ANIMA
Euromediterranean Network of
Investment Promotion Agencies

Invest in the Mediterranean
Number 11 / December 2004

ANIMA
PAPERS & STUDIES

The automotive sector in the Euro-Mediterranean region

Collective work directed by
Fabrice Hatem
assisted by Anne-Claire Vu
Invest in France Agency

The automobile sector in the Euro-Mediterranean Region

ANIMA
Papers and Studies n°11
December 2004

Collective work directed by
Fabrice Hatem
assisted by Anne-Claire Vu

References

This document has been prepared within the context of a mission entrusted by the European Commission to the Invest in France Agency (AFII), assisted by the ICE (Italy) and the DI (Morocco), to develop a Euro-Mediterranean Network of Investment Promotion Agencies (« ANIMA »). Contract no.: ME8/B7-4100/IB/99/0304.

ISBN: 2-915719-11-X

Authors

This document is the fruit of a collective endeavour to which have collaborated namely:

- Fabrice Hatem (Invest in France Agency), who coordinated the study, assisted by Anne-Claire Vu;
- Juliette Grenet, Mathieu Legoupil, Fabrice Defever, Claire Anxionnaz, Laurence Peter, Mélanie Trastulli, Elodie Martin, Alexandra Sanchez and Claire-Audrey Trichot ;
- Bénédict de Saint-Laurent, for recommendations and editing, (ANIMA team, Invest in France).
- Several people and organisations, who have supplied precious information, particularly the FIEV, the CCFA, the AFII (Olivier Cormier) and the MEDA IPAs.
- The cover page photography is due to the Ministry of Foreign Affairs, France.

Acronyms

- CBU: Completely Built Unit
- CKD: Component Knocked Down or Completely Knocked Down -international trade term for components shipped into a country for assembly there.
- FDI: Foreign Direct Investment
- MEDA: Group of 12 partner countries of the EU: Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Palestinian Authority, Syria, Tunisia, Turkey
- MIPO: Mediterranean Investment Project Observatory
- PV: Personal vehicle
- UV: Utility vehicle
- LUV: Light utility vehicle
- WTO: World Trade Organisation

Contents

Summary

Until recently, the automobile sector played a relatively limited role in Mediterranean economies, which had not developed powerful industries and were thus not able to enforce themselves as major actors at world or even regional level. Still today, production and total exports of the MEDA countries only reaches a relatively modest level, whether for equipment or motor vehicles and their external trade balance remains largely in deficit.

However, the past twenty years have seen a favourable evolution: development of the flow of sub-contracting contracts for the manufacture of certain items of equipment, the installation of mainly European equipment makers, or automobile constructors in the case of Turkey. This country sets the example, for the moment unique in the MEDA region, with the gradual building of a real automobile sector, sparked off by the arrival in the 1970s of a small number of foreign constructors, followed by their suppliers, and finally by the development of an industry of local equipment manufacturers. Today, after the massive boom of the 1990s, this industry covers a growing share of the local market and also exports in increasing quantity, mainly towards Western Europe.

Other countries are also developing their automobile industry, albeit more modestly, especially Tunisia, where the production from a component and equipment activity is intended for the assembly sites in Western Europe and Morocco.

Recently, the constructors and equipment manufacturers active on the European market have shown an increasingly strong interest in a location in the countries south of the Mediterranean and especially in the Maghreb, where there is an abundant labour force with relatively moderate costs. The game is, however, far from over for the MEDA countries. Beyond the fact that only certain of them (especially Turkey, Morocco, Tunisia…) satisfy the pre-requisites of

companies in terms of political stability, legal security, quality of infrastructures and/or the level of wage costs, the future of the automobile industry is threatened, even in these countries, by several concomitant movements:

- on the one hand, the rise in importance of the automobile industries of Eastern Europe, towards which massive streams of investment are flowing and sub-contracting contracts from Western Europe are turning;
- on the other hand, the competition from extra-European countries, which should continue to grow in the years to come.
- finally, the rise in the technological content of these activities, which brings with it growing demands in terms of the quality of labour, the industrial environment, the supply chain networks, etc.

Faced with the twin challenge of increased competition in the European market as well as their domestic markets, the Mediterranean countries should therefore double their effort of modernisation and creation of an appropriate business environment if they intend to grasp the opportunity which is offered by the current strategies of internationalisation and relocation of those automobile companies which originate in developed countries.

As for the European automobile industry, following the crisis of the 1980s, as a result of the rise in importance of Japanese competition, it has experienced a significant correction, accompanied by a powerful internationalisation movement. The latter took, in part, the form of relocations, likely to benefit more particularly the Eastern regions of the continent. Representing, as it does, an opportunity for the low labour cost countries (e.g., Romania), this movement is symetrically perceived as a factor for the industrial desertification for the countries with high internal costs (e.g., France), and as representing direct competition as well as a direct threat for the MEDA countries which would like to develop the very same sectors.

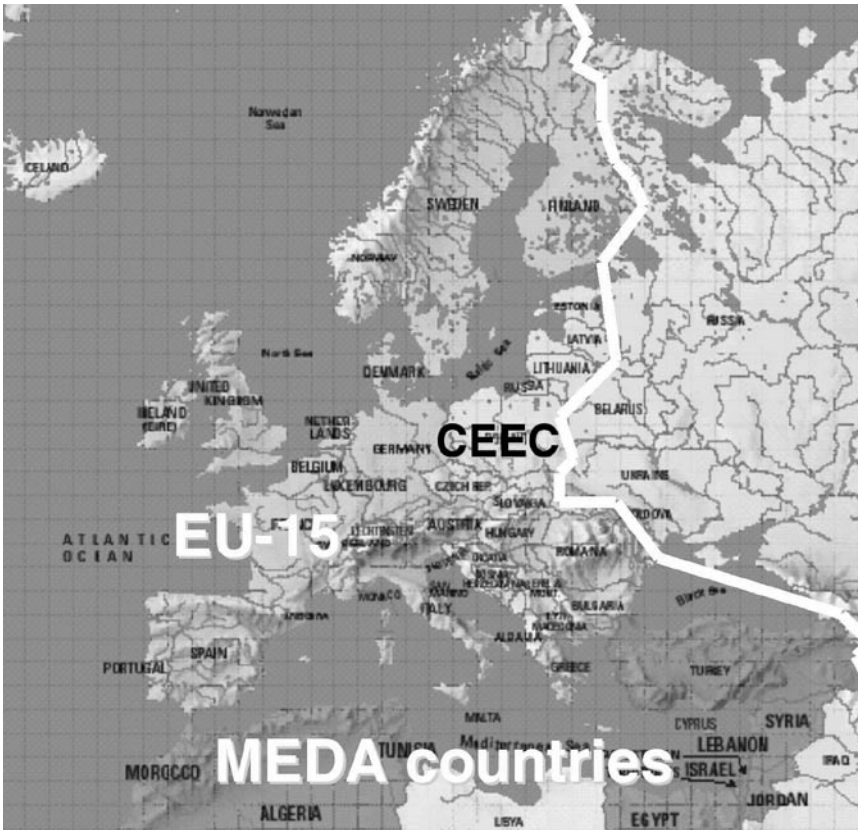
It is therefore interesting to study this activity in a systemic perspective which throws light both upon the sets of problems of the developed countries of Western Europe and those of the countries situated at various stages of industrialisation such as those in the MEDA

region and the countries of Eastern Europe. This is what is proposed in this report (see the definition of the area taken into account in Figure 1), which links the two points of view, so as subsequently to examine to what extent coordinated industrial policies are possible or desirable.

An analysis of the industry does, however, draw attention to the strong specificities of the upstream industrial segments (equipment) as well as those downstream (automobile construction), whose relatively different technico-economic features demonstrate specific location behaviour. It is for this reason that the highly concentrated automobile construction industry will locate more willingly in areas which offer a very well-structured industrial environment, with quality infrastructure close to the end-user market. As for the equipment industries, the location criteria may be highly variable depending on the case. The relatively unskilled labour-intensive activities (e.g.: wiring…) are likely to be more sensitive to the question of wage costs, whereas others, of higher technological content, (e.g.: certain electronic components) will be more attracted by the existence of a high level industrial environment and a satisfactory level of skilled labour. But all will be sensitive to the possibility of rapid and reliable supplies for their assembly sites, which assumes either the existence of quality logistics, or an installation very close to these sites.

In the first part, the analysis will concentrate on the structures of the automobile sector and the overall trends currently at work concerning the supply, the demand and technological evolution. In the second part, an examination will be made of the evolutions underway in the geography of the activities within the Euro-Mediterranean region and their consequences for the different groups of countries concerned, especially those of the MEDA region. The conclusion will put forward a number of courses of action intended to improve the attractiveness of the automobile sector: intensification of the effort of regional cooperation, improvement of the local business environment, an increase in the effort to understand the markets and to promote the MEDA offer.

Figure 1. Area taken into account in the study (Europe of 15, new members and candidates from the East, MEDA area countries)



1. Organisation and evolution of the automobile sector in the world

After having presented the main features of the sector, the report will analyse the current main trends in the commercial, technical, and regulatory domains, then the strategies of the firms concerned, especially in terms of internationalisation. At each step, an attempt will be made to throw light upon the stakes specific to the countries of the MEDA region.

The structure of the automobile industry

A sectoral approach

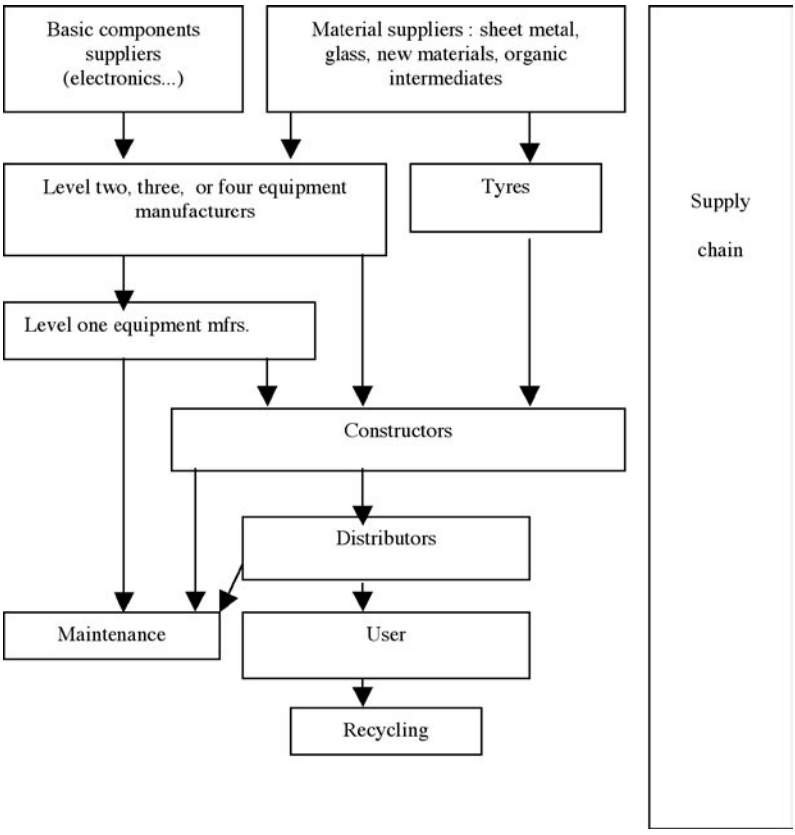
The automobile sector comprises (cf. Figure 2):

- The manufacture of the sub-products (glass, plastic, metallic products,…) used in the fabrication of the vehicle;
- The manufacture of the large constituent items of equipment of the vehicle: tyres, coachwork, automotive equipment (components, parts and systems). The equipment manufacturers themselves form a very heterogeneous group depending upon their position in the value chain, the type of products supplied and their activities: three levels of equipment manufacturers, 1, 2, and 3; component and system manufacturers/assemblers; car body manufacturers, chassis, information or safety systems manufacturers, motorists (cf. Annex 2).
- Vehicle assembling, carried out by the constructors;
- The distribution, maintenance/repair activities, and all the other services linked to the use of the vehicle (included recycling);

This sector also calls upon a very large number of connected activities, which intervene at different stages: electronic component and software manufacturers for the automobile electronics, logistics, etc.

This study will take an interest in the very core of the sector, represented by the constructors/equipment manufacturers combined.

Figure 2. The automobile sector



The overall features of the activity in the world

Representing an overall turnover of roughly 1,000 billion dollars at world level[1], with annual production of 60 million vehicles (Figure 3), the automobile sector (equipment manufacturers and constructors) employs 7 to 8 million people in the OECD countries, to which should be added 1 to 2 million extra outside the OECD. It is a relatively mature industry, whose growth today is governed above

1. Figure concerning the end sales of vehicles and parts to the consumer, excluding intermediate consumption within the sector.

all by the demand for bottom-of-the-range[2] vehicles in developing countries and by product and process innovation in developed countries. It is also a highly internationalised activity both with respect to commercial trade flows (exports of products to foreign customers and intra-firm trade) and the location of companies, especially the constructors and the large equipment manufacturers.

Figure 3. The production of motor vehicles in the world. Source: CCFA

2003	Private Veh.		Utility Veh.		Total	
	000's	%	000's	%	000's	%
EUROPE inc.	17 244	41,0%	2 761	14.8%	20 005	33.0%
Western Europe	14 602	34.8%	2 179	11.7%	16 782	27.7%
Germany	5 145	12.2%	361	1.9%	5 507	9.1%
Belgium	792	1.9%	113	0.6%	904	1.5%
Spain	2 399	5.7%	630	3.4%	3 030	5 0%
France	3 220	7.7%	400	2.1%	3 620	6.0%
Italy	1 026	2.4%	295	1.6%	1 322	2.2%
United Kingdom	1 658	3.9%	189	1.0%	1 846	3,0%
Sweden	280	0.7%	43	0.2%	323	0.5%
Central and Eastern Europe	2 348	5.6%	342	1.8%	2 690	4.4%
Turkey	294	0.7%	240	1.3%	534	0.9%
AMERICA inc.	8 273	19.7%	9 974	53.6%	18 246	30.1%
NAFTA*	6 630	15.8%	9 580	51.5%	16 210	26.7%
South America	1 643	3.9%	394	2.1%	2 037	3.4%
ASIA-OCEANIA inc.	16 228	38.6%	5 744	30.9%	21 971	36.2%
Japan	8 478	20.2%	1 808	9.7%	10 286	17.0%
China	2 019	4.8%	2 425	13.0%	4 444	7.3%
South Korea	2 768	6.6%	410	2.2%	3 178	5.2%
AFRICA	267	0.6%	128	0.7%	396	0.7%
TOTAL	**42 012**	**100.0%**	**18 607**	**100.0%**	**60 619**	**100.0%**

Subjected to strong competitive pressure because of the costs, the companies seek to reach the critical size which will give them power

2. But also of utility vehicles (public transport and, in certain cases, of mid range vehicles(e.g.: China).

in the market place, generate scale economies and enable them to be present in all the large areas of the planet. Hence an already very high level of concentration of the first level constructors and equipment manufacturers and a very rapid movement of concentration for the remainder of the industry.

Moreover, the firms seek to internationalise so as to be present on the main markets of the planet and profit from the comparative advantages of the different potential countries, at the different stages of the « value chain ». What is appearing in particular is a « hub » logic which groups the production of the same type of vehicle intended for a whole region or even the whole world and is supplied by a vast network of equipment manufacturers and sub-contractors. Hence the development of transnational production networks linking sites located in different countries for the production of a vehicle.

Simultaneously, the search for innovation, as much in products as in processes[3], has led to an increase in the R&D costs and had transformed the automobile industry into an activity with an increasingly high technological content.

The automobile sector in the Euro-Mediterranean region

In 2003, the Euro-Mediterranean region was the second world producer, behind Asia, with more than 20 million vehicles manufactured (Figure 3). Even if the major part of this production was carried out in Western Europe, where the sector employs nearly 2 million people (Figure 4), it is in the countries of Eastern Europe and Turkey where the progress in activity has been observed to be the strongest (see 2nd part of this document for a detailed analysis of the MEDA countries). Germany remains the leading producer, followed by France, Spain and the United Kingdom.

