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Meeting on Transfer of Technology to
Developing Countries through Subcontracting
and Licensing Agreements, with Special
Reference to the Automotive Industry

Paris, France, 27 November - 1 December 1972

**DEVELOPMENT OF THE AUTOMOTIVE INDUSTRY IN
DEVELOPING COUNTRIES IN CO-OPERATION WITH
INDUSTRIES IN THE DEVELOPING COUNTRIES 1/**

by

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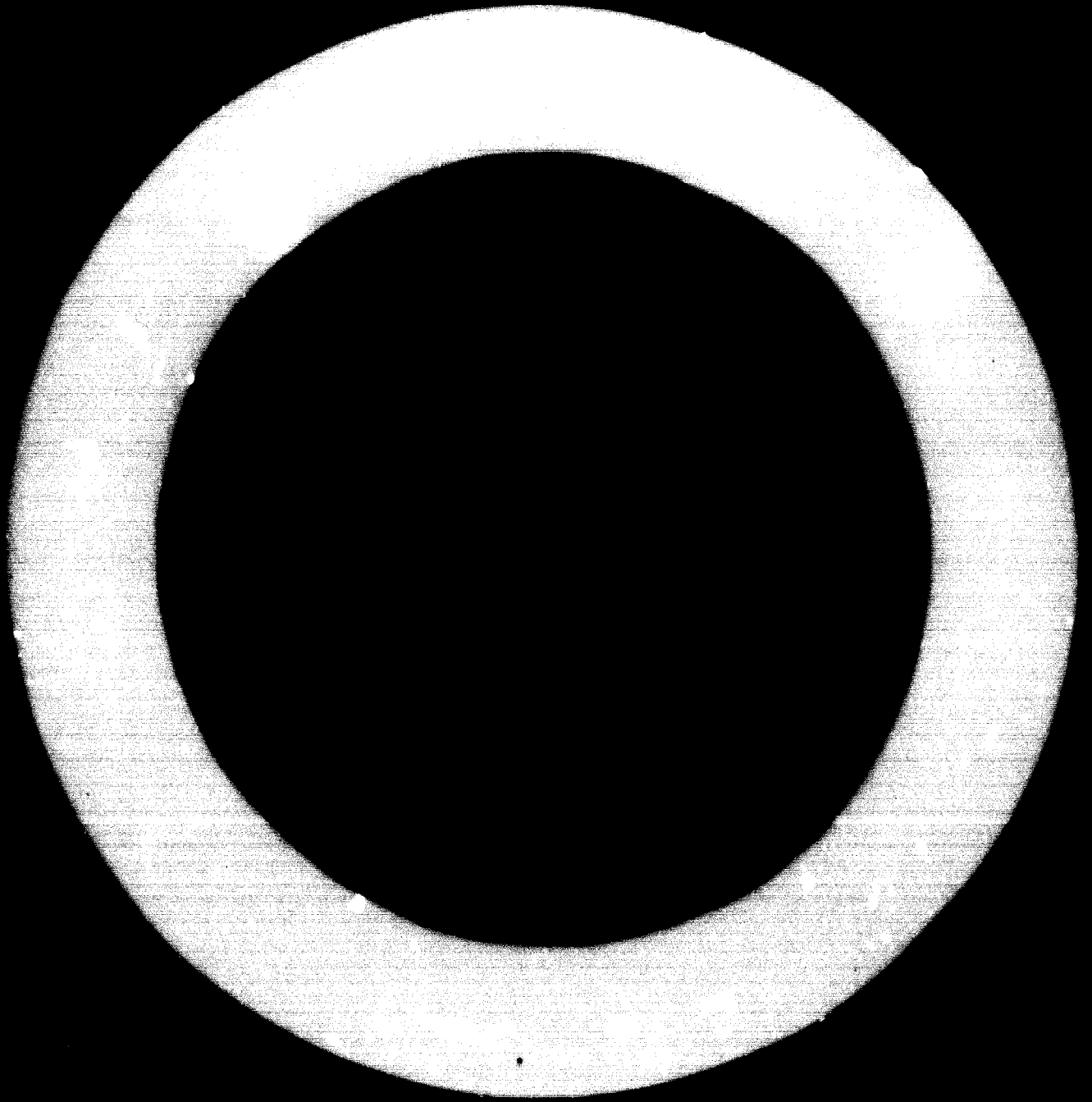
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PRELIMINARY NOTES

The number of developing countries attempting to organize the local manufacture of motor vehicles on a partial or complete basis is still on the increase. This is not a chance phenomenon, nor does it stem merely from a desire to create local demand for automobiles or to achieve an adequate vehicle population in the country. It is based also on the need to create new local jobs, in other words, by setting up an automotive industry, to encourage the more rapid development of many other industrial branches involved in automobile production - one might even say of the entire industry of a country.

The fact remains that in only a very few developing countries has a workable solution to this problem been found, the expectations with which the assembly and partial production of cars were undertaken materialized, and the automotive industry had the expected effect on other industries (i.e. encouraged their more rapid and comprehensive development).

This situation is also understandable since hitherto there have been few real cases of co-operation between companies from countries with a developed automotive industry and companies from the developing countries.

Only in the last ten years have the efforts of some countries yielded some results. These are cases where joint efforts have made it possible to develop means of transmitting experience, primarily through the establishment of industrial collaboration arrangements between the parties concerned.

In most cases, major automobiles manufacturers were merely interested in finding a market for their finished products by traditional selling methods or in organizing automobile assembly in order to enjoy customs privileges or to profit from a possible reduction in transport costs (which could be significant in the case of longer shipments).

In the following pages we shall endeavour to show how automobile manufacture has been organized in Yugoslavia. Thus, an account will first be given of the experience of co-operation between Zavodi Crvena Zastava at Kragujevac and Fiat (Turin), since this has developed through all phases, from the transmission of experience up to the national production of automobiles in Yugoslavia.

THE AUTOMOTIVE INDUSTRY IN YUGOSLAVIA TODAY

Before the war, Yugoslavia was an undeveloped agricultural country with few motor vehicles.

In 1938, for approximately 16 million inhabitants in Yugoslavia there were:

Motor cycles	7,661
Passenger cars	13,561
Buses	912
Trucks	4,286

During the upheavals of the war (1941-1945), most of the rolling stock was destroyed, particularly passenger cars which in 1947 numbered only 6,634 and remained at more or less the same figure until 1951.

During subsequent years, the number of registered passenger cars increased, at first slowly and then at an ever increasing rate as can be seen from the following table:

Table 1

Year	Number of passenger cars registered in Yugoslavia ^{x/}
1951	6,916
1952	8,542
1953	10,171
1954	11,290
1955	12,622
1956	14,664
1957	21,570
1958	28,394
1959	39,022
1960	54,257
1961	75,587
1962	97,942
1963	112,534
1964	141,792
1965	187,842
1966	253,344
1967	355,875
1968	439,892
1969	560,535
1970	720,874
1971	873,554

^{x/} Data from the Statistics Institute of the Socialist Federal Republic of Yugoslavia.

Before the end of the current year (1972), there will be 1 million passenger cars in Yugoslavia, with a vehicle/inhabitant ratio of approximately 20 to 1.

The production of passenger cars in Yugoslavia began in 1955 and during the first decade developed in the following way:

Table 2

Year	Production of passenger cars in Yugoslavia ^{x/}
1955	760
1956	990
1957	3,088
1958	2,936
1959	4,431
1960	10,461
1961	14,999
1962	13,125
1963	20,923
1964	27,854

Considering the modest beginnings of this young industry and the various difficulties with which it has had to cope, the results obtained are encouraging and can be viewed as a firm basis for future development.

In 1965, when the Economic Reform was announced by the Yugoslav authorities, the measures adopted included a degree of market liberalization which opened up the way to more fruitful and intensive co-operation between local enterprises and foreign companies.

During the period 1965-1971, co-operation between several foreign automobile manufacturers and Yugoslav enterprises was strengthened. The latter were primarily concerned with organizing the assembly of vehicles in co-operation with their foreign partners, since local demand for vehicles was heavy and the only manufacturer in the country, Zavodi Crvena Zastava, was not in a position to satisfy the increased demand.

^{x/} Data provided by the Statistics Institute of the Socialist Federal Republic of Yugoslavia.

Apart from the assembly of vehicles, the import of complete vehicles also increased.

Table 3 lists all enterprises which have carried out vehicle assembly in Yugoslavia and also shows their development during the period in question. The establishment of so many assembly plants and the explosion of imports, which surprised even the Government, has led to a considerable outflow of foreign exchange and this in turn has necessitated the adoption of a series of measures designed to regulate vehicle assembly and industrial collaboration arrangements and to limit the import of assembled vehicles.

At present there is one vehicle manufacturer in Yugoslavia, Zavodi Crvena Zastava at Kragujevac, and four other plants which assemble passenger cars and produce a fairly large number of certain automobile parts both for domestic use and for export as a means of offsetting imports in part.

The factories which carry out assembly are:

Unis (Sarajevo): assembly of Volkswagen 1200 and 1300 and NSU Prinz 1000 and 1200 cars;

Tomos (Koper) which apart from manufacturing motorized bicycles assembles Citroen 2 CV-AZL, 3 CV Diana-Ami cars and cars in groups D and GS;

Industrija motornih vozil (IMV) (Novo Mesto) which assembles the Austin Mini 1100, 1300 Saloon and 1500 Maxi, and

Litostroj, (Ljubljana): assembly of Renault 4, 6, 12 TL, 16 etc.

More detailed information on the production of the enterprises listed above is given in Table 3.

These enterprises have organized vehicle assembly by importing cars in completely knocked down (CKD) form or in different standard varieties, depending on the availability of locally manufactured parts.

The firm which has gone furthest in organizing the assembly of vehicles and the manufacture of parts for its own needs and for counterpart supplies is Tomos at Koper, which has concluded an agreement with the French firm Citroen concerning not only the manufacture of certain parts for the parent company but the transfer to Yugoslavia of complete production lines for the manufacture of specific parts. These lines are assembled in the Tomos workshops where the parts and assemblies required by Tomos and Citroen are mass produced. Tomos and Citroen have formed a company called Simos which is basically concerned with the marketing and after-sales servicing of Citroen cars in Yugoslavia.

