certain initial period. After its end he receives a cost reimbursement amounting to the proven cost. The payment and accounting intervals should be determined in such a way that the advance amounts approximately (on the</p>	<p>NSF 51.903 E2</p> <p>NSF 51.800 422 a</p> <p>NSF 51.898 P. 4</p> <p>NSF 51.800 422 b</p> <p>OMB 51.929</p> <p>NSF 51.800 422 c</p> <p>NSF 51.800 422 d</p>

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<u>Country:</u> USA <u>Instrument:</u> Grants	<u>Source</u>
average) to the non-reimbursed costs.	
<p data-bbox="154 451 901 514"><u>2.28 Obligations Regarding Reports and Communications</u></p> <p data-bbox="154 546 1047 934">The <u>final report</u> on research results is to be presented within 90 days after the end of the sponsorship period. The final report consists of a one page summary (Appendix US-7). The summary contains technical data, a verbal summary and indications on the appendices: summary of scientific reports ("theses"), the geographical data on publications, information about the scientific workers, indications about inventions, content (technical), description of the project and its results, miscellaneous.</p> <p data-bbox="154 966 1063 1417">For projects with a sponsorship time of 2 years or more, a <u>progress report</u> must be presented one year and 90 days after the date of the document of approval, thereafter every 12 months except for the final report. The following contents are prescribed for the progress report: (a) summary of the overall progress, the results as well as a comparison of the goals achieved with those indicated in the application; (b) indication regarding existing problems, favorable or unusual developments; (c) summary of activities planned for the next period of assistance; (d) other information important for the course of the project.</p> <p data-bbox="154 1449 1047 1606">In projects for which the NSF has declared its intention for continuous assistance, the annual progress report is part of the application to be made every year for continuation of the assistance.</p> <p data-bbox="154 1638 982 1701">The general regulations are implemented and extended for the individual programs.</p>	<p data-bbox="1079 546 1388 577">NSF 51.809 z. 13</p> <p data-bbox="1079 672 1388 703">NSF 51.810 VI-12</p> <p data-bbox="1079 997 1388 1029">NSF 51.903 z. 12</p> <p data-bbox="1079 1186 1388 1218">NSF 51.810 673.1</p> <p data-bbox="1079 1438 1412 1470">NSF 51.810 673.2b</p>

<u>Country:</u> USA <u>Instrument:</u> Grants	<u>Source</u>
<p data-bbox="175 331 506 367"><u>2.29 Publications</u></p> <p data-bbox="175 399 1079 745">The NSF is entitled to publish or have published scientific and technical information on the projects it has assisted with grants. But this is the starting point, and it encourages the recipient to publish. A publication of individual research reports of the NSF does take place; summaries of several projects or programs are published. Indications about all the research projects assisted and short summaries of the contents are given in the published data bank of the NTIS.</p> <p data-bbox="175 777 1079 945">In all publications by the recipient, a reference must be made to the assistance to the project provided by the NSF, and the fact that the publishers themselves do not necessarily reflect the opinion of the NSF.</p>	<p data-bbox="1112 399 1421 430">NSF 51.810 752.1</p> <p data-bbox="1112 556 1307 588">NSF 51.874</p> <p data-bbox="1112 777 1421 808">NSF 51.810 752.4</p>
<p data-bbox="175 1003 1015 1039"><u>2.30 Participation in the Technical Results</u></p> <p data-bbox="175 1071 1079 1417">The decisions of the NSF on patent questions are made in accordance with sections 202-204 under heading 35 of the U.S. Code (mostly the "Bayh-Dole Act"). Accordingly, since July 1, 1981 small enterprises (small businesses with less than 500 employees) and non-profit organizations (including colleges and universities), apart from a few limited exceptions, have the "first right of refusal," that is the right to apply for patents for inventions within the framework of the sponsored projects.</p> <p data-bbox="175 1449 1079 1522">The following principles apply individually for the NSF policy towards these establishments:</p> <p data-bbox="175 1543 1079 1648">(1) The NSF reserves no right to inventions which arise within the framework of the assistance to educational and training projects.</p> <p data-bbox="175 1669 1079 1837">(2) If a recipient does not claim rights to the invention, the NSF allows the inventor to apply for the patent, even when the recipient indicates that its rights would be thus violated.</p>	<p data-bbox="1112 1071 1404 1102">NSF 51.809 P. V</p> <p data-bbox="1112 1449 1307 1480">NSF 51.930</p> <p data-bbox="1112 1543 1258 1575">§ 650.3</p>

Country: USA Instrument: Grants	Source
(3) If neither the recipient nor the inventor claims patent rights, the latter are released by publication.	
<p>The decisions for approval for small enterprises or non-profit organizations provide among other things for the following:</p> <p>(1) The recipient can obtain unlimited rights from an invention.</p> <p>(2) The federal government receives a non-exclusive, non-transferable irrevocable free license "on behalf of the United States."</p> <p>(3) Inventions and a possible intention of the recipient to apply for a patent must be notified in writing to the NSF within 2 months.</p> <p>(4) The recipient must apply for the patent within 2 years.</p> <p>(5) If the recipient waives the application for license and the U.S. government acquires the patent rights (through the NSF), the recipient can receive a non-exclusive free license.</p> <p>(6) The recipient must award a license under ordinary market conditions to serious interested third parties. If the recipient refuses to do so, then the NSF can award the license to the interested party instead, thus the so-called "march-in right" comparable with the German instrument of forced license.</p> <p>For industrial enterprises with more than 500 employees, the Bayh-Dole Act does not apply. Regarding the application for patents for inventions within the framework of the sponsored projects, the NSF makes a decision taking into consideration the interests of the government and the enterprise. They proceed less with a basic decision than with negotiations and possibly legal review. The regulations described in item 2-6 also apply in these cases. In this connection it is intended to extend the privilege of the non-profit organizations and small businesses to larger enterprises.</p>	<p>NSF 51.930</p> <p>§ 650.4</p>

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Country: USA Instrument: Grants	<u>Source</u>
<p data-bbox="175 342 1015 373"><u>2.31 Participation in the Financial Proceeds</u></p> <p data-bbox="175 409 1071 562">The general conditions of approval contain regulations for the handling of proceeds from the project. In this connection a distinction is made between <u>income from "royalties"</u> (office fees, etc.) and other income.</p> <p data-bbox="175 598 1071 882">If nothing is defined in the document of approval, the recipient can retain during the course of the assistance and 3 years after its end, the "<u>royalties</u>" received up to an amount of \$10,000. Income above this limit must be repaid with interest and handed over every year to the NSF. This rule is not used in trivial cases ("to the extent practicable"). After 3 years all obligations of repayment end.</p> <p data-bbox="175 917 1088 1134">With regard to <u>other income</u>, the recipient can reserve the federal portion (that is the portion corresponding to the rate of assistance) and add it to the project funds. The recipient can dispose freely of its own share of the income. It can be used also for financing the recipient's own participation.</p> <p data-bbox="175 1169 1071 1323">Income received must be declared within the framework of the financial status reports. Lists and documents must be provided for the time of the sponsorship and 3 more years thereafter.</p> <p data-bbox="175 1358 1055 1423">A partial or total repayment of the assistance is not provided in case of success.</p>	<p data-bbox="1109 409 1396 436">NSF 51.903 z. 9</p> <p data-bbox="1109 917 1396 945">NSF 51.903 z. 9</p> <p data-bbox="1109 1169 1396 1197">NSF 51.916 z. 5</p>
<p data-bbox="175 1491 633 1522"><u>2.32 Control of Results</u></p> <p data-bbox="175 1554 982 1648">A systematic control of the results of the assisted project is not carried out on the basis of the project.</p> <p data-bbox="175 1680 1055 1837">Individual programs of the NSF are submitted as a whole to an evaluation with regard to the results obtained in them, the organization and working procedures (for example the Antartica Program).</p>	<p data-bbox="1109 1554 1396 1581">NSF 51.898 P. 5</p> <p data-bbox="1109 1680 1396 1707">NSF 51.896 P. 3</p>

Country: USA Instrument: Grants	Source
<p>In the annual progress report, the recipient must give a comparison between the nominal and actual results as regards the goals formulated in the application for assistance and the results obtained.</p>	NSF 51.810 673.1a
<p><u>2.33 Termination of the Project by the Grantor</u></p> <p>The conditions of approval provide for a termination of current projects by the grantor in the following form:</p> <p>(1) Refusal of continued sponsorship of the project to be renewed every year and for which the NSF had previously declared its intention to continue.</p> <p>(2) Justified suspension or ending for reasons which must be given to the recipient.</p> <p>(3) Ending by agreement.</p> <p>The suspension or ending of a current assistance is regulated by a formalized procedure.</p> <p>The ending of current projects by the NSF without indicating reasons is not possible.</p>	<p>NSF 51.810 650f</p> <p>NSF 51.810 253</p>
<p><u>2.34 Tax Handling</u></p> <p>The assistance is primarily tax-free for the recipient (business tax, etc.). But the assistance is included in the operating proceeds. In case of an operating profit obtained with the assistance, profit taxes must be paid to the extent that the recipient is subject to taxes.</p>	<p>NSF 51.898 P. 5</p> <p>NSF 51.899 P. 4</p>
<p>(FE=Recipient of Assistance; FUE=Research and Development; ZG=Grantor; NSF=National Science Foundation; OMB=Office of Management and Budget; USG=United States Government)</p>	
<p><u>2.35 Proof of Use</u></p> <p>The proof of use is given constantly in the</p>	NSF 51.810 672

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Country: USA Instrument: Grants	Source
<p>form of <u>quarterly reports on expenditures and requests for funds</u> (quarterly disbursement reporting-federal cash transaction request). These proofs include for each recipient institution (university, company) all the NSF assisted projects. They indicate the expenditures per grant in one amount.</p>	NSF 51.810 VI-14
<p>The NSF waives the individual indication of the expenditures per project (as provided for in the regulations of the OMB).</p>	OMB 51.919 32020 NSF 51.810 674
<p><u>The final accounting for a project takes place within the framework of the quarterly report.</u> A special final statement is not needed.</p>	NSF 51.810 674
<p>It is established by "audits" whether the invoicing documents contain non-allowable costs. The correctness of the "indirect cost rate" is also checked (compare 2.23). The recipient must retain for a period of 3 years after presenting a final report all necessary documents for the audit. The NSF and the government auditing authorities must have access to all the documents of the recipient and the executive establishments. This extends to the subcontractors whose contract volume amounts to more than \$10,000.</p>	NSF 51.810 678 NSF 51.810 682
<p>Audits are implemented by a special service of the NSF (Office of Audit and Oversight-OAO), the audit offices of various departments (Defense, Health and Social Services) and the audit office (General Accounting Office). The appointment of private, officially approved auditors may also take place. The NSF is now testing (with universities) a procedure in which it assigns private auditors to organizations to check the use of NSF funds in collaboration with other audit tasks.</p>	NSF 51.925 P. 1 NSF 51.898 P. 5 NSF 51.896 P. 2
<p>Except in cases in which there is a special reason to proceed differently, the invoice audits are carried out randomly. The goal indicated by the NSF is to audit at least every 3 years all the larger institutions receiving more than \$100,000 in assistance per year. Audits take place both during the course of the project (for example at the time of application for</p>	NSF 51.898 P. 5 NSF 51.896 P. 2

<u>Country: USA Instrument: Grants</u>	<u>Source</u>
<p>continuation of the assistance) and after the end of the assistance.</p> <p>The result of the audits is a subdivision of the cost presented by the recipient into: allowable costs, non-allowable and questionable costs. The officer of the NSF competent in contract matters ("contracting officer") decides whether the return of funds will be demanded and/or whether further audits are needed. Most complaints arise because of poor documentation. In such cases the NSF is more concerned with eliminating the problems than recovering funds.</p> <p>On the whole the audits give rise only rarely to serious complaints. In the opinion of the NSF this is to be attributed to the fact that the invoices are mostly prepared not by the researchers who receive the assistance, but in the administration of the organizations (for example universities).</p>	<p>NSF 51.896 P. 4</p> <p>NSF 51.896 P. 1</p>
<p><u>2.36 Improper Use</u></p> <p>If it is established in an audit that funds are used improperly, the official of the NSF competent for contract matters decides whether a repayment should be demanded and its amount. The time of repayment and a possible rate of payment are agreed upon in negotiations. Cases of fraud were detected very rarely in the audits (one case in 1-2 years). Mostly the expenditures are only documented insufficiently, wrongly accounted for or non-allowable. Criminal prosecution is possible, but unusual. There is no special situation regarding subsidy fraud.</p>	<p>NSF 51.896 P. 1</p>
<p><u>2.37 Time Required for Application Processing</u></p> <p>Unsolicited applications should be sent 6 to 9 months before the planned beginning of assistance. Applications for assistance in the coming budget year (October 1 to September 30) must be received no later than February, that is 7 months before beginning the budget</p>	<p>NSF 51.810 234 NSF 51.810 203.2 NSF 51.883 P. 12</p>

Country: USA Instrument: Grants	<u>Source</u>
<p>year. In individual programs shorter times apply, for example 6 months in the "Small Business Innovation Research" program.</p>	
<p><u>2.38 Administrative Costs</u></p> <p>The total NSF budget amounted in 1983 to \$1,085 million. \$65.3 million or 6% of the total budget was applied to "program development and program management."</p>	<p>USG 51.816 I-V 88</p>

2. PROJECT ASSISTANCE

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Country: USA Instrument: Contracts (Research Under Contracts)	Source
<p>(AG=Client; AN=Contractor; DOD=Department of Defense; DOE=Department of Energy; FPR=Federal Procurement Regulations; FUE=Research and Development; IFB=Invitation for Bid; NASA (NSA)=National Aeronautics and Space Administration; NSF=National Science Foundation; RFP=Request for Proposal; USG=United States Government)</p>	
<p>Contracts are signed to procure products, services and studies, which are required by government offices for use. These offices act as clients or buyers, state their needs and their specifications and check whether the products are offered or produced or the services correspond to the latter. The client accompanies the work and monitors the deadlines and quality of the work. It reserves the right to alter the content and direction of the work as well as to terminate it in case of non-fulfillment.</p> <p>Contracts are used only rarely by NSF as compared with grants. In other departments and agencies contracts are used more often.</p> <p>The regulations for signing and implementing research under contract are established in the "Federal Procurement Regulations" (FPR) to a great extent uniformly for all federal offices. Most offices issue special sets of regulations adjusted to their requirements on the basis of the FPR, such as for example "NASA Procurement Regulations" or "Procurement Regulations" under the Department of Energy.</p>	<p>NSF 51.906 7 c</p> <p>USG 51.864</p> <p>NSA 51.1000 DOE 51.968</p>
<p><u>2.15 Application Documents</u></p> <p>Research and development contracts are on the initiative of the client, for example an advertisement "Request for Proposal (RFP)."</p>	
<p><u>2.16 Printed Application Forms</u></p> <p>Special printed application forms are not provided for contracts. In the NSF the same forms</p>	

Country: USA Instrument: Contracts (Research Under Contracts)	Source
are recommended as for grants; NASA does not use any printed forms for contracts.	
<p><u>2.17 Ownership Conditions</u></p> <p>The conditions of ownership normally are not involved. In the general contract conditions of the NSF, the special considerations provided in the FPR regarding small businesses, owners belonging to disadvantaged population groups, as well as women as owners are taken into consideration.</p>	NSF 51.904
<p><u>2.18 Advice Regarding the Application</u></p> <p>Requests for bids are announced 14 days in advance (in the periodical "Commerce Business Daily"). NASA and DOE publish information brochures for potential applicants.</p>	NSF 51.910 7d NSA 51.982
<p><u>2.19 Award of Funds</u></p> <p>The basis for the relationship between the client and the contractor is a mutual contract. The signing of the contract is preceded by a precisely regulated applicant selection process. Two basically different procedures must be distinguished: public advertisement (procurement by formal advertisement) and negotiation (procurement by negotiation).</p> <p>The public advertisement occurs only in isolated cases in the Research and Development sector. Its use requires a precise description of the task in the advertisement (invitation for bid/IFB), which is rarely possible for research and development. The procedure does not permit any modification of the offers or negotiations. The award goes to the bid with the lowest cost, insofar as it is "responsible" and "responsive," the applicant is sufficiently qualified and the bid corresponds to the conditions of the advertisement.</p> <p>Contracts on the basis of <u>negotiations</u> are the normal instrument of contract awards. The</p>	FPR 51.864 122 f. NSA 51.982.1 NSA 51.982 12 NSF 51.910 7