3. Both to satisfy increasingly strict statutory norms in terms of safety / environment and to offer the consumer extra advantages in terms of price, comfort, delivery times, services…

Figure 4. The automobile industry in the European Union (EU 15). In 2001. Companies with more than 20 employees. Source: CCFA

Personnel employed	**thousand**	**1 939**
Of which construction of motor vehicles	thousand	1 055
Of which manufacture of car bodies and trailers	thousand	167
Of which manufacture of automotive equip.	thousand	717
Turnover	million €	616 260
Production	million €	549 127
Production/Turnover	%	89.1
Added value (at factor cost)	million €	116 499
Added value /Production	%	21.2
Added value per person employed	thousand €	60.1
Personnel expenses	million €	86 479
Expenses per person employed	thousand €	44.6

Figure 5. External trade and balances of the Euro-Mediterranean region in 2002. Source: CEPII, CHELEM Database

2002, G$	**Exports world**	**Imports world**	**Balance world**	**Exports Regional (*)**	**Imports Regional (*)**	**Balance regional (*)**
Western Europe	305.5	266.7	38.9	26.8	16.0	10.8
Eastern Europe	18.5	25.2	-6.7	13.6	20.3	-6.7
MEDA countries	3.7	9.9	-5.9	3.0	7.1	-4.1
Total	**327.8**	**301.6**	**26.2**	**43.4**	**43.4**	**0**

(*) by regional, is meant « internal to the Euromediterranean region constituted by the MEDA countries, Western and Eastern Europe».

In the context of a rapid growth of international and inter-zone trade, the external balance of the region is still very much in surplus (Figure 5), essentially due to Western Europe with however a gradual improvement of the trade balance of the East European and the MEDA countries (the latter remaining however in deficit). There is an intensification of intra-zone trade, which is a testimony of the phenomenon of growing integration, both between the countries of Western Europe as well as with certain MEDA countries (especially Turkey and Tunisia). Conversely, extra-zone commerce remains

more limited (Figure 6): for example, only 15 % of Western European external trade takes place outside the Euro-Mediterranean region.

Figure 6. Intra-zone and intra-region shares of world trade (exports + imports) in 2002. Source: CEPII, B. CHELEM

Region	Intra-zone (US$)	Intra-zone (%)	Intra-region (US$)	Intra-region (%)	World
West Europe	221.6	39 %	486.1	85 %	572.2
East Europe	7.0	16 %	40.9	94 %	43.8
MEDA	0.6	5 %	10.7	80 %	13.4
Total	229.3	36 %	537.7	85 %	629.4

NB: by intra-zone, is meant « internal to each of the zones mentioned in the line ». By intra-region, is meant « internal to the Euro-Mediterranean region».

Recent years have been marked by a rise in size of the market share of the Eastern periphery and Turkey in automobile production of the region in all stages of the sector. This phenomenon can be explained both by the increasingly rapid growth in local markets, whereas the European market is already mature, and by the differential in wage costs which provides an encouragement to relocation movements (cf. below). Motor vehicle production in Eastern Europe thus exceeded 2.6 million units in 2003. New producers (Romania, Slovenia…) have joined those who have been developing their automobile sector since the end of the 1990s (Czech Republic, Hungary, Poland).

As for the MEDA countries, their dynamism is above all to be put down to Turkey where a complete automobile sector has gradually developed. On a much more modest scale, Tunisia has also developed a level 2 and 3 equipment industry, mainly intended for re-exportation towards the first level equipment manufacturers and the assembly sites in Western Europe (see data and detailed analyses in the 2nd part of this study).

The overall trends: markets, innovation, regulation

The automobile industry is currently faced with major evolutions in a number of fields: strong growth of demand towards emerging countries, reinforcement of regulations in environmental and safety

terms, major technological innovations in products or processes. Once these evolutions have been described, the specific consequences for the MEDA countries will be analysed.

The shift in demand towards emerging countries

The vehicle market

World demand for automobiles has experienced a relatively stable rythm of growth during the past 8 years, with production passing from 53 million units in 1997 to more than 60 million in 2003 (Figure 7).

Figure 7. World automobile production (in '000 units). Source CCFA

1997	1998	1999	2000	2001	2002	2003
53.0	52.5	55.5	57.2	58.0	59.0	60.6

Figure 8. Distribution of registrations by zone (PV+UV). Source: CCFA

	2002	2003	2003/2002
	000's	000's	%
EUROPE	19 329	19 574	1.30%
of which: Western Europe	16 531	16 304	-1.40%
Central and Eastern Europe	2 797	3 270	16.90%
AMERICA	22 219	21 798	-1.90%
of which: NAFTA	19 890	19 592	-1.50%
United States	17 139	16 967	-1.00%
South America	2 329	2 206	-5.30%
ASIA-OCEANIA	15 522	17 084	10.10%
of which: South Korea	1 639	1 337	-18.40%
Japan	5 792	5 828	0.60%
AFRICA	724	759	4.90%
TOTAL	**57 794**	**59 216**	**2.50%**

Western Europe and North America make up the two leading world markets, with two thirds of vehicle registrations in 2003 (Figure 8). However, the growth rates of these markets (in terms of vehicles

sold) are well below those observed in the emerging countries, especially those of Asia and Eastern Europe, where the demand for the bottom-of-the-range vehicles has experienced particularly rapid growth.

The constructors are therefore seeking to exploit the opportunities for growth in these areas while at the same time banking on innovation and differentiation on the mature markets in the developed countries (cf. also Annex 5).

The automobile equipment market

This market represents something in the region of 400 to 500 billion dollars worldwide, depending upon the definition perimeter chosen, with more than 90 % made up of orders from automobile constructors, the remainder linked to the demand for parts and equipment.

The geographical structure of the demand for equipment is therefore very closely linked to that of automobile production (cf. Figure 3), Western Europe and North America each representing one third of the outlets, followed by Japan (cf. Figure 9, the case of electronic equipment).

Figure 9. Demand for electronic automobile equipment (2001, G$). Source: Strategy Analytics

Zone	G $US	%
Europe	9.9	38.5 %
NAFTA	9.8	38.1 %
Japan	5	19.5 %
Korea	1	3.9 %
Total	25.7	100 %

But once again, it is in the emerging countries where the most rapid growth in automobile production and therefore demand for equipment is observed. This may initially favour the exports of equipment from developed countries, but it also encourages the manufacturers to locate directly in emerging countries, so as both to feed the local market and to re-export towards developing countries by taking ad-

vantage of the weakness of labour costs. Hence an evolution in the structure of world production and international trade in favour of these zones (Figure 10).

Figure 10. Structure of world exports of vehicles and automobile equipment by zone in 1992 and 2002. Source: CEPII, CHELEM Database

Exporter	1992		2002	
	G$US	World share	G$US	World share
U.S., Canada	66.5	18.3%	109.5	18.2%
W. Europe	190.5	52.6%	305.6	50.9%
Japan	78.6	21.7%	90.5	15.1%
NIC of Asia 1[4]	8.7	2.4%	22.3	3.7%
Total developed	344.3	95.0%	527.9	87.9%
Latin America	10.3	2.9%	36.7	6.1%
E. Europe	3.7	1.0%	18.5	3.1%
NIC of Asia 2[5]	0.5	0.1%	4.0	0.7%
MEDA	0.3	0.1%	3.7	0.6%
Total emerging zone	14.8	4.1%	63.0	10.5%
World	362.4	100%	600.6	100%

Given the dynamism of the automobile market in the MEDA countries, this trend provides a relatively favourable element for the development of foreign relocations in the region.

Increasingly demanding safety and environmental regulations

Automobile activity is governed by a whole range of regulatory provisions, which concern as much the quality of manufacturing procedures as the safety of products, the protection of the environment, or market operation. Three strong trends may currently be observed in this respect in the Euro-Mediterranean region, under the impulse essentially of the regulatory activity of the Commission: the interna-

4. Asian NICs (new industrial countries) 1: South Korea, Hong Kong, Singapore, Taiwan
5. Asian NICs 2 : Malaysia, Philippines, Thailand

tional harmonisation of regulations, increased demands in environmental terms, safety and reliability, and finally the liberalisation of the automobile market.

- The harmonisation of technical standards and commercial rules is today very advanced within the European Community. The entry of 10 new countries into the Union, as well as the consequences of the agreements of association which are an incitation for the gradual alignment of the national standards of the countries concerned with the Community rules, should lead to the constitution of an increasingly harmonised set of regulations within the Euro-Mediterranean region. If the standards in force in the MEDA countries remain overall less demanding, particularly in terms of safety and the environment, than the community rules, the commercial and industrial integration within the zone will lead to the de facto respect for this set of standards by the products manufactured or imported in these countries. In time, the adoption of common standards by all the countries of the region may provide a powerful factor of economic integration by allowing the commercialisation in whatsoever country of the region, without extra cost for the adaptation to local standards of vehicles manufactured in another country of the zone.
- The reinforcement of standards in terms of safety and environmental protection. In the context of international commitments in terms of the fight against greenhouse effect gases, the European emission standards have been gradually strengthened (introduction of Euro 3 standards in 2001, and the planned passing in 2005 to the even more strict Euro 4 standards). As regards the manufacturing of these vehicles, extremely restrictive and detailed ISO standards have been introduced so as to guarantee the quality of the final product. The safety standards (braking, protection of the passengers against shocks) have been considerably reinforced. Finally, in recycling terms, the directive adopted in 2001 provides that within a decade, at the latest, the new vehicles put on the market should be up to 95% recyclable in relation to their weight. Furthermore, the constructors are required to participate in gradually increasing proportions to the financing of the recycling effort.
- The liberalisation of the automobile market. With the new European directive on automobile distribution, the Commission is seeking to end the control exercised by the constructors on their concessionaires and

repairers so as to stimulate competition: the possibility for concessionaires to sell several brands and for equipment manufacturers to sell parts direct.

For the manufacturers in the MEDA countries, these evolutions may open increased opportunities for access to the Union market. But they represent above all a major stake in terms of the upgrading of the industrial procedures and the bringing of products up to standards.

Technological evolutions and innovation

The automobile sector is currently faced with extremely rapid technological evolutions, both as far as production processes and the features of vehicles are concerned. These evolutions, by transforming the very nature of the activity, are likely to have a profound impact on the determinants of its geographical location within the Euro-Mediterranean region. For example, the evolution towards more highly evolved production technologies, by reducing the role of unskilled labour, may represent an obstacle to the relocation movement, linked to the search for low production costs. Conversely, the development of technologies which enable the remote transfer of data may facilitate the use of sub-contractors who are situated a sizeable distance from the final market and therefore favour the relocation towards the MEDA countries. A distinction will be made between product and process innovations.

Product innovations

Among the most important innovations, can be cited the development of new materials, new types of engines with increased efficiency, automobile electronics and associated services, and technologies linked to safety and the environment (see synthetic table of the evolutions underway in Annex 2).

- Composite materials. The new innovative materials (aluminium-based alloys, metallic foams, ceramics, glass-plastic composites,…) may provide reductions in the weight of a car of 15 % to 20 % over the coming ten years, contributing to a drop in fuel consumption.

• More efficient and less polluting hybrid engines. Innovation in this domain is stimulated by the need to satisfy the increasingly demanding emission standards. Still marginal today, the alternative power sources (electric and fuel cell vehicles, LPG, NGVs, …), are only likely to develop very gradually in Europe especially given the cost of the installation of the necessary infrastructure (electrical charging points…). The most significant evolution from an industrial point of view will be the improvement of classic petrol and diesel engines (especially with the introduction of hybrid[6] engines, particle filter technologies and electronic injection control in diesel engines, direct injection). In 2010, according to Strategy Analytics, these « new technology » petrol engines will likely concern 70 % of new vehicles, against 20 % for the « improved » diesels and 10 % for alternative engines.

• Electronic equipment. A strong increase may be observed in the demand for electronic systems and applications (software, sensors, computers, control/command systems, etc.), for which the world market could exceed 200 billion euros in 2010, according to Strategy Analytics. Among the most noteworthy innovations, can be cited the development of GSP/GPS and the onboard computer (see following paragraph and Annex 2). This evolution will lead to a rapprochement between the players in the automobile sector and the electronic and computer companies (agreements, partnerships, joint-ventures, acquisitions…).

• Services. A good number of services, the most often linked to electronics, are under development, opening the way to the concept of the intelligent car: safety and maintenance (localisation of the vehicle in the event of theft or accident, remote diagnosis and maintenance, protection against theft), mobility (choice of itineraries and traffic information, fuel level warning, detection of free parking spaces), communication (telephone, fax, sending and reception of voice messages and e-mails, videoconference), Information (news, timetables, telephone numbers, horoscope…), consumption (on-line purchase and reservation, banking services…), multimedia (television, video games…).

6. Coupling a classic internal combustion engine with an electric motor, which provides energy savings without involving a fundamental modification of the classic engine.

Generally, these evolutions favour the producers located in high technology areas, where they may find a high level and diversified industrial environment. They reinforce the importance of the upgrading of the local industries of the MEDA countries, whose advantages in terms of wage costs run the risk of being increasingly heavily counterbalanced by the differences in technological level with the Northern countries.

Process innovations

Several major evolutions may currently be seen in this field: 1) the organisation of work into «production modules» which give more place to flexibility and the multivalence of the tasks; 2) a development of « just in time » technology giving a larger role to logistics/supply chain management; 3) the development of strategies referred to as « modular » where each equipment manufacturer is responsible for the production of a complete module which can thus be entirely sub-contracted out by the client/order giver; 4) the grouping of the equipment manufacturers on the same sites so as to widen the base of technical competence; 5) finally, the development of uses linked to internet: EDI, extranet, the development of vertical or horizontal « market places » (Covinsint, Rubbernetwork), internet portals and sites.

Generally speaking, these evolutions assume the availability of a skilled labour force and efficient logistics networks: any number of decisive stakes for the countries of the MEDA region for which these elements are not always their strong points. So as to satisfy them, a large number of upgrading efforts have been made. Among many other examples, may be cited the introduction in Tunisia of extremely high-performance logistics systems, called Roll-on/ Roll-off, which guarantee a minimum-maximum time span of 48 hours between the exit of a product from a factory in the region of Tunis and its loading on a truck at the port of Marseille.

The offer and the strategies of the players

The location strategies of the industrial players play a decisive role for the development of the countries of the MEDA region. After a

presentation of the structure of the offer in the Euro-Mediterranean region, an analysis will be made of the current strategies to be found in the sectors of automobile construction and equipment, with particular insistence on the relocation movement towards the peripheries of the continent.

The constructors and their strategies

Overall description

Automobile construction is an extremely concentrated industry at the world level. Ten or so constructors concentrate 85 % of world vehicle production (Figure 11): American (General Motors, Ford), already well-established within the Euro-Mediterranean region; European (Daimler-Chrysler, VW-Audi-Seat, Mercedes, Fiat, PSA, Renault); finally, Asian, among which the Japanese should be distinguished (Toyota, Nissan[7], Honda), still little present in the Euro-Mediterranean region, despite the Honda installations and more recently those of Toyota followed by their equipment manufacturers, and the Koreans, who on the contrary have developed powerful centres of production in the East European countries and in Turkey.

Not to be overlooked is the existence of a few marginal producers which come from the MEDA area, such as the Turkish company Otokar (under licence from Fiat) or the Egyptian NASR (under licence from Deutz-T, Rover-Lorth; see detailed list of the constructors present in the MEDA area in Figure 26 and 27).

In the Euro-Mediterranean region, the production is largely dominated by the European constructors with, however, a significant American presence and some Japanese sites (Figure 12). Automobile construction employs around 1.5 million people, 1 million of which in Western Europe.

