

# Exploiting New Technologies in EC

*Practical aspects of exploiting new technologies at the Commission of the European Communities*

BY F. ENGELS\*

In the General Directorate XIII ("Information market and innovation") of the Commission of the European Communities there exists a department called "Exploitation of New Technologies (DG XIII/A/3). The scope of the present paper is to present the practical aspects of its activities.

## SOURCE OF THE INVENTIONS

The inventions handled by the department for the exploitation of new technologies are the results, whether patentable or not, arising from community research, i.e. research sponsored either integrally (100%) or partially by the Commission.

This department consequently does not intervene nor does it promote research results which have not, at least partially, been financed by the Commission. It does not promote inventions for third parties.

Research concerned by this department has been carried out both in the Commission's laboratories (Joint Research Center, JRC) and in external laboratories with total or partial financing of the Commission. A remark has to be made: An important proportion of community-sponsored research (e.g. safety studies) is of such a nature that it is not exploitable under the form of industrial production or a marketable service, or is exploitable only with a too long delay (e.g. thermonuclear fusion).

## THE RULES OF THE GAME

The team of DG XIII/A/3 (four "promoting engineers" led by the Department's head and helped by three secretaries) has some imperatives to respect. The main one is to work in different legal frameworks, cited below in the chronological order in which the department became active:

- The Euratom Treaty.
- The ECSC Treaty.
- The Common Market Treaty.

I cite two examples illustrating the diversity of the rules:

• Art. 12 of the Euratom Treaty requires licenses be nonexclusive, whereas this obligation does not exist in the

\*Principal Administrator, European Communities, Luxembourg.

two other Treaties.

• The inventions of the JRC Joint Research Center of Euratom usually belong to the Commission, whereas those made by contractors (ECSC and Common Market Treaties) in partly-sponsored research usually belong to the contractors.

Let us suggest a comparison translating this situation: the "promoting engineers" of the Department DG XIII/A/3 are like card players who, when working on a Common Market invention, play whist. For an ECSC invention they play bridge and for a Euratom one they play poker. You are left free to imagine other comparisons between cards and treaties! The diversity of these frameworks, to which the diversity of individual situations must be superimposed, makes the task complex but brings a little salt to life.

## THE AIMS

The department for exploitation of new technologies has to see to it that all the inventions coming out of any research financed or co-financed by the European Communities, and carried out as well in the Commissions' laboratories as in other ones, are exploited at least in the territory of the Community, provided they have a market. An exploitation is considered as having reached its objectives when the innovating product concerned is available to the customers in all the territory of the Community and, if possible, when it is exported outside the Community.

The purpose is to create an economic activity, to contribute to maintaining a high technological level in the European industry and to fulfill the social objectives of the community.

This end has to be achieved by seeing to it that the exploitation is as effective as possible, i.e. takes all advantage from the size of the Common Market. No question here of spreading licenses for obtaining small-scale or sub-critical exploitations, more or less identical and driven in parallel in each of the individual countries of the community, everybody working in his little corner. To the contrary, it is sought to have, for example, one sole manufacturer selling in the totality of the community. Great attention and increasing efforts are thus assigned to taking into account and developing the sales function.

## THE PEOPLE

One of the main characteristics of the department for exploitation of new technologies is the primordial role left to people: the "promoting engineer" follows all the steps of an innovation, from the moment where he takes care of it (ideally but rarely, when it is not yet even an invention

and still latent in the brain of the inventor) to the moment where it becomes an innovating product available to every customer anywhere inside the community. The responsibility for a file is left completely to the "promoting engineer," evidently in the frame of the hierarchy and of the working methods of the department.

The "promoting engineer" animates the file, visits all the "actors," and maintains with them a direct contact. It's he who takes, or who incites to take, or who helps to take the decisions at the right moment. He is confronted with problems or market, inventiveness, patentability, with the juridical problems encountered at all the stages of the evolution of an invention toward an innovation, with negotiations, for example of license contracts (negotiations into which he enters himself or where he advises other persons), with budgetary and financial problems, with market studies and marketing, with publicity, etc.

But look out! This does not mean that the "promoting engineer" is able, in the department, to be a screen between the various protagonists or substitute himself for them. It is not his role to substitute himself for the inventor, neither to the lawyer for drawing up a non-routine agreement, nor to the patent attorneys, nor to the consultants in marketing, nor to any specialized expert in general, nor to any actor in the game.

