

Transferring Technology to Soviet Bloc

Drawing from specific examples, the author details advantages, disadvantages of three arrangements

BY ERIC W. HAYDEN*

(Reprinted with permission from Research Management)

For a growing number of U.S. firms, the Soviet bloc offers the attraction of an untapped market. For the bloc nations, the U.S. is a source of products as well as a means for improving their industrial output and making that output internationally competitive. The growing commercial relationship has involved the sale by U.S. manufacturing and engineering firms of goods, turnkey plants, patent rights, technical know-how and services, and production technology. This article assesses one aspect of this commercial flow, the transfer of industrial technology through sustained enterprise-to-enterprise relationships. In so doing, it draws conclusions from specific U.S. corporate experience.

Our central concern is: *Why* and *how* do U.S. firms transfer industrial technology to Socialist enterprises¹? In assessing *why*, the perspective is primarily that of the particular firm; i.e., what gains it anticipates from dealing with Socialist nations, where development plans are carefully set far in advance; local currencies are inconvertible and hard currency reserves are scarce; wholly-owned Western subsidiaries are proscribed; and joint-equity arrangements with Westerners are being explored only gently². Besides the firm's point of view, however, we also consider what specific industrial requirements prompted the recipient to enter into the particular relationship. And in assessing *how* a firm transfers its technology, the focus is the nature and complexity of the technology as well as the practical aspects of the transfer process, e.g., actual transfer mode used and negotiating leverage available to the U.S. firm.

Within the broad area of East-West trade, we can generalize two broad categories of inter-firm relationship³. The first is the classic, short-term relationship in which one entity sells another a product, license, or an entire plant, including the start-up assistance necessary to put that plant on-stream. The seller is paid in currency or unrelated⁴ products, and the relationship is terminated upon completion of the immediate transaction.

The second type of interfirm relationship involves an extended form of interface. Unlike the first variety, this relationship goes beyond a "one-shot" encounter and may even involve, in certain cases, joint-equity participation

*Senior economist for New York Edge Act and Corporate Services Offices, Bank of America, New York, N. Y.

(e.g., in Romania, where a Western partner can own up to 49% of a manufacturing facility). More frequently, however, the relationship is one in which the Western partner has no equity interest. Instead, its long-term involvement is established through a commitment to provide current technology and to supply the recipient of that technology with any improvements in production methods which the supplier may develop during the course of the industrial cooperation agreement (typically five to fifteen years). In addition, the Western side may also commit its trademark rights and even agree to purchase part of the product produced by its Eastern partner.

The past decade of East-West commercial relations shows that the East Europeans are more inclined to experiment with the second type of interfirm relationship, while the Soviets prefer the first. East Europe does not have the raw material wealth or gold reserves of the U.S.S.R. to pay for Western goods, equipment, or plants through "one-shot" deals. Furthermore, foreign trade is more important to most East European⁵ nations than it is to the Soviet Union⁶. Hence, the need to obtain modern production technology on a continuing basis to compete in international markets is more crucial to the East Europeans than it is to the Soviets. Accordingly, the Soviet Union has generally restricted consideration of long-term interfirm relationships to the extractive industry, preferring to limit arrangements in the manufacturing sector to "one-shot" transactions⁷.

THREE BROAD RELATIONSHIPS

The principal modes by which U.S. firms have entered into sustained non-equity relationships with East European partners are three: Model A, a technical assistance agreement; Model B, technical assistance, trademark rights; Model C, a combination of technical assistance, trademark rights, and resultant product purchase.

A technical assistance agreement provides for the transfer to the recipient of the supplier's patent rights, engineering data, and production techniques for the particular product or products involved. The most important part of the technology package — the human knowledge comprising the production techniques — are typically transferred through the dual mechanism of training Eastern technical specialists in one of the supplier's facilities and of periodic visits by U.S. engineers to the Eastern facility. An ongoing technical assistance obligation also calls for the supplier to keep its flow of technology up-to-date throughout the life of the agreement by furnishing all available improvements. This obligation is usually limited, however, to providing that information which has actually been put into commercial production by the supplier firm; this relieves the firm of the obligation

to transfer data or technology which has not yet passed from the laboratory to the production line.