7. Renault acquired a controlling interest in Nissan in 1999 (45 %).

Figure 11. The main world constructors (more than one million vehicles) in 2003. Source: CCFA

Name of constructor	Number of vehicles produced ('000)
GENERAL MOTORS (Opel-Vauxhall)	8,112
FORD (Jaguar – Volvo Cars)	6,526
TOYOTA	6,241
GROUPE VOLKSWAGEN	5,024
DAIMLERCHRYSLER (inc Evobus)	4,238
PSA Peugeot Citroën	3,310
NISSAN	2,942
HONDA	2,923
HYUNDAI - KIA	2,697
RENAULT-Dacia-Samsung	2,386
FIAT - IVECO	2,078
SUZUKI – MARUTI	1,811
MITSUBISHI	1,582
MAZDA	1,153
BMW	1,119
Other constructors	8,477
TOTAL 2003	**60,619**

Figure 12. World automobile production by nationality of producer. Source: CCFA

Zone Constructors	North America NAFTA	South America	EU	Other European Countries Turkey	Japan	South Korea	Others	Total
European	3,204	1,086	11,677	1,336	0	118	1,225	18,646
%	17%	6%	63%	7%	0%	1%	7%	100%
American	9,367	816	3,828	191	0	0	597	14,799
%	63%	6%	26%	1%	0%	0%	4%	100%
Japanese	3,815	129	1,150	182	10,152	10	3,269	18,708
%	20%	1%	6%	1%	54%	0%	17%	100%
Korean	0	7	0	101	0	3,051	219	3,357
%	0%	0%	0%	3%	10%	90%	6%	100%
All	16,210	2,037	16,782	3,223	10,286	3,178	8,903	60,619
%	27%	3%	28%	5%	17%	15%	15%	100%

The strategies of the constructors

The years 1998-2000 were marked by a movement of concentration around a small number of major players: crossed participation between Nissan and Renault, acquisition of Chrysler by Daimler-Benz, of Volvo Car and Land-Rover by Ford, etc. In a rather mature sector, with moderate growth, without a great technological differentiation of products, but where the development costs are increasingly heavy, the race for volume, a factor in scale economies and market power, in fact represents a major stake. This movement has, however, slowed over the past 2 to 3 years, due to the increasing scarceness of potential targets.

So as to share higher and higher development costs, reduce commercial risks and increase their market power, the firms are making increasing numbers of partnership and joint venture agreements. For example, PSA and Renault have set up a common laboratory to study accidents, and are jointly producing a top-of-the-range engine and an automatic gear box. PSA and Toyota are building jointly an assembly plant at Kolin in the Czech Republic.

The firms are also seeking to set up and produce in each of the main markets of the planet so as to reduce their dependence on the original market. This movement particularly affects the emerging countries, where firms locate so as to take advantage of the development of local markets and to a lesser extent, to produce at low costs with a view to re-export to developed countries.

Finally, in the developed markets, the constructors have to face up to the saturation of the market for new vehicles. In order to overcome this problem they seek to develop new service concepts: maintenance, long term rental, guarantee of vehicle availability, e-business, etc. (see also Annex 5).

The automobile equipment manufacturers

The structures of the sector

Automobile equipment manufacturers may be classified into three categories in relation to their size (see also Annex 3):

- The large equipment manufacturers / integrators referred to as « level

1 » sometimes have a larger turnover than that of their constructor clients (Figure 13). They offer the former a wide range of products and systems. Some of them are also present in other activities, such as domestic electronics, even if the majority is exclusively focused on the automobile market (e.g.: Visteon, Delphi, Valeo, Faurecia, Denso…).

• The « average-sized » equipment manufacturers, which are nevertheless major players in their segment, for example Autoliv, Continental AG (Teves), Hella…

• The « small » equipment manufacturers in terms of size, some of which could be taken over, totally or in part, during the years to come in the context of the movement of concentration which is affecting the sector[8].

Figure 13. The main automobile equipment manufacturers in the world in 2000. Source: Automotive News Europe

Group	Country of origin	Turnover (G$)	% Europe
Delphi Automotive Systems	US	26.5	16 %
Visteon	US	18.6	13 %
Robert Bosch	Germany	17.8	55 %
Denso	Japan	16.4	10 %
Lear	US	14.1	29 %
Johnson Controls	US	11.9	33 %
TRW	US	11.0	41 %
Magna International	Canada	10.1	30 %
Dana	US	9.5	17 %
Valeo	France	8.6	61 %

The North American equipment manufacturers occupy a dominant place, with 7 providers out of 10 in the «top ten». Among the Japanese, only Denso is to be found in this category. But there exist a number of «medium large» providers, like Oki Electric (6 billion dollars in 2001), or Fujitsu (1.1 billion). As for the Europeans, only

8. Movement which also affected the large equipment manufacturers (e.g. : the acquisition by the Japanese Denso of the air conditioning branch of Magnetti Marelli ; the alliance of the latter with Bosch in the « lighting » activity).

two of them are to be found in the «top ten», they often occupy very strong positions on specific segments or niches given their technological mastery (e.g. Siemens VDO Automotive with almost 6 billion dollars of turnover, Magnetti Marelli with 4.4 billion, present in Formula 1)[9]. Some of these enterprises are independent groups, others are subsidiaries of large automobile groups, still others subsidiaries of groups belonging to other activities (Fig. 14).

Figure 14. The equipment manufacturers by category: some examples. Source: Eurostaf

Category	Example	Characteristics
Specialist Group	Valeo	International group, present in 25 countries with 143 production sites employing 70,000 people
	Delphi	Independent of GM since 1999
	Visteon	Independent Ford since June 2000, present in 25 countries thanks to 130 sites employing 82, 000 people
	Magnetti Marelli	Independent of Fiat since March 2002
	Johnson Controls	500 sites, 105,000 people
Constructor subsidiary	Renault	Française de mécanique, ACI, Renault Cleon
	PSA	Faurecia: well located in Europe (84% of T/O)
Subsidiary of diversified industrial group	Sagem	Sold its automobile electronics branch in 2001 Johnson Controls
	Usinor	Arcelor

These different providers are more or less well positioned depending on the segments of the market, as Figure 15 shows. In the Euro-Mediterranean region, the automobile equipment industry represents a turnover of around 120 billion euros (excluding electronics and seating). The activity still remains concentrated in Western Europe, where it has a turnover of some 100 billion euros and 650,000 jobs (Figure 16).

9. Among the main European groups, can also be cited: Autoliv (Sweden), Continental AG (Germany), Faurecia (France), GKN Pickup (United Kingdom), Magnetti Marelli (Italy), Siemens Automotive (Germany), Thysenkrupp (Germany), ZF (Germany).

Figure 15. The main providers by market segment. Source: Eurostaf

Segment	Products and services offered	Suppliers
Direction	Transmission, clutches, brakes, shock absorbers	Delphi, Visteon, TRW, Valeo
Motorisation	Engine, battery, motor control engine, electronic transmission	Bosch, Denso, TRW, Dana, Aisin Seiki, Valeo, Johnson, Siemens, ZF, Luk
Lighting	Lighting	Valeo, Magnetti Marelli
Safety	Airbag, belts	Bosch, TRW, Valeo, Faurecia, Allied Signal
Interior	Interior equipment	Lear, Magna, Sommer Alibert (Faurecia), Textron, Visteon, Rieter
Comfort	Air conditioning, seats	Delphi, Visteon Denso, Lear, Johnson Controls, Faurecia, Rieter

Figure 16. The automobile equipment industry in the European Union in 1999 (excluding electronics and seats). Source Eurostat

	European Union	Germany	France
Personnel (000's)	640	266	79
T/O (G euros)	105	48	17
Production (G euros)	98	42	16
AV (G euros)	32	15	4

Western Europe also remains the main producer and exporter area in the world, with Germany continuing to play a leading role despite the decline in its world market share. However, there has been a rapid progression of the activity in the Eastern European countries, Turkey, and to a lesser extent, the Maghreb (cf. below).

The strategies of the manufacturers in the face of the strong market trends

In recent years, the sector has undergone a considerable evolution:

- A shift in demand towards the emerging countries of Asia, Latin America and the CEEC countries whose automobile production is developing more rapidly than that of developed countries.
- A particularly rapid growth in the demand for electronic products, linked to the concomitant movements of computerisation and the automation of certain functions (brakes, injection, interiors, etc.).
- A strong evolution in the structure of the industry, with both a concentration of the offer under pressure from the convergent strategies

of the equipment manufacturers and the assemblers, and a growing internationalisation of the firms essentially with the aim of accessing markets (« follow-up » of traditional clients[10], search for access to foreign customers), and to a lesser extent, to reduce costs.

• A competitive dynamic force marked by a complex relationship of cooperation/conflict between first level assemblers and equipment manufacturers, with both a reinforcement of partnerships for the joint development of vehicles and equipment systems and a struggle for the appropriation of margins and the passing off of development costs. For several convergent reasons, this complex relationship has resulted in a growing role of the supply by the equipment manufacturers of complete integrated systems to the detriment of that of isolated components.

• Finally, the geographical location of the activities has profoundly evolved, with a particular rise in industrial installations and therefore in production in emerging countries, whose trade balances have increased considerably both in terms of equipment and bottom-of-the-range vehicles. In this domain, the most outstanding element is the creation, on the periphery of the three large developed zones of the planet, of productive bases in constant progression, and whose development can be partly explained by relocation movements linked to production cost differentials and partly by the search for access to the local market.

The movement is particularly visible in the Euro-Mediterranean zone, where a growing part of the automobile industry is located, in the East European countries and in Turkey. This movement has undergone a number of phases: initially limited to a few countries (Hungary, Czech Rep., Poland), it now stretches to other countries in Eastern Europe; initially centred on activities with relatively low added value, it now concerns activities with a stronger technology content in those countries offering better labour resources (Hungary, Czech Rep...) ; at first represented by a flow of isolated projects, it has little by little managed, in certain countries, to build up complete production centres in powerful industrial districts.

The countries of the MEDA area have not as yet taken enormous

10. The constructors ask their equipment manufacturers to be able to supply components for a given assembly hub wherever it is to be found in the world. The equipment manufacturers therefore need themselves to create production sites close to these hubs or make alliances with local partners.

advantage of this movement, apart from the occasional large ad hoc operation. The low level flow of international projects can be explained by the conditions of attractiveness which up until now have been less favourable than those of the East European countries. This situation, which has been aggravated by the absence of local initiative, with certain rare exceptions (Tunisia and above all Turkey) has not enabled significant centres of competitiveness and a fortiori integrated sectors to be created (cf. below).

It would, however, appear that a growing number of manufacturers from the sector, faced with the rising production costs in the « First wave » East European countries, are taking an increasing interest in the perspectives offered by certain countries of the MEDA region, and especially the Maghreb and Turkey. On the basis of a strict comparison of the direct production costs, the latter in fact would appear very competitive. However, a real dynamic movement of industrialisation through the influx of foreign projects assumes a notable improvement in the business environment, both at the level of the economic and general regulatory context as well as the more technical points (infrastructure, skilled labour, upgrading of local sub-contractors and suppliers).

The evolution of distribution strategies

The new automobile distribution rulings, endorsed by the European Commission so as to liberalise the sector, involve the repositioning of the players:

- The constructors, whose control of the market has been badly shaken (even if their power over the concessionaires remains strong), seek to lighten their distribution costs through a reduction in the number of distributors and the introduction of new distribution channels (Internet, Hypermarkets). They also seek to develop direct sales (buy back, etc.), which moreover contributes to the development of a segment of recent used vehicles. This provides strong competition to the sale of new vehicles operated traditionally by the brand networks. Finally, the optimisation of the supply chain provides a reduction in delivery lead times, but this assumes the existence of high performance logistic networks and militates in favour of the location of production close to the final market.

• The financially most powerful concessionaires try to create veritable multi-brand groups so as to make themselves more autonomous compared with the constructors (in the way that PGA Motors which has taken over Cica, the number 2 of French distribution). The other distributors, which remain very independent of the constructors, seek to diversify their activities into the after sales service field.

• Finally, newcomers (hypermarkets, banks, insurance companies, wholesalers and buying offices, Internet services) seek to penetrate this market, either through their own investments or by making agreements with the constructors.

2. The automobile industry in the MEDA region

In a context of progressive, but as yet unfinished liberalisation, in terms of international trade as much as the internal market, the countries of the MEDA region have made privileged economic links with the European Union in the automobile sector.

But, despite occasional progress, the automobile industry of the MEDA countries today remains poorly developed, with a large external trade deficit. Only a few countries, the likes of Turkey or Tunisia have started to develop their local industry by taking advantage of potential complementarities with the countries of Western Europe.

In particular, the flow of foreign investments to the MEDA region remain limited today compared with those which involve the East European countries. This situation may be explained by a certain number of handicaps in terms of the business environment.

The latter would not appear to be insurmountable especially since the manufacturers are showing a growing interest in the area. But rapid progress should however be made in a good number of domains, particularly those of a regulatory, technical, industrial and human nature.

Privileged bonds with Europe in a context of partial liberalisation

As yet unfinished liberalisation

The international context

A successive study will be made of the regulatory context governing trade within the automobile sector, the specific relations between the European Union and the MEDA region, and finally the development of agreements internal to the MEDA countries.

The overall legal framework: the WTO agreements

The WTO agreements, to which most of the MEDA countries are signatories (with the exception of Algeria, Lebanon, the Palestinian Authority and Syria), provide for a gradual dismantling of tariff and non-tariff protection in the trade of vehicles and automobile equipment. Already in force in the majority of developed countries, this dismantlement should come into operation more gradually for the developing countries.

These agreements also include measures concerning investments and are linked to trade agreements banning obligations of a minimum level of local integration and compensation (see Annex 8). These measures concern especially the automobile sector.

The European Union and the MEDA region: Barcelona process and association agreements

The relations between the European Union and the countries of the MEDA area have been controlled since 28th November 1995 by the Barcelona Process. This arrangement provides notably for the gradual introduction of a free trade area, particularly through the drawing up of agreements of association and bilateral and regional free trade (see overall description in [Saint-Laurent - Apotheloz, 2004]).

Between 1995 and 2003, eight association agreements were signed with the countries of the MEDA region: Tunisia (1995), Israel (1995), Morocco (1996), Palestinian Territories (1997), Jordan (1997), Egypt (2001), Lebanon (2002) and Algeria (2002). With the exception of Egypt and Algeria, they are all in force.

Furthermore, Cyprus and Malta joined the EU in May 2004 and Turkey is a member of the Customs Union since January 1996.

On the sectoral level, trade in industrial goods will be liberalised gradually between the EU and its partners. This liberalisation is already effective with Israel and the Palestinian Territories, it will be completed with Tunisia in 2010, with Morocco in 2012 and with the other countries between 2015 and 2020.

The automobile in regional agreements

The automobile sector, which is considered as sensitive has a special place within the regional trade agreements. It may be promoted in certain cases, subjected to special rules in others or even totally excluded from the agreement for protectionist reasons.

Overall, the regional and bilateral agreements are favourable to the development of the automobile trade. In the medium term, they should encourage new areas or countries which are still protectionist that by opening up they may take advantage of all the benefits, especially in terms of sub-contracting.

Certain countries from the MEDA region which have signed free trade agreements have, however, introduced measures to protect their industry. In Egypt, the exoneration of customs duties does not apply to vehicles. Tunisia has established a system of compensation covering the purchase of local parts for the importing of vehicles at reduced duty and has introduced quotas (see below, detailed analysis per country).

Regional economic integration in the MEDA area

A Euro-Mediterranean regional economic space also requires the conclusion of free trade agreements between Mediterranean countries (South-South relations) as a complement to the association agreements (North-South relations). However, for the moment, despite a few limited initiatives (see details in [Saint-Laurent - Apothéloz, 2004]), the range of these agreements has remained very reduced within the MEDA area.

Since the Barcelona process, several initiatives to negotiate South-South commercial agreements have been attempted so as to encourage dynamic integration (regional free trade agreements, bilateral free trade agreements, preferential agreements). The Agadir process, launched in May 2001, represents a special and major element in the dynamics of regional integration. It provides for the creation of a free trade area between the Arab countries of the Mediterranean. The negotiations ended in January 2003 in Amman with the signing of an agreement between Morocco, Tunisia, Egypt and Jordan. Other countries could join this free trade area which has the aim of increas-

ing in size. The agreement covers all commercial trade between the four countries both for industrial and agricultural products (including the automobile in particular). Negotiations for the liberalisation of the trade in services have also been planned. Once it has come into force, this agreement could eliminate a part of the structural obstacles to the opening up of the Mediterranean market and improve the attractiveness of the signatory countries for foreign investors.