Assembly of passenger cars in Yugoslavia ^{*/}

Table 3

	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
TONS	764	1,320	1,589	4,254	7,181	8,143
2 CV-AZL	329	676	524	390	344	617
DIANA-JML-3 CV	435	644	1,053	3,245	6,205	6,283
PROGRAMER D	-	-	12	619	632	802
GS	-	-	-	-	-	441
UNITS	2,400	3,840	6,180	7,410	10,692	14,440
FRIZ 1000	2,160	1,440	1,200	7,960	-	1,905
FRIZ 1200	240	2,400	4,980	6,450	7,692	5,737
VW 1200	-	-	-	-	1,000	1,954
VW 1300	-	-	-	-	2,000	4,810
IW	-	-	-	2,302	7,051	8,968
MIH 1100	-	-	-	-	283	4,282
1300 SALOON	-	-	-	2,302	6,065	4,686

^{*/} Data obtained from the annual publications of the Automobile Manufacturer's Organization of the SFRY (for 1967, 1968, 1969, 1970, 1971 and 1972).

Table 3 (continued)

	1966	1967	1968	1969	1970	1971
1500 MAXI	-	-	-	-	703	194
1750	-	-	-	-	-	183
<hr/>						
LITOSTROJ	-	-	-	-	8,574	6,302
<hr/>						
RENAULT 4	-	-	-	-	2,451	1,671
RENAULT 6	-	-	-	-	2,413	1,069
RENAULT 12 TL	-	-	-	-	394	2,005
RENAULT 16	-	-	-	-	1,485	801
RENAULT OTHERS	-	-	-	-	1,831	756

The Unis company has also succeeded in organizing the mass production of a small number of parts for NSU and Volkswagen cars. These parts are used for counterpart deliveries and partially to even out balances of payments.

The IMV and Litostroj enterprises in Slovenia which are at present in the initial phase of organizing the assembly and manufacture of automobile parts, are obliged instead to explore other possibilities in their production programmes in order to obtain at least some of the foreign exchange required to purchase knocked down vehicles from their foreign partners.

All the enterprises referred to above are endeavouring both to organize specific production lines in their own plants and to involve certain specialized industries in the manufacture of automobile parts. These are enterprises which have developed by working for Zavodi Crvena Zastava as satellite industries.

In the past, the special conditions pertaining on the market have prompted other attempts to assemble passenger cars; these, however, have come to nothing because the legislation adopted and the need to organize an after-sales network discouraged those concerned from pursuing their initiatives.

Table 4 shows the number of each make of cars registered in Yugoslavia in reference years. From this table the number and percentage of Zastava-Fiat cars can also be compared with those of all other makes of car. Official figures for 1971 are not yet available.

Table 4 shows that it was market conditions which first encouraged initiatives to assemble cars, since the production capacity of Zavodi Crvena Zastava was not equal to the increased demand. This situation led Zavodi Crvena Zastava to take action to increase its productive capacity to which further reference will be made below.

As a result of the stabilization measures taken during 1971 and 1972, the import of complete vehicles, which increased significantly during the period 1965-1970, began to drop until by 1971 it was 29 per cent lower than in 1970 and continued to decrease, showing in the first third of 1972 a reduction of 68 per cent in comparison with the same period in 1971.

Table 5

Year	Import of complete vehicles */
1965	Approximately 13,000
1966	" 20,000
1967	" 52,000
1968	" 53,000
1969	" 57,000
1970	" 61,000
1971	" 43,000
1972 (1st third)	" 3,100

The severity of the restrictive measures taken in 1972 can be judged by the fact that in the first three months of 1971 the number of passenger cars imported was only 9,600.

A similar downward trend can be observed in the case of vehicle assembly - this is doubtless the result of certain legislative measures and regulations concerning the trade balance, whereby enterprises themselves have to provide the foreign currency to pay for their imports through counterpart deliveries.

*/ Based on data supplied by the Statistics Institute of the SFRY.

Table 4

Structure of rolling stock by makes x/

	1961		1966		1969		1970	
	Quantity	%	Quantity	%	Quantity	%	Quantity	%
I. ZASTAVA-FIAT:	35,151	46.5	148,554	58.7	276,680	49.2	348,588	48.4
II. OTHER MAKES:	40,436	53.5	104,120	41.3	185,829	50.5	372,186	51.6
SKODA	243	1.1	6,540	2.6	45,153	8.1	60,820	8.4
TOMOS-CITROEN	697	0.9	2,805	1.1	9,968	1.8	16,964	2.3
AUSTIN-DAV	179	0.2	3,350	1.3	5,738	1.0	12,338	1.7
VOLKSWAGEN	4,603	6.3	14,503	5.7	45,000	8.0	48,958	6.8
FORD	2,096	2.8	6,930	2.7	19,330	3.4	24,492	3.4
MOSKVITCH	1,546	2.0	4,596	1.8	12,796	2.3	16,562	2.3
NSU-PRERIS	106	0.1	2,601	1.0	18,957	3.4	24,135	3.3
OPEL	18,116	23.9	30,936	12.2	37,836	6.7	48,294	6.7
PEUGEOT	342	0.5	1,904	0.8	8,408	1.5	10,812	1.5
RENAULT	767	1.0	6,481	2.6	16,630	2.9	25,047	3.5
SIMCA	312	0.4	924	0.4	7,900	1.4	10,091	1.4
WARTBURG	164	0.2	536	0.2	8,669	1.5	12,681	1.8
AUDI DKW	1,477	2.0	4,665	1.8	9,160	1.6	11,533	1.6
OTHER MAKES	9,188	12.1	18,019	7.1	40,284	7.2	49,559	6.9
TOTAL: (I+II):	75,587	100.0	253,344	100.0	562,509	100.0	720,874	100.0

x/ Based on data compiled by the services of Zavodi Crvena Zastava.

These trends are also confirmed by data concerning the number of passenger cars on the Yugoslav market during the last three years, given in Table 6.

Table 6

Distribution of vehicles on the market,
grouped according to origin.

For every hundred vehicles introduced on the market
there were:

Period	National production - Zavodi Crvena Zastava	Assembly	Import
1969	38	20	42
1970	37	27	36
1971	39	33	28
1972 (1st third)	65	24	11

The expansion of the capacity of Zavodi Crvena Zastava during the period 1965 - 1972 (45,000 - 200,000 units per year) was accompanied by the development of ancillary industries, which in addition to supplying Zavodi Crvena Zastava were also included in the industrial collaboration arrangements which Zavodi Crvena Zastava established with its foreign partners (Fiat, Poland and USSR). The output of some of these enterprises was sufficient both to cover local needs and to meet the requirements of the foreign partners, reaching 300,000 - 400,000 parts and assemblies per year, and in some cases more.

There are now 99 enterprises in Yugoslavia which produce finished parts for Zavodi Crvena Zastava under sub-contract and an even larger number which supply Zavodi Crvena Zastava with the raw materials and other materials required for the plant's production programme.

The enterprises of the ancillary industry are distributed throughout Yugoslavia and most of them supply the entire automotive industry of the country (motorcycle, truck and tractor plants).

Since the Economic Reform and a degree of market liberalization have compelled Yugoslav industries to face competition, the question of production costs when applying the principle of the international division of labour has been one of the most pressing problems facing the ancillary industry. The expansion of the capacity of Zavodi Crvena

Zastava and the development of its co-operation with the foreign partners, together with the development of other motor vehicle industries in Yugoslavia have made it easier for the ancillary industry as well to apply modern technology and working methods and to try to keep costs down, on the basis of principle of the international division of labour, in order to enable the national automotive industry to become competitive on the national market and at the international level.

The Yugoslav Government has promulgated a series of measures for the purpose of regulating relations with foreign partners insofar as the import and the assembly of cars and industrial co-operation are concerned.

The most important laws and regulations concerning the passenger car industry in Yugoslavia are:

- Law concerning the exchange of goods and services with foreign countries;
- Law concerning the administration of foreign currency;
- Law regulating credit business with foreign countries;
- Customs code;
- Regulation concerning long-term collaboration in production;
- Regulation concerning long-term technical and commercial co-operation;
- Decree concerning registration contracts, the concession of industrial property rights to foreign countries and contracts on technical and business co-operation with foreign firms;
- Regulation concerning the designation of goods subject to export and import restrictions;
- Law on price control;
- Law concerning the import of goods and services.

The following systems were regulated by the above-mentioned legislative enactments:

Foreign currency regime

The pre-condition for developing the production of passenger cars is the need to achieve a balance between exports and imports - in other words, parts and assemblies can be imported only up to the value of the reserves of foreign exchange earned by exports, and specifically:

(a) By the import of parts and assemblies within the framework of industrial collaboration arrangements established with foreign firms. Manufacturers may use the foreign exchange reserves obtained in this way in their totality, in a 1:1 ratio, to pay for the import of producer goods, parts and assemblies for their own needs.

(b) By exporting nationally produced goods in other forms (complete vehicles and separate parts). In this case, manufacturers may use only the retention quota of foreign exchange reserves (for Zavodi Crvena Zastava this quota is about 20 per cent).

The national supply of raw materials and producer goods is regulated by the general foreign exchange quota system (GDK). This system, which to some extent is designed to regulate imports, was introduced during the period of economic reform in 1965 as an adjunct to the former system for the administration of the country's foreign exchange reserves.

In recent years, the GDK quota allocated to enterprises has been determined on the basis of the export-import ratio of the enterprises in question or of economic group and branches.

In 1971, Zavodi Crvena Zastava received under the GDK system \$1.60 for each dollar exported, on the understanding that the sum in question would be used solely for the import of raw materials and producer goods. The GDK quota for 1972 was determined on the basis of 90 per cent of the previous year's allocation.

It is anticipated that quotas will be reduced in the near future and that the GDK system will eventually be abolished, since greater liberalization of the foreign exchange system is expected.

Customs regime

During June, customs charges for the import of passenger cars were reduced by 10 per cent. They are now:

- | | |
|---|-------------|
| 1. For complete cars | 30 per cent |
| 2. For GKD vehicles | 25 per cent |
| 3. For parts imported under industrial collaboration arrangements | 15 per cent |

An explanation will be given below of the meaning of the term "industrial collaboration" in Yugoslavia.

Price control system

In view of the special economic situation which developed in Yugoslavia after 1970 the Government had to control the price of cars, in order to prevent the development of prices based not on actual costs with a reasonable profit margin but on market conditions. This would have led to excessive car prices.

Market relations in general are governed by public planning and price levels.

Normal import (consignment)

When cars are imported for sale to customers against payment in convertible currency exports (counterpart supplies of parts) must total 45 per cent of the value of imports.

Sale of nationally produced cars to customers in the country with payment in foreign currency

This type of transaction has been encouraged in recent years by giving enterprises unrestricted access to 100 per cent of the foreign currency initially and subsequently 50 per cent. In addition, such sales have been exempted from trade tax (12 per cent), which in fact means that the customer benefits from a 10 per cent reduction in the retail price.