Country: USA Instrument: Contracts (Research Under Contract)	Source
<p>award process begins with the request for proposals (RFP). The limitation of the request to only one potential applicant is possible under special conditions (only one applicant qualified, urgency, secrecy). The recipients of the RFP are selected bidders ("short list"), in addition each RFP is published 14 days before being sent. Interested parties can ask for the documents and present a bid which is treated like the other bids.</p> <p>The types of contracts distinguish between fixed price contracts and cost reimbursement contracts. In the area of research and development, cost reimbursement contracts are signed. The most important elements in this connection are: reimbursement of costs without profit (especially for research and development in educational institutions and non-profit institutions), cost sharing (joint financing by government and contractor), cost plus incentive fee, cost plus fixed fee. A fee defined as a fixed percentage of the cost is not provided in any type of contract.</p> <p>The government clients use general contract conditions (for example NSF: "general provisions for cost-reimbursement type contract with other than educational institutions") which are based on uniform prescriptions in the Federal Procurement Regulations. The contract conditions of the NSF include 8 pages of fine print, in which reference is often made to other sources (for example the FPR).</p>	<p>FPR 51.864 98 NSA 51.894 12</p> <p>FPR 51.864 151 FPR 51.864 172</p> <p>NSF 51.904</p> <p>FPR 51.864 420 f.</p>
<p><u>2.20 Decision on Applications for Assistance</u></p> <p>An evaluation plan was established on the basis of criteria which were published in the RFP for the selection and decision procedures. At the same time a scientific and technical panel and an economic/organizational panel are set up, which evaluate each offer independently of each other. In a final joint consultation discussion it is decided which bids fall within the competitive range. The others will receive a rejection notice and (if requested) information on the reasons for rejection. All bidders in</p>	<p>NSF 51.910 2</p> <p>NSF 51.987 4-15 NSF 51.910 8c(3)</p>

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Country: USA Instrument: Contracts (Research Under Contracts)	Source
<p>the competitive range are finally asked to present a best and final offer, from which one is selected to sign the contract.</p>	
<p><u>2.21 Delegation of the Award of Fund</u></p> <p>A delegation of the functions of clients to other institutions (for example project carriers) hardly ever takes place. Partial functions such as control and audits are delegated (for example in NASA) to the services of other departments (for example DOD). Within the client organizations (for example NASA) the award and handling of contracts are implemented by the operational establishments (research centers, space centers, flight centers).</p>	<p>NSA 51.984 P. 14</p>
<p><u>2.22 Checking of Solvency</u></p> <p>In the FPR standards are established which must be satisfied by potential applicants. They refer among others to: sufficient financial resources, capabilities, satisfactory development in the past, integrity and business ethics. For research and development further standards apply: organization, establishments and equipment. If the documents in the hands of the client are insufficient to judge solvency, the missing documents are solicited from the bidder and other sources.</p>	<p>FPR 51.864 P. 108</p>
<p><u>2.23 Calculation of the Grant</u></p> <p>The assistance consists (for cost reimbursement contracts) of the reimbursement of costs as well as (if agreed upon) the fee. The same rules apply for the permissibility of costs as for grants, such as the Federal Procurement Regulations and the circulars of the Office of Management and Budget (OMB).</p> <p>Just as for grants, the indirect costs are reimbursed according to a rate uniformly established for all government grants and contracts (indirect cost rate).</p>	<p>NSF 51.904 Art. 4</p> <p>FPR 51.894 651 f.</p> <p>OMB 51.900, 51902</p> <p>FPR 51.984 188 f.</p>

Country: USA Instrument: Contracts (Research Under Contracts)	Source
<p>The fee is agreed upon either as a fixed amount, or (for incentive contracts) a lower and an upper limit are established. The fee should not exceed 50% of the cost.</p>	<p>FPR 51.894 172 f.</p>
<p><u>2.24 Financial Handling</u></p> <p><u>Deviations from the preliminary estimate</u> are common; they do not require any approval by the client. If it is apparent during the course of the work that there is a risk of very large <u>cost overruns</u>, then the client must be notified and if necessary a supplement to the contract must be agreed upon. If the latter is not done, then the contractor must neither pay the higher cost nor must he be reimbursed by the client; the project is terminated prematurely. Then negotiations will be taken up with regard to the rights to investments for the purpose of obtaining a well-balanced regulation.</p> <p>In the normal procedure regulation regarding the <u>balance of investments</u> is not required since only the current costs of investments are reimbursed, but not the purchase expenditures.</p> <p><u>Overhead costs</u> are always reimbursed in a lump sum on the basis of the special accounting procedure (indirect cost rate).</p>	<p>NSF 51.904 Art. 5</p>
<p><u>2.25 Rate of Assistance</u></p> <p>Except for cost sharing contracts, the costs of the contractor and the fee are reimbursed 100%. Cost sharing contracts provide no fee. They are used if the contractor obtains considerable economic benefit from the project in addition to normal advantages. The amount of cost sharing is established from case to case.</p>	<p>FPR 51.864 172</p>
<p><u>2.26 Award of Contracts</u></p> <p>Except for very small contracts, the contractor must obtain the approval of the client for each subcontract. The latter is only given if comparable regulations apply to the subcontract.</p>	<p>FPR 51.864 425 f.</p>

Country: USA Instrument: Contracts (Research Under Contracts)	Source
No subcontract should provide for a fee as a percentage of the cost. The principle of competition should apply in the selection of subcontractors.	FPR 51.864 399
<p><u>2.27 Payment Procedure</u></p> <p>The client makes payments to the contractor on his application, according to the progress of the work, no more often than every two weeks. The direct costs are reimbursed only insofar as they have actually been paid out by the contractor (except for withdrawals from storage and indirect costs). The fee is paid out up to 85%, so that a safety reserve may be established (a maximum of \$100,000). The final payment is made after the contractor has fulfilled all his obligations.</p>	<p>NSF 51.904 4b</p>
<p><u>2.28 Obligations Regarding Reports and Communications</u></p> <p>The obligations regarding reports are not regulated uniformly, but are established individually for each department or agency, each program and each project. NASA requires for research and development projects status reports every 3 months, twice as often as for grants. For NSF no uniform regulation exists. The inclusion of the client in the research work is usually so well monitored for research and development contracts that a formal current establishment of reports is unnecessary.</p>	<p>NSA 51.988 26</p>
<p><u>2.29 Publications</u></p> <p>The client becomes the owner of all important data, which arise directly from project work (subject data). The client can also publish the information connected only indirectly with the project ("other data"). For data protected by copyright, the client receives a free non-exclusive, irrevocable license for use (including publications). The contractor cannot publish subject data without the approval of the client.</p>	<p>NSF 51.904 15</p>

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Country: USA Instrument: Contracts (Research Under Contracts)	<u>Source</u>
<p><u>2.30 Sharing in the Technical Results</u></p> <p>The patent rights are regulated identically for grants and contracts (compare the detailed description in the discussion of grants): educational institutions, non-profit establishments and small businesses (less than 500 employees) become owners of the patent rights, in the case of large enterprises the question of rights is decided after taking into consideration mutual interests. The government has to receive a free license for its own needs as well as the right to give a license to interested parties, who do not receive from the contractor any license under ordinary conditions ("march-in rights").</p>	NSF 51.904 17
<p><u>2.31 Sharing in Financial Profits</u></p> <p>Participation of the client in the economic results of the project is provided. As far as disregarding results exceeding the normal framework is concerned, this should be taken into consideration by signing a cost sharing contract.</p> <p>Any income which is received during the project processing must be handed over to the client.</p>	NSF 51.904 5
<p><u>2.32 Control of the Results</u></p> <p>The government has the right to carry out in sections an evaluation of the work at any time. The technical direction belongs to the client. He is entitled to intervene at any time in the progress of the work and arrange for changes.</p>	FPR 51.864 425 NSF 51.904 19,20
<p><u>2.33 Terminations of Projects</u></p> <p>The client can terminate a project in case of the non-fulfillment of the task or violation of the contract by the contractor. Termination by the client is also possible without any reasons given to the contractor, if this is specifically "in the interest of the government." In this case the contractor receives the costs already incurred and to be incurred inevitably, as well as the portion of the fee which</p>	NSF 51.904 21 NSF 51.904 21e ID

Country: USA Instrument: Contracts (Research Under Contracts)	Source
<p>corresponds to the fraction of the total volume represented by the completed work.</p>	
<p><u>2.34 Tax Handling</u></p> <p>The reimbursement for research and development contracts is subject to tax without any limitations (business and profit taxes).</p>	
<p><u>2.35 Proof of Use</u></p> <p>No presentation of proofs for cost is necessary either for the intermediate accounting or at the time of applications for payments, or final invoicing. The client however reserves considerable added rights, which must also be assured for subcontractors. To be able to implement the added rights, the client prescribes standards for accounting procedures for the contractor.</p>	<p>FPR 51.864 228 f.</p> <p>FPR 51.864 249 f.</p>
<p><u>2.36 Improper Use</u></p> <p>If the audits show that money must be returned to the government, it is basically due immediately. Mostly agreements are made regarding rates and schedules. In serious cases criminal prosecution is possible according to the general conditions of fraud.</p>	<p>NSF 51.896</p>
<p><u>2.37 Time Needed for Processing the Application</u></p> <p>The time needed between the request for bids until the signing of the agreement fluctuates greatly. Contracts based on agreement need more time because of the two-stage bidding process, than contracts based on public advertisements or contracts on the basis of negotiations with only one bidder.</p>	
<p><u>2.38 Administrative Costs</u></p> <p>The administrative costs of NASA and DOE for tasks which go far beyond the research sponsorship cannot be calculated for research contracts. In the NSF the administrative costs as listed in the description of the grants are about 6% of the total budget.</p>	<p>USG 51.816 IV 88</p>

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Country: USA Program: DOE, NIH, HASA, NSF	<u>Source</u>
(FE=Recipient of Assistance; FUE=Research and Development; DOE=Department of Energy; NIH=National Institutes of Health; NASA (NSA)=National Aeronautics and Space Administration; NSF=National Science Foundation)	
The assistance of the NSF extends through 22 program areas, within which 108 subprograms or topic sectors are differentiated.	NSF 51.811 P. 26
<p data-bbox="159 701 542 737"><u>3.39 Status Seminars</u></p> <p data-bbox="159 764 1078 1052">Seminars on the situation and for the further development of programs take place every 18 to 24 months at the NSF management level ("formal program reviews"). The participants are leading scientists of the NSF. In addition every year a joint session takes place of the NSF management boards and the "National Science Board," dealing with the development and continuation of the program.</p> <p data-bbox="159 1079 1078 1241">In the sector of individual programs and program areas, seminars take place at shorter intervals at the NSR, for example, three times a year. For some programs there are special advisory panels with the participation of outsiders.</p> <p data-bbox="159 1268 1078 1346">The programs of DOE are evaluated and developed in a rolling 5 year plan.</p>	<p data-bbox="1094 764 1386 800">NSF 51.877 P. 5</p> <p data-bbox="1094 1079 1386 1115">NSF 51.877 P. 5</p> <p data-bbox="1094 1268 1386 1304">DOE 51.966 P. 7</p>
<p data-bbox="159 1400 586 1436"><u>3.40 Program Screening</u></p> <p data-bbox="159 1463 1024 1541">No program screening takes place at the NSF beyond the procedures described in item 3.39.</p>	
<p data-bbox="159 1589 1078 1625"><u>3.41 Further Development of Sponsorship Criteria</u></p> <p data-bbox="159 1652 1078 1730">Since 1981 the NSF has been using uniformly the following <u>criteria</u> to evaluate the applications:</p> <ol data-bbox="168 1757 1078 1908" style="list-style-type: none"> (1) Research performance competence (2) Intrinsic merit of the research (3) Utility or relevance of the research (4) Effect of the research on the infrastructure of science and engineering 	NSF 51.811 P. 8

Country: USA Program: DOE, NIR, NASA, NSF	<u>Source</u>
<p>These criteria are implemented concretely and supplemented for the different programs.</p> <p>The improvement of the general NSF sponsorship criteria takes place within the framework of the work on program development and continuation. The management of the NSF is responsible; the National Science Board must approve. The special criteria are formulated for each program announcement or request for proposal.</p>	NSF 51.808 P. VII
<p><u>3.42 Measures for Transfer of the Research and Development Results</u></p> <p>The NSF sponsors, in particular, fundamental research in whose area the transfer of research results is best secured by publication. The NSF encourages the recipient to publish the results, however it reserves the right of approval of the publications. The NSF itself publishes only occasionally indications or short descriptions for example in the periodical "Mosaic."</p> <p>As a measure for transferring the research and development results, the sponsorship of joint projects can be considered by universities. This program aims, at the time of application, at the practical transfer of the results. The program is similar for "innovation and research in small businesses" (Small Business Innovation Research).</p> <p>The procedure for NIH corresponds to that of NSF. The recipients do not have to obtain any approval for publications.</p> <p>At the centers receiving institutional assistance from DOE and NASA, there are special organizational units whose mission is to transfer the results of the research and development.</p> <p>NASA makes considerable attempts to transfer results of research and development. Examples include the COSMIC program (Computer Software Management and Information Center) to transfer the NASA electronic data processing programs, the publication of indications regarding new</p>	<p>NSF 51.811 P. 16</p> <p>NSF 51.872</p> <p>NSF 51.887-892</p> <p>NSF 51.866</p> <p>NIH 51.942 P. 50</p>

Country: USA Program: DOE, NIR, NASA, NSF	Source
<p>technology (NASA Tech Briefs), NASA Industrial Application Centers (IAC), State Technology Application Centers (STAC). Lately NASA has been sponsoring programs and projects in which the existing technologies are further developed with interested industrial enterprises until they are ready for application. At 9 NASA centers there are representatives in charge of technology transfer and application (Technology Application and Utilization).</p> <p>Reference is made to all the research projects implemented or sponsored by the government (insofar as they are released) in the public data bank NTIS (National Technical Information Service) of the Department of Commerce. The data recorded include formal and bibliographic data as well as a brief summary of the contents of the publication.</p>	<p>NSA 51.1003 NSA 51.1002 P. 122 NSA 51.1001</p> <p>NSF 51.931</p> <p>NSF 51.811 P. 16 NSF 51.909</p>

5. Progress of the Study, Procedure

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The study was carried out between October, 1982 and November 1983. The labor costs incurred amounted to 8 personnel months.

The working plan provided for the following partial tasks:

- Development of the study concept
- Evaluation of the existing material
- Obtaining additional material
- Selection of countries
- Case studies in the selected countries
- Evaluation, comparative analysis

The work on the study concept was aimed towards the catalogue of questions established by the BMFT (Federal German Ministry of Research and Technology) on problems of institutional advancement, project advancement and program development. This catalogue is printed as an appendix to this chapter. It was supplemented to include the most important structural characteristics. The important instruments of study consisted in the evaluation and analysis of written material (reports, condition of approval, organizational rules) as well as in specialized works with practical experts of the government research assistance in selected countries. For this guidelines were developed translated into both English and French.

The evaluation of the existing material concerned documents from other studies, in particular from the preliminary study on the topic "Administrative Costs for Government Sponsorship of Research and Development." For example it was possible to obtain thus the basic structural characteristics of government assistance to research and development in the countries concerned and to identify the most important government establishments.

Additional material was obtained among other ways through embassies of the countries in Bonn, who willingly made available documents and provided further contacts with the officials of their countries. Researches in data banks were carried out additionally.

For the final selection of countries, we proposed to the BMFT the US, France and Sweden, as a large, middle sized and small country. The BMFT approved this proposal.

Between January and May 1983, the planned surveys took place in these countries, specifically: France: January 23 to January 28, 1983, February 6 to February 11, 1983; US: February 27 to March 28, 1983; Sweden: April 24 to May 7, 1983.