The internal framework

The policies introduced by the MEDA countries are generally part of a perspective of liberalisation and opening to trade: modernisation of infrastructures and public services, adaptation of the fiscality to the market economy (defiscalisation, non-double taxation agreement), increased freedom for investment, especially for companies of foreign origin (freedom to purchase land, to create local companies, to repatriate profits). The movement is particularly clear in the two countries which are the most attractive for automobile investments, Turkey and Tunisia (cf. below, national case studies).

Close economic links with Western Europe

Western Europe is both the leading supplier and the leading outlet for the MEDA countries in the automobile domain.

The Western European market represents the main outlet for the automobile industry of the MEDA region: 69 % in 2002. This figure reaches 68 % for automobile equipment (and even 90 % for Morocco and Tunisia), 74 % for private vehicles and 65 % for utility vehicles.

Figure 17. Share of Western Europe in MEDA exports. Source: CEPII, CHELEM Database

Product	1992	2002
Total all products	51.7%	69.0%
Private vehicles	57.0%	73.7%
Equipment	71.0%	67.9%
Utility vehicles	17.6%	65.0%

Reciprocally, in 2002, 71 % of the MEDA area imports came from Western Europe, a percentage that has increased strongly since 1992 after a drop between 1972 and this date (Figure 18). This figure reached respectively 80% for automobile equipment, 71% for private automobiles and 64% for utility vehicles. In all cases, it is the Maghreb countries and Turkey which are the most oriented towards products of Western European origin.

Figure 18. Share of Western Europe in MEDA vehicle imports. Source: CEPII, CHELEM Database

	1972	1982	1992	2002
Total all products	79.6%	68.1%	59.4%	71.1%
Private vehicles	83.5%	69.0%	51.1%	71.0%
Equipment	82.7%	78.7%	84.7%	79.8%
Utility vehicles	72.3%	63.7%	52.1%	64.0%

Figure 19. Some data on the automobile in the MEDA region (2002). Source: CHELEM Database, DREE

	Production		Registrations	Jobs
	Units (000's)	G Euros	(000's)	(000's)
Cyprus			40	
Egypt	45.2		72 (2003)	80
Israel			126	
Morocco	25.1	1.9		20
Tunisia		0.5 (1999)	45	20
Turkey	357.0		95	500

Limited industrial development, a trade balance in deficit

Limited industrial development

The MEDA countries today represent but a small part of the world automobile industry: less than 500,000 vehicles produced in 2003, or less than 1 % of world production. For this reason, their share of world trade is low and the structural trade balance in deficit, despite

a gradual improvement. The activity is above all concentrated in Turkey, where the automobile sector employs several hundreds of thousands of people and to a lesser extent, in Tunisia (automobile equipment). There also exists marginal vehicle production in Egypt and in Morocco (Figure 19).

External trade with a large deficit

An analysis of the CHELEM data base shows both the overall marginality of the MEDA countries in the world automobile[11] trade flows and the existence of a large structural deficit, which is, however, gradually being reduced thanks essentially to the rise in importance of Turkish exports.

Overall marginality despite recent development

From 1967 to 1992, exports of vehicles from the MEDA area represented a small and relatively constant part of world exports, say 0.1%. But this figure subsequently grew significantly to reach 0.6 % in 2002, giving evidence of a new dynamism. The part of vehicles in exports from the MEDA countries has also increased, going from less than 1 % before 1992 to 3 % in 2002.

Figure 20. Part of MEDA exports in world automobile trade for each type of product. Source: CEPII, CHELEM Database

Product	1972	1982	1992	2002
Total all products	0.13%	0.12%	0.09%	0.62%
Private vehicles	0.08%	0.03%	0.04%	0.39%
Equipment	0.11%	0.13%	0.16%	0.62%
Utility vehicles	0.30%	0.27%	0.15%	1.52%

This evolution can be found in different types of product (cf. also Figure 21):

- In the elements of automobile vehicles, the MEDA area market share went from 0.1 % in 1972 to more than 0.6 % in 2002, with a very obvious acceleration in the past ten years due essentially to Turkey.

11. Grouping private vehicles, utility vehicles and automobile equipment.

Automobile vehicle elements represent a growing part of the total exports of the MEDA countries, going from 0.2 % in 1972 to 0.8 % in 2002. This phenomenon is particularly marked for Turkey and Tunisia (respectively 2.3 % and 1.5 % in 2002). Today, Turkey, followed at a distance by Tunisia and Morocco are the largest exporters in the area, with in 2002 respectively 83.5 %, 11.0 % and 3.6 % of the total.

• In private vehicles, there has also been a correction of the MEDA area market share during the 1990s: 0.4 % of world exports in 2002 against 0.04 % in 1992. The share of private automobile exports in the total exports of the region has also increased strongly during this same period, going from 0.1 to 1 %[12]. Today, Turkey represents 84.5 % of exports from the area, the remainder being shared between Malta and Cyprus (re-exports).

• In terms of utility vehicles, the MEDA region's share of the world market has grown strongly, going from less than 0.2 % in 1992 to 1.5 % in 2002. The share of utility vehicles in total exports from the MEDA region has also progressed, from 0.15 % in 1992 to 1.16 % in 2002. Turkey represents 90 % of exports[13], the rest shared among Tunisia, Cyprus and Malta (re-exports).

Figure 21. Share of vehicles in total exports from MEDA countries. Source: CEPII, CHELEM Database

Products	1972	1982	1992	2002
Total all products	0.65%	0.6%	0.52%	3.10%
Private vehicles	0.20%	0.05%	0.14%	1.14%
Equipment	0.16%	0.11%	0.23%	0.80%
Utility vehicles	0.30%	0.20%	0.15%	1.16%

This evolution can be explained to a large extent by the progress of Turkish industry. In fact, whereas in the 1970s, Turkish vehicle exports were almost non-existent, they took off during the 1990s to reach 3.2 billion dollars in 2002. This country is today at the origin of nearly 90% of vehicle exports from the MEDA region (Figure 22).

12. It today represents 3 % of exports from Turkey.
13. In this country, in 2002, utility vehicles represented 3.6 % of total exports.

Figure 22. Distribution per country of total vehicle exports from the MEDA area (total and by sub-category) in 2002. Source: CEPII, CHELEM Database

	Private vehicles	Equipt.	Utility vehicles	Total all products (%)	Total in G $US
Turkey	84.5%	83.5%	89.3%	86.0%	3.2
Israel	0.1%	0.8%	1.4%	0.8%	0.03
Malta, Cyprus	13.8%	0.6%	3.6%	6.6%	0.25
Algeria	0.0%	0.1%	0.1%	0.0%	Eps.
Morocco	0.2%	3.6%	1.0%	1.4%	0.05
Tunisia	1.2%	11.0%	4.0%	4.7%	0.2
Egypt	0.1%	0.2%	0.6%	0.3%	0.01
Jordan, Syria, Lebanon, Palestine Authority	0.1%	0.2%	0.2%	0.2%	Eps.
Total	100 %	100 %	100 %	100 %	
Total (G $US)	1.4	1.0	1.4	3.7	3.7

If the automobile industry is less developed in the other countries, certain such as Tunisia, Morocco, Cyprus and Malta are at the origin of a non-negligible flow of vehicle equipment exports, which may in certain cases (Turkey, Cyprus and Malta) reach nearly 10 % of the total exports.

Figure 23. External trade balance of the MEDA countries in the vehicle sector (in % of total external trade (Imports + exports)/2).
Source: CEPII, CHELEM Database

Country	1972	1982	1992	2002
Turkey	-2.0	-1.4	-1.5	-0.3
Israel	-1.9	-1.8	-1.9	-1.9
Cyprus, Malta	-1.6	-1.8	-2.0	-1.1
Algeria	-1.8	-2.0	-2.0	-2.0
Morocco	-1.8	-1.9	-1.7	-1.7
Tunisia	-2.0	-1.9	-1.7	-1.2
Egypt	-1.7	-2.0	-2.0	-1.9
Other MEDA	-1.3	-1.9	-2.0	-2.0
Total MEDA	-1.8	-1.9	-1.8	-0.9

A large trade deficit, which has recently reduced

Obliged to import the major part of the vehicles sold on the internal market, the MEDA area countries (except Turkey) have a structural trade deficit, which reached 6 billion dollars in 2002. However, thanks especially to the progress of Turkish and Tunisian exports, the external balance improved remarkably during the 1990s (Figure 23).

This correction can be found for automobile equipment (whose deficit still reached 1.3 billion dollars however), private automobiles (deficit of 3.4 billion dollars) and utility vehicles (deficit of 1.3 billion dollars in 2002) where only Turkey showed a trade surplus.

Figure 24. Key figures on external trade of the MEDA area countries. Source: CEPII, CHELEM Database

2002	Elements of auto. vehicles*		Private automobiles		Utility vehicles		Total vehicles	
M $US	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Algeria	0.6	225.6	0.2	570.6	0.7	462.6	1.6	1258.8
Egypt	1.7	221.4	1.3	245.8	7.8	256.5	10.7	723.7
Israel	8.0	176.8	1.7	1159.8	19.7	533.9	29.3	1870.5
Morocco	34.9	166.3	2.2	295.4	14.2	182.4	51.3	644.0
Tunisia	105.4	194.1	16.3	306.8	55.4	164.0	177.0	664.9
Turkey	800.3	1026.4	1161.9	829.6	1249.6	415.8	3211.7	2271.7
Cyp. Malta	5.4	68.7	189.5	620.6	49.8	161.1	244.6	850.4
Jord. Syr. Leb.	2.3	186.7	1.5	737.3	2.8	471.5	6.6	1395.5
Total MEDA	958.5	2266.0	1371.3	4765.9	1399.9	2647.8	3732.9	9679.6

* the vehicle sector includes elements of automobile vehicles (chassis, coachwork, parts), private automobiles, motorcycles, cycles, utility vehicles and other land transport material (including rail rolling stock).

Analysis by country

Generally, there is not, with a few rare exceptions, a significant pole of competitiveness and *a fortiori* no integrated sector within the MEDA region in the automobile domain. This situation can be explained in part by the low level flows of international projects and the lack of local initiative. However, Turkey has succeeded in developing a complete automobile sector, whereas other countries like

Tunisia, without as yet developing a complete sector, have hosted some equipment or assembly site projects.

Figure 25. Some contextual data on the state of the automobile fleet in the MEDA countries

2002	Auto. fleet. (000's) *	Number of vehicles per 1000 inhabitants **	Roads (km) ***	Made up roads (% of roads) ****	Ave. age of fleet	UVs in circul. (000's)*****	PVs in circulation (000's)*****
Algeria	2,848	53	104,000	69		1 010	1,739
Cyprus	388	574	11,408	61		na	na
Egypt	2,615	30	64,000	78	20	650	1,847
Israel	1,835	275	16,521	100		na	na
Jordan	328	68	7,245	100		59	396
Lebanon	1,357	320	7,300	85	>10	na	na
Malta	247	607	2,254	97		na	na
Morocco	1,567	51	57,698	56	>10	460	1,326
Palestine	na	na	na	na		20	70
Syria	465	29	44,575	21		367	228
Tunisia	750	79	18,997	65	10	na	na
Turkey	6,255	85	354,373	36		1,828	4,600
Total MEDA	18,655	197	688,371				

* www.ccfa.fr ; **Including private vehicles, buses and transport vehicles, excluding two-wheelers (International Road Federation, World Road Statistics) ; *** Including national roads, motorways, regional and secondary roads (International Road Federation) ; **** Macadam, bitumen, concrete (International Road Federation) ; *****Centre of statistical, economic and social research and training for Islamic countries.

Figure 26. The main constructors present in the MEDA region

Algeria	Not available
Cyprus	No local manufacturing
Egypt	Peugeot, Nissan, BMW, Tofas Fiat, Chevrolet, NASCO
Israel	No local manufacturing
Jordan	No local manufacturing
Lebanon	No local manufacturing
Morocco (assembly)	PV: Peugeot, Citroën, Renault, Fiat, UV: Mitsubishi, Iveco, Mercedes, Kia, DAF, Nissan Diesel, Isuzu, Scania, Man, Nissan, Volvo

Palestine A.	No local manufacturing
Syria	Not available (Kia project)
Tunisia	PV: No local manufacturing
	UV: Iveco, RVI, Scania, Volvo, Mercedes, MAN
Turkey	UV:Tofas Fiat, Ford Otosan, Hyundai Assan, Otokar, Askam (Chrysler), Isuzu, BMC, Karsan Peugeot, Otoyol, Mercedes, Man, Temsa, Türk Traktor, Üzel Makina

Figure 27. The main equipment manufacturers present in MEDA region

Algeria	**Not available**
Cyprus	Production of coachwork and accessories
Egypt	Exclusive agents: Valéo, Michelin
Israel	Celtronix, Nexus, Taditel Auto, XI information
Jordan	Exclusive agents: Peugeot, Renault, Citroën
Lebanon	No local manufacturing
Morocco	Valeo, Bennes Marrel, Lamberet, Delphi, Lear, Yazaki, Trèves, Sumitomo, Goodyear, Cover Car
Palestine A.	Not available
Syria	Not available
Tunisia	Valeo, Delphi, Labinal, Leonnische, Defontaine, Sylea, Africa Joints, Assad, GIF, United technologies, Draxlmayer, General Motors, Isuzu, Pirelli
Turkey	Bosch, Sachs, Grammer, HP Helzer, Freudenberg, Gedora, Delphi, Meritor, Federal Mogul, Lear, Johnson Control,Ferodo, Lucas, Magnetti Marelli, Valeo, Faurecia…

Turkey

The regulatory framework

Turkey offers a largely liberalised regulatory framework. Domestic fiscality on vehicles remains, however, high:

- Foreign investors are treated in a non-discriminatory way by the existing legislation. They profit from a reduction in company profits tax, exemption from the payment of VAT on machines and equipment purchased locally or imported for the needs of the investment…
- Customs duties are nil for vehicles originating in the European Union by virtue of the customs union. For imports coming from third party countries not belonging to the Union or with no agreement with Turkey, the common external tariff applied is 10 %.

• The different taxes and other vehicle acquisition costs represent a large fraction of the net value of the price of a new vehicle. They are combined in a single tax: the ÖTV, a « special consumption tax». This reaches 50 % for private vehicles of more than 2,000 cc and 9 % for minibuses. These heavy taxes are a brake to the development of the local market.

Structure of Turkish industry

Turkey has without any doubt the most developed automobile industry in the area. It alone has a completely integrated industry. As has been seen, it is at the origin of nearly 90 % automobile vehicle exports from the MEDA region.

The automobile sector is almost entirely private. The nucleus of this industry was historically constituted by a vehicle assembly activity using imported components, intended for the local market and protected by customs barriers (installation of Renault at Bursa in 1971). Thereafter, local integration grew progressively, with the development of a local equipment industry. From the entry of the country into the customs union with the European Union in January 1996, the industry underwent a rapid transformation and has gradually become a regional size production centre.

Today, automobiles represent one of the pillars of the Turkish economy. It employs around 500,000 people, brings together more than 1,000 businesses and accounts for 9 % of Turkish exports. There are 19 automobile vehicle constructors among which five private vehicle manufacturers (Renault, Fiat, Toyota, Honda, Hyundai) occupy a major place.

Turkey is well behind the large centres of production with 562,000 units produced in 2003, that is 0.9 % of world production (+57.5 % compared with 2002) of which 294,000 private vehicles and 240,000 utility vehicles (respective world shares of 0.7 % and 1.3 %). But its industry is rapidly gaining strength. Thus, production has progressed by 57 % in 2003 compared with 2002 while installed production capacity increased by 35% in 2002 and 55% in 2003. During the first six month of 2004, production reached 429,000 vehicles, that is an increase of 76.1 % compared with the same period in 2003.

Turkish industry benefits from a large and dynamic domestic market. In 2003 vehicles sales increased by 127 % compared with 2002 and reached 395,000 units. This rising trend has continued in 2004: 381,000 units have been produced during the first 6 months of the year, that is a rise of 117 % compared with the same period in 2003*.