The granting of trademark rights is typically provided under the explicit provision that the product be manufactured in accordance with technical information and production methods prescribed by the supplier. Obviously, of paramount concern here is the Western firm's desire to protect its product reputation. Consequently, the supplier will require periodic inspection of products, reserving the right to deny the Eastern party authorization to the trademark whenever the latter's quality control procedures or production standards fall below those the supplier judges to be minimally acceptable. By committing its logo, the Western firm is, in effect, guaranteeing to its Eastern partner that the final product manufactured will be as good in every respect as a product coming off the supplier's assembly line. This is of great psychological and practical importance to the Eastern recipient, who is thereby assured the receipt of the latest in design information and production techniques.

A purchase commitment by the supplier guarantees the recipient another highly prized advantage; a hard currency buyer. The attraction of this arrangement is that it helps the Eastern recipient finance its technology purchase. The Western side usually agrees to purchase a certain minimum quantity of product at an agreed upon price (e.g., 90% of its own selling price, FOB ex-U.S. works). One frequent method of effecting the purchase arrangement is by allowing the Eastern party exclusive sales within CMEA nations⁸. In exchange for this limitation on its own marketing efforts, the supplier then receives a royalty (i.e., percentage of pre-established sales price) on all items produced but not purchased by its own international marketing network. As a concomitant, the Western partner is usually given exclusive rights to non-CMEA markets. Markets in which the Eastern partner has clearing account arrangements (e.g., several Middle Eastern nations) may be left open to the individual marketing efforts of each partner, with the Western party receiving a royalty on all items successfully marketed by the Eastern partner.

The specific mode of cooperation — i.e., Model A, B, or C — adopted for the transfer is a function of at least two factors: why the firm entered into the arrangement; and the degree of negotiating leverage available to the firm. This will become more apparent in the following pages as examples from each model are considered. Model C is the most comprehensive version of sustained enterprise-to-enterprise cooperation and, often, the most desirable from both parties' point of view. Because the other two models are better understood against the background of Model C, we shall begin our elaboration of the various modes of technology transfer with Model C.

PURCHASE COMMITMENT ARRANGEMENTS (MODEL C)

For the firm actively seeking a low-cost European production source, an arrangement with an Eastern partner willing to undertake all capital costs can be an attractive alternative to constructing a new facility in Western Europe. Likewise, selling production techniques to East Europe may be a means of entering an otherwise closed

market. For instance, the firm may be having difficulty overcoming any one of several trade barriers; e.g., East Europe's shortage of hard currency; the area's lack of familiarity with U.S. firms; or its proximity to traditional and well-established West European vendors. Whether it be to establish a cheaper production source, to penetrate a new market, or a combination of both, the U.S. firm may be willing to acquiesce to the Eastern partner's desire to acquire not only the Western technology but also the firm's logo, in addition to its commitment to purchase part of the finished product. In short the company may agree to enter into a Model C arrangement. One firm which has done this is International Harvester Company (IH).

In mid-1972, IH signed a 10-year cooperation agreement with Poland, an agreement whereby the U.S. firm assists its Polish partner in manufacturing IH bulldozers, loaders, and pipelayers. The agreement is especially opportune for Poland in view of the nation's current program of modernizing and expanding its local production of construction equipment⁹. As part of this concerted effort, Poland has in recent years entered into a variety of similar agreements with several Western manufacturers; e.g., Jones Cranes and Coles Cranes, both of England, to manufacture mechanical and hydraulic cranes; Stetter of West Germany to produce concrete mixers; Menck, the West German division of the American firm Koehring, for hydraulic excavators; and the U.S.'s Clark Equipment for rear axle production.