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In France talks were conducted in the following establishments:

- Ministère de la Recherche et de l'Industrie (MRI)
(Ministry of Research and Industry)
- Centre National de la Recherche Scientifique (CNRS)
(National Scientific Research Center)
- Agence Nationale de Valorisation de la Recherche (ANVAR)
(National Agency for Application of Research)
- Association Nationale de la Recherche Technique (ANRT)
(National Technical Research Association)
- German Embassy in Paris

In the US, surveys were carried out in the following establishments:

- National Science Foundation (NSF)
- National Institutes of Health (NIH)
- National Aeronautics and Space Administration (NASA)
- Department of Energy (DOE)
- American Association for the Advancement of Science (AAAS)
- Universities Research Association, Inc.
- German Embassy in Washington

In Sweden the following offices were visited:

- Secretariat of State for Coordination of Research
- Ministry of Industry
- Ministry of Education
- Swedish Royal Office for Technical Development (STJ)
- Council for Research Planning and Coordination (FNR)
- Scientific Research Council (NFR)
- Energy Research Council
- Office for Development of Energy Resources
- Swedish Industrial Foundation

- Swedish Wood Research Institute
- Swedish Nuclear Research Institute
- Stockholm Regional Development Foundation
- Studviks Energie AB
- Swedish Industrial Association
- German Embassy in Stockholm

Besides talks and visits the collection of written material such as Principles of Approval, contract conditions, forms, texts of laws, contract documents, and statutes were used. /141

The foreign surveys were announced through BMFT and AA (foreign office) to the embassies in the countries. They were willingly and very helpfully supported by the scientific attaches of the embassies in Paris (Dr. von Kameke), in Washington (Dr. Frenzel) and in Stockholm (Scientific Attache Dr. von Lukowitz) by providing contacts and background information.

The evaluation and analysis of the material proved to be very time consuming, since the methods included in this study included considerable detail and had to be documented, before a comparative description and analysis could be carried out. References to the sponsorship procedures in the Federal Republic of Germany were omitted in the analysis at the request of the client.

Catalogue of Questions

1. Questions in the Institutional Sector

1.01 Organization of Research Establishments (FE)

How are the FE organized? AS subordinate offices or as legally independent structures (for example a private limited company or foundation, association)?

1.02 Accounting Procedure

What is the accounting procedure (commercial or cameralistic)? Is a balance sheet established? Are cost invoices needed? Is it necessary to conduct side-by-side commercial and cameralistic bookkeeping? Reasons for the organization or accounting form selected each time?

1.03 Award of Funds

Are there several grantors for one FE (Example Federal Republic of Germany: federal government and location)? By what rules is the institutional assistance given? Are we dealing with public budget law? Is it modified? Are there special provisions for FE? Is institutional assistance given in a lump sum, separated for example according to operation and investments or given separately according to individual headings? Are deviations allowed in the implementation? Can individual budgets or items be totally or partly exchanged mutually? Must an approval be obtained for each individual case in deviations? Does the same grantor provide, besides basic financing, also "additional financing" for special projects? Can the grantor intervene in the implementation: What about curtailments of funds? Regrouping?

1.04 Personnel Economics

Are the employment grants of the FE preassigned to total number and levels? Or do they only receive the financial framework for the personnel? Are the employment plans of the FE discussed by parliamentary bodies? Are the FE free in laying out the employment plans? Can deviations be implemented in the employment plan within certain margins or at all? Are the FE committed to (public) projects, salary rights and public regulations: Are there tariff contracts for FE? Can the FE pay additions, severance pay, bonuses, etc? Do the employees of FE cooperate (cooperation problems)?

1.05 Institution's Own Income

Can the FE receive its own income above the institutional assistance (for example by acquisition from industry)? Must the FE take into account in this connection the competition law and the maintenance of market prices? What happens to the additional income: Do they reduce the grants? Can the FE dispose freely of these funds? Are there documents in this connection? Can additional personnel be employed with these funds? Does the (public) tariff law also apply to this personnel? /143

1.06 Donations

What happens to donations from third parties? Can the latter be disposed of freely or are the grants reduced accordingly?

1.07 Transfer of Funds

Can funds be transferred to the next budget year? Will such "residual funds" be forfeited at the end of the year? What happens at the end of the year with the liquid funds? Do they remain with FE, are they calculated towards a new year or must they be returned? Can cash reserves be formed? Are reserves permitted for uncertain risks? Must an approval be obtained from the grantor in this connection?

1.08 Rights of Use and Benefits

Are there any regulations regarding the rights to use and benefits, applying to the activity of the FE? To whom do they belong? Are there any reservations regarding the approval of the grantor? Must the grantor be given in any case a (free) right of application? Are there regulations regarding the award of exclusive application rights?

1.09 Technology Transfer

Is the FE committed to disseminate the results obtained by the FE to the industry?

1.10 Insurance

Must the FE be insured against risk as in commercial enterprises or are the grantors liable for possible damages (so-called self-insurance principle)?

1.11 Construction Projects

How are construction projects implemented? Autonomously or by government offices? Are the construction regulations applying to official departments to be taken into consideration?

1.12 Obligations Regarding Reports and Communications

Must the FE give reports on plans, programs, results to the grantor? How often? Regularly?

1.13 Interventions of the Grantor

Do the grantors intervene in the individual case or is there a so-called "overall control," for example through an inspection council?

1.14 Checks

Who checks the FE? The grantor itself, audit officers, industrial inspectors? How often? At what intervals?

2. Questions on the Project Area

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2.15 Application Documents

What documents must be presented to the sponsor?

2.16 Printed Forms

Are there printed applications?

2.17 Ownership Conditions

Do ownership conditions play any role and must they be disclosed?

2.18 Advice on the Application

Is there any consultation about the application? Is there a uniform starting point for the applicants?

2.19 Award of the Funds

On what regulations is the award of the grants made? Does the public budget law apply? Are there special regulations? How deeply and in what detail do these special provisions regulate the rights and obligations of the grant recipient (ZE)? Is the award in the form of public contracts or in the form of decisions regarding grants (administrative documents)?

2.20 Decisions Regarding the Applications for Assistance

Are external experts included and how many? What is the composition of the expert board (science, economics, unions, etc.)? Are the certification procedures in writing or oral, formalized or informal? Are there regular meetings of experts or are they called when necessary? Are grant recipients invited to attend the meetings of experts? Can the recipients bring along advisors; is there clarity with regard to the sponsorship criteria for experts or applicants? Are there problem groups (for example small and medium sized businesses)?

2.21 Delegation of the Award of Funds

Is the grant given by the ministry itself or is it decentralized or through third parties (for example subordinate

offices, project carriers)? Has the inclusion of third parties proven satisfactory? What defects have occurred? What are the powers reserved by the delegating ministry in the individual sponsorship projects? Are technical and administrative tasks delegated? Only one of the two? Is there a project guide? Is there a model comparable with the project carrier system?

2.22 Checking of Solvency

Is there checking of solvency before the grant? On the basis of what documents? Even in cases of repetition?

2.23 Calculation of the Grant

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On what basis is the grant calculated (manufacturing costs, time costs)? Is a calculation scheme pre-assigned to the recipient? Is a preliminary estimate prescribed? How detailed is it? Can cost estimates be included (for example calculated interest, depreciations, ventures)? Are investments, administrative overhead costs, overhead sales costs, coverable by the grant?

2.24 Financial Handling

Can deviations be introduced in the implementation from the preliminary estimate; are lump sum payments made for overhead costs without proof? Are investments to be reimbursed by the recipient in part to the grantor after ending of the project (so-called refund of residual amounts)? How will the residual funds be calculated for this purpose (by estimate, by whom, Afa tables)?

2.25 Rate of Assistance

How far are the projects assisted (completely, partly, for example 50%)? Do different regulations apply according to the amount of assistance? How is the institution's own share established? What are the criteria taken into consideration; are there different regulations as a function of the level of assistance?

2.26 Award of Contracts

Within the framework of the project can the recipient award contracts to third parties? Must he take into consideration here the conditions imposed by the grantor? Are there any special regulations of the ZG for such (sub)contracts?

2.27 Payment Procedures

When does the recipient receive the money from the grantor? In advance? On a pro rata basis? After the end of the project? Must the ZG pay interest on all the payments? Limits of petty cash sums?

2.28 Obligations for Report and Communications

Must the recipient give reports regarding the research results? How often? When? Are intermediate reports prescribed?

2.29 Publications

May or must grantor publish the results?

2.30 Participation in Technical Results

Does the grantor have a share in the rights of application (patent rights) in the technical results of assistance? Are there here summary limits?

2.31 Share in the Financial Results

In the case of success must the recipient repay the grant partly or totally to the giver? Is the grantor to share in the financial success? Are there periods after which the participation ends? Are the repayments monitored?

2.32 Control of the Results

Is there any control or evaluation of the results?

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2.33 Termination of the Project

Can the grantor terminate a current project without giving reasons?

2.34 Tax Matters

How are the grants treated under the tax aspect? Are they tax exempt?

2.35 Proof of Use

Must the recipient prove how the funds were used? How? Must documents be presented for this purpose? To whom? Is there local auditing of the recipient? By whom? Every year or after the end of the project? Are inspections waived?

2.36 Improper Use

Does an improper use of grant funds count as subsidy fraud? Must these funds be repaid? Immediately? In quarters?

3. Questions Regarding the Program Range

3.37 Do status seminars take place?

3.38 Is there a regular program screening?
- If so, who takes part in it?

3.39 How are the sponsorship criteria improved?

3.40 How is the transfer of research and development results secured?

- Are universities or engineering offices included in the assistance to assure the transfer of know-how?

6. List of Documents

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6.1 France

- 51.401 French Republic.
Draft finance law for 1983. Appended research on the situation of research and technological development.
- 51.402 Recherche et Technologie [Research and Technology], October 3, 1982. Monthly informative letter from the Ministry of Research and Industry.
- 51.408 Paris Chamber of Commerce and Industry, Ministry of Industry.
Guide on Public Aid to Industry.
- 51.409 Paris Chamber of Commerce and Industry.
Policy of Assistance to Innovations, 1981.
- 51.410 J.M. Didier and Associates.
Inventory of Public Direct and Indirect Measures for Promoting Industrial Research and Development in France 1982.
- 51.418 Ministry of Research and Industry.
Research and Technological Development Foundation -
Conditions of Award of Assistance to Research, 1982.
- 51.419 Ministry of Research and Industry.
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7. List of Abbreviations

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AAAS	American Association for the Advancement of Science
AC	Actions concertees (France) (Combined actions)
AF	Nuclear Physics Institute (Sweden)
AG	Client
AN	Contractor
ANVAR (ANV)	Agence nationale de la valorisation de la recherche (National Agency for Application of Research) (France)
BMFT	Federal German Ministry for Research and Technology
Caltech	California Institute of Technology
CCI	Chambre de commerce et d'industire de Paris (Paris Chamber of Commerce and Industry)
CEA	Commissariat a l'energie atomique (Atomic Energy Commission) (France)
CNES (ES)	Centre national d'etudes spatiales (National Space Research Center) (France)
CP	Contrats de programme (Program contracts) (France)
DOD	Department of Defense (USA)
DOE	Department of ENergy (USA)
EG	European Community
FE	Research Establishment/Recipient of Assistance
Fermilab	Fermi National Accelerator Laboratory (USA)
FPR	Federal Procurement Regulations (USA)
FuE	Research and Development
GOCO	Government-owned, Contractor-operated Laboratory (USA)
GOGO	Government-owned, Government-operated Laboratory (USA)
IF	Industiral Foundation (Sweden)
IFB	Invitation for Bid (USA)
JO	Journal officiel de la Republique Francaise (Official Journal of the French Republic) (French)
JPL	Jet Propulsion Laboratory (USA)
MIR	Ministere de l'Industrie et de la Recherche (Ministry of Industry and Research) (France)
NASA (NSA)	National Aeronautics and Space Administration
NCAR	National Center for Atmospheric Research (USA)
NFR	Research Council for Sciences (Sweden)

NIH	National Institute of Health (USA)
NSF	National Science Foundation (USA)
OECD	Organization for Economic Cooperation and Development
REG	Government, Government Document (Sweden)
RF	French Government
RFP	Request for Proposal (USA)
SCB	Government Central Office (Sweden)
SIND	Government Industrial Office, Government Office (Statens industriverk) (Sweden)
STU	Swedish National Board for Technical Development
TF	Institute for Wood Research (Sweden)
UNESCO	United Nations Educational, Scientific and Cultural Organization
URA	Universities Research Association Inc. (USA)
USG	United States Government
ZG	Grantor

The most important forms for the sponsoring organizations are printed in the following pages:

<u>France:</u>	Appendix
Application for Assistance from "Aide a l'innovation"	F-1
Contract on "Assistance to Innovation" (ANVAR)	F-2
Form for technical and economic expertise for ANVAR	F-3
Form for financial certification for ANVAR	F-4
Questionnaire for providing annual reports (ANVAR)	F-5
Form of application for "bonus for innovation" (ANVAR)	F-6
Form of application for "Aid for research" (MIR)	F-7
<u>Sweden:</u>	
Application (Scientific Research Council/NFR)	S-1
Application Form (NFR)	S-2
Application Form (Swedish National Board for Technical Development/STU)	S-3
Approval Document (STU)	S-4
<u>USA:</u>	
Application Form (Summary) of National Science Foundation (NSF)	US-1
Project Summary (NSF)	US-2
Summary of Cost Plan (NSF)	US-3
Delcaration of Financing of Personnel (NSF)	US-4
Application for Payment (NSF)	US-5
"Letter of Credit" (NSF)	US-6
Summary of Final Report (NSF)	US-7

ORIGINAL PAGE IS
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FICHE DE SYNTHÈSE

à retourner à l'Anvar avec l'ensemble du dossier de demande

Cadre réservé à l'ANVAR :

Date

N°

Nature des activités du demandeur :

- Société Industrielle et Commerciales
- Prestataire de Services
- Organisme de Recherche Public
- Centre de Recherche collective
- Université
- École d'ingénieur
- Société de Recherche sous contrats
- Autres : à préciser _____

A remplir par le Demandeur

Nom ou raison sociale : _____

Adresse du siège social : _____

Tél. : _____

Code APE : _____ N° SIRET : _____

Forme juridique : _____

Date de création : _____ Montant du capital social actuel : _____

Appartenance à un Groupe. Si OUI, lequel ? _____

Responsables dirigeants : M. _____ Fonction : _____ Tél. : _____

M. _____ Fonction : _____ Tél. : _____

Activités principales : _____

Autres activités : _____

Avez-vous déjà sollicité une aide de l'Anvar : OUI NON

Avez-vous obtenu un prêt à long et moyen terme depuis moins de 2 ans ? OUI NON

Si oui, auprès de quel organisme ?

- Crédit national
- Société de développement régional
- Crédit d'équipement des petites et moyennes entreprises .
- Autres (à préciser) _____

FICHE de synthèse (suite)

Résultats antérieurs et prévisions (en francs)	Réalisés			Prévisionnels		
	19..	19..	19..	19..	19..	19..
CA global HT (dont Exportation)	()	()	()	()	()	()
CA nouvelle activité	 	 	 	 	 	
Résultats nets						
Autofinancement						
Évaluation des dépenses de la recherche et développement						
Effectifs						

Demande à l'ANVAR d'examiner le dossier joint pour l'obtention d'une aide à l'innovation selon la procédure instituée par décret n° 79.616 du 13 juillet 1979 pour le programme ci-dessous, dont il est le maître-d'œuvre.

LE PROGRAMME

Objet du programme d'innovation : _____

Existence de brevets : OUI NON
 Existence d'accords de propriété industrielle avec des tiers : OUI NON
 Montant total HT du programme _____ F

Montant de l'aide demandée _____ F

Durée prévue _____ A partir du _____

Calendrier des dépenses :	Année				
Dépenses					

Personnes morales ou physiques associées au programme pour son financement et/ou l'exploitation de ses résultats :

Nom ou raison sociale	N° SIRET et Code APE	Adresse et n° tél.	Interlocuteur responsable (Nom, fonction)	Contrat entre le Maître-d'œuvre et l'associé	
				OUI	NON
Associés au Financement				<input type="checkbox"/>	<input type="checkbox"/>
Associés à l'exploitation				<input type="checkbox"/>	<input type="checkbox"/>

Lieux d'exécution du programme _____

Responsable technique du Maître-d'œuvre : M. _____ Fonction _____

Adresse _____ Tél. _____

Responsable Administratif et financier du Maître d'œuvre : M. _____ Fonction _____

Adresse _____ Tél. _____

Le soussigné certifie que le demandeur est en situation régulière au regard de ses obligations fiscales et sociales.

