

Planning for Technology Transfer

Management considerations including the licensing alternative in strategic planning

BY BERNARD DE PASSEMAR*

I — INDUSTRIAL PROPERTY RIGHTS AS AN ECONOMIC WEAPON INVOLVING BOTH TECHNOLOGY AND LAW

It is becoming increasingly clear that the development, and even the survival, of all business firms and even nations, depends not only on their ability to support themselves but above all on being able to go forward in a market that is in a continuous state of movement, improvement and renewal because of the increasingly rapid pace of technological development. This is true not only of the national setting but also, and increasingly so, of the broader international scene.



Bernard de Passemar

The fact is that any firm unwilling to take up the permanent challenge of competition cannot fail to ossify, slowly but surely, until the day when it is without defense against its national or international competitors in what it previously regarded to be its own special province. This would be the inevitable fate of any firm — small or large and whether privately, publicly or jointly owned — and even of oligopolies or monopolies, at least at national level or even in a group of countries.

A vital point to grasp at this point is that, whilst it is still relatively easy to react swiftly to purely sales competition (provided the necessary financial resources are available in time), the threat from "brain" competition is far more dangerous. There is a certain time lag before this danger becomes apparent and awareness dawns of the encircling movement or undermining operations that have been going on. There is a certain lapse of time (which is, incidentally becoming increasingly short) between the invention itself and the marketing of its results. The subsequent effects of this encircling or undermining maneuver can be extended under the protection of industrial property rights, patents in particular, covering the invention and its development, through which the patent holder is able to close the door to competition. It is clear, therefore, that ossification in brain and research quickly puts the patient beyond cure.

Conversely, a progressive firm that has kept abreast of

** M. de Passemar is Manager of Patents, Licensing and Technical Information Division, Pechiney Ugine Kuhlmann.*

events in international technological competition will have been able to anticipate dangers of this kind and to guard against them or successfully counterattack in another field.

There seems, incidentally, to be inadequate awareness in many areas of the economic implications of industrial property in spite of the fact that these implications are the

From Know-How '74

very essence of industrial property rights and, in fact, the very reason for their existence. Patents, know-how, trademarks, designs, and models are weapons of varying power and effectiveness in the technological or commercial and legal fields, but, from the economic viewpoint, they have no practical value and interest unless they are capable of protecting the industrial or commercial exploitation of goods (products or processes) by temporarily ruling out all competition.

It is enough to say at this point that industrial property rights have to be regarded as "goods". They are, however, goods of a somewhat special nature since they represent intellectual rights.

In practice they may be described as the spearhead of what are often the most sophisticated techniques. By temporarily excluding competition, they enable the innovations (in products, processes, equipments and so on), protected by these rights, to become more easily established, to penetrate markets with minimum risk and to pay back the R and D expenditures. This is obviously increasingly crucial today when technology is coming more and more to the fore.

In our opinion a certain similarity could be drawn between industry property rights and those of negotiable shares. We would even go so far as to say that there is a kind of worldwide stock market in the rights protecting the various existing or potential technologies and that, in practice, business firms gamble on that market as, day in day out, they endeavor to possess or control the technologies they regard as most profitable. They do this by carrying out and protecting their own R and D, by buying or selling technologies, and by acquiring or granting know-how or patents licenses.

National self-sufficiency versus progress: the dawn of awareness

Sheltered by customs barriers, industrial property rights lose much of their value for national and international firms. In a "go it alone" economy, on the one hand, there is practically no stimulus to R and D, which is often regarded as a needless luxury since there are no potential markets for new goods and, on the other hand, there is no

way in which foreign competition can gain a foothold or develop a new market.

Thus, behind these barriers there is a tendency for oligopolies to develop, followed by monopolies which, sheltered from the wind of competition, slowly but surely petrify, automatically lowering the technological and economic level of the country concerned.

It seems of interest to note that, in France increasing recognition of the importance and urgency of R and D appears after the Second World War and more particularly after the Common Market. In the same time, the part that industrial property rights can and should normally play in this new framework, appears also more evident.

Of course it became clear following the Second World War that the very basis of economic power had undergone a considerable change. It was then possible for economic power to pass out from the hands of countries owning raw materials into those with high brain potential, capable of taking and retaining the initiative and control in the discovery of new products or processes and in their industrial development and marketing under the protective umbrella of industrial property rights. The new economic situation created a year ago may well force us to reconsider again the matter.

Reconstruction

In Europe, pre-war Malthusianism gave way to a period of reconstruction at any cost during which the primary need was to restore economic potential, before it would be possible to progress beyond the point that had been reached when war broke out.

This was done and involved, incidentally, purchasing a large number of foreign technologies, largely American. It was essential and it had to be done; but the bill had to be paid.

What is more, it appeared to be easy. Some people even began to think that, all in all, it might perhaps be better to continue in that way, using foreign technologies, sometimes more or less legally, rather than making the R and D effort required.

But as frontiers were gradually opened to international competition the fear arose that the country would be invaded by foreign technologies (preceded by protective industrial property rights) often used as a mean to gain control of the firms compelled to use them. Awareness had finally dawned of the importance, not only of research itself and industrial scale development, but also of industrial property rights.

II — THE CHOICE BETWEEN R.D. AND ACQUIRING LICENSES

It may be regarded as surprising that industrial property rights should be a factor in establishing R and D programs since it would seem that their only purpose is to protect R and D.

In our view, however, industrial property rights are a major factor when studying R and D programs. A systematic investigation of the patents published throughout the world makes it possible to detect where the proposed research avenue is already blocked, to assess the value of these barriers, and to discover the directions and trends in competitive R and D.