Other than the supply of its domestic market, Turkish industry is becoming a production hub for export (359,000 units exported in 2003), as a result of the strategies of the foreign constructors located in the country. Thus in 2003, Renault exported 98,000 private vehicles, Fiat, 41,000 and Toyota, 61,000. The country exports a large part of its production to the European Union with a total of 107,000 private vehicles and 69,000 utility vehicles for the year 2002, which corresponds to more than 1.4 billion dollars. It also makes significant exports to the Middle East, Africa and Russia.

The vehicle equipment industry started to develop in the 1970s thanks to the arrival of automobile constructors upstream of the sector. Today there exist around one thousand equipment manufacturers, the majority located at Bursa, Istanbul and Izmir. The industrial fabric, which is fairly heterogeneous, comprises independent manufacturers, craft industries and subsidiaries of foreign companies. More than one hundred foreign equipment manufacturers are locate here and they play a major role, whereas 185 foreign firms have partnerships in Turkey.

Turkish industry has undertaken large efforts during recent years in the field of quality. Three hundred equipment manufacturers today have production units which comply with world standards which enable them to supply the constructors directly and be present on international markets. The other firms are more oriented to the parts market. However, Turkey is still today missing second level equipment manufacturers, which explains why the first level equipment manufacturers have difficulties integrating their production locally.

Among the main centres of activity, can be cited the Bursa site. Oyak Renault and Tofas Fiat, leading producers of private vehicles, have located their production plants here (Bursa is the only site in the world

* The consequences of the sharp recession of 2001 have thus been overcome

which produces the Mégane Break and the Mégane II Tricorps). The large region of Istanbul (Gebze, Kocaeli…), also has a concentration of automobile activities. At Gebze in particular, an industrial zone dedicated to automobiles (the TOSB) is being developed.

Tunisia

A still heavily regulated sector despite progressive liberalisation

The automobile in Tunisia is a regulated sector and importations are fairly heavily taxed, as the result of a policy whose aim is to promote national production.

The Tunisian authorities allocate official importers import « tariff contingents», in relation to the results presented by the constructors in the framework of « industrial cooperation », this means to say the obligation to participate in the development of the Tunisian mechanical and electrical industries.

Tunisia offers foreign investors several advantages, such as relief for reinvested profits up to a limit of 35 % of the tax base, the exoneration of customs duties, a reduction of VAT to 10 % for imported capital equipment and the possibility of opting for the regime of reducing charge depreciation for production material and tools. Since 1995, the Tunisian automobile and components market is open to all the constructors: Peugeot, Citroën, VAG, General Motors, Ford, Fiat, Opel…

Customs duties have been abolished for a great majority of vehicles following the free trade agreement, signed in 1995, which came into force in 1996 between Tunisia and the European Union (generalised and progressive dismantling of tariffs). But the drop in customs duty has been compensated by an increase in consumption duties.

There are in fact heavy taxes on vehicles such as VAT and consumption duty. The latter vary from 10 % for the popular 4 HP car to 355 % for large engined cars.

Finally, fiscal provisions aim at favouring those Tunisians who live overseas. Once in their life, they may take advantage of a partial exoneration of taxes thanks to the FCR regime (Franchise for Change of Residence) for the purchase of two cars, one of which a 4 HP.

The structure of the Tunisian industry

After having encountered difficulties in the automobile sector, in 1987 Tunisia decided to stop the assembly of light vehicles and turned towards the development of a components and equipment industry (see history in Annex 7). Light vehicles are hence imported from foreign suppliers through the call for tenders system while heavy vehicles are assembled on site by the STIA (Tunisian automobile industry company) and the SETCAR (Transport equipment and coachwork company).

The French brands (Renault, Peugeot, Citroën) occupy the leading places on the market for private and light vehicles. As concerns the lorry, bus and coach market, the best represented brands are Renault Trucks (subsidiary of the Swedish Volvo Trucks), Iveco, Mercedes and Volvo.

The automobile components industry represents the essential of the country's activity in the vehicle sector. It brings together 124 companies, 33 of which are totally involved in export and employ around 20,000 people. Several equipment manufacturers are present in the country: Valéo Embrayage Tunisie, Defontaine Tunisie, Syléa Tunisie, Autoliv, Gruner AG, Kashcke EG, Pirelli via its participation in the local company STIP… The other companies are Tunisian and distribute above all to the local market. Electrical systems (mainly wiring looms) represent more than 60 % of the production and around 80 % of the exports of this sector. Tunisia has acquired a great deal of skill especially in the domain of wiring systems, hence three of the seven largest manufacturers in the world operate in the country.

Other sectors such as forge-foundry, machining, the transformation of plastic and rubber, electronics… have also benefited from the pull-effect effect linked to the development of the local automobile equipment industry.

Morocco

A sector in the process of liberalisation

In 2004, customs duties on imports are 30.6 % for private vehicles and 32 % for utility vehicles. In the context of the customs disman-

tlement by virtue of the agreement of association between Morocco and the European Union, customs duties affecting vehicles from the Union started dropping in 2003 and will be totally abolished in 2012.

The elimination of trade protection underway which benefited the SOMACA (Moroccan automobile construction company) could have serious consequences, by compromising the competitiveness of vehicles produced in Morocco. So as to contend with this upheaval the SOMACA has been privatised, Renault henceforth holds 46 % of the capital of the company, Fiat and PSA each hold 20%.

The Moroccan market

The sales of automobiles (PVs, LUVs and 4x4s) reached 47,809 units in 2002, an increase of 2.7% compared to 2001. The sales of imported ready built private vehicles made great progress, increasing from 20,644 units in 2001, to 24,233 units in 2002 (+17.4%) while sales of private vehicles assembled locally (Fiat) went from 11,237 vehicles in 2001 to 9,777 units in 2002 (-13%). Sales of LUVs recorded a drop of 5.88% with -15.68% for LUVs imported ready built and -1.30% for the LUVs imported as CKDs.

The structure of the Moroccan automobile industry

The automobile sector represents 300 companies in this country, 20,000 employees and 20 billion dirhams of turnover, that is 1.9 billion euros. More modern than other industrial sectors of the country, it is also one of the best export performers. With only 4% of the industrial workforce, it in fact responsible for 6% of the production of all the transformation industries, and for 11.2% of industrial goods exports.

Morocco possesses a private vehicle and light utility assembly unit, nine heavy utility vehicle assembly lines, ten bus and coach bodywork constructors and a sub-contracting industry which brings together some sixty companies employing more than 10,000 people (see history in Annex 7).

The SOMACA has a largely under-utilised production capacity of 60,000 units per annum (essentially for the assembly of CKDs for

Renault, PSA and Fiat). In 2002, Renault produced 1,323 private vehicles (PVs) and 712 light utility vehicles (LUVs), Peugeot 4,416 LUVs and Fiat 8,898 PVs[14].

The French brands Peugeot, Renault and Citroën retain the leading places in the market of imported ready built PVs with a total of more than a 60% market share.

But the competitor brands Volkswagen, Ford, Toyota and Nissan have recorded considerable increases in their sales in recent years.

Almost all heavy goods vehicle sales are assembled locally. The main brands assembled locally are Mitsubishi, Isuzu and Renault. The vehicles are imported in kit and the rate of integration of parts manufactured locally is relatively low. In 2002, the sales of heavy goods vehicles increased by 13.5 % (from 3,521 to 3,997 units).

The flow of foreign investments is certainly on the increase. From January 2003 to June 2004 Morocco received ten automobile investment projects five of which came from France. For example, the French company Trève, the Portuguese Sunviauto and the Spanish Covercar have invested a total of 15 million euros in three distinct plants in Tangiers for the manufacture of automobile seat covers. In 2003, the Valeo group inaugurated a new production site at Bouznika, South of Rabat, where 1,550 people are employed. It now possesses three factories and a research centre in Morocco and employs 4,000 people. A part of this activity has followed the Fiat manufacturer in Tunisia since.

The Japanese group Sumitomo Electric Wiring has just announced the construction of a second factory in the region of Casablanca to manufacture automobile wiring looms at a cost of 20 million dollars and the creation of more than jobs. The American group Polytech Netting, subsidiary of the Canadian Exco Technologies, has announced a new investment in the manufacture of seat coverings and plastic automobile components for the sum of 10 million euros and the creation of 1,800 new jobs. Finally, after having bought the SOMACA assembly plant in Casablanca, Renault is in the process

14. According to the DREE, in 2002 the SOMACA produced, 9,777 private vehicles (FIAT) and 9,864 light utility vehicles

of modernising it for more than 30 million euros. From the second quarter 2005, the manufacture of the Dacia Logan should begin. In time, the plant should produce at least 30,000 vehicles per annum, half of which intended for the markets of North and West Africa.

Egypt

A timid and uncertain start to liberalisation

In 1973, Egypt opened its automobile market to imports. But they were very closely controlled by contingents in such a way that only local PV assembler, NASCO, was guaranteed to find outlets for all its production. In 1993, the ban on imports of « built-up » vehicles was lifted, the market was opened and the authorities encouraged foreign assemblers to install production lines in Egypt.

Customs duty on ready assembled imported vehicles remains, however, very high and increases with the capacity of the vehicle. They vary from 10 to 135 % according to the type of use of the vehicle and its cubic capacity. If internal taxes are added, the overall taxation on the purchase of vehicles is between 30 and 184%[15]. However, in the context of the WTO, the country has undertaken to reduce, then eliminate import customs duty by the year 2005.

So as to promote the development of local sub-contracting and the significant increase in Egyptian added value, a minimum local integration rate has been imposed on so-called CKD assemblers. It is 45 % for PVs, 60 % for the LUVs and 70 % for buses and heavy goods vehicles. The customs tariffs on the CKD collections are calculated from those which apply to complete vehicles. They benefit from a sliding scale rebate in relation to the local integration rate and range from 22 to 28 % depending on the components concerned.

In this context, the creation of assembly plants by foreign constructors has been mainly motivated by a strategy to avoid the customs barriers applied to imports of finished vehicles. These tariffs should drop from 2005 as a result of commitments made in the context of the WTO. However, Egypt has undertaken negotiations to prolong the exemption period. It should also be noted that as a result of the association agreement with the European Union which came into

force on 1st January 2004, customs duties on PVs are to be liberalised in 2019.

Structure of the Egyptian automobile industry

According to the estimations of the association of Egyptian automobile constructors, the automobile sector employs more than 80,000 people in the country, 20,000 of whom in the production phase (automobile and sub-contracting) and 60,000 in distribution and services.

Out of the 72,000 vehicles sold in 2003 more than two thirds are assembled in Egypt. More precisely, the locally assembled vehicles represent 62 % of the total of new private vehicles marketed in 2003 and nearly 75 % for utility vehicles and buses. Assembly is carried out within 17 plants, in majority private and situated in the Greater Cairo region.

The total production capacity for all types is between 150,000 and 200,000 units per annum. This production is, however, limited to the assembly under licence of imported CKD kits. The latter include for PVs, the chassis, the bodywork elements, the engine mounted and ready to use, the multiplexed wiring looms and the steering elements.

The automobile sub-contracting sector, in major part composed of local companies, includes more than 350 businesses employing in total more than 20,000 people. This local production represents approximately 20 % of the whole market (counterfeiting being very widespread). The majority of the international brands are present through the intermediary of agent distributors.

The Egyptian automobile market

The Egyptian automobile market is limited in volume but is very competitive. More than 30 brands are present locally, banking on the country's medium and long term potential. But the demand is restrained by the low income per inhabitant (3,800 $US, in PPP in 2001, according to the World Bank).

15. In May 2004, the authorities introduced a new tax called « development duty » (law N°90/2004) on sales of CKD (Complete knock Down) and CBU (Completely Built Up) automobiles. The rates of this tax are calculated in relation to the cubic capacity of the vehicles, the total invoice of the CKDs and the CBUs.

Road transport is the main transit mode of in Egypt (60% of passenger transport and more than 90% of goods traffic). But the rate of automobile ownership (one car for 37 individuals) is, on the other hand, very low.

In the context of a slow business cycle and with the depreciation of the Egyptian pound, the volumes of sales have dropped a great deal since 1998. At that time, total sales had reached 130,000 units against 62,000 in 2002. The assembly capacity is used at less than 35%.

According to the report of the AMIC (Automotive Marketing Information Council), the automobile market nevertheless experienced a net gain between 2002 and 2003, reaching 72,000 units. All categories considered, the brands which sell the best are Daewoo, Toyota and Tofas Fiat.

The volume of the Egyptian parts market (essentially spares) is estimated at 300 million $US per annum, spread over the parts intended for local assembly and after sales service. It is a very dynamic market as a result of the needs for replacement parts. In fact, the average age of the automobile fleet is estimated to 20 years.

The distribution of spare parts is split between a very structured sector and a parallel sector of imports of adaptable or second hand parts. Customs duties on imported parts are between 10 and 40 % according to the product.

Figure 28. Some large investment projects in Egypt

In 2003, BMW and its agent Bavaria decided to establish a new plant to assemble the BMW series 3, 5. The new production line is considered as one of the new generation of BMW plants. The total investment is supposed to reach 60 million dollars for a production capacity of 4,000 vehicles per annum.
On 28th June 2004, the Japanese automobile group Nissan Motor Company announced that it would invest more than 100 million dollars (that is the largest investment ever made by a Japanese firm in Egypt) between now and 2010 so as to make this country its production base to serve the Middle East and North Africa. It is planned that from 2007, 13,000 vehicles will be assembled per annum including 3,800 for export.

Israel

A transparent regulatory framework, but heavy fiscality

Vehicles from the European Union and the United States are exempt from customs duty. On the other hand, the latter amounts to around 7 % on Japanese or Korean vehicles.

The fiscality is heavy: purchase tax of 95 %, wharfage charges of 1.1 % and 17 % VAT. For spare parts, a purchase tax is applied to both local products and imports (with an excess).

Structure of the Israeli industry

Over the past ten years, the number of private cars in circulation in Israel has increased constantly. In 2002, 1,960, 023 vehicles (including 1,496,878 private vehicles) were in circulation in Israel for a population of 6.6 million inhabitants, that is one car for 2.9 inhabitants. The new « private » vehicle market represents around 130,000 vehicles per annum.

Without a local industry, Israel must import all its vehicles. The private automobile fleet comprises 39 different brands of Japanese, European, Korean and American cars. The most heavily imported brand is Mazda (Ford Group) followed by Toyota, Hyundai, Ford…

The imports of utility vehicles come above all from Europe and Japan. Lorries represent a market in full development dominated by Mercedes and Volkswagen.

The spare parts and equipment market is large, around 800 million dollars, of which 300 million imported (DREE 2002 data). The main suppliers are Germany and the United States.

Local production is modest, but very dynamic for certain categories of components. It is impressive in the production of metallic parts, plastics and in the high-tech sector. There are around 50 companies and specialist Start-Ups in the electronic and computer accessory segment.

Cyprus and Malta

The Cypriot automobile market is relatively mature. 80 % of households possess at least one car, more than 50 % have two. The total

number of cars registered in 2003 amounted to 40,362. The same year, 27,969 private cars were imported, 20,000 of which from Japan.

Local automobile production, at a relatively modest level, only concerns bodywork, equipment and accessories.

A law adopted by the Chamber of Representatives has modified the rate of consumption tax on automobiles. The latter is now fixed to take into account the cubic capacity of the vehicles rather than their mercantile value. The reform of the fiscality should result in a drop in taxes, especially for automobiles of small and medium cubic capacity. On the other hand, it is less favourable than the previous for all-terrain vehicles and second hand vehicles.

As for Malta, it produces and exports a certain amount of electronic automobile equipment and also participates in the intra-Mediterranean flow of exports-imports.

Lebanon

Apart from a few buses assembled locally, the whole of the Lebanese automobile fleet is imported. It is estimated at 1.6 million vehicles for 4 million inhabitants. The average age varies between 8 and 15 years.

The total value of new vehicles sold in Lebanon in 2003 is evaluated at nearly 500 million $US. In number, the sales of new vehicles in Lebanon (private cars and utility vehicles) made considerable progress in 2003: +12.3% against 1% in 2002. Sales of private vehicles thus increased by 16% compared with 2002 (for an evolution of +2% in 2002) while the sales of utility vehicles (buses and vans) continue their slide which started two years ago: -21% in 2003 and -8% in 2002.