Part of the purpose of such agreements has been to develop a local source of equipment for alleviating such construction shortages as housing, shops, schools, and hospitals; meeting such shortages is part of the government's program to raise and improve local living standards. As important as filling domestic needs has been the second purpose of Poland's industrial cooperation agreements in the construction machinery area: to increase exports. The Polish Ministry of the Machine Industry envisages that its exports to the West resulting from cooperation agreements will represent as much as 30% of the ministry's total exports by the end of 1975¹⁰.

The technology package being supplied Poland by IH comprises the following elements: dimensions; metallurgical specifications; tooling and machining techniques; quality control systems; and assembly methods. The main difficulties the U.S. firm is facing in effecting the transplant are: lack of worker tooling and machining skills; poor quality control and supervisory procedures at the management level; and generally poor worker motivations. Poor skills and inefficient quality control and supervisory procedures have been easier for IH to rectify than worker indifference. For IH, it has been an exercise in patience, having to cajole and exhort each individual worker that his respective contribution, however small, will affect the quality of final product.

Despite these obstacles to effective technology absorption, the Polish product, currently produced under IH's rigid supervision, does meet the firm's own quality standards. Furthermore, IH is confident that in time the close supervision now necessary will no longer be required. This optimism is based partly on the fact that the management of the Polish enterprise is (according to IH executives) intent on manufacturing a product identical to the one emanating from IH's U.S. facilities. Another reason contributing to IH's confidence is the fact that the Polish

engineers and management personnel are not in the least resentful of or resistant to the semi-management role being assumed in their own facility by IH personnel. And the third reason relates directly to the U.S. firm itself: the ability and willingness of its transfer agents as well as the overriding purpose prompting the firm to enter into this arrangement in the first place.

In the past decade, IH has been confronted by an increasing desire by many nations to whom it has traditionally sold its construction equipment to develop their own indigenous production capabilities. In response to this changing attitude, IH has tried to leapfrog the other international firms in this oligopolistic industry and retain its share of the market by establishing overseas production facilities. But of its 30-odd overseas facilities, the one in Poland was the first in which the firm had no equity.

What prompted IH to alter its traditional method of international investment? The reasons are essentially two. First, the project was seen as a market-entry vehicle. As a manufacturer of bulldozers, payloaders, and pipelayers, Poland offered IH no product market. But when Poland proposed buying IH's production technology, the U.S. firm saw an excellent opportunity for market penetration: i.e., as a means of selling whole vehicles until the local facility became fully operational; of selling those components not locally manufactured but which would be necessary for the final assembled vehicle; and of selling replacement parts until they, too, were produced within Poland. For instance, as part of the overall agreement, Poland was obliged to purchase \$1.5 million worth of components in the first three years of the contract. For this initial purchase, Poland obtained U.S. Export-Import Bank financing. To accommodate the growing component requirements anticipated by IH, Poland placed another order in 1974, this time for \$6 million worth of parts.

Second, besides being a market-entry vehicle, the arrangement was expected to provide an important manufacturing source for IH. As the world demand for construction equipment soared in the early 1970's, IH found itself unable to satisfy its international customers with existing production levels. Its worldwide construction equipment sales, for example, in 1973 surpassed those of 1972 by as much as 25%. This trend was mirrored throughout all corporate product divisions, so that as 1974 began, the company had the largest unfilled backlog — \$1.7 million — in its history¹¹. In addition, with almost 75% of its corporate earning derived from overseas activities, the firm was increasingly anxious for overseas capital expansion, especially to accommodate what its chairman calls IH's single largest overseas market, Western Europe¹². And the beauty of the arrangement with Poland has been that IH was spared any capital outlay in either expanding a West European facility or erecting a new one. In short, it has been able to avail itself of an extant Polish facility which the Poles have equipped with the latest in equipment suggested by IH.

