

# After the Technology Transfer Agreement

*The licensing executive's success ultimately depends on successful implementation of technology*

BY ERNST HAUFF\*

The final purpose of all technology transfer agreements is to transfer technology from floor to floor. Therefore, in the long run, the success of all our previous efforts depends on the results of the implementation phase which is normally beyond our control.

Both parties of a technology transfer agreement expect results in terms of speed of implementation and favorable impacts on production costs and in the marketplace. Unfortunately, these results depend only little on the quality of the legal and economic settlements contained in the agreement.

During implementation, the licensee's well-known, it-was-not-invented-here syndrome of the negotiation phase may turn into a tough but-here-it-can't-be-done-like-this attitude, while the licensor's experts may take a stiff that-is-the-way-we-do-it-at-home position. Delay and disgust are the logical outcome and our nice agreements will get the blame.

However, understanding the problems beyond the point of signature will enable us to help prepare the ground for mutually satisfactory and successful implementation right from the beginning of our mediating efforts.

As so frequently in life, both parties are right — but only from their respective points of view. It is, therefore, not so much a question of who is right as of developing the best common point of view from which to look jointly upon the project. This can easily be achieved if both parties are willing to understand without prejudice the whole complexity of each other's technological ambience.

I found the validity of this point confirmed while I was in charge of a joint British-Mexican manufacturing project. When the British engineers arrived, I first acquainted them with the Mexican ambience by taking them to national and international industries in different parts of the country. Later, during project development, it turned out to be the British engineers who frequently raised an eyebrow and asked me to remember details we had seen and discussed during the trip.

On an assignment in a long-established, privately-owned Mexican company we achieved extraordinary results in productivity improvement. We combined a pragmatic industrial engineering approach with a general educational program directed to the supervisors, and we explained to every worker the aims and reasons of our

efforts. However, a merger followed and foreign headquarters began instructing us on every detail. Our productivity curve turned down. I feel there was a disastrous confusion between objectives and means.

A techno-economic ambience consists of five key factors which have to be considered in order to obtain an ambience-adapted product or process. These factors are peculiarities of the marketplace, volumes, manufacturing situations, local inputs and, naturally, people.

No matter from where to where we want to transfer technology, even within the same country, these five key factors will always differ. The greater the idiosyncrasy and/or development gaps between the provider and receiver, the greater will be these differences. The analysis of simple examples observed by a Central-European during 20 years in Mexico might help you to apply similar trains of thought to either more or less complex situations.

## *Market Adapted*

This term refers to the socioeconomically-justified consumer demands and their bearing on product design and specifications, as well as to the geographic and climatic particularities of the marketplace, communication conditions, legal systems, standards, etc. and their impact on products and/or processes.

You need not be an expert in order to note that Mexico is a legally metric country, yet uses English threads; to observe that Mexico City is some 7,000 feet above sea level and Acapulco in the tropics. Facts as simple as these can be of importance for many products and processes.

In developing markets, cost considerations normally force the consumer's requirements down. However, it would be (and unfortunately frequently is) a grave error to mistake sophistication for reliability and usage value. The product should be simple, dependable and worth its money, not cheap (or worse still, expensive) and poor. The product manager who catches this idea has an unlimited field for success.

Car manufacturers equip their vehicles in Mexico more modestly than at home. Consumer goods manufacturers are also starting to follow this trend. A very important electronics manufacturer, for instance, developed a television set for Latin America which, though less sophisticated than the original version, is not only not of inferior quality but also more accessible to repair.

Here is another important factor we ought to be aware of: Developing markets are important repair and secondhand markets. These secondary markets ought to be fully recognized as the substructure on which the firsthand market can be developed and grow.

Ambience adaption of technology is an excellent opportunity for a thorough value analysis of products, procedures, and processes, and can frequently also prove useful for our home operation.

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In all types of equipment — consumer, professional or industrial — it might be worthwhile to reinforce some detail or other. For instance, keep antifriction bearings rather on the heavy side, especially in areas where local production of these bearings just started. I also found that occasionally-present, minor incongruencies in a simple drawing, which the home organization absorbs unconsciously, may cause severe problems in a new location.

#### *Volume Adapted*

This term refers to the sales and production volumes. Generally, this aspect receives ample consideration, although in too isolated form. It has to be considered in context with the other key factors. It may be added that the volume in a licensing market can be not only smaller or similar to the home volume, but may actually be greater. In "Licensing Boosts Profits," *Industrial World*, April 1971, R. Marx, for instance, reports a case where one licensee alone produces over 10 times the volume of the product as the licensor himself.

#### *Situation Adapted*

This term refers to the question of whether a product is the only one or one of several products of a location, as well as to the picture of horizontal and vertical integration of its production. These types of situations can make all the difference in production planning, organization, and technology.