Today, the situation has changed; manufactures may use 20 per cent of the foreign exchange earned by the sale of cars in the country, which is more or less equivalent to the retention quota.

Industrial collaboration with foreign firms

Since several assembly plants had been established and represented as industrial collaboration ventures, the Government deemed it advisable to clarify concepts and define exactly what industrial collaboration was while at the same time stimulating such co-operation, since in a relatively small country like Yugoslavia, it is extremely important for the application of the principles of the Economic Reform, i.e. the incorporation of Yugoslav industry in the system of the international division of labour.

The definition of long-term industrial collaboration is as follows:

- "1. Long-term industrial collaboration is considered to be any collaboration for production purposes which also includes reciprocal supplies of parts, sub-assemblies, assemblies and semi-finished products to be used in the manufacture of finished products belonging to a technological group of the same productive sector, if such co-operation is undertaken in accordance with a contract concluded between a Yugoslav enterprise and legal persons or entities in the foreign country for a minimum period of validity of three years.

A technological group as stated above includes the production of products intended for specific, well-defined uses, which are manufactured on the same or similar equipment.

2. Industrial collaboration also includes co-operation between Yugoslav producers and foreign legal persons or entities in the manufacture and reciprocal supply of components intended to be fitted in industrial premises and installations, power plants etc., and in security, telecommunication and transport systems.
3. Lastly, long-term industrial co-operation means co-operation with foreign legal persons or entities in production and reciprocal supply in which the Yugoslav enterprise pays for the parts, assemblies and semi-finished products imported in accordance with a long-term co-operation contract by exporting finished products belonging to the same technological group of a productive sector as the parts, sub-assemblies, assemblies and semi-finished products in question.
4. The collaboration in production and the reciprocal supplies referred to in paragraphs 1, 2 and 3 of this decree may take place if the products covered by the reciprocal supply arrangements are processed to approximately the same degree".

In order to organise industrial collaboration in the automotive sector with foreign partners, and in particular to develop the national manufacture of automobiles, certain general conditions must be created in advance in the industry of the country in advance.

It is essential that the capacity and the range of goods produced by the iron and steel and non-ferrous metallurgy industries should be sufficient to assure the supply of the raw materials required, that foundries and forges should be capable of supplying semi-finished products and that the electrical industry should be able to provide electrical equipment (cables and generating sets), that the metalworking industry should be equipped to produce a broad range of bolts and nuts, rollers, etc. and that the chemical industry, and the synthetic fibre and plastics sectors in particular, should be able to meet the needs of the automotive industry.

At present, Yugoslavia imports cleaned metal sheets for car bodies because the rolling mills in the country are not yet equipped to manufacture them.

The other industries are in a position to supply the automotive industry, except for some cases where ranges are not complete or capacities are inadequate.

It is anticipated that within the next three or four years sheet metal for car bodies will be produced at the Smederevo and Skopje rolling mills and that the import of cleaned plates, which are at present manufactured by the Nikšić rolling mill, but in insufficient quantities, will be discontinued once the reconstruction of the mill is completed.

Nevertheless, there is at present one sector undergoing reconstruction which is not yet in a position to supply goods for the automotive industry in either the ranges or the quantities required. This is the sector which manufactures tyres and rubber products.

When ranges and output are insufficient, the goods in question are imported, on the understanding that efforts will be made within the framework of industrial collaboration arrangements to export parts, sub-assemblies and assemblies for which sufficient raw materials are available and to import those for which primary products are in rather short supply.

Generally speaking, there is a certain imbalance between the development of the metalworking and engineering industries in Yugoslavia and that of the primary processing sector, particularly so far as the iron and steel industry is concerned. The new five-year plan, recently approved by the Yugoslav National Assembly therefore provides for the intensified production of primary products in order to overcome this imbalance ^{x/}.

CO-OPERATION ARRANGEMENTS WITH FOREIGN PARTNERS

As is known, co-operation between Zavodi Crvena Zastava and Fiat (Turin) dates from 1954 - the year of the signature of the licensing and technical co-operation contract.

This was the first attempt to organize co-operation in the automotive sector based on concepts of co-operation which accurately reflected both the situation and the capabilities of Zavodi Crvena Zastava at the time and the capacity of Yugoslav industry in general, as well as the market potential.

During eighteen years of co-operation between Zavodi Crvena Zastava and Fiat, the forms of this co-operation have changed considerably, as have the industrial conditions pertaining in the country in general, the absorptive capacity of the market and lastly (as a result of the experience gained by the two partners), the very concepts on which this co-operation is based.

Bearing in mind the purpose of the meeting for which this paper has been prepared, we felt it would be most appropriate to deal with the various phases of co-operation in chronological order, starting with the acquisition of the licence, continuing with the development of industrial co-operation, and capital participation to the conclusion of partnership arrangements and the development of integration processes.

^{x/} See Appendix - Annexes 1, 2, 3 and 4.

The contract of 12 August 1954 concerns the acquisition of the licence and technical co-operation between Zavodi Crvena Zastava and Fiat. It is a typical contract for the granting of a licence and the provision of the necessary technical assistance.

The person who acquires the licence is entitled to use documentation for production; he does not have the right to transfer it but he may hand it over to his own sub-contractors in the country.

The owner of the licence is bound to transmit to the licensee any modifications or technical improvements made to the vehicle for which the licence has been granted.

The owner of the licence undertakes not to sell his vehicles on the licensee's market or to grant another licence, while the licensee undertakes not to export vehicles to markets where assembly plants or shops belonging to the licensor are located or where companies are manufacturing the same vehicles under licence.

Under this contract, the application of the licence followed the system of importing parts in CKD form and in various standard varieties (I - VI), to be gradually replaced in the licensee's factories by parts produced by local industries or by the licensee's sub-contractors.

The problems of balancing foreign exchange accounts and counterpart deliveries were not taken into account in the first contract, the application of which began with the assembly of vehicles in more than modest quantities. The only objective was to meet the needs of the market, to consolidate the position of the enterprise and to accumulate a certain amount of local currency for subsequent investment.

At the same time, studies were undertaken on how to divide the programme between the parent plant and its sub-contractors and which production range to allocate to the automobile plant, the construction of which was scheduled to begin at this time.

It was by no means an easy task to establish the production capacities of the new plant or to reach a compromise between the divergent views of Zavodi Crvena Zastava and the Government of the time on the possibilities of finding a market for cars and even on the opportunities for the development of an automotive industry in Yugoslavia.

Agreement was finally reached on the construction of a plant with an annual output of 30,000 units, leaving open the possibility of future expansion.

In the meantime (1956), the original production programme, which consisted of:

1. 1.5 tonne truck, model 615, petrol and diesel-powered;
2. 1,400 passenger car, petrol and diesel-powered;
3. "Campagnola" jeep, petrol and diesel-powered;
5. 25 R and 25 C wheel and caterpillar tractor with petrol engine; diesel and petroleum-powered,

was supplemented by the Fiat 600 and Fiat 1,100 passenger cars which were more suited to the requirements of the Yugoslav market and were also more modern in design.

It should be noted that the tractors referred to in (5) above were never produced by Zavodi Crvena Zastava.

When the production programme for the new automobile plant was finally decided upon, the passenger car with a 600 cc engine was selected, later modified to 750 cc, as well as the car with a 1,300 cc engine, with the possibility of installing a 1,500 cc engine.

The plant was planned for an annual production capacity of 32,000 units with the possibility of increasing output up to 62,000 units.

Table 7 shows the number of motor vehicles produced by Zavodi Crvena Zastava during the period 1955-1962, given also as a percentage of national production. It should be noted that this table includes both passenger cars and jeeps and industrial vehicles.

Table 7

Year	Production of Zavodi Crvena Zastava	
	Annual production	% national production
1955	1,044	10
1956	1,605	19
1957	3,670	20
1958	3,596	24
1959	4,857	32
1960	11,478	37
1961	14,972	44
1962 ^{x/}	13,719	70

During May 1959, a contract was signed between Zavodi Crvena Zastava and Fiat concerning financial credit and the design of the new plant.

Construction work on the plant started on 4 April 1960 and was completed on 7 July 1962. It was expected that the Zavodi Crvena Zastava automobile plant would produce approximately 55 per cent of the value of the cars and the other 45 per cent would be purchased from outside (sub-contracting and import).

^{x/} Year of moving into the new plant - trial period.

When viewing the period 1954-1962, it can be seen that nearly six years were required to follow through the idea of building a plant to produce vehicles under licence and since the range of vehicles had been changed almost completely, in the meantime it became necessary to build a plant for the present programme which would have better prospects.

The amount of time needed to define the ideas behind the construction of the plant, to establish the ancillary industry and to gauge the significance of licensing in the automotive industry where the product - the automobile - loses its value on the market relatively quickly as a result of competition and technical and technological progress, demonstrates what a serious and complex matter it is for a country to embark on the development of its automotive industry.

Once the programmes had been defined and the plans drawn up, the construction proper of the plant was completed within two years without raising any particular problems.

The technical design of the plant was carried out by the Methodology Office of Fiat with the co-operation of engineers and technical staff from Zavodi Crvena Zastava, while the building and installation plans were drawn up by Yugoslav planning organisations.

The numerous difficulties encountered during the initial period (1954-1962), when working practically from scratch, can be evaluated in the light of the fact that during the period 1962-1972, productive capacity rose from 32,000 to 200,000 units per year, almost complete national manufacture of all the vehicles on the production programme was achieved and important industrial collaboration arrangements were concluded with Fiat and the other foreign partners.

The period 1954-1962 was useful not only for clarifying a whole range of technical and economic concepts and principles about the automotive industry and co-operation between the licensee and the licensor, but also for training technical and commercial staff.

Sales and after-sales servicing during this period were organized on the basis of the licensor's experience and the sales system which could be applied at that time in Yugoslavia; it was concluded that the most appropriate solution would be to establish so-called "all round" representatives who would be responsible for the sale of vehicles and spare parts, maintenance and technical assistance to customers.

Accordingly, specialized sales and service organizations were established at general commercial enterprises which sold automobiles and automobile parts, as well as general repair services where all repairs (trucks, cars etc.) could be dealt with.

Tradition which was incompatible with modern vehicle sales and maintenance practices had to be dispensed with and this was by no means easy, since for financial reasons it was impossible to construct national sales and service stations.

One of the most serious problems resulting from the acquisition of the licence and production under licence was the question of introducing the modifications and improvements made to vehicles and then continuing to design them after the licensor had ceased to do so.

For this reason, it was necessary to establish Yugoslav design and study services which could continue to develop car models.

In 1964, a contract was signed between Zavodi Crvena Zastava and Fiat on the establishment of the proposed ZCZ design and study centre which would be equipped to carry out various tests, approve parts, prepare technical documentation and design prototypes.