So rapidly has Poland acquired the IH technology, and so impressed is IH with the quality of the finished product, that the Polish facility has become a crucial part of the firm's international marketing strategy. As one IH executive has commented, the Polish partner is an "absolutely first-class source which is going to be one of our main manufacturers of components, replacement parts, and final products for all our markets, especially Western

Europe." In fact, in mid-1973, a year after the initial agreement was signed, IH added to the line of bulldozers being manufactured so that Poland could become the firm's main European source for components assembled by its UK facility. And by 1978, it is expected that the facility will be producing as many as 1,500 finished units annually, representing an invoice value of \$100 million. IH will profit whether it purchases the product for its own market or whether its Polish partner markets them within the CMEA territory assigned it. If the firm buys the product from Poland, it does so at a yearly renegotiable price which is always 10% less than its U.S. production costs for the same product. And if Poland either keeps the product or sells it to a buyer other than IH, the U.S. firm receives a royalty fee.

TECHNICAL ASSISTANCE AND TRADEMARK AGREEMENTS (MODEL B)

For the Eastern partner, the Western firm's commitment to purchase final product provides a source of hard currency without requiring a commitment to learn Western marketing techniques and without necessitating an investment in establishing an overseas marketing organization. Consequently, most would-be Eastern purchasers of Western technology bring pressure to bear on a prospective Western partner to commit to purchasing part of the final product. Whether the firm is able to withstand the pressure (and the risk of losing the opportunity of establishing its first ties with the Eastern side) is a function of the firm's negotiating leverage. This leverage, in turn, depends on the proprietary nature of its technological asset.

Honeywell is one U.S. firm which was able to leverage its technology in dictating the type of long-term relationship in an Eastern country. Last year, the firm entered into a cooperation agreement with Poland to transfer its technology to manufacture part of an industrial process control system. Included in the agreement was Honeywell's trademark. Excluded, however, was any commitment by the U.S. firm to purchase part of the finished product from Poland. In short, a Model B arrangement was established.

Honeywell's agreement with Poland is actually twofold. The first agreement calls for the production of the firm's Vutronik line of recorders and controllers. The second provides for the manufacture by Poland of the firm's electronic pressure transmitter. The former agreement was signed with Honeywell's Scottish subsidiary, the firm's main overseas manufacturer of the particular product line. The latter arrangement is completely American. The technology was developed, put into commercial production, and is being transferred solely by a Honeywell U.S. division.

The transmitter consists of two elements, a silicon sensor and a circuit board amplifier, each of which is contained within its own cast-iron housing. The documentation being transferred includes the dimensions, tolerances, and metallurgical composition of the housings and their respective component parts, excluding the sensor. The metallurgy involved is especially critical in view of the extreme temperatures to which the transmitter is subjected in refineries, where it will be chiefly used. The production knowledge being transferred consists of quality control procedures, assembly techniques, and, most especially,

how to manufacture the circuit board; i.e., how to solder, etch, measure, output, and keep a clean and orderly production area.

According to Honeywell, the sensor portion of the device is the only such electronic detector-transmitter being commercially produced by any firm in the world. All other pressure measuring instruments operate on a mechanical, or pneumatic, principle. The heart of the sensor is a silicon chip — a tiny piece of crystallized, polished silicon, about one-sixth of an inch square and containing up to 10,000 microscopic transistors — diffused into boron in a Wheatstone bridge pattern. The advantage of the device is that it is a solid state component. In the absence of any moving parts, the need to recalibrate, repair, or replace broken parts is obviated; as a result, not only are costly equipment shutdowns avoided, but flow is also more accurately measured. The revolutionary feature of the device, which makes it proprietary to Honeywell, is its extreme sensitivity to the slightest change in pressure, such as those occurring in a refinery pipe line.

Because of the proprietary nature of the technology involved in the silicon sensor, Honeywell rejected Poland's understandable interest in acquiring the capability to duplicate manufacture of the sensor. However, Honeywell did agree to transfer the sensor technology in 1979. At that time, through a technical assistance arrangement, the firm will provide the Poles with the 1974 state-of-the-art in silicon diffusion technology.