Cachet de l'entreprise	Fait à _____ le _____
	Nom et qualité du signataire _____ Signature _____

ORIGINAL PAGE IS
OF POOR QUALITY**PLANNING DU PROGRAMME D'INNOVATION**

	Objet des travaux	Dépenses à engager	Dates de début et de fin de phases
Phase 1			
Phase 2			
Phases suivantes			

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DEVIS DU PROGRAMME D'INNOVATION

(ventilé selon la nature des dépenses et éventuellement selon les différentes phases du programme)

(en francs)

Nature des dépenses	Phase 1	Phase 2	Total
	du _____ au _____	du _____ au _____	
Personnel (taux horaire)	(nb heures)		
Ingénieur _____	x _____ = _____	x _____ = _____	x _____ = _____
Technicien _____	x _____ = _____	x _____ = _____	x _____ = _____
Ouvrier _____	x _____ = _____	x _____ = _____	x _____ = _____
Achats matières et marchandises			
Sous-traitance – Propriété industrielle – Étude de marché – Design – etc.			
Autres frais (à préciser)			
Investissements récupérables			
Investissements non récupérables			
Total général			

**CALENDRIER DES DÉPENSES DU PROGRAMME
ET RÉPARTITION DES DÉPENSES ENTRE LES SOCIÉTÉS OU ORGANISMES
PARTICIPANT ÉVENTUELLEMENT A CE PROGRAMME**

(en francs)

	Exercice en cours	Exercices suivants			Total de la ligne
	19____	19____	19____	19____	
Premier associé					
Dépenses de :					
Fonctionnement					
Investissement					
TOTAL					
Deuxième associé					
Dépenses de :					
Fonctionnement					
Investissement					
TOTAL					
Nième associé					
Dépenses de :					
Fonctionnement					
Investissement					
TOTAL					
Total général					

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● **Composition du capital**

● **Évolution récente du capital**

Exercice	Capital initial	Augmentation ou reduction	Nature de l'operation	Prime

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TERRAINS Localisation :
Superficie :

BATIMENTS Localisation :
Superficie :

PARTICIPATIONS PRINCIPALES

Participations	Activités principales	% du capital détenu par le demandeur

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RÉSULTATS ANTÉRIEURS ET PRÉVISIONS

(en francs)

Évolution du chiffre d'affaires H.T. par famille de produits

Exercice	19 ____	19 ____	19 ____	Prévisions		
				Exercice en cours	19 ____	19 ____
Activité 1						
Activité 2						
Activité 3						
Activité 4						

COMPTES D'EXPLOITATION PRÉVISIONNELS POUR LES 3 PROCHAINS EXERCICES

CEG prévisionnels en francs	année 19__		année 19__		année 19__	
	()	% 100	()	% 100	()	% 100
A. CHIFFRE D'AFFAIRES TOTAL HT (dont programme d'innovation)	()		()		()	
<ul style="list-style-type: none"> ● 1 Stock initial produits finis et travaux en cours ● 2 Stock final prod. fin. et trav. en cours ● 3 Sous-traitance 						
B. Total (1 - 2 + 3)						
C. PRODUCTION (A-B)						
<ul style="list-style-type: none"> ● 4 Stock initial matières ● 5 Achat matières ● 6 Stock final matières 						
D. Total (4 + 5 - 6)						
E. MARGE BRUTE (C-D)						
<ul style="list-style-type: none"> ● 7 TFSE ● 8 Crédit-bail ● 9 Transports / déplacements ● 10 Frais divers de gestion 						
F. Total (7 + 8 + 9 + 10)						
G. VALEUR AJOUTÉE (E-F)						
<ul style="list-style-type: none"> ● 11 Frais de personnel de production ● 12 Autres frais de personnel ● 13 Impôts et taxes (hors TVA) 						
H. Total (11 + 12 + 13)						
I. RÉSULTAT BRUT (avant frais financiers) (G-H)						
<ul style="list-style-type: none"> ● 14 Frais financiers sur DLMT ● 15 Frais financiers sur DCT 						
J. Total frais fin. (14 + 15)						
K. MARGE BRUTE D'AUTOFINANCEMENT (I-J)						
<ul style="list-style-type: none"> ● 16 Amortissements ● 17 Provisions 						
L. Total (16 + 17)						
M. RÉSULTAT NET avant impôts (K-L)						
<ul style="list-style-type: none"> ● 18 Impôts sur les Stés ● 19 Dividendes 						
N. Total (18 + 19)						
O. MARGE NETTE D'AUTOFINANCEMENT (K-N)						
EFFECTIF						
Valeur ajoutée par personne (G / effectif)						

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**LISTE DES AIDES PUBLIQUES OBTENUES
EN MATIÈRE DE RECHERCHE DÉVELOPPEMENT ET D'INNOVATION
AU COURS DES DEUX DERNIÈRES ANNÉES**

Organismes	Date de dépôt	Aides obtenues	Remboursements effectués

ORIGINAL PAGE IS
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(en francs)

	Exercice en cours (1)	Année 19 ____	Année 19 ____	Année 19 ____
Investissements (2)				
(dont programme d'innovation présenté)	()	()	()	()
Besoins en fonds de roulement (3)				
Distributions (4)				
Remboursements de crédits (5)				
(dont remboursement à l'ANVAR)	()	()	()	()
Divers				
Total des besoins				
Augmentation de capital				
Apports en comptes courants				
Cessions d'actifs				
Autofinancement (6)				
(dont dépenses de R et D non immobilisées)	()	()	()	()
Emprunts (7)				
Aides prévues (8)				
Aide ANVAR				
Total des ressources				
Cumul				
Excédents				
Insuffisances				
Pour mémoire				
Programme d'innovation présenté				

**Instructions pratiques
concernant l'établissement du plan de financement**

- (1) Exercice suivant le dernier bilan produit au dossier.
 (2) Tous programmes d'investissements prévus en terrains, bâtiments, matériels, immobilisations incorporeelles. Indiquer à part les investissements du programme d'innovation.
 (3) Besoins en fonds de roulement résultant du cycle de production, stocks et actifs à court terme (voir note pages 26 et 27).
 (4) Distribution de dividendes pour les sociétés, ou prélèvements pour les affaires personnelles.
 (5) Indiquer en annexe du dernier bilan le détail de

- l'endettement à moyen ou à long terme et les échéances annuelles en capital.
 Indiquer aussi les échéances de contrats de crédit-bail.
 (6) Autofinancement : prévisions concernant les amortissements, les provisions et les résultats après impôts résultant des comptes d'exploitation prévisionnels, y compris les dépenses de recherche et développement non immobilisées.
 (7) Indiquer les emprunts à moyen et long termes déjà négociés et à mettre en place et ceux qui sont envisagés.
 (8) Indiquer les financements publics obtenus ou prévus autres que l'aide Anvar sollicitée.

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Convention d'aide à l'Innovation N°

ENTRE

1° L'AGENCE NATIONALE DE VALORISATION DE LA RECHERCHE (ANVAR)

Etablissement public à caractère industriel et commercial

doté de l'autonomie financière

43, rue de Caumartin, 75436 PARIS CEDEX 09

désignée ci-après par « Anvar »

représentée par Monsieur _____, fonction

d'une part

ET

2°

ladite société ci-après dénommée **LE BENEFICIAIRE**

représentée par Monsieur _____, fonction

d'autre part

- Vu le décret n° 79-615 du 13 juillet 1979 relatif à l'organisation et au fonctionnement de l'Agence Nationale de Valorisation de la Recherche (ANVAR) et notamment les articles 2 (troisième alinéa) et 15.
- Vu le décret n° 79-616 du 13 juillet 1979 relatif à l'aide à l'innovation.
- Vu l'instruction technique et l'instruction financière effectuées dans les conditions prévues à l'article 6 du décret 79-616 susvisé.
- Vu les documents joints au contrat.

A été conclue une convention d'aide à l'innovation régie par les **CONDITIONS PARTICULIERES ET CONDITIONS GENERALES** d'octroi de l'aide ci-après exposées.

CONDITIONS PARTICULIERES D'OCTROI DE L'AIDE

Vu l'avis émis par la Commission d'attribution des aides du
concernant une aide dont l'objet technique est :

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Vu le dossier déposé le sous le n°

Une aide à l'innovation est accordée par l'ANVAR selon les modalités suivantes :

- Montant total estimatif du programme présenté Francs hors taxes.
- Date prévue de fin de programme :
- Dépenses retenues dans l'assiette de l'aide conformément au devis ci-après annexé : Francs hors taxes.
- MONTANT FORFAITAIRE DE L'AIDE ACCORDEE : Francs.
(somme en lettres :,)
-
soit % des dépenses retenues dans l'assiette de l'aide

La présente aide à l'innovation est accordée au BENEFCIAIRE sous forme d'un prêt remboursable en cas de succès.

CONDITIONS DE VERSEMENT

- Après signature Francs sous réserve des AUTRES CONDITIONS PARTICULIERES
- Deuxième tranche Francs à partir du sous réserve des AUTRES CONDITIONS PARTICULIERES.
- Troisième tranche Francs à partir du sous réserve des AUTRES CONDITIONS PARTICULIERES.

Les deuxième et troisième versements seront effectués sur appels de fonds accompagnés :

- d'une attestation du BENEFCIAIRE certifiant que pour la réalisation du programme et au titre des dépenses retenues dans l'assiette de l'aide, il a été dépensé une somme égale à au moins deux fois le montant des versements précédents ;
- d'une attestation de régularité de la situation fiscale et sociale du BENEFCIAIRE ;
et sur présentation des bilans, comptes d'exploitation et de pertes et profits du BENEFCIAIRE si une clôture d'exercice comptable est intervenue depuis la demande de versement de la tranche précédente.

— Cette somme sera portée au crédit du compte n°
ouvert au nom du BENEFCIAIRE à

OBLIGATIONS FINANCIERES DU BENEFCIAIRE

Au plus tard le 28 février de chaque année et à compter du 1^{er} janvier de l'année suivant celle de la signature du contrat, le BENEFCIAIRE devra verser à l'ANVAR jusqu'à concurrence de

Une annuité de remboursement calculée comme suit :

1. — Un pourcentage de % (..... pour cent) du chiffre d'affaires hors taxes réalisé au cours de l'année calendaire précédente par la vente ou la commercialisation de :
2. — Un pourcentage de % (..... pour cent) sur la vente des produits réalisés et prévus au devis (prototypes, pré-séries, maquettes, etc.).
3. — Un pourcentage de % (..... pour cent) sur les produits des cessions ou concessions de licences, de brevets ou de savoir-faire perçus également l'année calendaire précédente, lorsque lesdites cessions ou concessions portent sur tout ou partie des résultats du programme aidé.

Le BENEFCIAIRE sera délié de tous les engagements et obligations lui incombant au titre du présent contrat dès qu'il aura remboursé la totalité de la somme prévue ci-dessus.



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AUTRES CONDITIONS PARTICULIERES

DOCUMENTS JOINTS :

— devis du programme :

—

—

Fait à le

en trois exemplaires

LE BENEFICIAIRE

**L'AGENCE NATIONALE DE VALORISATION
DE LA RECHERCHE (ANVAR)**

Il est annexé à la présente convention, des « CONDITIONS GENERALES » d'octroi de l'aide dont le bénéficiaire déclare avoir pris connaissance et auxquelles il adhère.



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CONDITIONS GENERALES D'OCTROI DE L'AIDE

A. — VERSEMENT DE L'AIDE

Le versement des fonds sera suffisamment constaté par les écritures de l'Agence Comptable de l'Anvar.

L'Anvar ne sera pas tenue de verser tout ou partie du montant de l'aide si l'un ou l'autre des cas visés à l'article E ci-après vient à se produire, ou si l'Anvar, après avis de la Commission d'attribution des aides estime que l'évolution de la capacité technique et financière du BENEFICIAIRE ne lui permet pas de mener à bien l'exécution du programme.

D'autre part, si des événements extérieurs ayant un caractère de force majeure viennent remettre en cause l'intérêt économique du programme faisant l'objet de l'aide ou si des changements fondamentaux interviennent dans le statut (voir articles B 7) ou le contrôle du BENEFICIAIRE (voir article B 8) la situation ainsi créée sera examinée par l'Anvar qui, avis pris de la Commission des aides, pourra modifier les décisions initiales.

L'Anvar ne sera tenue aux versements que dans la limite des crédits budgétaires de paiement disponibles mis à sa disposition par l'Etat pour gérer la procédure d'aide à l'innovation. Le cas échéant l'Anvar informera le BENEFICIAIRE de cette situation dans les meilleurs délais.

B. — OBLIGATIONS DIVERSES DU BENEFICIAIRE

Le BENEFICIAIRE certifie par les présentes qu'il est en règle vis-à-vis de ses obligations fiscales et sociales en application de l'article 2 dernier alinéa du décret n° 79-616 du 13 juillet 1979 et s'engage en outre :

- 1) à réaliser le programme présenté et à affecter exclusivement l'aide accordée par les présentes aux dépenses prévues dans le devis du programme d'innovation et réalisées postérieurement à la date du dépôt de la demande ;
- 2) à ne pas suspendre, ni abandonner la réalisation du programme sans en informer au préalable l'Anvar ;
- 3) à adresser chaque année à l'Anvar avant le 28 février en deux exemplaires un rapport sur l'état d'avancement du programme et, dès achèvement du programme aidé, un rapport final d'exécution ;
- 4) à se soumettre au contrôle qui sera opéré sur le plan technique et sur le plan financier par l'Anvar ou tous représentants accrédités par l'Anvar, ainsi qu'à donner toutes facilités pour l'exercice de ce contrôle, notamment en ce qui concerne les vérifications sur pièces et sur place. En cas d'association, le BENEFICIAIRE se porte fort pour ses associés du respect de la présente clause ;

5) à faire connaître à l'Anvar toute prise de brevet en France et à l'étranger relative au programme d'innovation aidé ;

• à ne pas abandonner les brevets précités sans avoir mis l'Anvar en mesure de les reprendre gratuitement à son nom au moins deux mois avant l'échéance. En cas de reprise desdits brevets par l'Anvar, ces derniers ne seront pas opposables au BENEFICIAIRE ;

6) à ne pas procéder à l'aliénation, la cession, la concession, l'apport ou la transmission à titre quelconque directement ou indirectement, à titre gratuit, à titre onéreux ou même à titre de réciprocité, des moyens nécessaires, soit à la réalisation du programme aidé, spécialement des brevets, procédés de fabrication ou résultats techniques divers, soit à la commercialisation des produits de ce programme, sans avoir obtenu l'accord préalable de l'Anvar ;

7) à communiquer à l'Anvar, dès qu'elles se produisent, toutes modifications dans la répartition du capital social du BENEFICIAIRE dès lors qu'elles aboutissent à un changement dans le contrôle du BENEFICIAIRE ;

8) à communiquer à l'Anvar, dès qu'elles se produisent, toutes modifications dans le statut du BENEFICIAIRE (notamment la forme juridique, l'objet social, le montant du capital) de même que toute mise en règlement judiciaire ou liquidation de biens ;

9) à faire connaître l'aide accordée par l'Anvar chaque fois que le BENEFICIAIRE fera une campagne de presse sur le programme et ses résultats ;

• passé une période de cinq années à compter de la signature du contrat d'aide, l'Anvar pourra publier des informations sur le programme aidé, sauf si le BENEFICIAIRE s'y oppose par écrit.

C. — ECHEC OU ABANDON DU PROGRAMME,
NON EXPLOITATION DE TOUT OU PARTIE
DES RESULTATS

Le constat d'échec technique ou commercial du programme pourra être demandé à tout moment soit par le BENEFICIAIRE à l'Anvar, soit par l'Anvar.