An obligatory technical check-up was applied in January 2004. A large number of vehicles which do not satisfy the obligatory technical criteria run the risk of being withdrawn from circulation. Old Beirut taxis, with polluting diesel motors, have been removed.

Jordan

The Jordanian automobile fleet has recorded significant growth in recent years to reach a total of 328,000 vehicles in 2002. The entry

of Jordan in the WTO, in April 2000, and the enforcement of a free trade agreement with the United States and an association agreement with the EU in 2001 and 2002, led the country along the way to liberalisation and a gradual reduction in tariff barriers. However, customs duty and taxes remain high, inhibiting the growth of the automobile market.

As a result of almost non-existing local production in this sector, Jordan imports all its vehicles from abroad, mainly from Asia and Europe.

The low purchasing power of the Jordanians has favoured the development of a second hand market, hence a heavy demand for spare parts.

Syria

Customs duties are high: 115 % for cars of less than 1200 cc and 150 % for the larger cubic capacities. Furthermore, taxes are added when customs duty is paid, they are unified into a single tax which depends upon the model of the car.

The growth rate of the fleet of private vehicles is estimated at around 8 % per annum. However, the high level of taxes acts as a dissuasive element for the consumer.

The heavy goods vehicle market has been in strong progression for three years as a result of two main factors: the launch a number of construction sites, and the renovation of the fleet of material of the State companies specialising in public works. It is a highly competitive market where all the world manufacturers are present through their agents.

In 2003, the Ministry of Industry signed an agreement with the Egyptian group Al Wahab concerning the creation of a mixed ownership company for the construction of a 30 passenger bus. The production capacity is 600 vehicles per annum. The capital allocated to the project amounts to 3,704,135 $US, 40 % financed by the Syrian party. The Ministry also signed two similar agreements with Iranian and Malaysian groups.

Assets, handicaps and opportunities for welcoming international investments

Within the Euro-Mediterranean region, the relocation movement, with emerging countries as the destination, has until now been of special benefit to East European countries. The investment flows to the MEDA area on the contrary remain limited and focused on a few countries (Turkey...). This situation can be explained by the existence of several serious handicaps in terms of image, business environment and the industrial and technological environment. However, renewed interest can now be seen for the area, which could materialise in the increase of project flows if improvements were made to local business conditions.

Relocation which above all benefited the East European countries

The automobile sector has given rise to the largest flows of international investment in Europe during recent years. Out of 1.2 million jobs created by the multinationals in this region between 1998 and 2002, 260,000 were in the automobile sector. Out of this total, nearly half were in Eastern Europe. (Figure 24). German and Scandinavian investors, in particular, have massively reorganised their production sectors by relocating in Eastern Europe.

Figure 29. Creation of jobs by international investments in Europe in the automobile sector (1998-2002). Source: AFII, according to Ernst and Young

(000's)	Assembly	Equipment	Total	%
Western Europe	72.2	67.32	139.5	0.538
Eastern Europe	39.3	80.8	119.9	0.462
Total	111.5	148.1	259.4	1.000

This movement has translated into the rapid emergence of highly active automobile production centres in countries such as Hungary and the Czech Republic through the installation by multinational firms of their main sites in the sector. In 2003, 2.6 million private ve-

hicles were produced in Eastern Europe (against 2.2 in Spain and 3.3 in France). Between now and 2010, the production capacity should reach 3 to 3.5 millions units for a demand of around 2.4 million.

This movement continues to increase in intensity and extend geographically. On the one hand, the countries which are better endowed with skilled labour, such as Czech Republic or Hungary, host the higher level technical activities: small centres of development and conception… thus the progressive creation of complete sectors bringing together constructors and equipment manufacturers in the powerful industrial districts.

On the other hand, these first generation countries are now being followed by other low wage cost countries (Romania, Bulgaria…) where projects for the location of labour activities are multiplying (Figure 30).

Figure 30. Investment projects in the automobile sector in Europe in 2003 and 2004: more relocations towards Eastern Europe

1. The year 2003. According to the AFII Europe and France Observatories, 294 projects have been counted in 2003 in the automobile constructor and equipment manufacturer sector.

The main countries of origin of these projects are Germany (70 projects for 37.3 % of the jobs created), Japan (67 projects for 19.6 % of the jobs created), the United States (55 projects for 10.1 % of the jobs created), France (32 projects for 16.6 % of the jobs created) and Italy (13 projects for 4.4 % of the jobs created).

Production sites alone represent 72.1 % of the projects and 95.5 % of jobs created. The commercial bureaux, the research centres, the internal administrative services and Head Offices, the distribution and logistics sites each represent from 10 to 30 projects. The creation of new sites represents the majority of the projects: 65.6 % of the projects for 72 % of the jobs.

The CEEC countries attracted 42.5 % of the projects for 76.1 % of the jobs created. In numbers of jobs, Romania tops the list (22 %), followed by Poland (15.6 %), the Czech Republic (14.4 %), Slovakia (11.8 %) and Hungary (10.1 %). Germany only attracted 4.2 % of jobs.

2. The year 2004 (partial results). During the first 9 months of 2004, 198 projects were recorded in the automobile constructor and equipment manufacturer sector.

The main countries of origin of these projects were Germany (55 projects for 25.3 % of the jobs created), Japan (47 projects for 19.6 % of the jobs created), the United States (25 projects for 18.4 % of the jobs created), France (17 projects for 10 % of the jobs created) and Sweden (9 projects for 1.3 % of the jobs created).

The sites of production alone represent 80.8% of the projects and 95.7% of the jobs created. The commercial bureaux, the research centres, the internal administrative services and HQs, the distribution and logistics sites each represent from 1 to 16 projects. The creation of new sites represents the majority of the projects: 68.2% of the projects for 70.3% of the jobs.

The CEECs attract 51% of the projects and 69.8% of the jobs created. In numbers of jobs, Hungary leads (16.1%), followed by the Czech Republic (14.4 %), Slovakia (14.3%), Romania (10.4%), and Poland (8.4%). Germany only attracts 1.6% of the jobs.

A limited flow of projects in the MEDA area

A report of the year 2003

Compared with the large flow of projects in Eastern Europe, international investments in the MEDA area – according to ANIMA's MIPO observatory – were limited in 2003: 26 projects against a total of 290 for the whole of Europe (see detailed list in Annex 6). The automobile industry does, however, constitute one of the leading investment sectors in the MEDA area (9 % of the total number of projects recorded in 2003, in second place behind the textiles and clothing sector).

The main investor countries were France (5 projects), Germany (5), Russia (3), the United States (3) and, Japan (2). Italy, Malaysia, Slovakia, South Korea, Spain, Sweden and the United Kingdom (1) were all behind one project. Among the investors, the names of Renault, Toyota, Valeo, Bosch, UAZ (Russia) and GAZ (Russia) should be mentioned.

Turkey is the leading host country, with 9 projects, followed by Morocco (6), Egypt (5), Algeria (3), Jordan (1), Malta (1) and Syria (1).

Certain investments have, however, reached high level sums: in Turkey, Bosch invested 182 million euros and Renault 200 million euros (production of the new Mégane); in Morocco, Sunviauto has invested 41 million euros (creation of 200 jobs for the manufacture of automobile seat covers).

It should be noted that an important part of the relocation operations in the MEDA area is not the result of direct investments flows, but rather sub-contracting operations (cf. Figure 31).

The first nine months of 2004

During the first nine months of 2004, The MEDA area countries have hosted 19 projects in the automobile construction and equipment sector against 198 for Europe. The automobile industry represents the 4th sector of investment in the region behind the sectors of energy, agro-food and tourism.

The main countries of origin of these investments were France (7 projects), Japan (4 projects) and the United States (2 projects). Germany, Italy, Portugal, Russia, South Korea and Spain are each behind one project.

The leading host country is Turkey 9 projects. It is followed by Morocco (4 projects), Egypt (3 projects), Algeria (1 project), Jordan (1 project) and Tunisia (1 project).

The existence should be noted of a number of major projects: Toyota is increasing the production capacity of its plant at Adapazari in Turkey (180 million euros and 400 new jobs); Nissan is planning to invest 100 million $US dollars in Egypt between now and 2010.

Figure 31. Investment or sub-contracting, two types of relocation towards the MEDA area

To develop their activities in the MEDA area, the multinationals have the choice between direct investment and sub-contracting:

• In Turkey, a number of constructors relocated here in recent years to re-export from this « low cost » base: Oyak Renault (Clio Symbol, Megane Break), Fiat (Doblo), Ford (Transit Connect), Toyota (new Corolla), Hyundai (Starex).

• In Tunisia, the authorities are seeking to develop the sub-contracting operations intended for re-export to the international market in the automobile components sector. With this aim in mind, they seek to upgrade the foundry and the forge sector so as to offer a competitive capacity for the sub-contracting of cast parts and for machining.

Comparable attractiveness of three areas

Apart from the case of Turkey, the MEDA countries are well behind Eastern Europe and of course, Western Europe as hosts for investments from multinational firms (26 projects against 125 for the CEECs and 136 for Western Europe, Figure 32).

Figure 32. Location of automobile projects in 2003-2004. Sources: AFII (Europe and France Observatories) and ANIMA (MIPO)

	2003		2004 (6 first months)	
Country	**Total number**	%	**Total number**	%
Western Europe	165	51.5	97	44.7
Eastern Europe/CEEC	125	39.1	101	46.5
MEDA	26	8.1	19	8.8
Others	4	1.3	0	0
Total	320	100.0	217	100.0

This difference can be explained by the overall less favourable conditions of attractiveness for each of the important location criteria of the firms: overall business environment, proximity to the final market, quality of the industrial and technological environment, production costs (wages, property, fiscality).

The competitiveness of the CEECs

The competitiveness of the region is based upon six major factors:

- A good image in terms of political, economic and social stability, and especially linked to the prospect of entry to the European Union;
- The proximity of the main West European centres of demand and a rapidly growing local market;
- A favourable technical and industrial environment, with the presence of numerous competitive upstream and connected industries (plastics, metals, electronics) and making increasingly strong and binding relationships of cooperation;
- A skilled labour force at a relatively low cost (especially for the CEECs referred to as « second generation » ;
- Dynamic overall development of the sector (location of equipment manufacturers close to assembly sites for their easy supply) ;
- Finally, an active industrial policy: support from the States for the investors, especially in terms of training, active policy to attract, search for an improvement in the business environment.

Western Europe

The main advantages of the West European countries are linked to the existence of a skilled labour force and a very favourable industrial and technical environment (large production centres), close to the market and an overall favourable business environment. The main handicap is linked to the high production costs.

The MEDA region countries

Beyond a few common assets and handicaps, the very great diversity of the MEDA countries requires a case by case analysis distinguishing particularly the case of the countries already endowed with a significant automobile industry, like Turkey.

Some common assets and handicaps

Among the most important comparative advantages shared by the majority of the MEDA countries, is the low level of wage costs compared with those of Western Europe, with wages on average five times lower than the European wages. For example, in Turkey, the wage of an unskilled worker is around 160 $US per month and the basic salary of an engineer is 1,000 $US per month. Moreover, social charges are relatively low.

However, these countries share this feature with the second generation CEEC countries (Romania, Bulgaria, etc.), as well or better endowed than them as far as the business environment, image of the country, quality of labour, access to the market, etc., is concerned. This first advantage alone is however not enough to orient investors towards the area. Whereas, as concerns the other location criteria, the different countries of the area present very diverse and often unfavourable conditions.

The diversity of national situations

Turkey, already endowed with a complete industrial sector, offers a large base of technology and know-how: skilled labour, presence of sub-contractors and suppliers, easy access to the European market, rapidly growing local market. However, wage rates, on the increase, are already greater than those of the second generation CEECs or MEDA countries.

Tunisia, and to a lesser extent, Morocco, share these features with a weaker industrial base, however (absence of construction activity in Tunisia) and a small-sized local market.

Malta, Cyprus and Israel present relatively similar features to those of Western European countries, both in terms of labour skills and wage costs, but have not developed a real industrial base in the automobile sector. The development of very specific niches (e.g. electronic equipment in Israel), is to be envisaged, however.

Figure 33. Assets and handicaps of the different groups of countries in attracting automobile investments

Country	Assets	Handicaps	Threats	Opportunities
Western Europe	-Market, -Industrial base -Know-how	-Wage costs	-Risk of relocation (especially equipment manufacturers)	-Innovation
1st generation CEEC	-Start of the constitution of a local centre of competence -Entry into EU	-Logistics	-Higher wage costs -Competition from low cost countries	-Higher range of products manufactured
2nd generation CEEC	-Wage costs	-Logistics		-Higher wage costs in first generation countries
Turkey	-Maturity of industrial fabric -Vast network of operators -Wage costs -Customs Union with EU -Important investments	-Do not belong to the EU	-Competition from low-cost countries	
Maghreb	-Agreements of association with the EU -French-speaking labour -Effective communication network	-Non-EU States -Fragmentation of market -Limited local market -Insufficient commercial integration -Low investment effort -Logistics	-Competition from low cost countries -Risk of loss of activities from existing relocation	
Machrek	-Wage costs-Association agreements with the UE	-Problems of image -Logistics problems -Industrial environment		-Higher wage costs in the first generation countries -Search for new sites for relocation

Finally, for other countries, the absence of a strong industrial base and at times the handicaps linked to the general business environment at the moment penalises their attractiveness in the automobile sector.

A growing interest from the industrial companies for the area

It would, however, appear that a growing number of industrial companies, faced with the rise in production costs in the first generation East European countries are more and more interested by the prospects offered by certain countries of the MEDA region. This movement is resulting in a progressive increase in the number of projects announced or under study (e.g.: the installation of Renault in Maroc[16]).

16. Largely by the formation of a Mediterranean free trade area in the context of the Agadir agreements.

3. Recommendations for attracting FDI to the automobile sector in the MEDA countries

So as to maintain and increase the flow of investments and profit from the numerous relocations from the European Union, the MEDA countries should make still greater efforts.

A general measure: intensify regional solidarity and improve the local business environment

Intensify regional solidarity

Regional co-operation should be intensified both with the European Union (Barcelona process) and among the MEDA countries themselves (« Agadir » type agreements) with the aim of greater liberalisation of the trade in automobiles:

- Reciprocal opening of the MEDA country markets so as to guarantee larger local outlets for manufacturers in the area.
- Constitution of an integrated Euro-Mediterranean area with the abolition of tariff and non-tariff barriers between the countries of the area so as to ensure mutual outlets, the harmonisation of the legislative framework, the introduction of transverse infrastructures.
- Reinforcement of the partnership between European companies and those of the MEDA countries so as to accelerate the process of modernisation and upgrading.

Improve the business environment

A real dynamic movement of industrialisation through the flow of foreign projects assumes a marked improvement in the business environment:

- On the international level: closer association with the centre of economic and social stability that Europe represents and of course, political and diplomatic efforts to appease the tension in the area.

• On the technical, industrial and logistical level: an improvement in the transport infrastructure, availability of skilled labour, upgrading of local sub-contractors and suppliers, development of research centres.

• On the level of the legislative and administrative framework: efforts in terms of the transparency and efficacy of administrative procedures, simplification and liberalisation of the legislation, taxation system (even if certain situations are already very favourable).

Launch a reflection and initiatives for the development of the automobile sector

As concerns the automobile sector proper, the action of the MEDA IPAs could be organised around two large axes: knowledge of the market and actions of promotion/prospecting.

Knowledge of the market and the positioning of the MEDA countries

• Inventory of the strong points of the sector in the MEDA countries. The aim is to identify the assets specific to each of the countries so as then to be able to make choices (targeting) and exploit them. A number of products offer large development potential: filters (air, petrol, oil), suspension, brakes, exhaust systems.

• Search for new production-distribution niches using a marketing approach. The accessory market is an example of a niche to be exploited.

• Search for activities with a high labour content. Wiring is an example of an activity which uses an abundant supply of labour, but consumes little energy and requires little capital. Its cost structure may correspond to the competitive advantages of the Mediterranean industrial fabric (cf. the example of Tunisia)

• The link with certain technological activities which represent the strong points of the MEDA countries: development of software, design of microprocessors, for example.

• Creation of an international working party charged with identifying the sectors offering market and investment potential; draw up a list of potential partners in the European Union (clients, investors, professional associations).