This was an essential step without which it would never have been possible to train the personnel needed to ensure product diversification and development and reliable product quality control.

In 1965, following the economic reform and the liberalization of trade, competition increased, and, as we have already said, assembly shops began to be set up on the basis of the existing situation in the car market.

Zavodi Crvena Zastava realized the urgent need to expand production capacity and develop new kinds of co-operation with foreign partners so as to be able to overcome the limits of the Yugoslav market, limits of both size and economic capacity. The studies made led to the following conclusions:

- Car production capacity should be expanded as quickly as possible so as to be able to meet 65 to 70 per cent of the demand in the near future and thus secure the dominant position in the market.

- Technical and production co-operation with foreign partners should also be expanded, with a view to exchanges of experience with regard to plans and studies, development and methods on a partnership basis. There should also be financial co-operation, in the form of capital participation, in order to secure the necessary resources and to make sure that the foreign partner has an interest in the future development of Zavodi Crvena Zastava.
- Such co-operation should be based on collaboration arrangements, either with Fiat or with other foreign partners linked with Fiat by licences or under a technical co-operation agreement. This would make it possible to take advantage of the international division of labour, with mass production of car parts and units based on the division of the programme between the partners. Apart from the actual export of cars, industrial collaboration arrangements should be a means of improving the balance of payments, bearing in mind the fact that the goal of the country's currency system has always been that everyone should earn the foreign currency necessary to pay for their imports by means of their own exports.
- In addition to the regular production programme, there should be a programme for the assembly of certain kinds of cars so that the market can be offered a wider range of models and each person can choose what suits him best.

On the basis of the above considerations, Zavodi Crvena Zastava drew up a development programme in two phases. In the first phase, production was to be increased to 85,000 cars a year, and, in the second, total production was to reach 200,000.

In putting these conclusions into effect, a considerable part was played by the principles behind the economic reform and the regulations on the participation of foreign capital in Yugoslav enterprises.

The first provisions on the participation of foreign individuals or firms in the capital of Yugoslav enterprises were published in the Official Gazette of Yugoslavia on 19 July 1967. At that time they represented a remarkable innovation.

The basic condition laid down in these provisions is that foreign capital investment in Yugoslav enterprises must be regulated by a written contract, the purpose of which must be to expand production, increase productivity and exports and introduce new technical and technological procedures in Yugoslav enterprises, together with modern methods of organizing production and management and promoting research and development.

Foreign capital is invested on a long-term basis. The enterprise in which it is invested operates in accordance with Yugoslav law and regulations.

As a general rule, foreign capital can be invested in any Yugoslav company except banks, insurance companies, inland transport companies, trading companies and public corporations (apart from scientific research institutes).

Under the contract, the foreign partners can invest capital in Yugoslav companies either by making a financial contribution or by supplying machinery, equipment, patents, licences, etc. In principle, the foreign share must not be more than 49 per cent of the total amount put up by the Yugoslav company and the foreign partner together.

The capital contributed by the foreign partner is at the disposal of the Yugoslav company and only the Yugoslav company can use it. Financial and legal relations are regulated by the contract between the partners.

If the foreign party wishes to transfer its rights and obligations under the contract to a foreign individual or company, or to another Yugoslav company, it is required to offer them first in writing to the company in which the capital has been invested, which, in its turn, must state within a specified period that it accepts or refuses the offer.

The contract lays down the rights of the foreign partner contributing capital to a Yugoslav company. It is understood, however, that such a party cannot be given rights which are different from or greater than those enjoyed by the Yugoslav company.

The contract may provide that the parties shall exercise their rights on matters of common concern through a joint body (board of directors) whose powers are defined by mutual agreement.

The procedure for distributing earnings is laid down in the contract. The earnings are distributed on the basis of the annual balance sheet drawn up by the workers' council of the Yugoslav company.

The foreign partner is entitled to transfer earnings derived from joint activities in accordance with the currency regulations in force. It is required to pay the taxes to which it is liable under the law on the profits accruing to it from its share in the earnings from the joint activities. However, these taxes are calculated and collected by the Yugoslav company in which the foreign capital is invested.

The contract on foreign participation in the capital of the Yugoslav company is valid if registered with the Federal Secretariat of the Economy. Registration confirms that the contract has been concluded in good and due form and is legally sound.

On the basis of the above-mentioned provisions, a contract for technical and production co-operation and financial participation was signed between Fiat and Zavodi Crvena Zastava on 23 February 1968.

The aims of the contract were:

To expand the production capacity of Zavodi Crvena Zastava;

To bring the organization and management, production, methods of manufacture and output quality of Zavodi Crvena Zastava up to modern standards and to achieve the best possible operating results;

To diversify the range of output of Zavodi Crvena Zastava;

To develop the Zavodi Crvena Zastava automobile product.

The contract lays down the output to be achieved in the first and second phases of the programme for developing the capacity of Zavodi Crvena Zastava, on the basis of a market study carried out in accordance with the most recent marketing methods.

The contract also covers the following:

Preparation of the technical design, provision of technical assistance and know-how achievement of economic efficiency;

Determination of the production programme and the new product.

An outline contract is drawn up for the delivery of counterpart supplies in order to keep the currency account in balance. Rules of procedure are also laid down for the Executive Board, which consists of an equal number of representatives of Fiat and Zavodi Crvena Zastava.

It can frankly be said that the contract for technical, managerial and financial collaboration between Zavodi Crvena Zastava and Fiat has opened up a new chapter in such relations, transforming the old licensor/licensee relationship into a partnership and starting up a process of industrial collaboration in the proper sense of the term.

Fiat's contribution under this contract was \$5 million and Zavodi Crvena Zastava provided the rest of the necessary resources from its own funds, the proceeds of a bond issue and bank loans.

Thus in 1969-1970 the first phase of the programme for expansion of the capacity of Zavodi Crvena Zastava was carried out, raising the annual output to 85,000 units.

Parallel with the execution of the first phase, talks continued on the volume of production to be fixed in the second phase and the new model to be introduced in the Zavodi Crvena Zastava production programme on the basis of the results of the market study. On 22 May 1969, Addendum No. 1 to the contract of 23 February 1968 was signed, in which the parties agreed on further co-operation in their common interest and determined the future participation of Fiat in Zavodi Crvena Zastava.

The ZOE range fixed for the second phase was as follows:

1,100 cc private car	100,000 units a year
750 cc car	50,000 units a year
1,300/1,500 cc car	25,000 units a year
General purpose and industrial vehicles	10,000 units a year
Assembled cars	15,000 units a year

For the execution of the first and second phases, a Technical Office of Zavodi Crvena Zastava was established at Turin. In collaboration with the Fiat technical departments, it worked on the technical designs, the planning and design of the new model and the development of the cars in the existing programme.

The second phase was carried out between 1969 and May 1972, or to be exact, 25 April 1972, when the new motor works began on 4 April 1970 was put into operation.

In the financing of the second phase, apart from the sums supplied by Zavodi Crvena Zastava itself, Fiat contributed another \$12 million.

Other investment came from the International Bank for Reconstruction and Development in Washington and the Jugoslovenska Investiciona Banka in Belgrade, which granted loans, the Yugoslav partners (Generalexport and the Jugoslovenska Investiciona Banka in Belgrade) and the International Finance Corporation in Washington, which contributed a share of the capital.

Zavodi Crvena Zastava estimates that in 1972 it will be able to produce about 28,000 vehicles, allowing for the fact that, after starting up the new plant, the equipment will need a period of running in, so that it will not be possible to achieve a higher output immediately.

Because of the limited potential of the domestic market, Zavodi Crvena Zastava, as has already been said, has made plans and has already taken steps to establish collaborative arrangements with other interested enterprises abroad.

Such co-operation is based on the granting of licences by the partners concerned or the purchase of vehicles in return for counterpart supplies, parts and units.

On 24 April 1966, Zavodi Crvena Zastava concluded an industrial collaboration contract with the Polish motor industry and on 27 February 1969 with the Volga motor works (USSR). On 5 June 1970 it also concluded a similar contract with the Hungarian motor industry.

The collaboration contract with the Polish industry was for the 1300/1500 or 125 P model. The two cars have many standardized features, such as the engine, the transmission and the suspension, so that when the manufacturing process is shared out certain parts can be produced in longer runs by one partner or the other.

The contract with VAZ (USSR) related to the 1200 cc model, for which Zavodi Crvena Zastava agreed to produce certain parts designed to fit in with those on the ZCZ programme and VAZ delivers in return complete cars, thus widening the range offered by Zavodi Crvena Zastava in the Yugoslav market.

The arrangement with the Hungarian car industry is for the purchase of certain parts and units for assembly in cars included in the Zastava production programme and the supply of complete vehicles by Zavodi Crvena Zastava to meet the needs of the Hungarian market.

The contracts mentioned above are concluded for the period up to 1975 and the counterpart supplies contract with Fiat runs up to 1978, with the possibility of increasing the range and volume of supplies during the course of the contract. Negotiations are actually taking place on this aspect at present.

The total value of the industrial collaboration contracts with the countries mentioned amounts to more than \$250 million over the period of the contracts.

The number of parts to be supplied under these industrial collaboration contracts varies from a few tens of thousands to 400,000 per year.

To give an idea of these reciprocal relationships, we may give the following details:

Exports to Fiat:

- Stamped parts for certain types of vehicles;
- Electrical equipment;
- Shock absorbers for certain types of vehicles;
- Batteries;
- Forged parts;
- Seats for certain types of vehicles;
- Etc.

Exports to the Polish motor industry:

- Complete rear axle and drive;
- Cooling radiator;
- Heating radiator;
- Starter;
- Accessories;
- Pistons and piston rings;
- Etc.

Imports from Poland:

- Carburettor;
- Fuel pump;
- Steering;
- Dash-board;
- Etc.

In addition, a certain number of cars in CKD form (125 P), with appropriate omissions are imported from Poland to supplement the range available on the Yugoslav market, which in fact amounts to co-production by the two motor industries.

Exports to VAZ (USSR):

- Complete steering wheel unit;
- Radiator grill;
- Accessories;
- Batteries;
- Piston ring action;
- Tool kit;
- Etc.

Imports from the USSR:

- 1300 cc car (to add to the range available on the Yugoslav market);
- Cold rolled sheet;
- Foundry pig iron;
- Rubber;
- Etc.

The industrial collaboration arrangement with Hungary is still in its initial stages.

Zavodi Crvena Zastava exports the Zavodi 750 model to Hungary and imports imitation leather, window-glass, bulbs, theft-proof locks, radios, etc.