Si l'Anvar constate l'échec technique ou commercial du projet, le BENEFICIAIRE :

1) devra, si le constat d'échec conduit à interrompre le programme, rembourser l'excédent de participation de l'Anvar dans les dépenses effectivement réalisées si ladite participation est supérieure au pourcentage de l'aide par rapport aux dépenses retenues ;

2) sera délié de tous les engagements qu'il a contractés concernant le remboursement de l'aide et de l'article B ci-dessus (à l'exception des alinéas 5 et 6) sous réserve qu'il ait rempli toutes ses obligations contractuelles jusqu'à la date du constat d'échec.

En cas d'abandon du programme pour tout autre cause qu'un échec dûment constaté par l'Anvar ou en cas de non exploitation, sauf excuse légitime, de tout ou partie des résultats du programme dans un délai de trois années suivant la date de signature du présent contrat, le BENEFICIAIRE sera tenu, si l'Anvar l'exige, au remboursement immédiat de tout ou partie de l'aide accordée. Le BENEFICIAIRE pourra demander à l'Anvar la désignation d'un expert extérieur s'il veut faire valoir l'existence d'une excuse légitime.

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Dans tous les cas ci-dessus, échec, abandon ou non exploitation sans excuse légitime, et dans la mesure où il n'a pas remboursé la totalité de l'aide, le BENEFCIAIRE ne pourra s'opposer à la reprise par l'Anvar ou par un tiers désigné par l'Anvar de tout ou partie de la propriété industrielle, des résultats de toute nature, des maquettes ou prototypes acquis ou réalisés au titre du programme aidé et d'une façon générale le BENEFCIAIRE ne pourra s'opposer à la reprise du projet par d'autres entreprises. L'application de cette clause sera faite dans un esprit de concertation afin de préserver au mieux les intérêts du BENEFCIAIRE et l'intérêt général.

D. — COMPTABILITE

LE BENEFCIAIRE tiendra une comptabilité sur laquelle figureront tous éléments nécessaires à l'évaluation précise des dépenses et recettes visées à la présente convention :

Les Dépenses effectuées en vertu de l'assiette de l'aide retenue (factures externes ou documents analytiques internes).

Les Recettes retenues pour le versement des annuités dues à l'Anvar (chiffres d'affaires réalisés, produits de cessions ou de concessions de licences, de brevets ou de savoir-faire).

Cette comptabilité ainsi que les éléments de comptabilité générale s'y rapportant seront tenus à la disposition de l'Anvar ou d'un représentant accrédité par elle dans les quinze jours de la demande formulée par l'Anvar.

Le BENEFCIAIRE s'engage à répondre au plus tard le 28 février de chaque année au questionnaire qui lui sera adressé par l'Anvar dans le courant du mois de janvier de chaque année et à adresser à l'Anvar simultanément les

sommes dues au titre de la présente Convention. Les sommes dues devront être versées à M. l'Agent comptable de l'Anvar, soit par chèque bancaire, soit par virement postal au C.C.P. 9151 51 K PARIS. Toute somme non versée dans les délais précités produira intérêt au taux de 1 % par mois calendaire de retard.

E. — REPETITION

1) La présente aide donnera lieu de plein droit à répétition, à compter de la date d'ouverture d'une procédure de liquidation de biens ou de règlement judiciaire ainsi qu'en cas de dissolution ou de liquidation amiable du BENEFCIAIRE.

2) A la seule initiative de l'Anvar, la présente aide donnera lieu à répétition dans l'un ou l'autre des cas suivants :

- a) Inobservation par le BENEFCIAIRE de l'une quelconque de ses obligations résultant des présentes.
- b) Situation non régulière au regard de ses obligations fiscales ou sociales.
- c) Déclarations inexactes ou mensongères.

La répétition immédiate sera de droit, si l'Anvar l'exige et sans qu'il y ait lieu à formalités judiciaires ou extra-judiciaires, la somme à verser étant alors égale à l'encours de l'aide, augmenté le cas échéant, d'intérêts calculés au taux légal fixé par la loi n° 75-619 du 11 juillet 1975.

F. — ATTRIBUTION DE JURIDICTION

Les Tribunaux de Paris seront seuls compétents pour toute contestation relative au présent contrat.

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**PLAN DU RAPPORT D'EXPERTISE TECHNICO-ECONOMIQUE
D'UNE DEMANDE D'AIDE A L'INNOVATION**

- 1° Les travaux, résultats et analyses qui sont à l'origine du projet.
- 2° Les objectifs du programme d'innovation.
- 3° Le contenu du programme d'innovation.
- 4° Les perspectives d'industrialisation.
- 5° Conclusions.

I. — LES TRAVAUX, RESULTATS ET ANALYSES QUI SONT A L'ORIGINE DU PROJET :

- a) Description de l'origine du projet, et des résultats atteints. Analyse critique du processus suivi en comparant le stade actuel avec l'état de la technique tel qu'il est connu dans le secteur de la recherche et dans le secteur industriel notamment dans la concurrence. Analyser les dépenses réalisées pour atteindre ce stade.
- b) Etude des brevets déposés par le demandeur ou des brevets dont le demandeur a la licence. Ces brevets se rapportent-ils de façon essentielle ou significative au produit ou procédé à développer ? Leur objet présente-t-il un caractère de nouveauté réel en fonction de l'état de la technique tel qu'il est connu. Analyser les dépenses réalisées au titre de la propriété industrielle.
- c) Analyse critique de l'observation du marché faite par le demandeur. Appréciation sur les données chiffrées, leur source et la prise en compte de la concurrence française et étrangère.

II. — LES OBJECTIFS DU PROGRAMME D'INNOVATION :

Rappel et examen des objectifs avec appréciation sur leur bien fondé : en tenant compte de l'état général de la technique, de la demande sur le marché et de la concurrence (prix, performances, taille...).

- a) Objectifs techniques (qualitatifs et surtout quantitatifs).
- b) Objectifs commerciaux (pour les cinq années à venir en vente de produits ou de licences).
- c) Objectifs financiers (perspectives de rentabilité).

Souligner l'intérêt collectif contenu dans les objectifs : sécurité, environnement, conditions de travail, économies d'énergie ou de matières premières, exportations...

III. — LE CONTENU DU PROGRAMME D'INNOVATION :

Distinguer les trois thèmes qu'il peut concerner (points a, b et c ci-dessous) et, d'une façon générale, apprécier si les moyens prévus (compétence des hommes, des sous-traitants, niveau d'instrumentation, etc.) sont suffisants et adéquats pour permettre une bonne exécution du programme.

a) Programme technique :

Description des différentes étapes de conception, réalisation, essais, interprétation...
Appréciation sur les risques prévisibles et jugement sur la démarche scientifique ou technique adoptée et sur la capacité des équipes techniques.

Appréciation sur les montants retenus pour le devis des travaux et sur le nombre d'heures nécessaires pour l'exécution du programme.

Un point aussi précis que possible sera effectué concernant l'état des dépenses déjà engagées lorsque le programme présenté concerne la poursuite de travaux entrepris précédemment.

Dire si la collaboration d'un tiers (centre de recherche, entreprise), permettrait d'accroître les chances de réussite, d'accélérer le processus de développement ou de réduire les coûts du programme par apport de connaissances, de moyens en homme ou en matériel.

b) Programme d'étude de marché :

Si l'étude de marché est faite par le demandeur lui-même,

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apprécier si la démarche retenue et les moyens consacrés à l'étude permettront d'aboutir à des conclusions fiables, suffisantes ou surabondantes. Dire si la spécificité du produit ou procédé, la nature de son marché ne justifient pas d'avoir recours à une société spécialisée.

Dans le cas où l'étude de marché est sous-traitée à un tiers, examiner si la démarche et les budgets sont bien en rapport avec le besoin du demandeur.

c) Programme de protection industrielle :

Outre le contenu des brevets (cf. 1 b.) examiner si la politique de protection industrielle est bien adaptée aux projets de développement et notamment s'il s'agit d'extension de brevets à l'étranger dire, si le marché, tel qu'il est connu dans ces pays, justifie le programme d'extension.

IV. — LES PERSPECTIVES D'INDUSTRIALISATION

Examen des moyens à mettre en œuvre pour atteindre les objectifs d'industrialisation :

a) Pour la commercialisation :

Examen des moyens commerciaux actuels du demandeur. Analyse critique des moyens prévus (personnel, réseau...) pour atteindre les objectifs de vente et estimation des dépenses correspondantes. Appréciation sur la capacité actuelle du demandeur à franchir les étapes nécessaires.

b) Pour la fabrication :

Examen de l'outil de production actuel du demandeur. Analyse critique des moyens prévus (personnel, locaux, matériel...), de leur cohérence avec les objectifs commerciaux et de l'estimation des dépenses correspondantes.

Appréciation sur la capacité actuelle du demandeur à franchir les étapes nécessaires.

Dire si les prix de revient prévus intègrent bien l'ensemble des éléments ci-dessus et apprécier les conséquences sur la réalisation des objectifs commerciaux d'une mauvaise estimation des prix de revient.

V. — CONCLUSION

En résumant les éléments ci-dessus, dire :

- si le programme proposé aboutit à des produits ou procédés dont la performance et le prix sont concurrentiels ;
- si les moyens prévus pour l'exécution du programme sont nécessaires et suffisants ;
- si le demandeur a la capacité directe ou indirecte d'atteindre les objectifs industriels et commerciaux prévus.

En conclusion, donner un avis positif ou négatif ou, encore, positif avec réserves ou modifications.

IMPORTANT : Reprendre ces conclusions de façon résumée sur la note de synthèse ci-jointe qui précédera le rapport de l'expert.

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FACTURE D'EXPERTISE

Expert :

Date

NOM :

Adresse personnelle :

Société ou organisme :

ANVAR

Délégation Régionale

.....
.....

Honoraires selon proposition :

.....

Déplacement de à

Train (billet joint)

.....

Avion (billet joint)

.....

Automobile

: km x 0,1 F =

.....

Frais d'hôtel :

Nombre de nuitées

: x 87,00 F =

.....

Frais de restaurant :

Nombre de repas

: x 43,50 F =

.....

Frais de reprographie :

Nombre de pages

: x 0,65 F =

.....

Montant total hors taxes :

.....

T.V.A.

: x 17,60 % =

.....

MONTANT T.T.C. :

.....

P.J. : Billet de train

Billet d'avion

Signature :

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EXPERTISES TECHNICO-ECONOMIQUE

BAREME DE REMBOURSEMENT DES FRAIS (*)

(hors frais de secrétariat, déjà inclus dans le montant des honoraires)

I. — FRAIS DE DEPLACEMENT

Les frais de déplacement des experts leur seront réglés conformément aux règles applicables dans la fonction publique, à savoir :

Frais de déplacement proprement dits

- Remboursés sur la base des tarifs S.N.C.F. première classe ou Air Inter.
En ce qui concerne les billets d'avions, le remboursement ne peut s'effectuer qu'au vu de la souche du billet.
- Remboursés en cas d'utilisation d'un véhicule personnel sur la base du tarif kilométrique suivant :

+ de 6 CV	0,89 F/km
de 4 à 5 CV	0,74 F/km
— de 4 CV	0,64 F/km

Frais de mission

- Remboursement de : 43,50 F pour un repas.
87,00 F pour un découcher.

II. — FRAIS DE REPROGRAPHIE

Ils seront remboursés sur la base de 0,65 F la page.

(*) Au 1^{er} janvier 1981.

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Dossier N°

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NOTE DE SYNTHÈSE

EXPERTISE TECHNICO-ÉCONOMIQUE en date du 19..

M.

Origine professionnelle

désigné par l'ANVAR pour effectuer l'expertise technico-économique du dossier ci-dessus référencé déposé par :
dont l'objet du programme d'innovation est :

Montant total des travaux (H.T.) :

Ventilé par nature :

- technique :
- propriété industrielle :
- étude de marché :

Remet ses conclusions résumées ci-après :

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Conclusion résumée (suite)

ORGANISMES, ENTREPRISES OU EXPERTS ASSOCIES A L'EXECUTION DU PROGRAMME

Nom ou raison sociale	Adresse et téléphone	Personne(s) rencontrée(s) Nom et fonction

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COMMANDE D'EXPERTISE FINANCIERE

REGION

L'ANVAR demande, à l'expert financier :

l'expertise du dossier de demande d'aide à l'innovation N°

Déposé par

Nom ou raison sociale :

Le rapport d'expertise est à retourner en 2 exemplaires

avant le 19

à l'adresse ci-dessous :

Le responsable de l'ANVAR pour ce dossier est M. :

Tél. :

Fait en 5 exemplaires, le 19

Nom et qualité du signataire

Pièces jointes

Dossier de demande d'aide N°

Verso à remplir par l'expert financier



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CADRE A REMPLIR PAR L'EXPERT FINANCIER

L'expert financier retourne à l'ANVAR

- le présent document en 2 exemplaires
- le rapport d'expertise financière en 2 exemplaires
- le dossier de demande d'aide à l'innovation N°

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
- et précise que le temps passé pour cette expertise s'élève à _____ jour(s)

Cette prestation sera réglée selon les modalités prévues.

Fait à _____ , le _____ 19

Nom et qualité du signataire

CADRE RESERVE A L'ANVAR

Vu le rapport d'expertise financière

Date :

Signature du Délégué régional :

Bon pour paiement de la somme de _____

Francs

Signature de la D.A.F. :

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AIDE A L'INNOVATION



DOSSIER

AIDE A L'INNOVATION
QUESTIONNAIRE 1981

ATTENTION : 4 liasses de 4 feuillets dont 3 feuillets à retourner à l'ANVAR le dernier feuillet de chaque liasse est à conserver pour vos archives.
Pour les réponses OUI/NON, cocher la case située à droite de la bonne réponse.

A. RENSEIGNEMENTS GENERAUX

A.0 NOM DE LA PERSONNE QUI A REMPLI LE QUESTIONNAIRE _____

A.1 BREVETS ET LICENCES RELATIFS AU PROGRAMME AIDE

1.1 Avez-vous au cours de l'exercice 1981 déposé de nouvelles demandes de brevets en FRANCE ou à l'étranger ? OUI NON

Si oui, date de notification à l'ANVAR J M A

1.2 Abandonné des brevets en FRANCE ou à l'étranger ? OUI NON

Si oui, date de notification à l'ANVAR J M A

1.3 Cédé des brevets ou concédé des licences en FRANCE ou à l'étranger ? OUI NON

Si oui, date de notification à l'ANVAR J M A

A.2 EXPLOITATION

Y-a-t-il eu en 1981, aliénation, cession, concession, apport ou transmission de tout ou partie des moyens nécessaires à la réalisation du programme, ou à la fabrication et la commercialisation des résultats du programme ? OUI NON

A.3 STATUT DU BENEFICIAIRE

3.1 Des modifications sont-elles intervenues dans la répartition du capital ayant abouti à un changement dans le contrôle du bénéficiaire ? OUI NON

3.2 Le montant du capital a-t-il été modifié ? OUI NON

3.3 Des modifications importantes sont-elles intervenues dans les statuts (forme juridique, objet social, dissolution, liquidation amiable ...) ? OUI NON

3.4 Le bénéficiaire a-t-il été admis au bénéfice de la suspension provisoire des poursuites, du règlement judiciaire ou mis en liquidation de biens ? OUI NON

Fait à
le

Cachet de
l'Entreprise

Nom et qualité
du signataire

(1) expliciter dans le rapport annuel à joindre.

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AIDE A L'INNOVATION
QUESTIONNAIRE 1981

ANVAR

DOSSIER

B. PROGRAMME

- Si votre programme est en cours, suspendu ou abandonné, Répondre aux questions B.1.
- Si votre programme est terminé, répondre directement à B.2 - Programme terminé.

