Tax incentives have become an important instrument for public policies to stimulate business R&D. An increasing number of countries have been implementing such fiscal schemes as part of their innovation policy mix. The French Research Tax Credit (Crédit d’impôt recherche, CIR) is general and does not target any specific sector or type of company – unlike most direct aid to R&D and innovation.

**Who can benefit from the CIR?**
Any industrial, commercial or agricultural organisation subject to corporate tax in France.

**Which expenses are eligible?**
Mainly, expenditures relative to human and material resources allocated to R&D, subcontracted R&D, technological watch, patenting or patent protection.

**How to obtain the tax credit?**
The CIR is deducted from the tax to be paid; or else it is refunded at the end of the third year. However, it is immediately paid to young companies under certain conditions. Companies that can neither deduct the tax credit nor obtain a refund can ask banks for loans on the basis of their research tax credit.

**Computation of the Tax Credit**
The CIR is based on the claimed volume of R&D expenditures. It is equal to 30 % of R&D expenditures up to EUR 100 million; beyond this threshold, the rate comes down to 5 %.
For companies entering the scheme for the first time, the applicable rate is 50 % the first year, and 40 % the second year.
Other public support to R&D (subsidies, refundable loans…) must be deducted from the base in order to compute the credit.
DEFINITION OF R&D ACTIVITIES

The activities considered as the base for calculation of the research tax credit must match the international definition of R&D activities established by the OECD in the Frascati Manual. This Manual is regularly updated and the latest publication is available on-line (http://europa.eu.int/estatref/info/sddss/en/rd/rd_frascati_manual_2002.pdf).

R&D activities are divided into three categories:

**Basic research** contributes to the analysis of properties, structures, physical and natural phenomena, with the aim to organise the facts emerging from this analysis via explanatory charts or interpretative theories.

**Applied research** aims at identifying possible applications for the results of basic research or at finding new solutions allowing the company to reach a specific objective. The result of applied research consists in a prototype product, process or methodology.

**Experimental development** is carried out thanks to prototypes or pilot installations. The objective is to supply decision-makers with technical data in order to either generate new materials, devices, products, processes, systems, services, or to substantially improve existing ones. The substantial improvement or the novelty of products, services or processes, results from work based on a well established state-of-the-art and which face difficulties as well as scientific and technical risks. The progress accomplished, the results obtained and the originality of the solution ultimately selected in terms of characteristics and technical performance can be used to measure R&D activity.

Eligible prototypes are those aiming at experimentally testing research hypotheses, addressing doubts, scientific and technical uncertainties, but not those aiming at displaying the product in its final industrial state.

ELIGIBILITY CRITERIA

To be eligible, the creation or improvement of a product, process, programme or equipment has to demonstrate originality or substantial improvement. In other words, the mere application of state-of-the-art techniques is not considered as R&D. The state-of-the-art consists of all the accessible knowledge that can be of use to a normally competent professional in the relevant field, without having to demonstrate a creative activity.

Only operations aiming at removing scientific and/or technological uncertainties are taken into account. The issues to be solved must be new and have no known solutions. They can be linked to the complexity of the scientific works to be done and result from specific constraints or from scientific or technological risks (vs. economical or commercial risks). Scientific and/or technological uncertainty can only be observed after a well established state-of-the-art and bibliography and once all available knowledge has been used and exploited.

R&D activities must outrun general practices used in the field of application and must rely on advanced professional skills from scientists and engineers, distinct from the know-how commonly used in the profession. They can therefore not rely on the design and implementation of conventional solutions. R&D does not usually include activities aiming at increasing productivity, reliability, ergonomics, IT portability, or upgrading basic and application software.
ACTIVITIES THAT ARE NOT CONSIDERED AS ELIGIBLE R&D OPERATIONS

• Standard engineering activities related products or processes the objective of which is to identify outlets, to improve productivity or profitability, to draw up pre-production plans or to fine-tune the production process.
• Engineering projects using existing techniques in order to supply additional information before implementation.
• After the completion of the experimental phase, the operation of a prototype or a pilot as a normal production unit.
• Prototypes validating design, production tests or ”experimental production”.
• Fine-tuning of equipment and tools before mass production.
• Study fees to adapt products to style or fashion changes, marketing studies, cost studies.
• Adaptation to standards, unless the related work matches the definition of R&D operations.
• Studies for the design of a device, a mechanism, even a machine, which lead to the drafting of technical drawings.
• Education and vocational training activities.