In addition to the arrangements mentioned above, Zavodi Crvena Zastava has set up a workshop in Colombia to assemble the Zastava 1300 model delivered in CKD form, with a certain number of omissions.

This scheme is part of a wider trade arrangement.

An analysis of the situation described above leads to the conclusion that what we have here is in fact the beginnings of large-scale industrial collaboration as a process of proven worth, which also has the merit of having led Zavodi Crvena Zastava to introduce mass production technology in its workshops and to achieve a volume of production which enables it to enter into the international division of labour. By standardizing output with Zastava parts as far as possible, much higher production runs are being achieved by the plants mentioned above.

However, it can be said that industrial collaboration with foreign partners as described above is no more than a preparation for the establishment of industrial collaboration on a wider scale and that the experience gained in carrying out these contracts should create the mutual confidence necessary for activities of greater scope. This is confirmed by the negotiations at present in progress with the partners, in which the aim is to extend the contracts to include exchanges of larger units produced in long runs.

As can be seen from what has been said above, from 1954 until the present day relations between Zavodi Crvena Zastava and Fiat and other foreign partners have tended in the direction of long-term industrial collaboration and depend on the fact that Zavodi Crvena Zastava has achieved a certain standard as regards capacity and staff, which will also be essential for the future development of co-operation.

As confirmation we may cite the contract signed between Zavodi Crvena Zastava and Fiat/OM on 18 March 1971 for co-operation in the production of lorries with a capacity of 2.5 to 4 tonne under a long-term industrial collaboration arrangement.

The title of the contract is:

"Contract for long-term industrial collaboration between Fiat and Zavodi Crvena Zastava in producing and supplying each other with parts, units and sub-units for the manufacture of light industrial vehicles with a capacity of 2.5 to 4 tonnes".

Zavodi Crvena Zastava produces 58 per cent of the value of the vehicles and the remaining 42 per cent is permanently imported from OM.

Zavodi Crvena Zastava manufactures 50 per cent of the value of a vehicle for its own needs and those of OM. In this way the necessary conditions have been established for a considerable increase both in the runs produced by OM and by Zavodi Crvena Zastava and in the amounts produced as counterpart supplies.

In arranging which parties are to supply what, the production programme has been divided up on the basis of techno-economic principles determined in the light of the capacity of one plant and the other, the overriding aim being to keep new investment to a minimum.

In order to give an idea of the way the programme is divided up, we give below some details of the complementary supply arrangements.

Zavodi Crvena Zastava supplies OM with the following units:

- Complete rear axle (with drive);
- Front axle;
- Complete chassis;
- Batteries;
- Wheels;
- Shock absorbers;
- Etc.

Zavodi Crvena Zastava imports from OM:

- Engines;
- Gear boxes;
- Etc.

One of the important economic factors for any developing country, and hence for the industry which development creates, is the availability of foreign exchange.

One of the reasons for industrial collaboration arrangements is therefore to help improve the foreign currency position of the partners in the developing countries.

However, this cannot be achieved solely by industrial collaboration. It is also necessary to organise exports of motor vehicles produced in the developing countries, although exports of vehicles are also necessary to ensure complete utilisation of capacity and thus maintain production at the planned - i.e. calculated - level.

Under the contracts concluded between Zavodi Crvena Zastava and Fiat the export of Zastava cars is regulated in such a way that Zavodi Crvena Zastava are not entitled to export cars to countries where Fiat has plants of its own or workshops for the assembly or production under licence of the cars in question, with the exception of the Eastern countries.

Zavodi Crvena Zastava is entitled to export to other countries, on the understanding that in certain cases it must first reach an agreement with Fiat.

In the first years of co-operation Zavodi Crvena Zastava did not do much in the way of exports, because production capacity was relatively small and domestic demand very high. As a result, almost all output was placed on the domestic market.

There is another factor which affects car exports, namely, the price that can be got on the foreign market, which is almost always lower than on the domestic market.

The operations of Yugoslav enterprises are based on economic accounting and apart from the normal regular bonuses such enterprises enjoy no export advantages. This is another reason why Zavodi Crvena Zastava has not gone in for exports; because of its short production runs, its cost of production is much higher than that of its foreign competitors.

Bearing in mind the currency regulations now in force and the growing need for both a supply of foreign exchange and a market for the cars produced, which is becoming more and more essential as a result of the increase in production at Zavodi Crvena Zastava, steps must be taken immediately to establish a position in foreign markets.

There is another important element which may influence decisions on car exports, namely, a quality control survey to see if the cars are capable of standing up to competition in the markets of other countries where cars produced by many other companies from all over the world are on sale and in use.

The organization of car exports to third countries is a serious and responsible task, involving, among other things, considerable investment in facilities. Co-operation with a partner in a developed industrial country which has a well-organized sales network and a wealth of experience is very useful and even essential.

Although Zavodi Crvena Zastava has its own dealers in foreign markets, it co-operates with Fiat on car exports and always consults it in order to arrive at the necessary agreement with regard to certain markets.

Zavodi Crvena Zastava's exports at present amount for about 10 per cent of its output, with a marked upward tendency. Nevertheless, it is considered that exports should not exceed 15-20 per cent of output, at least in the near future, as it is essential for the company, at all costs, to maintain its dominant position in the domestic market.*

*/ See appendix - annex 5.

CONDITIONS FOR GOOD INDUSTRIAL COLLABORATION

Each of the partners has a clear interest in collaboration, since this collaboration guarantees one party the development of industry and the establishment of an adequate vehicle population in the country, and the other increases the sale of its products and expands its market despite the fact that it does not sell its finished products. The two partners are able to enter other markets jointly and, by taking mutual advantage of specific economic or other conditions which one of the partners enjoys in certain markets, can thus intensify their common expansion.

In order to be able to supply a product of good quality at a low price, the partner developing its industry must make substantial investments, i.e. introduce modern technology, for it is otherwise impossible to supply a product of good quality if the manufacturing cost is to be held strictly to a given level.

The developed country partner provides the technological designs, technical assistance and know-how, it being understood that a lump sum or royalties must be paid for the technical assistance. It also undertakes to arrange for credits from the appropriate organizations in the developed country in order to make the investments by the less developed country partner less onerous. This is nearly always one of the basic conditions for the conclusion of the relevant contracts.

In the specific case of the co-operation between Fiat and Zavodi Crvena Zastava, many contracts in various forms have been concluded over the years, covering credit and equity, payments for individual projects and lump-sum payments, planning by each partner individually and joint planning, with a view to taking advantage of all sorts of possibilities arising not only from the concrete economic situation, but also from the potential in terms of production and cadres which Zavodi Crvena Zastava had at its disposal at the time of conclusion and implementation of the contracts.

The advantages to the industry of a country which has collaboration relations with a developed foreign automobile industry reside in the fact that it has linked itself with an industry possessing modern technology which has an interest in seeing that the same level of technology is introduced in the collaborating industry, not only for reasons of manufacturing cost, but also for reasons of product quality.

The development of the national automobile industry is useful because it provides work for the labour force and also because it creates possibilities for opening up new jobs in all the industrial enterprises with which it co-operates.

However, it is even more important to stress that the study and design departments in the automobile industry co-operate with the corresponding departments in other industries, establishing a strong, united body of cadres which increasingly supplies the driving force for the development of industry as a whole in the country.

One of the essential questions is the quality of the automobile and, consequently, of the parts and assemblies making it up.

There cannot be two qualities for a single car, e.g. the quality of the car manufactured in the parent factory of the owner of the licence, or the provider of co-operation, and the quality of the car manufactured in the factory of the enterprise acquiring the licence, or the participant in the industrial collaboration arrangement.

This is undoubtedly one of the basic questions and on its solution will depend the readiness of the manufacturer in the country with a developed industry to enter into collaboration arrangements with the partner in the developing country, for the manufacturer will not wish, under any circumstances, to risk compromising the quality of its automobiles and, consequently, its prestige in the market in the context of international competition.

None the less, the licensee or the participant in the industrial collaboration arrangement in the developing country demands with good reason that it should have the technology and the organization of work planned for it, and that it should also be provided with know-how and technical assistance so that it can manufacture sub-assemblies, assemblies and components of good quality and, in the final analysis, complete automobiles of good quality.

Naturally, both parties must make a very great effort. This is true above all of the developing country, where an industrial tradition must be established and working discipline and scrupulous adherence to designs, technological documentation and the sequence of technological processes enforced. However, this is precisely the special importance of the automobile industry where industry is not adequately developed, for it plays the role of driving force, carrying everything along with it - while none the less demanding serious efforts - towards a higher level of industrialization.

The above remarks are valid not only for manufacturers of automobile parts, but also for producers of raw materials and other materials which play a part in the manufacture of the finished product.

The cost of production for the manufacturer in the developing country is the core issue, and always remains the subject of long and animated discussions, on which the final decision concerning the advisability of entering into certain business relationships often depends, because they raise the question of the success of the partnership relationships.

Basic factors for the calculation of manufacturing costs are the scale of production, the up-to-dateness of technological processes, the organization of work and, lastly, manufacturing experience.

The manufacturer in the developing country is lacking to some extent in regard to all these factors, and has only one valid argument to bring into play in the calculations; that is the cheap labour factor.

However, the cheap labour factor can hardly compensate for the other more important factors in the calculation of manufacturing costs unless an attempt is made to solve the problem so that the developing country partner is in a position to base its production on the same factors, in other words a more or less adequate scale of production and modern technology and organisation of work, substituting cheap labour for any lack of experience. This means in practice that it must accept the fact of a higher percentage of rejects in production, at least for a certain length of time.

This is precisely the reason why the developed country partner enters into co-operation with some hesitation, and it always takes time for him to gain confidence by starting with assembly and gradually reducing the CKD assortment of parts in favour of parts produced in the developing country, until the stage of manufacture of parts for counterpart supply, in other words for export to the country with the developed automobile industry, is reached.

The best solution to the problem would undoubtedly be the construction of completely new specialised workshops for the manufacture of parts, units and assemblies on economically optimum scales using well-designed technological processes, with further-training courses arranged for the workers, technicians and engineers at the parent factory.

It is none the less clear that, despite the fact that there will be no differences in the sales prices of export parts, there will always continue to be the disparity between the rates of profit achieved by the car manufacturer in the industrialized country and the manufacturer in the developing country, with the rate of profit of the latter remaining substantially lower for quite some time.

In this connexion, the important role played by the customs barriers of the developed and developing countries must be borne in mind. It is indispensable - still for the purpose of accelerating industrial collaboration processes, considering the latter to be the best path towards the development of the under-developed countries and the solution of many related problems - to settle the question of the abolition, or at least the reduction, of customs duties in order to promote collaboration relations and place the manufacturer in the developing country in a more equitable position.