More important from our particular point of view, Honeywell was also able to reject the Poles' demand that Honeywell agree to purchase part of the finished product. In contrast to IH, Honeywell had no need to increase its supply capability for this particular product. Poland had little choice but accept Honeywell's refusal both to transfer its sensor technology and to purchase any of the final product. There was no other manufacturer from which the Poles might receive another proposal to play against Honeywell's. Furthermore, Poland wanted the latest in pressure transmitters. And except for the sensor device, it is learning how to manufacture that item. Furthermore, between now and 1979 (when Poland learns to manufacture the sensor itself), Honeywell has committed itself to selling as many of the sensors as Poland needs for the units it produces.

While Honeywell would not commit to buying finished product, it did, however, permit the Poles use of the Honeywell trademark. Granting its logo was part of the strategy behind the firm's decision to enter into the cooperation arrangement: increase its visibility — and, hopefully — sales within the Soviet bloc. Thus, letting the Poles produce and sell within CMEA products bearing the Honeywell label would, presumably, make its name better known in a market which has been for years dominated by West European electronic firms. And, besides, Honeywell receives a royalty on all such products.

The arrangement is also attractive to Honeywell for other reasons. First, Poland is expected to take to 18 months to manufacture the Vutronik panels and the pressure transmitter. Prior to that time, however, Poland has several petrochemical and copper smelting plants coming on-stream, all of which require industrial process control systems. Because the commitment has been made to develop a Polish control system using Honeywell technology, it is logical that any system installed prior to the

development of the Polish system be compatible with that system. As a result, Honeywell anticipates by mid-1976 having sold Poland up to \$5 million worth of components for the Vutronik panels and the transmitter.

A second attraction to Honeywell of the cooperation deal is that even after Pniefal develops its own ability to manufacture the Honeywell products, the Polish enterprise will still have to buy the silicon sensor, at least until it begins producing its own device sometime after 1979. And third is the royalty income Honeywell will be earning throughout the five-year agreement on all units produced by Poland.

Fourth, and finally, Honeywell sees the agreement as giving the firm the foothold within the Polish market that has for so long eluded it. As Poland expands its electronics industry for both consumer and industrial products, Honeywell hopes that its demonstrated willingness to cooperate with the Polish electronics community will give it the inside track on future sales.

TECHNICAL ASSISTANCE ONLY (MODEL A)

The Model A type of cooperation is most readily exercised by those firms which are in the business of selling technology *per se*; i.e., for which a large portion of corporate earnings comes from the sale of production knowledge rather than the sale of products. Because they do not market their own products overseas, such firms are seldom interested in acquiring products in payment for their technology; nor is there any advantage to them in granting their trademark rights. Rather, they generally limit their relationship to a simple technical assistance agreement.

One such company is General Tire and Rubber Company (GT). GT is known in the United States primarily as a producer of tires. Overseas, however, it concentrates on selling its tire-producing technology to both equity and non-equity partners. This strategy has been forced upon GT, and the rest of the U.S. tire industry, by a combination of factors; e.g., tariffs, transportation costs, border adjustment charges, and the need to have a local image in order to penetrate markets¹³. When GT is faced with a potential partner which prefers not to become involved on an equity sharing basis, the U.S. firm opts to sell its technology and its turnkey assistance service without its trademark rights or a product purchase commitment.

In early 1973, GT contracted with the Romanians to design, equip, supervise construction of, put on-stream, and provide technical assistance over a 10-year period for a plant to manufacture steel-belted radial tires. For the Romanians, the tire plant was a priority item in their 1971-1975 plan. First of all, they were committed to updating their tire production knowledge and capability, increasing annual output from 2 million to 3 million tires. This commitment stemmed from the nation's need to accommodate its growing production of heavy vehicles and of passenger cars¹⁴. Secondly, a tire facility was a logical use to which Romania could put its natural hydrocarbon wealth, a wealth which gave it an indigenous supply of various inputs necessary for tire production: e.g., carbon black, resins, and synthetic rubbers. Third, GT executives were told by the Romanians that they anticipated exporting as much as 40% of the newly manufactured tires.