1. Identification and evaluation of "barriers"

It is now clear that all medium- or long-term R and D needs to be preceded by a market study into a more or less distant future. We are not referring at this stage to efforts whose immediate purpose is purely to combat sales competition in products already made by the firm, but to research which prepares for the future by developing new products or processes.

At the same time as the market study is being carried out, it is essential to parallel it with a special industrial property rights survey designed to identify and evaluate any barriers that may already lie along the avenue it is proposed to investigate. This systematic review of the state of the art in the field concerned provides the safest assurance that existing industrial property rights belonging to third parties will be disclosed. If this is the case, their technological value, legal and territorial coverage will then need to be determined.

What attitude should then be taken with regard to technologically and legally firmly-based rights controlled by someone else?

There is no answer to such a question; it depends on many factors. But it would nevertheless seem essential to gain a clear knowledge of the facts and make a careful and thoroughly objective analysis of the situation before deciding. Subjective views, based on inadequate knowledge of the problem, must inevitably be irrational, ineffective and dangerous, and could often eventually prove very expensive.

A first factor which, in our view, must be taken into account in order to answer the question, is the size of the firm, particularly as regards its effective R and D and innovative potential, in the light of the international competitive situation.

Two Outcomes

Such an objective industrial property rights study should be carried out with two possible outcomes:

- Either the outright abandonment of the R and D project, if it proves in practice impossible to come to an agreement with the holder of the earlier rights on terms ensuring normal profitability;
- Or the early preparation after very careful study of the terms and conditions on which an agreement might be reached with the holder of these earlier rights, when the right moment came.

2. Identifying directions and trends in competitive R and D

An analysis and synthesis of patents published throughout the world, with particular reference to those of the competition, should also be carried out systematically and carefully in order to bring to light as quickly as possible the directions taken and trends followed by competitive R and D.

Unfortunately the delay with which patent applications are still published in some major industrial countries, such as the U.S., seriously affects the effec-

(Please turn to Page 44)

Planning for Technology Transfer

(Continued from Page 10)

tiveness of such work in certain fields.

Maximum Profitability

It is nonetheless essential to have these studies made since they provide a picture of the characteristic features of competitive R and D, showing the directions that are taken and those that are abandoned and also, in the light of the geographic coverage of the patents applied for, the economic importance attached to these R and D directions.

If collected at a sufficiently early date and carefully analyzed and synthesized, information of this kind has considerable value in view of its direct or indirect implications for the firm's own R and D program in which the projects to be chosen and, as mentioned above, the avenues to be explored or abandoned will be decided with this information in mind.

Such a policy seems to us essential if maximum profitability is to be obtained from the capital invested in R and D, since it will prevent the exploration of blind alleys and the investigation of problems whose solutions have already been found. It will save the company from being outdistanced and help it to steer its R and D program so as to ward off the danger that competitive R and D results might present, or else to come to agreement with the competition in order to ensure profitability from results already required.

Once the market research has been done and therefore the potential markets clearly defined, it is clear from the outset that the choice among these three alternatives is predetermined by the firm's size; in other words, the extent to which it is represented in other countries in terms of production units or marketing networks.

A highly pragmatic attitude is essential in taking this decision based upon a strictly objective analysis of the direct or indirect implications of each option.

Forward-looking comparative figures must be calculated extremely carefully taking into account not only the expenditures which are necessary in each case and the expected return on investment but also the various forecast increments in the firm's short-, medium-, and long-term cash flow.

It is also obvious that not only competitive but also political situations in relation to each of the possible alternatives must be taken into account, since it is clear that they will often affect and even, in many cases, eliminate certain options.

The possibilities in countries with a liberal and capitalist economy, for example, are not all the same as those in the socialist economies. They are also dependent on the level of economic and technical development in the country concerned, their range often being very different in countries with a high technical and economic potential as compared with the developing countries.

To conclude, this question needs to be tackled with imagination, bearing in mind that brain is one of Europe's most valuable raw materials that is often inadequately exploited and turned to too little account.

When Should Innovation Be Licensed?

(Continued from Page 12)

therefore embraces a wide scope. Innovation does not simply refer to invention, patent and know-how, but includes all kinds of new technical information that may become available in the course of R&D. This information may be the object of licensing.

"When can a new technology be licensed profitably?"

A study should be made to determine the best time for licensing by considering the content of the new technology, the licensing policy of the party who owns the technology, and his capability to package the technology for licensing. The licensing formula must be organized so that it is of practical use to the licensee.

Holding Companies in Luxembourg

(Continued from Page 18)

industrially use the patent, which obviously is not permitted to a holding company, even through sublicensees, and on the other hand the fact that, according to the traditional interpretation of the law on this matter, a patent is only acceptable as an investment of a holding company for the reason that it constitutes a *valeur mobilière* in the broad sense, i.e. a right embodied in a transferable title.

In the practical field, this may lead to the question whether instead of granting a license, the parties may use other legal forms of temporary or conditional transfer, for example whether it is permitted for the holding company to purchase the patent itself from another company under the proviso that the holding company has an option to resell the patent to the vendor after a given time and under the further proviso that such other company has the option to repurchase the patent from the holding company after expiration of that same time. If any one of the options is exercised, this will have resulted, from a purely economic point of view, in temporary transfer of the patent to the holding company and this may achieve the purposes which the parties would have otherwise tried to achieve through a license obtained by the holding company, depending on the way the repurchase price is set up. It would seem that such a construction is acceptable as long as the retransfer is not automatic but depends on the actual exercise of the option by at least one of the two parties.

Trademarks

Traditionally, and on the basis of the spirit of the law and of its preparatory documents, the administration admits the holding of trademarks by holding companies, subject however to the condition that the relevant trademark, under its original legislation, can be validly transferred without the business of the vendor being transferred at the same time. It should be recalled that a certain number of legislations, including Luxembourg law