It must be borne in mind that manufacturers in developing countries will have difficulty in achieving a labour productivity high enough to offset, in cost calculations, the protectionist customs tariffs of the country to which the parts, units and assemblies are being exported.

These are also the problems which Zavodi Crvena Zastava is encountering in its relations with foreign partners. Efforts are naturally being made to overcome the above mentioned problems as far as possible.

We should like to draw attention to what we think is a constructive effort to solve this question with the Common Market countries, which have decided to reduce customs tariffs in cases of industrial collaboration with developing countries by granting overall quotas to be distributed among certain countries concerned; this is reflected in the preferential tariffs for specific industrial collaboration operations in given industrial branches.

It is difficult to say exactly what the difference between profit rates is since this difference varies in response to various factors and the taxes collected in each country.

It appears to us that the question of manufacturing time is relatively easy to solve, given modern technological processes and correct selection of equipment, and while we recognize its importance in cost calculation, we find that in some circumstances the time element is not decisive for manufacturing cost.

The automobile industry has always been classified under the serial or mass production industries, so continuity of manufacture and synchronization of supply with manufacture are basic conditions for regular production.

Punctuality of supply is also the first condition which the developed country partner lays down in negotiating contracts for counterpart supply.

Stoppages of manufacturing lines owing to failure of supply in a modern factory engaging in mass production cause enormous losses.

Regular supply, quality of manufacture and manufacturing cost are three questions of primary importance which must be solved in order to organize industrial collaboration successfully.

The matter of regular supply is the least difficult to solve. This can be done simply by establishing a permanent stock in the manufacturer's premises adequate to ensure production for ten to fifteen days and by choosing the most effective means of transport and container-type packaging, box pallets, etc.

In fact, it is not at all simple for the developing country to solve all these problems, but once they have been solved the developing country moves to the industrial stage, and this, in the final analysis, is worth its while.

Zavodi Crvena Zastava has to a large extent succeeded in overcoming the problems described above, but this does not mean that it does not still encounter certain difficulties which can be solved only by strenuous efforts and immediate action.

It is particularly important to ascertain to what extent the developed country partner is prepared to provide technical assistance, know-how, etc., and what importance it attaches to its under-developed country partner overcoming all these difficulties as rapidly as possible.

RESULTS OF CO-OPERATION

In evaluating the results of the co-operation between Zavodi Crvena Zastava and Fiat, it must be borne in mind that this co-operation dates back 18 years, to a time when many things which are today common knowledge and universally accepted were not at all evident either to the manufacturer in the industrialized country or to the partner in the developing country. Up to that time, there had only been the ordinary sale of complete vehicles, with assembly rare and industrial co-operation in the early stages.

Therefore, the clear - and we would even go so far as to say outstanding - results of the co-operation between Zavodi Crvena Zastava and Fiat at every point reflected the various stages in the development of relations over a long period of co-operation which, by strengthening the potential of Zavodi Crvena Zastava in terms of production and cadres, led to mutual confidence and, in view of the results, became a model for co-operation of this type.

It is possible, since many things have now been put in context and had their true values assigned to them, and principles and methods have been studied and defined, that it may be easier to achieve results more quickly if both partners make the necessary effort and base themselves on past experience.

When asked how the foreign exchange accounts resulting from our activity with foreign partners now stand, we reply that this varies from one partner to another. In some cases the ratio is one to one, in other words one dollar of import to one dollar of export, and in others it is one dollar of import to fifty cents of export, as a fixed undertaking, but there is in all cases a trend towards equilibrium between imports and exports.

The question of the balance of accounts is exceptionally complex, embracing not only technical and economic problems, but also problems of a social nature such as, for example, the question of whether the country with which the industrial collaboration contract is signed imports foreign labour or has labour to export.

We must none the less recognize that, in the case of Zavodi Crvena Zastava, the problems are on its side because its dynamic development, which is oriented towards the expansion of productive capacities in order to meet the demand of the domestic market and produce for export, absorbs its own materials, production facilities and cadres and those of its sub-contractors to such an extent that compliance with the principle of increase of counterpart supplies is now limited by the real possibilities of Zavodi Crvena Zastava.

Another positive result of the co-operation between Zavodi Crvena Zastava and Fiat and other foreign partners is the increase in the number of persons employed in the Zavod Crvena Zastava plants, ancillary industries and sales and after-sales service.

The second phase in the development of capacity will increase the number of ZCZ employees working in automobile production alone to more than 25,000, while in the satellite industries and sales and service organizations the total number of persons employed will reach 100,000.

The fact that this increase in the number of persons employed has taken place in the short time between 1960 and 1972, during which time the industry virtually developed from assembly and manufacture with limited domestic content to production in the newly built workshops, and production for counterpart supply was started, shows just how much has been done to provide jobs for workers.

It must be pointed out that there is constant rebuilding of workshops, expansion of capacity and activity in general, involving an increase in the recruitment of personnel.

Providing jobs for workers is of special economic and social importance in the developing countries since, as a rule, these countries have surpluses of labour because, at the same time as industry is being developed, agriculture is being modernized, automatically leaving many unemployed who must find other jobs.

The results achieved in the transfer of technology and know-how in the context of the co-operation between Fiat and Zavodi Crvena Zastava are obvious and are reflected in the ZCZ workshops which have been set up, the modern equipment which has been installed and the high level of mechanization and automation.

It must be pointed out that the long process of co-operation between Fiat and Zavodi Crvena Zastava has resulted in the creation of the latter's own potential - now already considerable - in specialised cadres who, by working together with the corresponding Fiat departments, have become capable of solving various technical, technological and other problems.

The ZCZ departments were developed and cadres given further training, particularly with respect to technological processes and designs and studies, by stages, from that of mere assistance during the preparation by Fiat of the various designs for Zavodi Crvena Zastava to that of full participation in study and design, analyses, the selection of equipment to be purchased and, lastly, the suggestion of certain special approaches for ZCZ relating to changes or adaptations.

The ZCZ Technical Office at Fiat in Turin deserves special credit for the development of the ZCZ cadres. In this office, Crvena Zastava engineers and technicians have worked together with Fiat engineers and technicians, thereby enabling the latter to transmit their experience directly.

At present, Zavodi Crvena Zastava is developing its own manpower with ability to solve many problems arising with respect to technological processes or designs in its own factories or those of sub-contractors.

It is indispensable that ZCZ should give its own cadres further training because there is no such thing as intermittent development of technology or the organization of work; in modern industry there is only a constant progression involving designing, improvement, modification or addition to improve the utilization of equipment or to take into account progress in technological processes and the modernisation of equipment in the world.

GENERAL CONSIDERATIONS AND CONCLUSIONS

If we consider the world as a whole, we see that there are industrialised countries with a high productive potential, and also less economically developed countries which have reached various levels of development and are striving to catch up with the more advanced countries. We also see the under-developed countries which, by their own efforts and with the assistance of the international organisations conducting programmes to close the economic gap in the world, must inevitably establish for themselves the basic conditions enabling them to begin their industrial development.

Means of transport and telecommunications have made tremendous progress, constantly shrinking our globe, so that there is no point on our planet which does not day by day become easier and quicker of access.

The various forms of social welfare, work safety and the general improvement in the standard of living are at the basis of a particularly strong growth in world population which, according to statistical forecasts, will be doubled by the beginning of the next century.

The above observations lead to the conclusion that the highly developed and the developing countries are on the brink of a new era in the development of society.

Consequently, a search must be undertaken for new ways to solve the problems which we are encountering in all parts of the world.

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While the markets of the developed countries have a high absorption capacity thanks to their material potential, they are none the less limited because, owing to the technical and scientific progress which is reflected in technologies which are becoming constantly more sophisticated, the production forces in these countries have very greatly expanded.

Let us consider for a moment the case of the United States, where nearly every second inhabitant owns a car. This is a market which can be considered completely or nearly saturated. The country's production is therefore beginning to be increasingly directed towards the accelerated replacement of the existing car population. At present, 40 per cent of the country's annual production is already intended for replacement of cars which will no longer be used.

Europe is moving in the same direction, although the degree of saturation varies from country to country. In any case, the annual increase in automobile production as a whole can be expected to amount to two or three per cent from now on, as compared to six or seven per cent, and even more, in recent years.

This situation prompts automobile manufacturers in highly industrialized countries to seek new markets for their cars in order to be able to continue expanding their production, improving their technological processes and stabilizing or reducing their manufacturing costs, either to keep the positions which they have achieved or to compete better in the world automobile market.

However, the developing countries are also aware of the current situation in the world, and know very well that their market provides them with their most valid argument, so that, if they wish to introduce the automobile industry into their countries in order to promote the general development of industry as a whole, they must capitalize as much as possible on the factor of their market.

It is impossible for the developing countries to follow in the footsteps of the developed countries with regard to industrialization, let alone with regard to the organisation of the automobile industry.

Nor can these countries make up for the period of nearly 90 years of experience in automobile manufacture which some developed countries have had. They must therefore endeavour to enter automobile manufacturing at the level which has now been achieved by well-known manufacturers by purchasing licences, receiving technical assistance and acquiring know-how. The essential point is that the country in question should manufacture on the scale which is most appropriate to the size of its market and its material potential.

In view of the fact that, as a general rule, the developing countries always have the problem of availability of foreign exchange, and this problem is aggravated by the undertaking of automobile manufacturing because the import of cars in the form of CKD assortments which are gradually reduced in favour of the integration of locally produced parts is quite expensive, the more so if it is necessary also to import producer goods.

These are the reasons why any developing country, assuming that it has developed its industry and market, seeks to establish relations based on the principles of industrial collaboration with a partner in an industrialized country.

There are of course other factors which play a part on one side or the other and orient action toward industrial collaboration, technical assistance, know-how, licences, joint sales, etc.

We shall mention some of these factors.

There is a shortage of labour in the developed countries which is increasingly becoming a constraint to future industrial development. In particular, there is a constant flow of foreign labour into the highly developed countries. The arrival of these workers and their integration into the manufacturing process give rise to a number of social and other problems.

Foreign labour is becoming more and more expensive and is already beginning to lay down conditions which are designed to gain for it treatment on the same footing as local labour.

In general, countries which are inadequately developed have a surplus of available labour and, for economic and social reasons, are extremely interested in providing jobs on the spot for the unemployed.

Also, labour in the under-developed countries is cheaper than in the highly industrialized countries.

This fact suffices to make an automobile manufacturer in an industrialized country consider it in his interest to shift part of his production to inadequately developed countries.