• Creation of a regular information forum on questions concerning the sector (analysis of markets, benchmarking, experience-sharing, training in marketing and commercial techniques, etc.).

Actions of promotion and prospecting

Elsewhere, promotional action may be envisaged so as to attract or encourage new companies or initiatives:

- Co-operation with the European regions to form Trans-Mediterranean production and trade networks using the complementary assets of each region. Catalonia, for example, has shown an interest in such collaboration ;
- Constitution of centres of competence on one profession or another by trying to bring together training (schools, professional centres), research, studies and knowledge of the markets, logistics and distribution in one given place (« cluster » or « valley »).
- Organisation of promotional events (open-days, trade fairs, seminars, etc.) with order givers from the European Union, constructors, equipment manufacturers, members of governments, supporting institutions, specialist consultants and the press. Open-days or workshops could be organised devoted to MEDA in one trade fair or another and eventually create a forum. The contacts made with several professional federations show that European manufacturers are perfectly open to this type of approach.
- Information campaign about the low risk countries but which are handicapped by a mediocre image.

The MEDA countries could in this way reinforce their natural complementarities with the West European countries with high wage costs, which will increasingly specialise in activities which call for a highly skilled labour, a very efficient business or technological environment, or even activities linked to market access.

A MEDA offer deserves to be conceived, explained and promoted. It will have that much more weight if the MEDA countries could unite to propose a common and integrated market.

Annexes

Annex 1.
Bibliographical indications

- de Saint-Laurent B. et Apothéloz C. 2004, Investir dans la région MEDA, pourquoi, comment ?(Invest in the MEDA region, why, how?) Notes et études ANIMA n°12, mai
- de Saint-Laurent B. et Sztejnhorn I. 2004, Direct Foreign Investment (FDI) in the MEDA region in 2003 Notes et études ANIMA n°6, mai
- Hatem F. 2004, « Filière automobile, cap à l'est ? »(Automobile sector, heading East?), Le nouvel économiste, 16 juillet
- DREE, 2004, Impact of the regional trade agreements on automobile trade and investments: a reality for the well integrated zones, Revue Stratégie du réseau Automobile des Missions Economiques, numéro 39, avril
- DREE, 2003, FDI in the Mediterranean: potential for reinforcement – The role of the Euromed partnership, Fiche de synthèse, octobre
- DREE, 2003, « L'intégration économique régionale dans la zone méditerranéenne » (Regional economic integration in the Mediterranean area), Fiche de synthèse, octobre
- DREE, 2003, « Le partenariat euro-méditerranéen » (The Euro-Mediterranean partnership), Fiche de synthèse, octobre
- DREE, 2003, « Les échanges commerciaux en Méditerranée » (Commercial trade in the Mediterranean), Fiche de synthèse, juin
- DREE, 2002, « L'intégration économique 'Sud-Sud' » (South-South economic integration), Fiche de synthèse, janvier
- DREE, 2002, « Les équipements automobiles en Turquie » (Automobile equipment in Turkey), Fiche de synthèse, septembre
- DREE, 2003, « L'industrie automobile en Turquie » (The automobile industry in Turkey), Guides répertoires des Missions Economiques, novembre
- DREE, 2002, « Le marché automobile et des composants en Tunisie » (The automobile and component market in Tunisia), Fiche de synthèse, août
- DREE, 2002, « Le marché du pneumatique en Tunisie » (The tyre market in Tunisia), Fiche de synthèse, juillet
- DREE, 2002, « Le secteur de l'automobile et des composants en Tunisie » The automobile and component sector in Tunisia), Les études des postes d'expansion économique, janvier

- DREE, 2003, « Le secteur automobile au Maroc » (The automobile sector in Morocco), Fiche de synthèse, mars
- DREE, 2003, « Le marché des poids lourds au Maroc » (The Heavy Goods Vehicle market in Morocco), Fiche de synthèse, juin
- DREE, 2003, « Les pièces et accessoires automobiles en Israël » (Automobile parts and accessories in Israel), Fiche de synthèse, février
- DREE, 2004, « Le marché automobile israélien » (The Israeli automobile market), Fiche de synthèse, février
- DREE, 2002, « Marché et construction automobiles en Egypte » (The market and automobile construction in Egypt), Fiche de synthèse, septembre
- DREE, 2002, « Le marché égyptien des pièces détachées automobiles » (The Egyptian automobile parts market), Fiche de synthèse, août
- DREE, 2004, « Le marché chypriote de l'automobile » (The Cypriot automobile market), Fiche de synthèse, avril
- DREE, 2004, « Le renouveau de l'industrie automobile dans les pays de l'élargissement » (The renewal of the automobile industry in the new member states), Revue stratégies du réseau Automobile des Missions Economiques, numéro 38, mars
- DREE, 2004, « Le marché de l'automobile au Liban » (The automobile market in Lebanon), Fiche de synthèse, septembre
- DREE, 2004, « Le marché automobile en Egypte » (The automobile market in Egypt), Fiche de synthèse, septembre
- DREE, 2004, « L'industrie automobile en Egypte » (The automobile industry in Egypt), Fiche de synthèse, septembre
- DREE, 2003, « Le marché de l'automobile en Egypte » (The automobile market in Egypt), Fiche de synthèse, décembre
- Anxionnaz C., Peter L. et Trastulli M. 2003, Analyse sectorielle: les équipementiers électroniques automobiles (Sectoral analysis: The automobile electronics equipment manufacturers), Université Paris Dauphine, mars
- Grenet J., Legoupil M. et Defever F., 2002, Analyse sectorielle, Prospective 2000-2005, Secteur automobile mondial (Sectoral analysis: Perspectives 2000-2005, World automobile sector), Université Paris Dauphine
- Martin E., Sanchez A. et Trichot C.A. 2002, Etude sectorielle: les équipementiers automobiles en Europe (Sectoral study: The equipment manufacturers in Europe), Université Paris Dauphine
- Berbache A., De Cenival B., Hallez JC., Kanouni L., Lahlou M., Maguet G., Etude de potentiel du secteur industriel des équipementiers automobiles au Maroc (Study of the potential of the automobile equipment industrial sector in Morocco)

- Saïd el mankouch, 1997, La voiture particulière dans les villes du Maghreb (The private car in thetowns of the Maghreb), Université d'Evry
- Main web sites:

  http://www.DREE.org/euromed/documentation/index.htm

  http://www.osd.org.tr

  http://www.wto.org

  http://www.CCFA.org

  http://www.FIEV.org

  http://www.oica.org

  http://www.auto-innovations.com

Annex 2. The technological innovations in terms of electronics equipment

The major innovations in the automobile sector are today mainly linked to electronics and materials (see also Figure 34). The rapid growth of the power of computers and software has provided accelerated development of the application of electronics in vehicles and a transformation in the structure of onboard electronic systems:

• Development of applications. At the end of the 1970s, electronics were hardly present in a vehicle. Then appeared the automatic gear box and electronic ignition. But it was not until the beginning of the 1980s that the technological evolutions began to multiply: electronisation of dashboards, introduction of air conditioning, injection for petrol engines (made obligatory for all vehicles in the US in 1983 and in Europe from 1993), ABS in the middle of the 1990s (in 2000 the bottom of the range Twingos were fitted as standard with ABS), finally the Air Bag, which became standard 5 years ago. Currently, other applications are under development, such as tyre pressure surveillance systems, automatic parking brakes or keyless vehicle systems. These innovations call largely upon electronics in the form of sensors, computers and activators comprising a hardware part and a command software.

• Development of multiplexing. This was also a major evolution of the middle of the 1990s. It is a device which enables several items of information to pass along the same line or the same channel and make several electronic systems function in a network. This provides savings in wiring, the sharing of sensors-activators or computers. But this innovation also involves the management of an increasing quantity of information and therefore the use of more powerful computers and more complex software. It will continue in the years to come through the growing centralisation of the electronics, with the presence in the habitacle of central computers per zone which will drive the different sensors-activators.

• Tranversalisation of electronic applications. This technological strategy is implemented by the equipment manufacturers so as to reduce

the development cost of new applications. It consists in developing polyvalent hardware (mechanical)/software base blocks, completed by an intermediate layer specific to each system. As for the constructors, they are seeking to equip themselves with a capacity for design/development proper in terms of electronic systems. For example, Renault wants to play the role of system provider for strategic products such as the UCH (Body Controller), engine control and safety (especially air bags). It specifies the integrality of the drive and dashboard software.

Here are some examples of recent innovations:

- Engine-transmission: 1) The particle filter for diesel engines enables the storage and the reduction of the rejected particles by burning them in the exhaust gases; 2) The new generation of « Common Rail Piezo injectors» provides a drop in fuel consumption, a better yield and reduction in pollution 3) The multifonction sensors provide better management of the service intervals, an improvement in engine oil quality and warn the driver of before the likelihood of a malfunction.
- Safety: The overtaking sensor reduces blind spots. The pre-collision system prepares the passive safety systems.
- (Belts) when a high collision risk is detected.
- Energy: fuel cell, a new source of energy based on hydrogen; energy storage by inertia flywheel.
- Comfort: « Keyless » opening and ignition; measurement of parking space; entirely electronic steering control.

Figure 34. A detailed example: adaptative lighting

Until March 2003 the legislation in matters of automobile lighting specified that the light beams of dipped headlights be standardised. This ruling was modified by the United Nations Economic Commission for Europe. The techniques for the orientation of the beams are now authorised. In 2005, after the voting of a new ruling, complete systems of adaptive lighting may appear in Europe.

Intelligent headlights light up the inside areas of bends and the sides of crossroads. Thanks to sensors-activators and computers, automobile lighting adopts the shape and specific intensity in relation to the trip, the profile of the road, the speed of the vehicle or the weather, the beams narrowing or lengthening at high speeds or widening at average speed on small roads.. Specific functions such as town lighting, motorway lighting, the intersection function or the weather function provide increased safety and comfort for night or bad weather driving… Directional headlights were already fitted on the DS in the 1960s as well as the Alpine A310 but these were mechanical systems activated by cables. These systems were banned for their lack of reliability.

Today, the electric motors are controlled by electronics. These intelligent headlights will enable safer and less tiring night driving.
Several equipment manufacturers are working on this type of system. The Italo-German Automotiv Lighting (which brings together Magnetti Marelli and Bosch), the German Hella, the French Valéo and the American Visteon. The system developed by Automotiv Lighting is known as adaptive directional lighting. It comprises xenon headlights which pivot vertically so as to light up the roadside in bends. The electric motors which activate them are controlled by steering wheel angle and speed sensors. At Hella, it is known as AFL (Adaptative Forward Lighting), similar to that of Automotiv Lighting. This system is for lighting country roads which will receive 90% more light than compared with the fixed lamp system thanks to the pivoting optics. Hella is further incorporating into this system « intersection lighting », a light beam which lights up a zone of around 30 to 90 metres wide to the left or the right of the vehicle. This beam comes into effect in relation to the position of the indicator, the angle of the steering wheel and the speed of the vehicle (so as not to hinder other vehicles it only functions at speeds lower than 50km/h). Valéo has developed Adaptativ Front Lighting System and the Advanced Front Lighting System. Source: Auto Moto magazine n° 99 April 2003.

Annex 3. Diversity of the automobile equipment manufacturer sector

The equipment manufacturers form a very heterogeneous group depending on their position in the value chain, the type of products supplied and their activities:

• Usually, the equipment manufacturers can be split into level 1, 2, 3 sometimes up to 4. The level 1 equipment manufacturer is in principle in direct contact with the constructor. He himself assembles the components supplied by the level 2 manufacturers, who in turn seek their supplies from level 3 manufacturers, etc. However, the cases of direct sourcing by constructors from so-called « level 2 », or even 3 equipment manufacturers are not unheard of. Generally, level 1 equipment manufacturers are also larger in size than the others, operating in an almost oligopolistic market with strong entry barriers.

• It is also possible to distinguish component and system manufacturers. The first supply the constructor (or the equipment manufacturer client) parts which the client specified and assembles. The second develop a complete system, intended to fulfil a precise function, which is assembled as it is on the vehicle (or integrated as it is into the equipment manufactured by the client). Although this distinction does not entirely cover the previous, there is, however, a much greater proportion of systems in the offer of the level 1 equipment manufacturers, whereas those from a lower level produce a greater proportion of components.

• Finally, the automobile equipment manufacturers, grouped under the same generic term because they belong to the same sector, belong to very diverse technological and industrial environments as a result of the very wide spectrum of products manufactured. Usually, for example it is possible to distinguish (cf. Figure 35): the coachworkers, the chassis manufacturers, information system, safety system and drive unit manufacturers. Further, these 5 categories, defined from the constructor point of view (function carried out of part of vehicle concerned) cover activities which in themselves are very diverse (e.g.: seats and plastics). This classification is made even more fragile through the existence of

equipment manufacturers with transversal specialities, who can supply products and/or technologies to practically all those listed in Table 1. This is especially the case of electronic equipment, which may be incorporated, depending upon the case, not only in safety and information systems, but also in the products of the other large groups. As for the suppliers of semi-products (glass, cast parts, tyres…), they are not even listed as equipment « manufacturers » by the professional federations.

Figure 35. The segmentation of equipment manufacturers (structure of equipment manufacturers production in % in Europe in 2000). Source: Automotive Strategy

Coachwork	16.1
Body shell	6.7
Climate control	4.7
Lighting and signals	4.7
Chassis	22.4
Seats	11.9
Interior excluding Seats	7.2
Plastics	3.3
Information systems	0.4
Safety	12.1
Braking systems	8.3
Shock absorbers	3.6
Drive train	49
Batteries	5.3
Filters	2.4
Spark plugs	2.3
Transmission	5.9
Cables and adapters	21.4
Motor control	11.9
Total	100

Annex 4. The strategies of the equipment manufacturers

Automobile equipment manufacturers are today faced with a certain number of major stakes, among which can be especially cited: the pressure exerted by the constructors on sale prices and supply conditions; the geographical evolution of world demand and the internationalisation movement of their constructor clients; the rise in research and development costs linked both to the technological content of the products, the acceleration of the rhythm of innovation (shortening of development cycles) and the strategies for pushing off the costs of the research programmes onto the equipment manufacturers.

These stakes result in three simultaneous and complementary evolutions: 1) An evolution in the way in which the sector is organised, with in particular the development of the offer of modular systems in the context of long term partnerships between constructors and equipment manufacturers; 2) a movement of concentration of the sector; 3) an internationalisation of the firms with the aim both of reducing costs and accessing growing markets.

Integration and concentration

Several convergent factors have led to the concentration of the automobile equipment industry in the course of recent years:

- The constructors have dramatically reduced the number of their suppliers: a hundred or so suppliers of modules, and between 300 and 400 direct suppliers of spare parts, that is 4 to 5 times less than 30 years ago.
- The rise in development costs and the pressure exerted by the constructors on the prices has incited the equipment manufacturers to implement a strategy of concentration which aims both to dilute the costs and the risks, bring into play economies of scale and gain increased strength on the market.

This concentration has been seen in several forms:

- A multiplication of alliances and agreements. For example, Johnson Controls joined up with Yazaki (to work on 42 volt architecture), with Nokia and Sagem. Johnson Controls (which develops the body control

system) linked up with Valeo to develop the complete keyless vehicle system for the Laguna II.

• Strong growth in mergers-acquisitions. For example, Autoliv Ab merged with Morton Automotive Safety Products, one of the leaders in the airbag industry. Hence, the total number of equipment manufacturers went from 30,000 to 8,000 in ten years, and the CLEPA (European association of automobile equipment manufacturers) forecasts that in 2008 there will remain no more than 150 level one equipment manufacturers, against 2,000 today. In each profession, there will be 3 to 5 world leaders.

• The development of international investments. These concentration movements, as well as the determination of the different equipment manufacturers to be present in all the regions of the world, result in a very strong increase in the flow of international investments and especially crossed investments between North America and Europe. Hence, between February 2000 and April 2001, 24 European equipment manufacturers were taken over by Americans. Among other operations, can be quoted the takeover of Lucas Variety (UK) by TRW in 1999, the electrical systems of ITT automotive by Valeo, the interior plastics division of Plastic Omnium by Visteon. The movement was particularly obvious in the activities linked to the transformation of plastic, bearings and metallic fittings.