GT transfers technology on what the company calls "a

total and complete basis"; i.e., technology for all the tires manufactured by the firm, whether truck, passenger, off-the-road, or bicycle; whether tube or tubeless; whether bias or radial. The technology package consists of such documentation as tire dimensions, stock preparation formulae (e.g., amounts and types of resins, rubber, carbon black, and other additives), and temperatures and duration of vulcanization; plus production techniques and process information relating to compounding, milling and mixing, calendaring, extruding, beading, actual tire building, curing, final finishing, and, above all, quality control.

Throughout the negotiations, the Romanians pressed GT to assume an equity position in the project as well as to extend its trademark and to purchase part of the finished product. On all three counts, however, General resisted. From the outset, GT saw the Romanian project only in terms of its being a source of fees, both supervisory (i.e., for setting up and equipping the facility, for which the U.S. firm received \$2.5 million) and technological (GT is charging the Romanians \$500,000 per year over 10 years to keep them abreast of the latest technological changes in tire production). The firm had no need to supplement its already sizable overseas production of tires. Nor did it want to commit itself to the close quality-control supervision which a trademark agreement would necessitate.

The Romanians hinted on several occasions that GT would lose the contract because of its stand on all three counts. At least once, the firm questioned whether it might have to reconsider its position. However, during the extensive period of time during which the negotiations took place, GT was able to learn that its competitors on the project were no more interested than it was in assuming an equity position, in extending their trademarks, or in purchasing part of the product. Thus, as negotiations progressed, the Romanians had little choice. If they were to acquire Western tire technology, they would have to do so through a simple technical assistance contract, devoid of an accompanying trademark agreement or guaranteed sales outlet. In short, the negotiating leverage belonged to the firm rather than the purchaser.

CHOOSING THE BEST ARRANGEMENT

In view of their interest in obtaining the most modern, up-to-date technology with which to develop internationally competitive products, most East European recipients would generally prefer a Model C arrangement. Part of the Eastern side's negotiating leverage lies in the newness of the bloc market to the typical U.S. firm. Because of this, the American side may feel obliged to make itself "acceptable" to the Eastern buyer by acquiescing to the latter's insistence on a Model C-type of cooperation. But, as we have also seen, the negotiating leverage is not always one-sided. This depends, of course, both on the proprietary nature of the firm's technology as well as on the reasons prompting it even to consider dealing with the particular bloc nation.

From our case studies, there is no indication that one model of transfer is necessarily preferred by the U.S. side. If the firm wants a cheaper manufacturing source, or if it is using the cooperation vehicle as a market-entry vehicle, a Model C arrangement is most likely. In these instances, negotiations with the Eastern side will concentrate on such factors as the particular product technology involved, market restrictions, and payment terms.

But if the firm has a proprietary technology unavailable from other suppliers, it will most likely insist on a Model A or B arrangement. The firm's success in prevailing upon the Eastern side to accept an A or B cooperation depends on how badly the prospective recipient wants the particular technology. If the Eastern party can obtain comparable technology from another source on terms more to its liking (i.e., Model C), it might decide that the particular technology being offered is not worth entering into an A or B arrangement. However, assuming that the Eastern side will accept something less than a C arrangement, whether an A or B cooperation is realized is mainly a function of the requirements of the transferring firm. Royalties from an otherwise closed or limited market may make extension of trademark rights attractive from the firm's point of view. But when the firm is in the business of selling its industrial production techniques, it may be unwilling to provide more than its technology.

Regardless, however, of the particular type of industrial cooperation arrangement adopted, one striking fact emerges from the experience of U.S. firms which have explored this avenue of international trade. While the U.S. side is never given explicit management functions in a non-equity venture in Eastern Europe, it is almost invariably expected to play an active role in the day-to-day manufacturing operations of the enterprise; e.g., in the training, production scheduling, and quality control procedures. Even when there is a trademark or product purchase agreement, the U.S. firms have found that the degree of influence they are permitted to exercise within the particular production facility far exceeds that which they would normally require or even expect. Rather than suggesting that they "know it all," the typical East European partner has evidenced a determination to avail itself in every possible way of the technological capabilities of its American industrial partner. This attitude is in contrast to that which corporate experience suggests in dealing with the Soviet Union.