The scientific, technical and technological progress of modern industry has gone very far, and completely new industrial sectors such as electronics, hydraulics, precision mechanics, etc., have been opened up, so that some products such as grey iron castings, malleable iron castings, steel castings and forgings no longer attract workers, especially as, on the whole, the number of persons wishing to do the simplest or the hardest work is constantly decreasing.

The high profits which were once realized in the industries of the developed countries are to some extent being jeopardized because many social problems so far unsettled have become burning issues. In particular, solutions are being sought everywhere to the problems of social security, public education at all levels, housing, recreation, etc., and this in turn has called labour productivity in question.

As a result of the generally lower standard of living, labour in the developing countries is appreciably cheaper and, consequently, by transferring part of production, it is possible, even with lower labour productivity, to make considerable profits. It is this fact which largely explains the expansion of United States industrial concerns and even of European and Japanese concerns in the various countries of the world.

We believe, never the less, that in addition to the foregoing the question of ensuring a market for products is the most important motive for the industrially advanced countries to develop industrial collaboration with the developing countries, particularly as, in the industrialized countries, the process of absorption of small concerns by big manufacturers is already almost complete and what is now happening is that the large manufacturers of various countries are uniting to form powerful groups, better in a position to compete with other similar groups in other parts of the world.

Our period will be characterized by concepts adapted to the new requirements.

The old approach of setting up one's own establishment in the foreign market is becoming increasingly rare, and the tendency is to establish relationships in which local industry holds a dominant position, thereby leading to more equitable relationships and forms of co-operation which have the features of an association rather than of domination of one party by the other.

In this connexion, let us now consider the case of Zavodi Crvena Zastava, and its relationships with Fiat and other foreign partners.

Zavodi Crvena Zastava now has the capacity to produce about 200,000 vehicles annually, with the satellite industry more or less developed, modern organization of work, manufacturing methods of a high level, and a fairly well developed sales and after-sales network in the country; a modest beginning has been made in exports.

Zavodi Crvena Zastava must always bear in mind the limitations on its market connected with the size of the country and the purchasing power of the inhabitants.

To make possible mass production and the introduction of modern technology, Zavodi Crvena Zastava has developed industrial collaboration arrangements with many other countries, thus seeking to overcome the problem of the small market.

The logic of things prevents the concern from resting content with present capacity levels, and it will continue to develop in order to create the conditions for the adoption of more advanced technology, competitive production costs and a constantly updated range, and with this end in view it will pursue its relations with foreign partners based on the principles of industrial collaboration, the international division of labour and, where possible, joint venture arrangements.

Fiat, which is among the largest manufacturers in the world and has well-established links with car manufacturers in several countries in different parts of the globe, is undoubtedly in a situation which causes it to seek the benefits of relations based on the new principles of co-operation, aimed at consolidating the positions of both parties and creating conditions for joint penetration of the markets of third countries which, in the near future, will become important consumers of cars, and also producers who will ask to be included in schemes of co-operation based on the principles of industrial collaboration agreements.

If we look back at the subject discussed at the last UNIDO meeting held at Karlovy Vary in 1969, and the discussions which took place there, particularly the views expressed by the major world manufacturers, we will see that, in a relatively brief period, ideas have changed regarding the paths to be followed in the development of the automotive industry throughout the world.

All the representatives of the large manufacturers who took part in the discussion argued at the time that the automotive industry should not be developed in countries which were insufficiently advanced and that such countries should purchase complete cars from developed countries, or possibly assemble cars imported CKD.

The concepts which have taken hold in recent years as the natural result of the development of economic relations in the world, and in the first place as a consequence of the new concepts of political co-existence between countries, necessarily involving economic co-existence, have brought to light new possibilities consisting above all in dividing up the manufacturing programme with an eye to broader common interests - in fact, in the multilateral development of industrial collaboration and integration in the pursuit of joint interests, with recognition of the equal rights of each participant.

The small and medium-sized countries and the under-developed and developing countries have always been interested in such co-operation. The positive development evident at the present time resides in the fact that the highly developed countries, and, in our case, the large car manufacturers, have come to the conclusion that a development of relationships on these lines is in their interest.

SUMMARY

Today, unlike a few years ago, there is interest on both sides in industrial collaboration between advanced countries and developing countries in the automotive industry. This is the result, on the one hand, of the situation in regard to the marketing of cars in industrialized countries and, on the other, of the desire of the developing countries to benefit from the favourable effects which the automotive industry will have on their general industrial development.

Yugoslavia can be said to have passed through three periods. During the first period, from the Second World War until 1955, there was no domestic production and the number of cars was lower than it had been before the War. The second period (1955-1965) was characterized by the first efforts at domestic production and the first steps in the organisation of the ancillary industries. The third period, from 1965 until the present day, has been characterized by economic reform and the accelerated development of domestic production; at the same time, however, there has been an increase in the number of assembly shops and in imports of complete vehicles.

Yugoslavia can be expected to pass the figure of one million registered private vehicles before the end of 1972.

Zavodi Crvena Zastava, the largest domestic manufacturer, started up a plant on 25 April 1972 which will make some 200,000 vehicles annually.

In addition to Zavody Crvena Zastava, which makes vehicles under licence from Fiat, there are several undertakings which assemble vehicles in larger or smaller quantities, namely:

- TOMOS, Koper, under licence from Citroen;
- UNIS, Sarajevo, under licence from Volkswagen;
- IMV, Novo Mesto, under licence from Austin;
- LITROSTROJ, Ljubljana, under licence from Renault.

Zavodi Crvena Zastava of Kragujevac has had its most important results producing cars under the licence from Fiat acquired by a contract concluded in 1954. Zavodi Crvena Zastava has not only succeeded in producing cars of wholly domestic origin, at a rate of around 200,000 units a year, but has also set up design and study departments which, in co-operation with Fiat's technical services, has succeeded in developing and producing a vehicle known as a Zastava 101, which, although derived from the Fiat model, has characteristics of its own in regard to the design itself and the technical solutions adopted.

The agreement between Zavodi Crvena Zastava and Fiat has passed through all the stages of co-operation from the contract for the acquisition of the licence to partnership relationships and participation by Fiat in the capital of Zavodi Crvena Zastava.

A vast wealth of experience has been derived from these eighteen years of co-operation. During this long period of association and expanding relationships, many problems have arisen and have been resolved, not only problems arising in the relations of the two undertakings with each other but also difficulties connected with the development of all Yugoslav industries and, in particular, the subcontracting industry of Zavodi Crvena Zastava.

Through the expansion of capacities, labour forces in general and cadres, the conditions have gradually been created for the establishment of relationships between Zavodi Crvena Zastava and Fiat based on the industrial collaboration arrangement, which is becoming the main form of co-operation. This is the best way of surmounting the fundamental problems facing the developing countries, particularly high production costs resulting from relatively small production series and outdated technology.

In general, the difficulties encountered by the developing countries consist of the limited capacity of the market, an inadequately developed satellite industry, the considerable investment required by the automotive industry, the backwardness of the non-ferrous metals industry, iron and steel production and the chemical industry, etc.

To overcome these problems, Zavodi Crvena Zastava has established collaboration not only with Fiat but also with the automotive industries of Poland and the USSR, and to a lesser extent that of Hungary.

Results so far confirm that the path taken has been a good one, since the limiting factors mentioned are reduced as a result of industrial collaboration, whether through the dividing up of the production programme, the expansion of markets, the reduction of investment costs, better synchronization of supplies or other factors.

The problems once considered difficult to solve in industrial collaboration arrangements such as those of transport, packaging, etc., are overcome today by the use of special railway wagons, containers and the like; as a result, the manifold advantages of industrial collaboration have become evident and, we think, are already generally acknowledged and accepted.

The situation of the markets of the developed countries, seeing that there are countries where there is a car for every four to five or even every two inhabitants, is putting these countries in a situation where they must manufacture vehicles in order to replace existing stocks rather than for new customers. Consequently, the question of the future expansion or even of the maintenance of production is closely tied to the quest for new outlets.

The large number of new countries formed after the Second World War, particularly those liberated from colonialism, as well as the general increase in material capacity in a large number of countries of the Near, Middle and Far East, Latin America and elsewhere, and the intense growth of population, make industrialization and the improvement of living levels essential.

Being fully conscious of the contribution made by the car industry during the period of industrialization of the countries now regarded as developed, many countries wish, through the assembly of vehicles and, in the first place, through industrial collaboration with the car industries of the advanced countries, not simply to introduce general car ownership in the country but above all to promote, with the aid of the automotive industry, the industrialization of the country and fuller employment.

These two tendencies represent a real force which, through the expansion of industrial collaboration in the automotive industry during the coming years, will help to bring more effective solutions to the problems on both sides, with the result that industrial collaboration arrangements are viewed with increasing favour on both sides as the most suitable form of co-operation.

The co-operation which has taken place between Zavodi Crvena Zastava and Fiat may serve as an example of an industrial collaboration arrangement, while also providing experience in regard to other types of co-operation, from licensing and assembly to participation in capital and partnership.

All that has taken place and the results that have been obtained in the relationships between two undertakings provide a solid foundation for expanded co-operation based on the principles established, accompanied by a continual search for the most appropriate forms.

APPENDIX

Annex 1

REGISTERED MOTOR VEHICLES IN YUGOSLAVIA*

Year	Motor cycles	Trucks	Special Vehicles	Road tractors	Trailers
1962	91,005	37,703	4,434	15,887	19,173
1963	97,977	42,574	5,057	16,868	20,279
1964	102,158	48,902	6,021	17,698	21,752
1965	106,396	58,575	6,663	19,160	24,677
1966	112,318	70,115	7,379	21,274	27,603
1967	112,920	* 85,641	8,124	23,471	31,729
1968	317,680	90,555	8,498	23,868	33,105
1969	351,879	95,315	9,504	26,346	36,023
1970	369,515	107,287	10,123	30,589	40,717
1971	368,112	116,245	13,836	33,817	43,413

* According to data from the Bureau of Car Manufacturers.