As a result of decades of nonadapted technology transfer and industrial development, Mexico, for instance, has a big potential of partially idle production capacities in different fields. This, together with the frequently still low-volume requirements, makes it advisable to consider ample subcontracting. By the same token it is advisable to study right from the start whether excess capacities of special or new processes could not be marketed in the local or export subcontracting business.

You should be aware that subcontracting in a developing industry requires much more than to "order as specified". You will have to develop most of your contractors' ideas of price, quality, and service. However, I think the effort well worthwhile because it will help to create the required substructure for a continuing and increasingly sophisticated technology trade.

Finally, there is one more situation of prime importance if you are moving into a developing economy: Your workers are your potential direct and/or indirect consumers. For this reason alone, and for many others, you ought to beware of excessive automation.

#### *Material Adapted*

This term refers to every kind of material input, its availability and quality, especially, of course, to raw materials. You will have to be aware that developing markets offer less variety in raw materials and that the tolerances of their specifications are usually wider than at home. Small-volume requirements make special orders mostly prohibitive. Therefore, you will have to think of material substitutions and work with an open mind through all of its potential consequences. A well-known international company substituted in several of its parts cold-drawn steel for hot rolled. This did not hurt usage value or interchangeability, but simplified and assured supplies at a reasonable cost.

Supply assurance itself is a very important factor. Even standard items may be out of stock more often and for longer periods than in your home market. In order to avoid unpleasant surprises when recording, you should make very sure what is really standard and in constant supply and what is not.

#### *Personnel Adapted*

This term refers to human skills and brains. Here we come to one of the most exciting aspects of technology transfer and also to its ulterior justification. Technology transfer not intended to benefit people at the receiving end may easily turn into an economic or political boomerang.

Whatever legally and commercially perfect transfer agreement you may have negotiated, your success will dwindle or even vanish if the implementation of this technology neglects the idiosyncrasy, mentality, education, technical traditions and training, skill, comprehension, etc. of the personnel who will handle it, and in the administrative and executive offices of the receiving partner.

Centuries of technological tradition, discipline and experience, a high educational level, excellent professional training, inborn inclination for detail and other particularities that you find in highly-developed economies can never be substituted by recipes, orders, or automatization. However, native technical talent, traditional craftsmanship, inspiration born out of a rich fantasy, and enthusiasm originating in temperament and pushed by a desire for improvement offer excellent starting positions for achieving miracles with methods adapted to men.

#### **Training Is Important**

When training people, remember that your traditional ideas may be good for guidance, that your traditional methods, however, may not be recommendable in the actual situation. You will always have to start with the skills and knowledge people bring along and you will have to work your way according to their idiosyncrasy and their previous exposure to technical reasoning. Above all, people must be shown so that they may understand clearly what they are doing and why they are doing it: Know-how has to be backed by know-why.

Your organizational structure, your manuals, and other software should be adapted to the local experience and talents. For instance, data pickup and transcription should be meaningful and kept to a minimum. Quality control should not exaggerate the use of sophisticated statistics. Use quality control pragmatically as a life stimulus for constant improvement.

All processes and machines are finally operated by men. Therefore, the development of manual skills is another decisive detail in technology transfer. In this field an adequate engineer-psychologist team can work miracles and may reduce start-up times from months to weeks.

There is an ever-increasing consciousness for the need of labor-intensive processes for developing areas. Unfortunately, there is a widespread tendency to mistake poorly designed or handling-intensive processes for labor-intensive, and to regard simple equipment as a poor

(Please turn to Page 263)

the time, the Corporations simply referred to the report expected from the technicians who had discussed at the stands or attended to the technical conferences.

I had the privilege to visit several factories in Peking where I could see for myself that some of our technology could meet urgent requirements of the People's Republic. Requested to express frankly my opinion on their processing or manufacturing methods, my fair critic of glaring deficiencies was appreciated by members of the Revolutionary Committee and managing staff of those factories.

No need to say that my remarks were made tactfully in putting forward advices and recommendations fitting with the local conditions.

The final conclusion of our presence in Peking has a double aspect:

- It gave us the opportunity to make ourselves familiar with some Chinese customs; we have now a much better idea about the foreign trade organizations in the PRC and their way of doing business with European countries.
- On the other side, the China National Corporations are now aware of our activities, products and technologies. We hope to be called back some day in Peking to have other meetings with specialists or even to enter into negotiation with the Corporation in charge of import of technology. I should point out that, except for highly sophisticated technologies, the PRC does rarely acquire a particular know-how as a simple transfer of technology. The aim of orders placed by the National Corporations is mainly to purchase machinery or processing and manufacturing equipment, while the disclosure of know-how is rather considered as detailed instructions for the proper operation of the plant under consideration. No need to say that patents are not protected in China.

Keeping in mind that the Chinese like to deal with people they have come to know, we consider that our attendance at the Belgian Fair will make easier our further contacts with the People's Republic.