EXPENDITURES TAKEN INTO ACCOUNT

The following expenditures may be included in the CIR base.

1 Depreciation allowances

2 Staff expenses (researchers and technicians allocated to R&D)

Researchers are scientists or engineers working on the creation of knowledge on products, processes, methods or new systems.
PhD.: expenses related to PhD holders (or equivalent diploma) and taken into account for the calculation of CIR are accounted for twice their cost during the first twenty four months following their first recruitment. (first long term contract - Contrat à durée déterminée – CDI)

Research technicians are employees working closely with researchers to technically support experimental R&D work. They must possess a scientific and technical culture acknowledged by a senior technician degree or by on-the-job experience.
Researchers and research technicians working part-time or only part of the year on R&D operations are taken into account proportionally to the time they actually spent on R&D activities.

3 Operating costs

Operating costs are fixed and cover in particular other staff expenses (secretaries, commercial staff, etc.) administrative expenses, raw materials etc.
The following rates are applied:
- 75 % of staff expenses relating to researchers and research technicians;
- 200% of staff expenses relating to PhD holders (or equivalent) during the first twenty-four months following their first recruitment (CDI)

4 R&D subcontracting in France, in other EU and EEA Member States

• R&D operations sub-contracted to private companies or to individual experts
Companies can outsource R&D work to either a private organisation or to an individual expert. In both cases, the sub-contractor is required to possess a certificate of approval delivered by the Ministry of Research.

• R&D operations sub-contracted to public organisations
Expenses relating to R&D operations entrusted to public research labs or academia are accounted for twice their actual cost.
R&D expenses entrusted to public or private research bodies or to scientific experts are taken into account up to a maximum of EUR 2 million per company per year. This limit is increased to EUR 12 million on condition that the company benefiting from the CIR is independent from the sub-contractor.

5 Fees for patent filing, patent maintenance and plant variety protection certificates

6 Depreciation allowances of patents or plant variety protection certificates acquired with a view to carry out R&D activities

7 Expenses incurred for the protection of patents and plant variety protection certificates

8 Standardisation expenses

9 Technology watch expenses

SECURITY OF THE RESEARCH TAX CREDIT

• Request for advance approval
Any company may seek an advance approval from the administration about the eligibility of an R&D project, before the work starts. This provision however is not a prerequisite to benefit from the CIR. The administration must give an answer within three months; otherwise its agreement is assumed and is enforceable during later controls.
The opinion emitted by the public authority is only applicable to the specific research project for which it has been sought. As a consequence, a company may request an advance notice for every project.

• Request for control
Companies can ask for a control over the CIR, including for the current accounting period. This procedure is intended to help companies apply the rules properly and secure their tax credit.

FOR MORE INFORMATION

Ministry for Higher Education and Research (Ministère de l’Enseignement supérieur et de la Recherche)
Directorate for Research and Innovation (Direction Générale de la Recherche et de l’Innovation)
Office of Business R&D (Bureau de la recherche en entreprise)
Head: Frédérique Sachwald
1, rue Descartes
75231 Paris - Cedex 05
FRANCE

CIR division
christian.orfila@recherche.gouv.fr
laurent.giraud@recherche.gouv.fr
maryline.rosa@recherche.gouv.fr
Request for a certificate of approval for R&D sub-contracting
Laurent.nouaze-priet@recherche.gouv.fr
Website: http://www.recherche.gouv.fr/cid20358/le-credit-d-impot-recherche-cir.html