REGISTRATION OF VEHICLES IN YUGOSLAVIA*

Year	Cars	Industrial vehicles
1962	19,419	6,123
1963	20,585	8,042
1964	30,572	10,185
1965	47,490	13,639
1966	68,695	14,148
1967	106,838	18,595
1968	90,423	8,194
1969	130,975	8,939
1970	169,553	16,047
1971	167,818	19,127

MOTOR VEHICLES PRODUCTION IN YUGOSLAVIA (QUANTITY)**

Year	Cars	Buses	Trucks and special vehicles	Motorcycles
1962	13,125	2,144	6,454	31,968
1963	20,923	1,823	7,975	43,113
1964	27,854	2,362	9,081	48,142
1965	35,880	2,287	9,572	48,774
1966	33,698	1,984	9,982	48,773
1967	42,338	2,745	10,721	49,559
1968	59,962	2,991	11,153	61,154
1969	80,698	2,750	11,535	65,092
1970	112,160	4,493	13,910	81,970
1971	114,477	3,144	14,747	53,576

* According to data from the competent departments of Zavodi Crvena Zastava

** According to data from the Bureau of Car Manufacturers.

LIST OF THE MOST IMPORTANT ENTERPRISES OF THE ANCILLARY
INDUSTRY TO THE YUGOSLAV MOTOR VEHICLES INDUSTRY*

Company	Address	Makers of
27 MART-Industrija motornih delova i odlivaka	Novi Sad	Aluminium pistons for Otto and Diesel engines, piston rings, cylinders, universal joints, steel and iron castings
FADIP - Fabrika auto- traktorskih delova i pribora	Bečej	Bumpers and decorative parts for motor vehicles, elastic tubes, electro equipment for motor vehicles
ISKRA KRANJ Tovarna Nova Gorica	Nova Gorica	Dynamo, starter and other electric equipment for motor vehicles
HUDI ČAJAVEC	Banja Luka	Electric and other equipment for motor vehicles, instruments for instrument panel, electro breakers, auto-radios, radars for checking speed of motor vehicles
SATURUS-Kovinsko predelovalna industrija	Ljubljana	Lighting equipment for motor vehicles, trailers and bicycles
SOBO	Mostar	Cardans and steering
TELEOPTIK-Fabrika preciznih instrumenata, opreme i automatskih uredjaja	Zemun	Complete instrument panels and instruments for motor vehicles, fuel pumps and other equipment
FABRIKA MOTORA 21 MAJ-DMB	Rakovica	Car engines, gear boxes and gears
DUGA	Belgrade	Colours and varnishes
ELMOS	Svetozarevo	Electric equipment, lamps and electric cables for motor vehicles

* According to data from the Bureau of Car Manufacturers.

Company	Address	Makers of
ELVOD	Kragujevac	Ventilation and other ducts
FANOS	Surdulica	Electric wind screen wipers
FILIP KLJAJIC	Kragujevac	Galle's (sprocket) chains and roller bearings
FRAD	Aleksinac	Air, oil and fuel filters and parts
INDUSTRIJA STAKLA	Pančevo	Safety glass for motor vehicles
KEMIČNA INDUSTRIJA DONIT	Načvoda	Electroisolation material, gaskets, filters for internal combustion engines, stampings for motor vehicles
MEKSIJ	Batočina	Different motor vehicle parts
LIVNICA ŽELJEZA I TEMPERA	Kikinda	Temper, iron and nodular castings
LOKNE TOVARNE HLADILNIČOV LTH	Škofja Loka	Light alloy castings, pressure castings
TRUJA-TVOŠNICA AMBUKLATORA I GUMENIH PROJEKTOVA	Zagreb	Motor vehicle and electro vehicle batteries and parts
PROLETAR	Kragujevac	Exhaust tubes
PRVA PETROLINKA	Trstenik	Pneumatic and hydraulic equipment, seals
KUMENCI I ŽELJEZARSKA GRUPA	Šopje	Cleaned steel sheets
KUMENKI SVENGA IN TOPILOTICA	Mežica	Batteries
RUEN	Kočani	Clutch disc and clutch lamellas

Company	Address	Maker of /
SAVA	Kranj	Tubes and tyres, vee-belts, crankcase gaskets, rubber bumpers and other rubber parts
SEVER	Subotica	Electric and micro motors
TAD	Bjelovar	Silent blocs,
TANG	Nova Gradiška	Tools
TIGAR	Pirot	Normal and tubeless tyres, different rubber parts for motor vehicles
TRIPČA - FABRIKA AKUMULATORA	Kosovska	Motor vehicle accumulators
TVIE - Tvorionica vijaka	Knin	Bolts, nuts, rivets
KRAK	Sarajevo	Different contact breakers and electro parts for motor vehicles
ŽELJEZARA BORIS KIIRIĆ	Wigšić	Steels, rolled and drawn steels, steel rolled sheets and bolts, steel castings
ŽELJEZARNA RAVNE	Ravne na Koroškem	Rolled steel bars, forged steel bars, steel forgings, steel castings, springs, drawn, peeled and ground steel, industrial cutters and pneumatic tools
ŽELJEZARNA SIBAK	Sisak	Cold drawn or rolled seam or seamless tubes, cold drawn profiled steel tubes of different sections
ŽELJEZARNA ŠTORE	Štore pri Celju	Spring steels, special profiles, steel and nodular castings

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**QUESTIONS DEALT WITH IN THE CONTRACT CONCERNING LICENSING
AND TECHNICAL CO-OPERATION BETWEEN ZAVODI
CRVENA ZASTAVA AND FIAT, 12 AUGUST 1954**

1. Subject of the contract

Licensing of production and sale of vehicles; see page 15 of the present report.

2. Right of utilization of the licence on the part of
Zavodi Crvena Zastava

This section also regulates the question of export by Yugoslavia of vehicles covered by the licence.

3. Patents and licences

Fiat authorizes Zavodi Crvena Zastava to utilize the patents and licences belonging to Fiat with the understanding that patents filed by Fiat while the contract is in force will be made available automatically to the Zastava establishments.

4. Widening of the licence

This section deals with the priority rights of Zavodi Crvena Zastava and Fiat in the case of an expansion of the activity concerned in Yugoslavia.

5. Technical documentation concerning the licence

The technical documentation relating to the licence is specified and the time table for delivery is fixed.

6. Secrecy of designs and documentation

The usual clause appears.

7. Improvements in production and exchange of experience

The principle that the two parties will inform each other on improvements has been adopted.

8. Technical assistance

All the details on the technical assistance to be rendered from the drawing up of the plan for the factory to assistance in the organization of the technical, commercial and administrative departments are dealt with fully.

9. Receipt of the documentation

The conditions and procedures for the delivery and receipt of the documentation are laid down.

10. Guarantees

Fiat offers guarantees regarding the quality of the documentation and the economic efficiency of the establishments set up according to its designs.

11. Purchase and sale procedures

These were in conformity with the conditions prevailing at the time when the licensing contract was concluded.

12. Economic conditions

In consideration of a certain order stipulated in the contract, Zavodi Crvena Zastava has obtained the right to utilize the licence for the vehicles covered by the contract in Yugoslavia without any time limitation.

13. Trade mark

This has been fixed according to the wishes of Crvena Zastava.

14. Taxes and dues

The principle has been adopted that each party bears these costs in its own country.

15. Duration of the contract

Fixed at ten years.

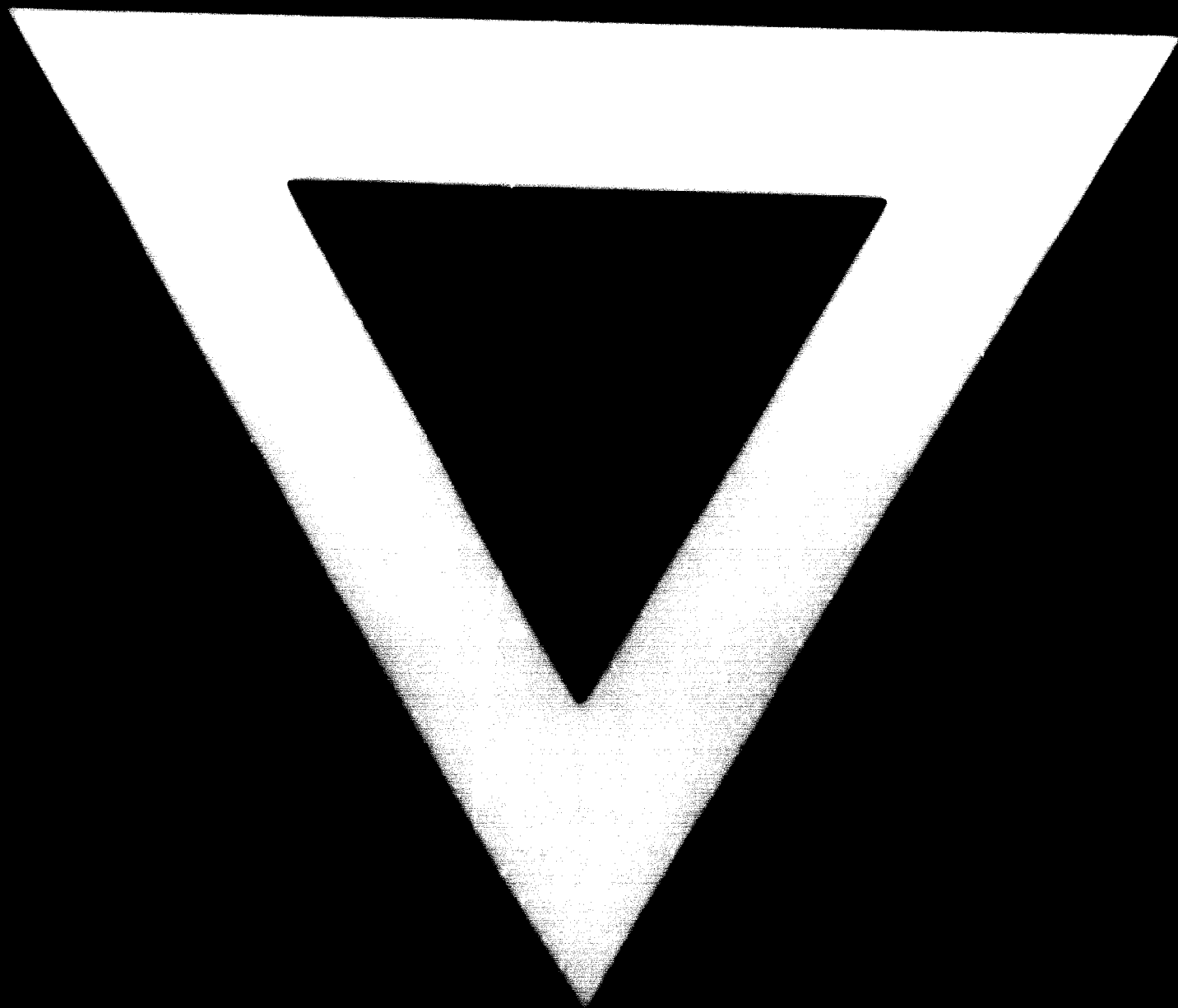
16. Arbitration

Ad hoc arbitration to settle differences at Zurich is agreed on.

17. Force majeure

Covered by a traditional clause.





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