B.1 PROGRAMME EN COURS

- 1.1 Date initialement prévue de fin du programme M A
- 1.2 Date prévisible de fin du programme M A
- 1.3 Est-il apparu des difficultés techniques ou commerciales qui remettent en cause l'intérêt du programme ? OUI NON
- 1.4 Etat des dépenses entrant dans le devis accepté par l'ANVAR
- 1.4.1 - montant des dépenses réelles de l'exercice 1981 _____ F
- 1.4.2 - montant des dépenses réelles antérieures _____ F
- Total des dépenses au 31.12.81 _____ F
- 1.5 Le programme a-t-il été suspendu ? OUI NON
- Si oui, du / / au / /
- et date de notification à l'ANVAR J M A
- 1.6 Le programme a-t-il été abandonné ? OUI NON
- Si oui, en date du / /
- et date de notification à l'ANVAR J M A
- 1.7 Avez-vous demandé un constat d'échec ? OUI NON
- Si oui, en date du / /
- 1.8 Craignez-vous d'avoir à solliciter un constat d'échec ? OUI NON
- 1.9 A quelle date prévoyez-vous, s'il y a lieu, de demander le versement des tranches de l'aide ?

RANG DU VERSEMENT	MONTANT	MOIS	ANNEE
2ème versement	F	<input type="text"/>	<input type="text"/>
3ème versement	F	<input type="text"/>	<input type="text"/>
4ème versement	F	<input type="text"/>	<input type="text"/>

Fait à
le

Cachet de
l'entreprise

Nom et qualité
du signataire

(1) expliciter dans le rapport annuel à joindre.

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AIDE A L'INNOVATION
QUESTIONNAIRE 1981



DOSSIER

**CE QUESTIONNAIRE NE DOIT ETRE REMPLI
QUE SI LE PROGRAMME EST TERMINE**

B.2 PROGRAMME TERMINE

- 2.1 Date effective de fin de programme

J	M	A
- 2.2 Date d'envoi à l'ANVAR du rapport de fin de programme prévu au contrat

J	M	A
- 2.3 Avez-vous atteint les objectifs techniques fixés dans votre programme ?

OUI	NON
<input type="checkbox"/>	<input type="checkbox"/>
- 2.4 Confirmez-vous les perspectives commerciales initiales ?

OUI	NON
<input type="checkbox"/>	<input type="checkbox"/>
- 2.5 Avez-vous demandé un constat d'échec ?

OUI	NON
<input type="checkbox"/>	<input type="checkbox"/>

Si oui, en date du

J	M	A
- 2.6 Craignez-vous d'avoir à solliciter un constat d'échec ?

OUI	NON
<input type="checkbox"/>	<input type="checkbox"/>
- 2.7 Etat de dépenses entrant dans le devis accepté par l'ANVAR
 - 2.7.1 Montant des dépenses réelles de l'exercice 1981 _____ F
 - 2.7.2 Montant des dépenses réelles antérieures _____ F
 - Montant total des dépenses effectives _____ F
- 2.8 Rappel du devis accepté par l'ANVAR _____ F

Fait à
le

Cachet de l'entreprise

Nom et qualité du signataire

(1) expliciter dans le rapport annuel joint.

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AIDE A L'INNOVATION



DOSSIER

N° SIREN
N° CONTRAT

MONTANT DU PROGRAMME
MONTANT DE L'AIDE
TAUX

C. RENSEIGNEMENTS FINANCIERS ET REMBOURSEMENT

C.1 RENSEIGNEMENTS FINANCIERS	PREVISIONS			
	INFORMATIONS RELATIVES A L'ACTIVITE	1981	1982	1983
Chiffres d'affaires HT en milliers de Francs				
- dont exportations				
- dont produits relatifs à l'innovation aidée				
Résultats attendus en milliers de Francs (Amortissement + bénéfice après impôts)				
Nombre de Salariés				

C.2 REMBOURSEMENT

En vertu des dispositions prévues au contrat ci-dessus référencé, le soussigné certifie sincères et véritables les déclarations contenues dans le présent questionnaire et certifie que le montant des remboursements dus à l'ANVAR au titre de l'exercice 1981 s'élève à :

CHIFFRES RELATIFS AU PROGRAMME AIDE (en Francs)	MONTANT HORS TAXE DU CHIFFRE D'AFFAIRE	TAUX	REMBOURSEMENT
1 - Ventes			
2 - Produits de cessions ou concessions de brevets ou licences			
3 - Ventes de prototype, unité pilote, maquette, pré-série ou autres dispositions particulières (préciser)			
Montant total du remboursement ...			

dont le règlement est effectué à l'Agent Comptable de l'ANVAR

- par chèque bancaire joint
- ou
- par virement postal au C.C.P. 9151.51 K PARIS

(Si aucune somme n'est due contractuellement, indiquer les chiffres d'affaires réels et 0 dans les colonnes taux et remboursement).

Cachet de l'entreprise

Fait à
le

Nom et qualité du signataire

DEMANDE D'AGREMENT PONCTUEL POUR EXPERT
POUR LA PRIME A L'INNOVATION

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VOUS FAITES UNE DEMANDE D'AGREMENT PONCTUEL POUR EXPERT

VOTRE DOSSIER DOIT COMPORTER :

- LA FORMULE DE DEMANDE CI-JOINTE DUMENT REMPLIÉ EN DEUX EXEMPLAIRES ET SIGNÉE PAR LE REPRESENTANT DE L'ENTREPRISE CLIENTE ET CELUI DE L'EXPERT DEMANDEUR.
- UN DESCRIPTIF DES TRAVAUX FOURNIS PREVUS ET LE DEVIS CORRESPONDANT.

RETOURNEZ VOTRE DOSSIER COMPLET A LA DELEGATION RÉGIONALE DE L'ANVAR (VOIR ADRESSE AU DOS)

L'AGREMENT VOUS SERA NOTIFIÉ DANS LES 45 JOURS SUIVANT VOTRE DEMANDE COMPLÈTE.

NOTE IMPORTANTE :

AVANT DE FAIRE VOTRE DEMANDE D'AGREMENT IL EST NECESSAIRE DE VERIFIER QUE L'ENTREPRISE CLIENTE SATISFAIT AUX CONDITIONS IMPOSEES POUR BENEFICIER DE LA PRIME A L'INNOVATION (voir article 2 du Décret n° 79-617 au verso de la demande d'agrément).



AGENCE NATIONALE DE VALORISATION DE LA RECHERCHE

Établissement public à caractère industriel et commercial

100 rue de Valenciennes - 75456 Paris Cedex 12 - Tél. 266 33 10 - Télex 200 006 Anvar - Fax 266 33 11

PRIME A L'INNOVATION

DEMANDE D'AGREMENT PONCTUEL POUR EXPERT

PREMIERE DEMANDE SI NON, DERNIER AGREMENT ACCORDE N° :
L'EXPERT

NOM : _____ PRENOM : _____

DATE DE NAISSANCE : _____

ADRESSE : _____

TEL : _____

FORMATION (DIPLÔMES) : _____

STATUT : _____

SALARIÉ, FONCTION : _____

EMPLOYEUR : NOM : _____

TRAVAILLEUR INDÉPENDANT, PROFESSION : _____

EXPERIENCE PROFESSIONNELLE ET REFERENCES DANS LE MAINE CONCERNÉ : _____

DECLARE AVOIR PRIS CONNAISSANCE DES TEXTES FIGURANT AU VERSO.

DEMANDE A BÉNÉFICIER DE L'AGREMENT DE L'ANVAR POUR LE PROGRAMME DE TRAVAUX AYANT POUR OBJET : _____

RESPONSABLE TECHNIQUE DU PROJET : _____

DONT LE DESCRIPTIF CHIFFRÉ EST DÉTAILLÉ EN ANNEXE (A JOINDRE PAR L'EXPERT DEMANDEUR)

MONTANT PRÉVU DES TRAVAUX (H.T.) : _____

DATE PRÉVUE DU DÉBUT DES TRAVAUX : _____ DATE PRÉVUE DE FIN DES TRAVAUX : _____

QUE L'ENTREPRISE CI-DESSOUS ENVISAGE DE LUI CONFIER.

RAISON SOCIALE : _____

ADRESSE DU SIÈGE : _____

TEL : _____

CERTIFIE QU'IL N'EXISTE PAS DE LIENS JURIDIQUES ET/OU FINANCIERS ENTRE L'ENTREPRISE D'UNE PART,

ET L'ORGANISME CI-DESSUS DESIGNÉ OU SES SOUS-TRAITANTS POUR L'EXÉCUTION DES TRAVAUX DE RECHERCHE D'AUTRE PART

AUTRES QUE CEUX MENTIONNÉS CI-DESSOUS : _____

CERTIFIE SINCÈRES ET VÉRITABLES LES INFORMATIONS DONNÉES AU TITRE DE LA PRÉSENTE DEMANDE D'AGREMENT.

SIGNATURE DU REPRÉSENTANT
DE L'ENTREPRISE

NOM ET QUALITÉ DU SIGNATAIRE

SIGNATURE DE L'EXPERT

FAIT A : _____

LE : _____

FAIT A : _____

LE : _____

NOTIFICATION D'AGREMENT DE L'ANVAR

CET AGREMENT N'EST VALABLE QUE POUR LES TRAVAUX CI-DESSUS DESIGNÉS.

AGREMENT N° [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] []

CACHET DE L'ANVAR

FAIT EN DEUX EXEMPLAIRES A : _____

LE : _____

POUR LE DIRECTEUR GÉNÉRAL

DEMANDE D'AIDE A LA RECHERCHE

Action : M.R.I.

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Objet ou titre de la recherche :

Organisme demandeur :

adresse :

téléphone :

forme juridique :

n° SIRET :

code APE :

n° registre de commerce :

personne ayant qualité pour engager le demandeur : (nom, prénoms, fonction)

Laboratoire(s) devant effectuer les études :

adresse(s) :

téléphone :

nom et titre du directeur :

Responsable scientifique :

titre ou fonction :

adresse et téléphone :

Coût du programme : cf. § 3 et 4 de la note explicative

	Coût du programme TTC	Aide demandée TTC	Autres participations TTC
Fonctionnement			
Équipement			
Total TTC			

Durée : à compter du : (cf. § 4 de la note explicative)

Concertation : (cf. § 5 de la note explicative)

organismes(s) :

laboratoire(s) :

cofinancements :

RESUME
DES RENSEIGNEMENTS SCIENTIFIQUES

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Objectif de la recherche : (4 lignes maximum)

Situation du sujet de recherche : (8 lignes maximum)

Programme des travaux : (résumé des différentes phases en 3 lignes maximum)

II RENSEIGNEMENTS FINANCIERS HORS TAXES (cf. 1.3 de la note explicative)

Moyens nécessaires pour l'exécution du programme

1. Fonctionnement :

1.1 Salaires : (pour les organismes publics ou assimilés aucun salaire n'est pris en compte).

QUALIFICATION	NOMBRE	DUREE D'EMPLOI EN MOIS	Taux HORAIRE OU MENSUEL	TOTAL ANNUEL HORS CHARGES	TOTAL ANNUEL CHARGES COMPRISES	TOTAL
<u>cadres</u>						
Ingénieur en chef, directeur de recherche d'étude, etc...						
Ingénieur principal de recherche, chargé de recherche princi- pal, etc...						
Chargé de recherche, ingénieur, etc...						
Chercheur étranger (1)						
<u>non cadres</u>						
Technicien, agent technique, etc...						
Ouvrier, secrétaire, employé, agent de laboratoire, etc...						
TOTAL						

1.2 Vacations (1) :

NIVEAU DE QUALIFICATION	NOMBRE	DUREE D'EMPLOI EN MOIS	Taux HORAIRE OU MENSUEL	TOTAL ANNUEL HORS CHARGES	TOTAL ANNUEL CHARGES COMPRISES	TOTAL
TOTAL						

1.3 Frais de laboratoire : (cf. § 7 de la note explicative)

nature

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total :

.....

. Missions : (à titre indicatif)

lieu

durée

total :

.....

. Divers (1) :

total :

.....

TOTAL :

HT

2. Equipement : (cette rubrique ne comporte que le matériel ou les éléments permettant de le construire, d'une valeur unitaire supérieure à 10 000 F H.T.)

a) Secteur privé

NATURE ET MARQUE	VALEUR D'ACHAT H.

Taux d'amortissement sur la durée du programme : %

Valeur amortissable prise en compte par le M.R.I.

HT

Ces dépenses ne sont admises qu'à titre exceptionnel et lorsque leur nature ou leur importance excède le niveau normal lié aux activités classiques d'un laboratoire. Il est en effet considéré qu'elles sont normalement incluses dans le poste "Frais de laboratoire" qui peut s'agir par exemple de matières premières spécifiques, d'un emploi peu usuel et que leur coût est directement lié à l'exécution de la recherche.

b) Secteur public

NATURE ET MARQUE	VALEUR D'ACHAT H.T.
<p style="text-align: right; margin-top: 100px;">TOTAL :</p>	<div style="border: 1px solid black; width: 100%; height: 100%; display: flex; align-items: center; justify-content: center;"> HT </div>

3. Frais financiers : (cf. § 3 de la note explicative)

a) Secteur privé : pourcentage : %

TOTAL :

Montant

HT

b) Secteur public :

1°) 4 % de soit

8 % de soit

2°) 4 % de soit

TOTAL :

HT

TABLEAU RECAPITULATIF DES MOYENS NECESSAIRES

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POSTES DE DEPENSES	MONTANTS	
	H.T.	T.T.C.
1. Fonctionnement		
1.1 - salaires et charges	
1.2 - vacances et charges	
1.3 - frais de laboratoire	
- dont divers		
1.4 - frais généraux	
total (a) :	
total (a) x 117,6 % :	
2. Equipement		
total (b) :	
total (b) x 117,6 % :	
 TOTAL (a+b) :	<input type="text"/>	
TOTAL (a+b) x 117,6 % :		<input type="text"/>

Taux de participation du M.R.I. %

MONTANT DE L'AIDE DEMANDEE AU	
<input type="text"/>	<input type="text"/>
H.T.	T.T.C.
	(total précédent x 117,6 %)

H.T.

HT

HT

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Versement des Fonds

Indiquer avec précision les nom et adresse du bénéficiaire, l'indication
complet du compte bancaire ou postal (nom et adresse de l'agence bancaire, du nom
du comptable public, n° de compte).

- Secteur privé : joindre obligatoirement un relevé d'identité bancaire.
- Secteur public : les indications relatives au compte, devront être mention-
nées par le comptable public de l'organisme.

* * * * *

Objet de la recherche :

Nom du responsable :

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ENGAGEMENT A SOUSCRIRE PAR
L'ORGANISME DEMANDEUR

" Je m'engage , au cas où j'accepterais expressement ou tacitement ,
l'aide accordée par le M.R.I.

- à réaliser le programme défini dans la décision attributive et à respecter toutes les conditions mises par l'Etat à sa contribution financière ;
- à respecter les règles générales relatives au cumul de rémunérations des agents de l'Etat ou des collectivités publiques visées par la législation en la matière (1) ;
- à maintenir au laboratoire visé dans la présente demande , le soutien financier et matériel qui lui est habituellement consenti , dans le cadre du budget de mon établissement.

Je reconnais en particulier avoir pris connaissance des " conditions
d'attribution des aides à la recherche. "

Date :

Signature :

(nom et qualité de la personne
juridiquement habilitée)

(1) pour les établissements publics
ou assimilés seulement.

ENGAGEMENT PARTICULIER A SOUSCRIRE
OBLIGATOIREMENT LORSQUE L'ORGANISME
DEMANDEUR EST UNE ASSOCIATION
OU UNE FONDATION

Je soussigné _____ représentant juridiquement
habilité de (nom de l'Association ou de la Fondation)

m'engage à constituer une réserve bloquée permettant de faire face , le cas
échéant , à mes obligations d'employeur telles qu'elle sont prévues par le
droit du travail et la convention collective éventuellement applicable.