57

NOTES

1. In the Socialist economies, there are no "firms" or "companies" as we in the West know them. Instead, suppliers of goods and services are called "enterprises", a word we shall use throughout when referring to Eastern manufacturing, processing, or distributing entities. "Firms", whether small proprietorships or giant industrial corporations, are owned by individual shareholders. "Enterprises", in keeping with Marxist-Leninist prohibition against private property, are owned by the "State" and, indirectly, by all the people.

2. Only Romania has permitted foreign equity participation in domestically established manufacturing enterprises. The foreign share is limited to 49%.

3. C. H. MacMillan and D. P. St. Charles provide a three-part categorization. See their *Joint Ventures in Eastern Europe: A Three Country Comparison* (Montreal: C. D. Howe Research Institute, 1974).

4. i.e., not produced under the license of or in the plant provided by the supplier.

5. i.e., Bulgaria, Czechoslovakia, GDR, Hungary, Poland, and Romania.

6. While exports account for only about 4% of U.S.S.R. national income, they represent 35% of Hungary's, 30% of Czechoslovakia's, 28% of Bulgaria's, et cetera. Gregory Grossman, "Foreign Trade, Economic Reform, and Technology," in *East-West Trade and the Technology Gap*, ed. Stanislaw Wasowski (New York: Praeger Publishers, 1970), p. 151.

7. The focus of this paper is the manufacturing sector, and, thus, does not consider arrangement by which the U.S.S.R. is striving to develop its natural resources; e.g., the Yakutsk gas project. Furthermore, by my definition, the Fiat cooperation agreement, through which the Italian company has assisted the Soviets in producing the Lada automobile, does not qualify as a long-term enterprise-to-enterprise relationship within the manufacturing sector. That is, the Fiat arrangement involves neither a continuing technical assistant contract (in-

(Please turn to Page 59)

countries, and grant a license permitting the use of the patent in one or more, but not all, of those countries. In a negative sense — and perhaps this is what Mr. Stern meant by the term — these may be considered to be territorial limitations since they represent a 'failure' to grant use of *all* of the licensor's patent rights worldwide. But they are not limitations, not restrictions, and not restraints on the use or enjoyment of the property that is licensed; the licensee can use the property *licensed him* without any material restriction being placed upon him. Of course, it is also possible that a patent license may contain an express limitation or restriction against practicing an invention in one or more specified countries where corresponding patents are owned by the licensor, rather than just omitting reference to certain countries, but this probably is a very rare practice if employed at all."

In my view, use of the word "restriction" in connection with a positive grant such as "a nonexclusive license to make, use, and sell in field 'A'" is not restrictive in any dictionary sense. It yields exclusivity in a limited area. It is a limited grant but it does not prohibit nor restrict manufacture, use or sale in any other field. The only limitation with respect to other fields follows not because of any contract or implicit understanding, but because of the existence of a patent. The problem of infringement existed before the license. It has been removed in the license field. No change has occurred in all other fields; the infringement problem remains. The restriction, if any, has been not created by, nor affected by, nor made legally important by, the license provision. Hence, it is improper to impute restriction to the license term.

Misuse of the term is not limited to government. Two examples of the use of "restriction" to cover simple grants are found in Peter D. Rosenberg's "The Metes and Bounds of the Defined — Field Patent License," 53 JPOS 555 and Professor S. Chesterfield Oppenheim's "The Patent Antitrust Spectrum of Patent and Know-How License Limitations: Accommodation? Conflict? or Antitrust

The Importance of Managing Innovation

(Continued from Page 50)

volving the ongoing transfer of technological improvements in design, production techniques, et cetera, trademark rights, nor a commitment to purchase resultant product. Instead, it is my understanding, based on information available in the public domain, that Fiat assisted in setting-up the plant and putting it on-stream; but that it has not updated the technology transferred. Consequently, the Fiat arrangement is no exception to the Soviet penchant for avoiding the type of sustained relationships being sought with Western firms by their Eastern European neighbors (and comprising the focus of this paper).