Consequently, there is no question he transforms himself into a potentate. His actions must be transparent and his decisions founded and explainable. The role of the "promoting engineer" is one of vigilance, communication, initiative and animation. It is a role of responsibility. The promoting engineer must seek to be informed and to inform, put the concerned persons in contact, see to it that the decisions are taken at the right moment by the right persons (in certain cases, this "right person" is himself), and make sure that they are followed by effects. To perform his task correctly, he must go "on the spot," where things happen. His role is thus a very active one. He must make things happen. Although he is an official, the promoting engineer must present himself to his industrial partners with a dynamic and entrepreneurial face.

#### THE DIFFERENT SCALES OF INTERVENTION

When the Commission is the sole proprietor of the invention (almost always in the case of research conducted in the frame of the Euratom Treaty), the department has sole responsibility. It must drive all the actions necessary to the fulfillment of the above-described aims.

When the Commission is not proprietor of the invention. When the invention is born of a partly-sponsored research, the proprietor is the contractor of the research contract. His property is, however, linked with an obligation to exploit his invention industrially, or to have it exploited industrially.

It is one of the tasks of the department to see to it that the contractors fulfill the above-mentioned obligation. In carrying out this task, the department is often led to support by advice or some appropriate action those contractors (universities, for example), or little or medium-size licensees who don't have at their disposal the necessary know-how, for example in market evaluation or for defining the best way to conquer a market or to develop a sales organization.

Among the advice given, one comes back systematically: It is that of paying much attention, in the case of

licensing, to the contacts between inventors and manufacturers and to the furnishing of good technical assistance. One has to foresee very frequent direct contacts between the partners.

In the case of partly-sponsored research, we tell our interlocutors: "to fulfill your obligation to exploit, for which it is our responsibility to check if it is met or not, it is open to you to take any measures or to choose any tactics you deem advisable. For example, you make yourself your choice of partners. What is important to us is that the objective is reached. If you have a doubt on an action, or if you strike a difficulty, or need to be helped, feel free to contact us. We will visit you and examine your problem together with you. We are neither omniscient nor omnipotent but we will try to help you. We would, however, have you know that, in the last resort, you are responsible and will continue to decide. Please consider our department as a line of tools disposed on a rack. You take in the panoply that tool that suits you (if it exists, naturally) and put it back on the hook when it has done its duty."

#### THE PROCESS LEADING TO AN INNOVATION

The sequence of actions leading from an invention to an innovation, as led by the department for the exploitation of new technologies, is not fundamentally different from what is done in any of your own companies.

As everywhere, the invention must pass through various stages as, screening, patent priority search, patent filing, publicity for finding a licensee, negotiation and signing of the license agreement. At various stages, prototypes and pilot plants have to be built.

A very big emphasis is put on the importance of the technical assistance of the inventor to the licensee and the supervision of the carrying out of the license agreement.

For each of the stages, the department acts as each of you do. For patenting, it leans on the Patent Bureau of the Commission (which is also a department of the same DG XIII). For legal advice, it leans on the legal advisor of DG XIII. For publicity, it uses all the means that can contribute efficiently to the reaching of the target, with a special attention for Technical Notes, press articles and industrial exhibitions. To cite examples, we were present at "Flander's Technology" in Ghent, and the "Hannover Messe" in Hannover in 1983, "Techmart" in Birmingham in 1984, and will have a very big stand at the metallurgical exhibition called "METEC" next month in Dusseldorf. We exhibit inventions on search of a licensee, and innovations arriving on the market (to help licensees to be introduced on the market or to find sales agreements).

And last but not least, it is worthwhile to cite the use of market surveys made under contract by independent experts, carried out at different stages of the innovation process. The first stage, which concerns a relatively early screening of the inventions, is what we call "preliminary market research" and which is, we think, original. These preliminary searches, the individual cost of which is less than 10.000 ECU, must answer to a question of the following type:

"Supposing that the prototype under commercial examination is manufactured at an industrial scale and confirms the expectations placed in it for both economy and performances, what would be the order of magnitude of the market? Must the efforts to develop the product be stopped, or do they on the contrary need to be supported

or even amplified?"

The "preliminary searches" help the department select among the inventions those for which funds and time spent by what is finally a little team are best used. They help in the choice of priorities.

Later on, as the innovation process proceeds, the preliminary search may be completed by one or several more refined (and eventually more expensive) searches and/or industrial feasibility studies. This allows to precise progressively the marketing strategies.