Belgian professional federations will try to obtain from the PRC an invitation to delegate further missions of specialists to China to follow up relations established in Peking.

## Industrial Property & The EEC Treaty

(Continued from Page 235)

"disguised restriction" — all this remains wholly mysterious and can only be explained by the disregard of the clear wording, the intended effect and the true meaning of the Treaty of Rome. The consequences of the Court's practice, which in due course may well reach beyond the scope of "parallel imports", requires urgent review on a Ministerial level. That practice is destined to deprive without compensation the owners of industrial property of large parts of their rights in international trade and unexpectedly to supersede much of the prevailing industrial property law. And if one looks at the facts of the cases it is by no means certain that the change of the law can always be said to be in the interest of probity and merit.

### NOTES

1. It should be made very clear that the present observations do not in any way deal with restrictive agreements relating to industrial prop-

erty rights. They have to be considered in the light of Articles 85 and 86 of the Treaty and therefore give rise to questions which are entirely different from those discussed here. It is for this reason that for present purposes such cases as *Sirena v. Eda* [1971] C.M.L.R. 260 are not in point.

2. See Ipsen, *Europäisches Gemeinschaftsrecht* [1972] p. 589: "Measures of this type are *only* those which stem from *public* law, that is to say, as a rule those which have the character of *general* legislation."

3. Ipsen, *ibid.* at p. 729 correctly summarizes the position when he says that Article 36 leaves to the Member States their jurisdiction in regard to the protection of industrial and commercial property. "By way of example there is thus determined what forms part of the constitutional principles of the Treaty: the recognition of private property as an institution of the law and as a right of the individual."

4. In the first place it is necessary to point to an important discrepancy of translation. No other text contains a reference to "incidents" of property. Thus the French version reads: "Le présent Traité ne préjuge en rien le régime de la propriété dans les Etats membres." Secondly, there is a school of thought according to which Art. 222 allegedly touches only the relations between the Community and Member States and does not confer legal protection upon the individual *vis-à-vis* the Community. In this sense, in particular, Ipsen, *loc. cit.*, p. 725. There is nothing whatever in the text of Art. 222 or in the "general and final provisions of which it forms part that can support so restrictive a view. Art. 222 is general in terms and expresses one of the fundamental rights which do exist within the Community and of which the Court is taking cognizance to an ever increasing extent; see most recently the case of *J. Nold K.G. v. Commission* [1974] C.M.L.R. 338.

Thirdly, Mr. Roemer as Advocate General put forward the view that Art. 222 was solely a general guarantee of the freedom of Member States to organize their respective systems of property, but did not express a guarantee that the Community will not interfere with subjective rights of property. "Any other thesis would involve to a large extent the paralysis of the jurisdiction of the Community," See *Costa sc/iv. Enel* [1964] C.M.L.R. 425 and *Consten & Grundig v. E.E.C. Commission* [1966] C.M.L.R. 418, at p. 44. It is submitted with respect that such a view is clearly wrong. The provisions guaranteeing property which are to be found in numerous Constitutions have not at any time or place paralyzed the jurisdiction of the State. They do make it necessary, however, to distinguish clearly between the permitted exercise of the "police power" defining the content of property rights in general and the deprivation of an individual of his specific property rights. Art. 222 requires a construction and application of the Treaty which does not jeopardize the latter.

5. [1971] C.M.L.R. 631.
6. p. 657.
7. p. 658.
8. [1974] C.M.L.R. 127.
9. pp. 143, 144.
10. [1968] C.M.L.R. 47.
11. It is, however, submitted with respect that in the result Graham J.'s decision in *L'Wenbrau v. Grunhalle Lager International Ltd.* [1974] C.M.L.R. 1 is clearly right, though in some respects the reasoning is, perhaps, not altogether precise.
12. [1971] C.M.L.R. 260, at p. 273.
13. At p. 264.
14. BGHZ 60, 185 or, in English [1974] C.M.L.R. 21. The case is particularly interesting on account of the fact that the separate corporate personality of the subsidiaries was (very rightly) ignored.
15. *Milch-, Fett- und Eirkontor GmbH v. Hauptzollamt Saarbrücken* [1969] C.M.L.R. 400.
16. For instance Ipsen, *loc. cit.*, p. 770.
17. *Cf. Anisminic Ltd. v. Foreign Compensation Commission* [1969] A.C. 147.
18. The Listener, Oct. 31, 1974, p. 560.
19. *Bulmer v. Bollinger* (1974) 2 All E.R. 1226, at p. 1235 *per* Lord Denning, a most welcome decision which, it is hoped, will have great influence on the Continent.
20. Case No. 16/74, not yet reported, decided Oct. 31, 1974.
21. Case No. 15/74, not yet reported, decided Oct. 31, 1974.
22. Feb. 29, 1968, BGHZ 49, 331 at 334.