8. CMEA, or the Council of Mutual Economic Assistance (also known as COMECON) was created in 1949 as a Soviet counter to the Marshall Plan and as a tool of integration. Current members are the U.S.S.R., the Nations of East Europe plus Mongolia, Cuba, and associate members Yugoslavia and Finland.

9. This program is a concomitant to the emphasis placed on improvements in such sectors as housing, roads, sewage systems, and public buildings. See, for example: U.S., Department of Commerce, Domestic and International Business Administration, *Five Year Plan Summary: Poland*, Pubn. No. OBR 73-29B (July 1973).

10. Poland, Ministry of Machine Industry, *Poland-1973* (Warsaw: 1974), p. 1.

11. "Reaping Profits Around the World," *Financial World* 140 (23 January 1974): 23.

12. *Ibid.*

13. U.S., Congress, Senate, *Multinational Corporations: A Compendium of Papers*, 93rd Cong., 1st sess., 1973, pp. 178-85.

14. U.S. Department of Commerce, Domestic and International Business Administration, *Five Year Plan Summary: Romania*, Pubn. No. OBR 73-29G (December 1973).

Supremacy?" *Les Nouvelles*, Vol. 6. No. 3 page 80.

To argue that a mere grant of permission to infringe within an area of extent less than the total area covered by a patent is more than semantics. It is a distortion of word meaning and should not be countenanced by license drafters or parties to a license.

This is not to say that a license never contains prohibitions. Licenses can and do — in which case, assuming the patent rule of reason running from *Bement v. National Harrow* through General Electric, Talking Pictures, Ethyl Gasoline and, now Ciba is properly invoked, antitrust reasoning is applicable.

The problem may be that the Department of Justice, which denies the existence of the patent rule of reason acknowledged in the above-cited cases looks only to the anticompetitive aspects of patents. The Court in Ciba correctly stated, "Any limitation contained in a patent license, by definition results in a restraint of trade. The restraint inheres in the grant of the patent itself which by its terms conveys the power to exclude. Therefore, it seems fruitless to attempt to judge the legality of a particular limitation contained in a license in terms of the competition it prevents from coming into existence. Rather, the legality of a limitation or series of limitations can only be judged with reference to the scope of the monopoly created by the letters patent."

Too many of us have unthinkingly fallen into a trap by accepting the word "restriction" as an accurate description of positive, but partial, grants of a license. We must insist on using "restriction" or analagous terms only when the grant positively forbids or restricts. Otherwise, we find ourselves unfairly and needlessly on the defensive — a burden has been shifted to the licensor.

As a group most involved in licensing, LES and its members, in particular, have an obligation to use words with care and accuracy and to challenge those who don't.

The word "restrict" could be used reasonably accurately to describe a grant. For example, the court in the Ethyl Gasoline case said that a patent owner "may grant licenses to make, use or vend, restricted in point of space or time, or with any other restriction upon the exercise of the granted privilege . . ." This is not the same thing as claiming that such restrictions are equal to prohibitions.

"Restriction" has become ambiguous and indefinite. It is up to us to restore precision in our usage of the word.

Transferring Technology To Soviet Bloc

(Continued from Page 57)

the larger environment in which it exists. They cannot close their eyes to the fact that the long range is becoming shorter all the time. All too often, the management responsible for an organization cannot trust itself to be objective. Most managements of most organizations spend most of their time on yesterday's problems or in striving to maintain the status quo.

This does not alter the fact that senior management in a large organization holds the prime responsibility for making innovation happen, for approaching planning strategically, for dealing with predictability and uncertainty. No other group has the required overall perspective. No other group can manage innovation.