Date :

Signature :

(nom et qualité de la personne
juridiquement habilitée)

Pièces à joindre lorsqu'un demandeur , ne relevant pas du secteur public ,
sollicite une aide pour la première fois au M.R.I. :

- extrait des statuts ;
- pouvoirs des personnes habilitées à engager juridiquement l'organisme ;
- déclaration fiscale ;
- certificat d'identité personnelle ;

**ANSÖKAN
FORSKNINGSANSLAG**

Handl. nr. 198/84
1984-01-01

1. Sökande: efternamn och förtäcksnamn _____ 2. Titel _____ 3. Sökandens postadress: Adressplats _____

4. Medsökande: efternamn och förtäcksnamn _____

6. Telefon (sven. riktnummer) _____ 7. Arbetet skall utföras vid _____ 8. Förvaltande organ _____

9. Projektitel (svensk) _____

Projektitel (engelsk) _____

ANSÖKAN AVSER

12. F. J. F. - samarbete 13. Nordiskt forskningssamarbete 14. Energirelaterad grundforskning. Observera att särskild bilaga krävs. Denna sätts först bland bilagorna 15. Post-doktorsstipendium 16. Gastforskeranslag 17. Nytt projekt 18. Fors på projekt dnr _____

19. Sammanfattning av forskningsprogram (skall i sin helhet rymmas nedan)

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SAMMANSTÄLLNING AV SOKTA MEDEL (kr)	1983/84	1984/85	1985/86	Handl.		
				Arkivlagras	Ar	Result
Löner inklusive lkp	21	25	29			
Material mm	22	26	30			
Resur	23	27	31			
	24	28	32			
				FV	33	
				AO	34	35
					36	37
					38	39

NUVARANDE TJANSTER på detta projekt finansierade med medel från NFR							1983/84	1984/85	1985/86
Tjänstebenenning	Löne- grad	Tjänste- tidsklass	% av heltid**)	Namn	Examen	**)			
ORIGINALTYP OF POOR QUALITY									
NYA TJANSTER på detta projekt för vilka medel söks hos NFR									
Tjänstebenenning	Löne- grad		% av heltid**)	Tjänst innehavare***	Examen				
MATERIEL MM Utrustning (<200000), tillfällig arbets- kraft, driftskostnader, datorkostnader etc					DELSUMMA TJANSTER				
OBSERVERA att utrustning för mer än 200 000 kr söks hos forskningsrådsnämnden									
RESOR					DELSUMMA MATERIEL MM				
Resor till konferenser, symposier od									
Resor i samband med forskningsprojekt									
** % av heltid (ex 50) och (eller) ant mån (ex 6 m) dne i heltid resp helt år avses					DELSUMMA RESOR				
*** Antal år vederborande resor avkopad med rättsmedel (AFR, NFR) per 1983-07-01					SUMMA SÖKTA MEDEL				
**** För nya tjänster börigas minstföretäckning om tjänst innehavare försäkras i gällande driftredspersonal									

BUDGETPLAN

Projekt över samtliga anslag överstigande 10 000 — som sökande erhållit, förväntas erhålla, söker eller ämnas söka (som huvudman eller som aktiv medsökande) för ansökningsperioden (vanligen nästa budgetår)

GSKALLA	PROJEKT (huvudansvarig, medarbetare, projekttitel)	TJANSTER (Antal o lönegrad)		MATERIAL, RESOR mm (kr)		
		Innevarande budgetår	Sökt/förväntat för nästa budgetår	Beviljat för nästa budgetår	Innevarande budgetår	Sökt/förväntat för nästa budgetår
	Institutionsanslag, ersättning för försämlingsutrustning od	X	X	X		
	= det nu sökta anslaget					
	Dyrbar utrustning	X	X	X		

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Ende medel på samtliga NFR-anslag (avseende 1982/83 eller tidigare år)

per den 31 december 1982

beräknas per den 30 juni 1983

Sid 1

PROJEKT BUDGET Sammanställning av projektets beräknade resursbehov (Ange anslagskälla)

PERSONELLA RESURSER (tjänst och % av heltid)	MATERIELLA RESURSER
	ORIGINAL FACSIMILE OF POOR QUALITY

BILAGOR *Nedan* förtecknas samtliga bilagor till denna ansökan (inkl särtryck i förekommande fall)

Utgallrat	Retur sökanden
(datum och signatur)	

NFR Naturvetenskapliga forskningsrådet
Swedish Natural Science Research Council

Tel 08/15 15 80 Box 6711 113 85 Stockholm Postgiro 18 36 96-4

KONTRAKT

Datum

ANSLAGSBEHÅLLNING OCH

Övriga anslagsmottagare

Huvudansvarig anslagsmottagare

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Projekt		
Anslagsförvaltande organ	För perioden	Anslag kr
Anslagets disposition och särskilda villkor	För perioden	Rekommenderat anslag kr
	För perioden	Rekommenderat anslag kr
Årsrapport senast	Anslaget får disponeras intill	
Vetenskaplig redogörelse (rapport) eller reseberättelse (3 ex) senast	Ekonomisk redovisning senast	
Naturvetenskapliga forskningsrådet har beslutat ställa angivna forskningsanslag till Ert förfogande i enlighet med villkoren på omstående sida.	Jag förklarar mig härmed beredd att ta emot anslaget och för- binder mig att följa med anslaget förbundna villkor. Datum Underskrift	
	Namnteckningen bevitnas	
Anslaget kommer att förvaltas i enlighet med kontraktets bestämmelser.		
Datum	Forvaltande organ (Stempel eller motav.)	Underskrift med namntfötydligande

18052

ALLMÄNNA BESTÄMMELSER

utformade av forskningsrådsnämnden och forskningsråden i samråd

1. Anslagsmottagare och anslagsförvaltare

Vid anslag, som tilldelats mer än en mottagare, utses en av dessa att företrädas anslagsmottagarna gentemot rådet och anslagsförvaltande organ (huvudansvarig).

Anslagsmottagarens rättigheter och skyldigheter i förhållande till rådet kan ej utan dess medgivande överföras på annan person eller institution.

Anslag till forskning, avsedd att bedrivas vid högskoleenhet, förvaltas av denna. Anslag till forskning, avsedd att bedrivas vid annan statlig myndighet, bör förvaltas av denna. I övriga fall förvaltas anslag av rådet, såvida ej annat överenskommit.

2. Dispositionsrätt

Anslaget skall disponeras i huvudsaklig överensstämmelse med projektplanen och enligt angivna villkor. Ändringar rörande anslags disposition samt i de av rådet fastställda särskilda villkoren kan medges efter framställning till rådet.

Anslaget får disponeras under den tid som anges på omstående sida. Erfordras förlängning skall ansökan härmed med angivande av skäl göras till rådet i god tid före dispositionstidens utgång.

Efter dispositionstidens utgång skall medel, som ej förbrukats, återgå till rådet, såvida ej annat beslutats.

3. Arbetsgivarförhållanden, anställningsvillkor

I regel förvaltas anslag från rådet av en högskoleenhet, som också är arbetsgivare för personal som anställts på medel från anslaget. Högskoleenheten inrättar tjänster och förordnar personal. (För i regleringsbrev för forskningsråden förtecknade forskartjänster och vissa andra befattningar gäller dock att rådet förordnar personal, även om högskolorna åtagit sig att betala ut lön, ge uppgifter till skattemyndigheterna m m).

I de fall anslag från rådet förvaltas av annan än högskoleenhet avges från fall till fall vem, som är arbetsgivare för personal i projektet.

Inrättande av tjänst, anställning/förordnande av personal, placering i lönegrad och eventuell inplacering i rörlig lönegrad åvilar arbetsgivaren, som också är ansvarig för skatteavdrag och skattebetalningar, socialförsäkringsavgifter, semesterlön, uppgifter till taxeringsmyndighet, försäkringskassa m m.

4. Merkostnader till följd av generella löneökningar, ökat lönekostnadspålägg, anställning av vikarie m m

Rådet lämnar så långt möjligt kompensation för generella löneökningar (inkl merkostnader till följd av L ATF) i särskild ordning.

Merkostnader för anställning av vikarie regleras genom tilläggsanslag eller genom utbetalning från särskilda, för ändamålet reserverade medel. I de fall anställande av vikarie leder till merkostnader för rådet, skall dess medgivande inhämtas i förväg. Sådant medgivande lämnas i regel ej vid tjänstledighet av kortare varaktighet än en månad eller under semesterledighet.

För anslag från FRN gäller att de beviljade beloppen inkluderar förväntade kostnadsökningar till följd av generella löneökningar m m.

5. Utbetalning och redovisning av anslag

Forskningsanslag, som skall förvaltas av statligt organ och vissa akademier, utbetalas av rådet till anslagsförvaltaren, så snart kontant återkommit till rådet med anslagsmottagarens och anslagsförvaltarens påskrift samt medel blivit disponibla för utbetalning.

För varje sådant anslag avger anslagsförvaltaren ekonomisk redovisning senast vid den tidpunkt som anges på omstående sida.

Om forskare ej är knuten till statligt organ, bestäms från fall till fall hur anslag skall utbetalas och redovisas.

— Anslag, som tilldelats förening eller sällskap med egna revisorer, utbetalas efter skriftlig rekvisition. Redovisning skall ske genom insändande av bestyrkta avskrift av in- och utgående balansräkningar, resultaträkningar samt revisionsberättelse.

— I övriga fall sker utbetalning på rekvisition av den huvudsavarige mottagaren i delposter, sedan mottagaren redovisat sina kostnader. Originalverifikationer för de redovisade kostnadsposterna skall vid anfordran insändas till rådet alternativt uppvisas för av rådet anlitad revisor. På anmodan av anslagsmottagaren kan rådet inom anslagets ram betala ut större belopp direkt till räkningsutställare. På skriftlig beöran kan ett förskott ställas till anslagsmottagarens disposition.

6. Uppföljning av projektarbetet

Rådet har rätt att på lämpligt sätt följa projektarbetet.

Finner rådet att arbetet ej bedrivs på tillfredsställande sätt, kan anslaget dras in.

7. Fortsättningsanslag, rekommenderat anslag

Rådet kan förklara sin avsikt att för kommande budgetår bevilja medel för projektet (rekommenderat anslag).

8. Redogörelser och rapporter m m

Redogörelser och rapporter över forskningsarbetet (alternativt reseberättelse) skall avges i särskild ordning om detta angetts på omstående sida eller eljest på anmodan.

9. Publicering av resultat

Vid publicering av resultat från ett projekt som understöts av rådet skall anges, att arbetet bedrivits (publicerats) med bidrag från rådet.

10. Inköp av apparatur, äganderättsförhållanden m m

Inköp av apparatur, vars kostnad överstiger 30 000 kr, skall ske i samråd med utrustningsnämnden för universitet och högskolor. Utrustningsnämnden kan biträda anslagsmottagaren även vid anskaffning av utrustning till lägre belopp.

Anslagsmottagaren skall ansöka om tullfrihet för apparatur och instrument som inköps från utlandet med medel från rådet.

Apparatur, utrustning och övriga inventarier, som inköpts för av rådet anvisade medel och som ej är ätt betrakta som förbrukningsmateriel, skall vid inköpstillfället förtecknas (inventarieregistreras) av anslagsförvaltande organ. Äganderätten tillkommer rådet. Anslagsmottagaren har nyttjanderätten till sådan utrustning och är ansvarig för vården av inköpt apparatur så länge projektet pågår — d v s till dess ekonomisk slutredovisning godkants. Efter ekonomisk slutredovisning meddelar rådet beslut om den fortsatta äganderätten till apparaturen.

Om anslagsmottagare under projektets gång finner att inköpt utrustning ej längre behöver utnyttjas i projektet, skall han kontakta rådet, som då meddelar hur sådan utrustning skall användas i fortsättningen och hur eventuella försäljningsintäkter skall disponeras.

11. Patentfrågor

Rådet lämnar bidrag till projekt under förutsättningen att resultatet görs offentligt och får användas fritt. Om under forskningsarbetet gjorda rörelser av den karaktären att patentansökan blir aktuell, skall detta omedelbart anmälas till rådet.

Rådet kan i sådana fall avstå från kravet på fri användning mot att den patentsökande förbinder sig att återbetala bidraget eller del därav. Plan för återbetalingen skall därvid fastställas. Återbetalningsskyldigheten kan efterges helt eller delvis, om anslagsmottagaren visar att projektets resultat varken har gett eller kan förväntas ge ekonomiskt utbyte av mer än begränsad omfattning.

Rådet lämnar ej bidrag till patentkostnader.

12. Tvistemål

Eventuellt uppkommen tvist om tolkningen eller tillämpningen av stipulerade villkor skall hänskjutas till skiljemän enligt gällande lag om skiljeavtal.

13. Skyldighet att informera om andra anslag till projektet

Rådet har vid behandlingen av anslagsärendet utgått från att sökanden anmält eventuella ansökningar till eller erhållna anslag från andra anslagsutdelande organ, avseende medel för samma eller liknande ändamål. Skulle så ej vara fallet förbehåller sig rådet rätt att ånyo pröva ärendet och därvid helt eller delvis dra in anslaget. Om under forskningsarbetets gång anslag från annat håll erbjuds eller erhålls för projektet, skall detta snarast meddelas rådet.

14. Särskilda bestämmelser för publiceringsanslag

Beträffande publiceringsanslag gäller att eventuell särskild överenskommelse mellan författare och utgivare samt förslag till avtal med förlag rörande distribution av publikation i förväg skall underställas rådet för godkännande.

Så snart publikationen tryckts skall ett exemplar insändas till rådet. Eventuella ytterligare krav på exemplar specificeras på omstående sida.

Anvisningar: Se broschyren »Sök stöd hos STU» om sök-
föreläggning. Söka av vissa uppgifter bör dessa följa samman-
hängande bilaga som förses med påskrift »Sekretariatet Agg-
ning önskas» Läs vidare om detta i broschyren.

ANSÖKAN OM PROJEKTANSLAG

Datum

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Ansoökan avser:	Tidigare dierent projekt nr	Sökföreläggning önskas av bilaga nr
<input type="checkbox"/> Nytt projekt	<input type="checkbox"/> Fortsättning på tidigare STU-projekt →	

Sökande	Namn (institution/företagsaktida personer) postadress och postgronummer:	Telefon under arb. tid över- nattnr:	Antal anställda	Lans- bokstav
	Koncern tillhörighet (koncernens namn, gäller endast då sökanden är företag)	anta anställda i koncernen <input type="checkbox"/> under 500 <input type="checkbox"/> över 500		

Projekthedare	Namn och telefonnr (även riktnr):
----------------------	-----------------------------------

Projekttitel	
---------------------	--

Tid- och kostnadsplan	Arbetet utföres vid _____ och pågår under tiden (fr o m - t o m)
------------------------------	--

Kostnadslag	Projektets öbata kostnad	Totalt	Ansökan om projektanslag från STU						
			Totalkostnad fördelat per budgetår (07-01 - 06-30)						
			198 /	198 /	198 /	198 /	198 /		
Löner/Eget arbete Procent									
Lönebikostnader ¹									
Konsultkostnader									
Utrustning									
Material									
Resor inkl traktamenten									
Patentkostnader Procent									
Förvaltningsavgift ²									
Övrigt - SPECIFICERA!									
Summa									

83-01 10.000 BK M. Inyck. R. Skrivarens kopiering AB. Mått: 200 x 270. 1/2 JULY 1983 83 204

¹ Socialförsäkringsavgifter m m (för statliga institutioner t n 39 % av lönesumman)
² Gäller endast universitet, högskolor och liknande

Annan finansiering	<p>Myndighet, ansökgivande organ etc</p> <p>1 Beloppet som söks hos STU söks även hos Belopp kronor, vilket</p> <p>2 Utöver det belopp som söks hos STU behövs för detta projekt ytterligare Myndighet, ansökgivande organ etc</p> <p>söks hos har beviljats av</p> <p style="text-align: center;">ORIGINAL PAGE IS OF POOR QUALITY</p>
Patentfrågor m m	<p>Patent och patentansökningar nr</p> <p>Ägare till projektet Namn</p> <p><input type="checkbox"/> Sökanden <input type="checkbox"/> Annan anges</p>
Internationellt samarbete	<p>Ingår internationellt samarbete? Ange land/samarbetspart</p> <p>Bitogs gärna ett kort referat på engelska</p>
Projektbeskrivning (målsättning, angreppssätt, dagsläge och resultat-användning)	<p>Kort sammanfattning (100-150 ord). Fullständig projektbeskrivning lämnas i bilaga. Ange gärna 5-10 nyckelord som karakteriserar projektet. Detta underlättar STUs daterregistrering av projektbeskrivningen.</p> <p>Nyckelord:</p>
Underskrifter	<p>Sökande och projektledare (namnteckning med namnförtydligande)</p> <p>Firme-tecknare eller prefekt föresändare (namnteckning med namnförtydligande)</p>

STYRELSEN FÖR TEKNISK UTVECKLING
STUs handläggare

BESLUTSBREV - VILKOR 1 (3)
Beslutsdatum: Projekt nr:

Utfärdningsdatum: Dierent: Åberöpas vid korrespondens

Anslagsmottagare

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STU har beviljat anslag på villkor enligt detta brev.