## After The Technology Transfer Agreement

(Continued from Page 245)

approach. We should always take as a guideline the most sophisticated ideal process and work our way back toward

achieving its principles by carefully trained labor and simple but suitable equipment. The extent to which we will have to work backwards is a question of the degree of development, of the technological ambience and of the socioeconomic conditions at the receiving end.

In developing economies you might frequently meet with more understanding for the need for details in engineering and administration as you go down the hierarchic ladder. This has historical and psychological reasons.

In the traditionally industrial countries, industries developed out of craftsmanship and inventiveness; the technological aspects came first, administration and financing complemented it later. In developing countries, however, industries started to develop primarily out of a desire to put money and people to work, resorting to administration and technology as the means to do so. Furthermore, dedication to detail is not a strong element in the idiosyncrasies of most developing nations. Appreciation of detail can only be developed by encouraging detail effort; people normally are more involved with details the closer they are to the lower end of the ladder.

We really are facing a vicious circle: engineering developments are the result of tedious fights with a great number of details. The better the solution, the simpler and more self-evident it will appear. When selling technology, we present self-evident solutions and when implementing them, we have to move back into problem spheres.

We must be aware of another fallacy — to mistake administrative overburdening for reasonable administrative detail work. This fallacy has killed and is killing daily the well-meant objectives of many mergers and assistance efforts.

In view of the fact that the final success of our technology transfer efforts may depend on bridging many gaps in ambience between the providing and the receiving end, it appears advisable to start preparing for ambience adaption in an early phase of our transfer efforts. We might be able to achieve a lot of good for all parties concerned if we succeed in including in the basic agreement provisions for mutual ambience exposure, a thorough ambience analysis, and ambience-adapted training and education. I feel it would be helpful if the negotiating parties and/or the mediator complement their teams with a liaison engineer capable of understanding and bridging the technological ambience gap between both sides.

## Changing Aspects of Licensing

*(Continued from Page 250)*

the European concept of "exhaustion of rights" to Canada. The following exceptions were proposed, nevertheless:

1. Where the imported goods have significantly different qualities from the goods sold under the authorization of the Canadian trademark owner in Canada.

2. Where the importer is not setting up the quality or kind of service (for example, in respect of "warranty") that Canadian consumers expect for goods sold in relation to the trademark.

3. Where the importer is taking a "free ride" on the advertising and other marketing expenditures of the Canadian trademark owner or his authorized trademark user.

Other recommendations go to the certification mark, a

mark which is never used by its owner and always licensed to others. The significant recommendations cover the concept of filing information as required by regulations and presumably to assist the consumer; the addition of the license-of-right notion, whereby any person can be licensed who is willing to conform to the standards established under the license and a tribunal would be established to monitor unreasonably discriminatory terms in such licenses and, finally, the quality standards would generally be of an improved nature.

None of this has come to pass as yet and so there must always be a degree of uncertainty about the precise direction of the law for the future. Its general drift is eminently clear, however, and I reiterate the forecast which I stated at the beginning: that in matters of industrial property, the concept of exclusiveness will gradually be reduced to the point where, for all practical purposes in commerce, it will no longer exist at all. Another thing is also certain — our legislators are doing their utmost to ensure the longevity and prosperity of the legal profession in Canada.

## Licensing in Arab Countries

*(Continued from Page 252)*

with the world markets and the public or private Arab enterprise.

Rather than license agreements of standard type, complicated contracts are often necessary covering the grant of manufacturing or utilization licenses, as well as a technical and commercial cooperation.

I consider it necessary to underline the importance of the commercial aspect of the relationship between the partners. In order to be profitable, production calls for a command of the markets, which is rarely achieved by new establishments in developing countries. Trained executives are scarce in those countries and it is understandable that managers prefer devoting time and effort to production rather than to marketing. The partner of the industrialized countries, therefore, often will be called upon to direct production toward the goods or qualities most in demand in the international markets. If the establishment concerned works mainly for export on behalf of a Western principal, this goes without saying and it will be readily appreciated that the purchaser insist on a quality, a finish, and a presentation corresponding to the demands of his market.

If, however, the establishments work a license for goods to be delivered to the Arab home market or jointly to the Arab markets and re-exportation of part of the production, the matter will not be so obvious. Unfortunately failures have been recorded when, on account of an inadequate commercial cooperation, the product did not or no longer did meet the requirements resulting from the evolution of the markets.

Arab markets, at present in full development, provide a choice target for the industrialists and merchants of industrialized countries who wish to participate in the current interchange movement.

This offers a very large field for possible cooperation. No one will deny that such cooperation may be beset with risks, but does not this provide one of the characteristics of free enterprise?

In order to reduce such risks, be as fully aware as possible of the conditions existing in the country with which it is considered to cooperate.