Projekttitel					
Projektledare					Telefonnr
Beviljat belopp					
Totalt					
Kostnadsplan		Fördelning av kostnader per budgetår (07-01 - 06-30)			
Kostnadslag	Budgetår	Budgetår	Budgetår	Budgetår	Budgetår
Villkor	Beslutet gäller under förutsättning att de villkor som anges i detta beslutsbrev (sid 1 - 3) uppfylls och att kostnadsplan enligt ovan tillämpas. Inom totalramen accepteras förskjutningar mellan kostnadslagen upp till 10 %. Vid större förändringar krävs STUs godkännande. Slutrapport skall lämnas till STU senast på angivet datum om projektet inte fortsätter på nytt anslag.				
Villkorskod	Särskilda villkor (se sid 3)			Dispositionstid	
Lägesrapport lämnas, datum				Slutrapport lämnas, datum	
Utbetalning och rekvisition av beviljat anslag	Innan medel utbetalas från STU skall exemplar 1 (originalet) av beslutsbrevet undertecknas (sid 3) och återsändas till STU inom 3 månader, i annat fall återgår medlen till STU. Undertecknandet skall göras av anslagsmottagare (behörig firmatecknare) och i förekommande fall även av tjänsteman inom vederbörande administrerande organ. Dessutom skall om anslagsmottagaren inte har full ägande- och dispositionsrätt den/de med vilken/vilka rätten delas underteckna villkoren (se § 7 sid 2). Rekvisition av medel görs på blankett som tillhandahålls av STU, utbetalning sker därefter enligt § 1 i villkoren. Rekvisitionsblankett behöver inte användas då annat organ än STU (se nedan) administrerar projektet.				
Adm organ	Beviljade medel utbetalas genom				

STU 21 a 1987 (nr 1000 - 4 HÖREROS FALUN 8075

Enligt myndighetens beslut

PROPOSAL TO THE NATIONAL SCIENCE FOUNDATION Cover Page					
FOR CONSIDERATION BY NSF ORGANIZATIONAL UNIT (Indicate the most specific unit known, i.e. program, division, etc.)			IS THIS PROPOSAL BEING SUBMITTED TO ANOTHER FEDERAL AGENCY? Yes ___ No ___ . IF YES, LIST ACRONYMS)		
PROGRAM ANNOUNCEMENT/SOLICITATION NO.:			CLOSING DATE (IF ANY):		
NAME OF SUBMITTING ORGANIZATION TO WHICH AWARD SHOULD BE MADE (INCLUDE BRANCH/CAMPUS/OTHER COMPONENTS)					
ADDRESS OF ORGANIZATION (INCLUDE ZIP CODE)					
TITLE OF PROPOSED PROJECT					
REQUESTED AMOUNT		PROPOSED DURATION		DESIRED STARTING DATE	
PI/PD DEPARTMENT		PI/PD ORGANIZATION		PI/PD PHONE NO.	
PI/PD NAME		SOCIAL SECURITY NO.*	DATE OF HIGHEST DEGREE ACHIEVED	MALE*	FEMALE*
ADDITIONAL PI/PD					
ADDITIONAL PI/PD					
ADDITIONAL PI/PD					
ADDITIONAL PI/PD					
FOR RENEWAL OR CONTINUING AWARD REQUEST, LIST PREVIOUS AWARD NO.:			IF SUBMITTING ORGANIZATION IS A SMALL BUSINESS CONCERN, CHECK HERE <input type="checkbox"/> (See CFR Title 13, Part 121 for Definitions)		
*Submission of social security numbers is voluntary and will not affect the organization's eligibility for an award. However, they are an integral part of the NSF information system and assist in processing the proposal. SSN solicited under NS" Act of 1950 as amended.					
CHECK APPROPRIATE BOX(ES) IF THIS PROPOSAL INCLUDES ANY OF THE ITEMS LISTED BELOW:					
<input type="checkbox"/> Animal Welfare		<input type="checkbox"/> Human Subjects		<input type="checkbox"/> National Environmental Policy Act	
<input type="checkbox"/> Endangered Species		<input type="checkbox"/> Marine Mammal Protection		<input type="checkbox"/> Research Involving Recombinant DNA Molecules	
<input type="checkbox"/> Historical Sites		<input type="checkbox"/> Pollution Control		<input type="checkbox"/> Proprietary and Privileged Information	
PRINCIPAL INVESTIGATOR/ PROJECT DIRECTOR		AUTHORIZED ORGANIZATIONAL REP.		OTHER ENDORSEMENT (optional)	
NAME		NAME		NAME	
SIGNATURE		SIGNATURE		SIGNATURE	
TITLE		TITLE		TITLE	
DATE	TELEPHONE NO.	DATE	TELEPHONE NO.	DATE	TELEPHONE NO.

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EXHIBIT 113

NOTICE OF RESEARCH PROJECT
SCIENCE INFORMATION EXCHANGE
SMITHSONIAN INSTITUTION
NATIONAL SCIENCE FOUNDATION
PROJECT SUMMARY

SIE PROJECT NO
NSF AWARD NO

FOR NSF USE ONLY			
DIRECTORATE/DIVISION	PROGRAM OR SECTION	PROPOSAL NO	F Y

NAME OF INSTITUTION (INCLUDE BRANCH/CAMPUS AND SCHOOL OR DIVISION)
ADDRESS (INCLUDE DEPARTMENT)
PRINCIPAL INVESTIGATOR(S)
TITLE OF PROJECT
TECHNICAL ABSTRACT (LIMIT TO 22 PICA OR 18 ELITE TYPEWRITTEN LINES)

NSF FORM 4 (8-80) EXISTING STOCKS OF FORM 4 (7-78) WILL BE USED

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(SEE INSTRUCTIONS ON
REVERSE BEFORE
COMPLETING)

SUMMARY PROPOSAL BUDGET

		FOR NSF USE ONLY			
ORGANIZATION		PROPOSAL NO.		DURATION (MONTHS)	
PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR		AWARD NO.		Proposed	Granted
A SENIOR PERSONNEL (PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A & B show number in brackets))		NSF FUNDED PERSON	FUNDS REQUESTED BY PROPOSER	FUNDS GRANTED BY NSF (IF DIFFERENT)	
		CAL	ACADEMUR		
1.				\$	\$
2.					
3.					
4.					
5.	() OTHERS (LIST INDIVIDUALLY ON BUDGET EXPLANATION PAGE)				
6.	() TOTAL SENIOR PERSONNEL (1-5)				
B OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)					
1.	() POST DOCTORAL ASSOCIATES				
2.	() OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)				
3.	() GRADUATE STUDENTS				
4.	() UNDERGRADUATE STUDENTS				
5.	() SECRETARIAL/CLERICAL				
6.	() OTHER				
TOTAL SALARIES AND WAGES (A+B)					
C FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)					
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A+B+C)					
D PERMANENT EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING \$1,000. ITEMS OVER \$10,000 REQUIRE CERTIFICATION)					
TOTAL PERMANENT EQUIPMENT					
E TRAVEL 1. DOMESTIC (INCL CANADA AND U.S. POSSESSIONS)					
2. FOREIGN					
F PARTICIPANT SUPPORT COSTS:					
1. STIPENDS \$ _____					
2. TRAVEL _____					
3. SUBSISTENCE _____					
4. OTHER _____					
TOTAL PARTICIPANT COSTS					
G OTHER DIRECT COSTS					
1. MATERIALS AND SUPPLIES					
2. PUBLICATION COSTS/PAGE CHARGES					
3. CONSULTANT SERVICES					
4. COMPUTER (ADPE) SERVICES					
5. SUBCONTRACTS					
6. OTHER					
TOTAL OTHER DIRECT COSTS					
H TOTAL DIRECT COSTS (A THROUGH G)					
I. INDIRECT COSTS (SPECIFY)					
TOTAL INDIRECT COSTS					
J TOTAL DIRECT AND INDIRECT COSTS (H + I)					
K RESIDUAL FUNDS (IF FOR FURTHER SUPPORT OF CURRENT PROJECTS GPM 252 AND 253)					
L AMOUNT OF THIS REQUEST (J) OR (J MINUS K)					
				\$	\$
PI/PD TYPED NAME & SIGNATURE*		DATE		FOR NSF USE ONLY	
INST. REP. TYPED NAME & SIGNATURE*		DATE		INDIRECT COST RATE VERIFICATION	
		Date Checked	Date of Rate Sheet	Initials	DGC
				Program	

NSF Form 1010 (10-80) Supersedes All Previous Editions

*SIGNATURES REQUIRED ONLY FOR REVISED BUDGET (GPM 233)

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EXHIBIT 114

CURRENT AND PENDING SUPPORT

The following information should be provided for each investigator and other senior personnel (see GPM 203.5c(8)). Failure to provide this information may delay consideration of the proposal.

	A	B	C	D	E	F
	Support- ing Agency	Project Title	Award Amount (or Annual Rate)	Period Covered By Award	Person-Months Or % of Effort Committed To The Project	Location Where Research Is/Will Be Per- formed
ACAD. SUMM.						
I. (Name of Principal Investigator)						
A. Current Support						
List—If none, Report none	---	---	---	---	---	---
B. Proposals Pending						
1. List this proposal	---	---	---	---	---	---
2. Other pending proposals, including renewal applications	---	---	---	---	---	---
3. Proposals planned to be submitted in near future	---	---	---	---	---	---
II. (Name of co-principal investigator and/or faculty associate)	---	---	---	---	---	---
A.						
B.						
III. Transfer of Support						
If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.	---	---	---	---	---	---
IV. (Other agencies to which this proposal has been/will be submitted)	---					

REQUEST FOR ADVANCE OR REIMBURSEMENT

(See instructions on back)

Approved by Office of Management and Budget No. 80-RO18J PAGE OF PAGES

1. TYPE OF PAYMENT REQUESTED	a. "A" and/or both below		2. BASIS OF REQUEST
	<input type="checkbox"/> ADVANCE	<input type="checkbox"/> REIMBURSEMENT	
	b. "B" and/or both below		<input type="checkbox"/> ACCRUAL
	<input type="checkbox"/> FINAL	<input type="checkbox"/> PARTIAL	

3. FEDERAL SPONSORING AGENCY AND ORGANIZATIONAL ELEMENT TO WHICH THIS REPORT IS SUBMITTED	4. FEDERAL GRANT OR OTHER IDENTIFYING NUMBER ASSIGNED BY FEDERAL AGENCY	5. PARTIAL PAYMENT REQUEST NUMBER FOR THIS REQUEST
---	---	--

6. EMPLOYER IDENTIFICATION NUMBER	7. RECIPIENT'S ACCOUNT NUMBER OR IDENTIFYING NUMBER	8. PERIOD COVERED BY THIS REQUEST FROM (month, day, year) TO (month, day, year)
-----------------------------------	---	--

9. RECIPIENT ORGANIZATION Name Address City, State and ZIP Code	10. PAYEE (If have check to be sent to different than item 9) Name Address City, State and ZIP Code
--	--

11. COMPUTATION OF AMOUNT OF REIMBURSEMENTS/ADVANCES REQUESTED				
PROGRAMS/FUNCTIONS/ACTIVITIES	(a)	(b)	(c)	TOTAL
a. Total program outlays to date (As of date)	\$	\$	\$	\$
b. Less Cumulative program income				
c. Net program outlays (Line a minus line b)				
d. Estimated net cash outlays for advance period				
e. Total (Sum of lines c & d)				
f. Non Federal share of amount on line e				
g. Federal share of amount on line e				
h. Federal payments previously requested				
i. Federal share now requested (Line g minus line h)				
j. Advances required by month when requested by Federal grantor agency for use in making pre-scheduled advances	1st month			
	2nd month			
	3rd month			

12. ALTERNATE COMPUTATION FOR ADVANCES ONLY	
a. Estimated Federal cash outlays that will be made during period covered by the advance	\$
b. Less: Estimated balance of Federal cash on hand as of beginning of advance period	
c. Amount requested (Line a minus line b)	\$

13. CERTIFICATION		
I certify that to the best of my knowledge and belief the data above are correct and that all outlays were made in accordance with the grant conditions or other agreement and that payment is due and has not been previously requested.	SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	DATE REQUEST SUBMITTED
	TYPED OR PRINTED NAME AND TITLE	
	TELEPHONE	Area Code

This space for agency use

ISSUING AGENCY	LETTER OF CREDIT	LETTER-OF-CREDIT NUMBER
AGENCY STATION SYMBOL	Auth: Treasury Department Circular No. 1075, Revised (FOR AGENCY USE)	AMENDMENT NUMBER
TO: Treasury Disbursing Center or Regional Office	Address:	EFFECTIVE DATE

In accordance with the authorization of the Fiscal Assistant Secretary, Department of the Treasury, there is hereby authorized for the account and responsibility of the issuing agency a letter of credit:

IN FAVOR OF:	TREASURY CHECKS TO BE MADE PAYABLE TO:		
AMOUNT AUTHORIZED	TIME DESIGNATION	PRIOR AUTHORIZATION	THIS CHANGE
\$	<input type="checkbox"/> EACH FISCAL YEAR <input type="checkbox"/> WITHOUT TIME LIMIT	\$	Increase \$ Decrease \$

Time Designation: Each Fiscal Year

- The unpaid balance of this letter of credit is revoked at the end of each fiscal year and the full amount authorized is reestablished at the beginning of each fiscal year unless you are advised in writing that this letter has been revoked.*

OR

- The unpaid balance of this letter of credit is carried forward at the end of each fiscal year and will remain available during the following fiscal year and, in addition, the full amount authorized is reestablished at the beginning of each fiscal year unless you are advised in writing that this letter has been revoked.*

Time Designation: Without Time Limit

- The unpaid balance of this letter of credit will remain available until you are advised in writing that this letter has been revoked.*

The amount of this letter of credit is hereby certified to be drawn against, upon presentation to you of Standard Form 183, Request for Payment on Letter of Credit and Status of Funds Report, by the official(s) of the recipient organization whose signature(s) appear(s) on the Standard Form 1194, Authorized Signature Card for Payment Vouchers on Letter of Credit, attached hereto or previously or subsequently furnished you.

The amount of each Request for Payment paid by the Department of the Treasury to the recipient organization at a designated commercial bank shall constitute payment to the recipient organization by the United States.

I certify to the Department of the Treasury that the payments authorized herein are correct and proper for payment from the appropriations or funds legally committed and available for the purpose, when paid in accordance with the terms and conditions cited above.

*This letter of credit is irrevocable to the extent the recipient organization has obligated funds in good faith thereunder in executing the authorized Federal program in accordance with the grant, contract, or other agreement.

DATE CERTIFIED _____ AUTHORIZED CERTIFYING OFFICER _____

TYPED NAME AND TITLE _____

NATIONAL SCIENCE FOUNDATION Washington, D. C. 20550		FINAL PROJECT REPORT NSF FORM 98A			
PLEASE READ INSTRUCTIONS ON REVERSE BEFORE COMPLETING					
PART I-PROJECT IDENTIFICATION INFORMATION					
1. Institution and Address	2. NSF Program	3. NSF Award Number			
	4. Award Period From To	5. Cumulative Award Amount			
6. Project Title					
PART II-SUMMARY OF COMPLETED PROJECT (FOR PUBLIC USE)					
<p style="font-size: 1.2em; opacity: 0.5;">ORIGINAL PAGE IS OF POOR QUALITY</p>					
PART III-TECHNICAL INFORMATION (FOR PROGRAM MANAGEMENT USES)					
1. ITEM (Check appropriate blocks)	NONE	ATTACHED	PREVIOUSLY FURNISHED	TO BE FURNISHED SEPARATELY TO PROGRAM	
				Check (✓)	Approx. Date
a. Abstracts of Theses					
b. Publication Citations					
c. Data on Scientific Collaborators					
d. Information on Inventions					
e. Technical Description of Project and Results					
f. Other (specify)					
2. Principal Investigator/Project Director Name (Typed)		3. Principal Investigator/Project Director Signature		4. Date	