• The focusing of equipment manufacturers on their core profession. This results in the disengagement by the equipment manufacturer from those activities in which the manufacturer has no real competence (hence Visteon sold its foundry activity) and plans to restructure. The Valeo restructuring plan (started in 2001) thus led to the closure of 27 plants in 2002, Delphi closed 5 production units in Europe.

New organisation within the sector

The reorganisation of the sector resulted particularly in three complementary evolutions: the introduction of a type of relationship more strongly based on the long term partnership between constructors and equipment manufacturers; a new division of tasks between suppliers of modules, sub-assemblies and components; finally, an evolution in the way the sector is organised, with a switch from the "Fordist" production methods to a "Toyotist" mode, more based on reactivity and just-in-time technology.

New type of constructor-equipment manufacturer relationship

So as to obtain an offer of increased quality and better adapted to their needs, the constructors involve the equipment manufacturers more and more upstream of the vehicle development process. The result is the development of long term partnerships. Simultaneously the phenomenon of modularisation – or the decomposition of the vehicle into elementary modules – enables the equipment manufacturers to be entrusted with the production of complete systems, for which they become the exclusive supplier for a type of vehicle. For example, the majority of constructors purchase their ABS as a turnkey system, the specialists in electronics taking responsibility for its development (four suppliers alone with 80% of the market: Bosch, Continental, Delphi, Denso). This transfer of responsibility has important consequences on the nature of constructor-equipment manufacturer relationships:

- It enables constructors to pass on to equipment manufacturers a part of their R&D expenses and thus concentrate on an acceleration of the renewal of the ranges[17], and at the same time improve the design of the vehicles by involving the equipment manufacturers earlier in the process.
- It also involves the existence of a long term contract, hence a lesser volatility of the trading results of the equipment manufacturers. But it also leads to an increase in their R&D effort (5 % of turnover for the large groups) and industrial investment (modification of processes, complexification of the product, etc.).
- It offers equipment manufacturers an opportunity to improve the balance of power with the constructors as a result of their technological expertise. This does, however, assume that the equipment manufacturers have the necessary financial, technical and industrial capacities to avoid a downsizing of the production capacity, technical errors and dysfonctions[18].
- For this reason it may push the equipment manufacturers to increased specialisation on certain modules. For example, it has led Visteon to

17. The latter do not totally pass on the R&D cost in the sale price.
18. The constructor tends to presenter a very optimistic development plan, whereas the equipment manufacturers remain more cautious in the development of their industrial tool. This leads to a lack of compatibility between the equipment manufacturers' production capacity and their production programme. Equipment manufacturers are thus forced to increase production speeds to the detriment of other variables such as quality.

refocus on its basic activity (front and rear face modules, body shells and doors), in such a way as to become the leader in this segment.

• It does not, however, bring to an end the sub-jacent balance of power between constructors and equipment manufacturers, the former continuing to pressurise the latter with a traditional form of competition through prices. Thus the constructors do not hesitate if necessary to short circuit the level 1 equipment manufacturers and go straight to the level 2 equipment manufacturers. For example, with the launch of the Laguna II, Renault transfered production of the door panels directly to the plastics producer Plastivaloire.

• Finally, the constructors are tending to stretch their links with their privileged first level equipment manufacturers, on the one hand by opening their capital (placing on the market of Delphi, the former captive equipment manufacturer of General Motors and that of Visteon, equipment manufacturer of Ford) and by diversifying their sources.

New mode of organisation for equipment manufacturers

Also to be observed are several major evolutions in the way equipment manufacturers are organised:

• The first level equipment manufacturers in their turn apply to their own suppliers similar principles to those applied by their constructor clients to them: moving from a hierarchical relationship to a partnership mode for the development of new products, modularisation of the offer of second level equipment manufacturers, transfer to suppliers of the R&D efforts on the specialist sub-modules…

• Search for the optimisation of the logistics chain and the production/distribution networks through the introduction of high performance information interchange systems, development of supplier industrial estates.

• Passing from a « Fordist» mass production made to a « Toyotist » just-in-time type production mode: organisation of the work by autonomous « decks » or « production modules », flexibility and multivalence of the tasks, personalisation of the products, etc.

Internationalisation

• This very noticeable movement may be put down to three essential causes: 1) The search for increased market power in the segment where the equipment manufacturer would like to specialise, with the globalisation of his offer (cf. above) ; 2) The search for access to new markets, to remedy

the slowing growth of the traditional developed markets; 3) Finally, the search for a reduction in costs through a relocation to the low labour cost countries. Initiated by the American equipment manufacturers, the process is now extending to the Europeans and the Japanese.

• The search for new markets was initially carried out in the wake of the strategies of internationalisation of the constructors, who have encouraged their main equipment manufacturers – often their subsidiaries for which they represent the main outlets – to follow them abroad so as to increase the safety and quality of their supplies by rebuilding on site their complete sector (e.g.: Ford/Visteon, General Motors/Delphi). Then the first level equipment manufacturers implemented autonomous strategies as the bond with their main client became stretched (diversification of suppliers, sale of the constructor's stake in the equipment manufacturer) and they themselves sought to diversify their outlets by finding new clients especially abroad. The cases of Delphi (ex subsidiary of General Motors), Magnetti Marelli (independent of Fiat since 2002), Visteon (ex subsidiary of Ford), are good examples…

• In the context of the concentration of their industry, the equipment manufacturers seek to refocus on a small number of activities where they hope to obtain a critical size and a high market power in the face of their constructor clients. This assumes that they obtain an international even world size in the segment. This strategy has been materialised particularly through a wave of crossed mergers-acquisitions between Europe and North America (cf. above).

• The last trend is the search for a reduction in costs results either in direct installations in low labour cost countries, or an increase in sub-contracting towards these countries. This latter phenomenon, already old hat in the overall electronic sector, is however, more recent in automobile electronics. It should see rapid progress over the next 5 years (East European countries, Brazil, Mexico...).

Annex 5. Some trends in automobile demand on the West European markets

The automobile sector is very cyclical and its economic situation depends heavily on household demand (possibility of pushing off purchases from one year to another). In Western Europe it represents the second budget expense, behind accommodation. Its share in the household budget has a tendency to stagnate, if not decrease slightly.

The automobile market may be segmented in different ways:

- According to the type of clientele (private individuals or companies). In Western Europe, the dynamism of the company market contrasts today with the lifelessness of that of the private individual market.
- According to the type of vehicle (private vehicles used solely for the transport of people or utilities used for the transport of goods and public transport). If private vehicles today represent still more than 70 % of the units produced, it is the utility market which at least in Western Europe shows the greatest dynamism.
- According to the type of energy (petrol, diesel). If the fleet of petrol vehicles remains the largest, there is also a development of alternative forms of motorisation (LPG, electric, hybrid, cf. below).
- According to the range (bottom, mid, top) and the type of bodywork (saloon, station wagon, monospace, coupé/cabriolet and 4X4). On the markets developed to maturity, an increasing demand for quality and safety can be seen (notion of vehicles for living), as well as personalised or diversified vehicles (utility vehicle, 4X4…), niche vehicles and innovatory concepts with a rise in the range and in quality. In a context of competition between producers, the search for a differentiation, the design and the aestheticism is becoming more and more fundamental to attract and make the consumer loyal[19].

19. The constructors are moreover conducting an active commercial policy to encourage loyalty in clientele: trade in of old vehicle, preferential credit terms, discount in the context of a renewal…

• Finally, there are also new markets for private use, for rental and second hand. While the new individual market is relatively stagnant, there is a development to be seen in the other two. The development of the rental market moreover contributes to the acceleration in the renewal of the vehicles (externalisation of the fleet of company vehicles, development of company cars and tourism), leading to a development of the second hand market for almost new vehicles.

Figure 36. Household consumption of automobiles in France. Source INSEE, Observatoire de l'Automobile (in billions of euros)

	1990	2000	2001
Purchases of new vehicles	22.3	21.2	20.8
Purchases of second hand vehicles	4.0	7.1	8
Spare parts accessory purchases	12.8	19.4	20.5
Maintenance and repairs expenses	11.1	14.8	15.5
Automobile consumption per motorised household (thousands of euros)	4.7	5.4	5.5

Annex 6. Main foreign investment projects in the automotive industry between January 2003 and June 2004 (Source: MIPO-ANIMA)

Welcoming country	Origin	Company / Investor	Project / News title in English	Jobs created	FDI (€m)
Algeria	France	Michelin	The French group is re-developing its activities in Algeria by upgrading its local factory	200	20 à 25
Algeria	Italy	Fiat	The company comes back in Algeria with Ital Motor		
Algeria	Sweden	Scania	Building of a new production plant for trucks		
Algeria	USA	Daewoo	Increase of Valeo activities and investments in Algeria		
Egypt	Germany	BMW	Opening of an assembling factory		50,9
Egypt	Japan	Nissan Motor Co Ltd	Building of a pickup truck assembly plant with Seoudi group to produce 50,000 vehicles a year		
Egypt	Japan	Nissan	Nissan will investUS dollar 100 million in Egypt by 2010		80
Egypt	Russia	GAZ	The Russian car manufacturer GAZ plans to open an assembling facility in Egypt in 2004		
Egypt	Russia	UAZ	Russian motor-vehicle producer to open plants in Poland, Egypt and Ethiopia		
Egypt	Russia	Kamaz	(Prospect) Installation of a car assembling plant		
Egypt	Russia	Kamaz	The truck manufacturer Kamaz plans to set up an assembly facility jointly with domestic Arab American Vehicle (AVV)		
Egypt	USA	IMPCO	Creation of a joint venture with AFG for automotive engines		
Jordan	UK	Land Rover	Opening of an assembly plant in the strategic exportation area in Ma'an		
Malta	USA	AC Motors	R&D automotive centre created in Malta		

Morocco	France	Renault	Renault buys Somaca to produce a cheap car by the beginning of 2005		
Morocco	France	Valeo	Opening of a new plant for automotive spare parts in Bouznika	1500	
Morocco	France	Sunviauto	Manufacture of caps for automobile seats	200	41,0
Morocco	France	EC2M	Manufacturing unit of automobile components in Tangier	30	10,2
Morocco	France	Renault	Following the privatisation of SOMACA in June 2003, Renault bought over 36% of State shares		
Morocco	Italy	Matra	The Automobile Engineering branch plans to open a R&D center and an automobile test track		3,1
Morocco	Portugal	Trecar	Car seats fabrication in Tangiers	150	4,2
Morocco	Slovakia	Prevent	A car seat manufacturer will open a new factory in Casablanca by the end 2003		13,0
Morocco	Spain	EMDEP Morocco	Manufacturing unit of automobile beams of cables in Tangier	25	4,7
Morocco	Spain	Cover Car	Car seats fabrication in Tangiers	83	0,9
Syria	Malaysia	Proton	Malaysian automaker Proton plans to assemble cars in Syria		
Tunisia	France	Valeo	Relocation of automotive cables plant from Morocco to Tunisia to get closer to its main customer, Fiat	25	
Turkey	France	Renault	Renault launches its new Megane production in Turkey		200,0
Turkey	France	MGI Coutier	Opening of a production unit by a car manufacturing supplier in Bursa to get closer to his customers		
Turkey	France	Renault Trucks	(Prospect) Opening of a truck assembling factory in 2006		
Turkey	France	EM Techno-logies	Opening in Istanbul of a security parts assembling factory	25	
Turkey	France	Renault & Ford	Renault and Ford announce an increase in their production capacity in Turkey		
Turkey	Germany	Bosch	Bosch will invest 182 m Euros in Turkey		182,0
Turkey	Germany	Man	Man is on the verge of investing 19,6 m Euros to build a production line for buses		19,6
Turkey	Germany	Innovative Systems Europe	Construction of a new factory in Aksaray		
Turkey	Germany	Mercedes	New investment in the Turkish factory for truck production		50,0

Annex 6. Main foreign investment projects in the automobile industry…

Turkey	Germany	Bosch	The automotive parts maker increases its number of employees by 500	500	
Turkey	Japan	Toyota	Increase in capacity for the production of some new Toyota Corolla models		
Turkey	Japan	Denso	Building of a new factory in Istanbul		
Turkey	Japan	Toyota	Toyota will expand the production capacity in the Adapazari Plant (+€180 m in FDI / +400 jobs)	400	180,0

Annex 7. The stages in the automobile industrial policy in Tunisia and Morocco

Tunisia

Three successive stages may be distinguished:

• from 1961 to 1988: birth of the industry in 1961 with the creation of the STIA (Tunisian automobile industry company), a semi-state company whose capital was held mainly by the nationalised banks. Its activity concerned to a large extent the assembly of vehicles under licence.

• from 1988 to 1994: in 1988, cessation of the assembly of light vehicles in Tunisia. The Tunisian Commerce Office made an international call for tenders to supply the market in « built-up » light vehicles. This call was combined with a double agreement of compensation and industrial cooperation to allow sub-contractors working with the STIA to dispose of their mechanical and electrical production.

• from 1995: foreign constructors and equipment manufacturers are subjected to a set of technical specifications the aim of which is to develop the local mechanical and electrical industry and to support the market.

Morocco

The development of the automobile industry in Morocco was initiated with the creation of the SOMACA in 1959. This assembly unit was to be the central vector of development of the national manufacturing activities. But subsequently, the freedom given to the foreign brands (French and Italian) to locate in Morocco and the multiplication of the models in a limited market were a serious handicap to the possibilities of local development.

During the decade 1970, the country sought the most vigorous integration of sector as a means to increase its capacity to create productive jobs. Then in the 1980s, integration and compensation were combined to consolidate and extend the fabric of sub-contracting as well as preserve the SOMACA.

This policy having met difficulties, a priority was given in the middle of the 1990s to the liberalisation of the sector, with the desire to consolidate local assembly by linking it to a project of an economic car whilst including it in the strategy of an international group (Fiat).

More recently, the automobile industry has undergone profound upheavals. Firstly, the agreement which bound the State to Fiat came to an end. Then in 2003 the abolition of tariffs came into force by virtue of the association agreement between Morocco and the European Union (in 2004 customs duty affecting the imports of private vehicles are 30.6% but they are to be totally abolished in 2012). This dismantlement has had very profound consequences on local assembly operations. Indeed, vehicle assembly intended to replace imports, profited from fiscal advantages and important trade protection (customs duty). The end of this protection risks compromising, from the end of the decade, the competitiveness of the vehicles produced in Morocco on their local market.

To contend with these stakes, profound structural reforms have been undertaken. The SOMACA has been privatised (the Renault group holds 46 % of the company capital, whereas Fiat and Peugeot each hold 20 %). An agreement was also signed in 2004 between the Moroccan government and French automobile constructors. It provides for the production of « economic cars» of the Renault, Peugeot and Citroën brands in the SOMACA plants in Casablanca.

Annex 8. The WTO agreement on the measure concerning investments and linked to trade

(Extract from the Official Journal of the European Communities, N° L336/100, 23.12.94)

Trade-related and investment measures that are inconsistent with the obligation of national treatment provided for in paragraph 4 of Article III of GATT 1994 include those which are mandatory or enforceable under domestic law or under administrative rulings, or compliance with which is necessary to obtain an advantage, and which require:

(a) the purchase or use by an enterprise of products of domestic origin or from any domestic source, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production; or

(b) that an enterprise's purchases or use of imported products be limited to an amount related to the volume or value of local products that it exports.

TRIMs that are inconsistent with the obligation of general elimination of quantitative restrictions provided for in paragraph 1 of Article XI of GATT 1994 include those which are mandatory or enforceable under domestic law or under administrative rulings, or compliance with which is necessary to obtain an advantage, and which restrict:

(a) the importation by an enterprise of products used in or related to its local production, generally or to an amount related to the volume or value of local production that it exports;

(b) the importation by an enterprise of products used in or related to its local production by restricting its access to foreign exchange to an amount related to the foreign exchange inflows attributable to the enterprise; or

(c) the exportation or sale for export by an enterprise of products, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production.

Achevé d'imprimer en janvier 2005
Dépôt légal à parution

Imprimé en UE

ANIMA
Euromediterranean
Network of Investment
Promotion Agencies

Invest in France
Agency

Région
Provence-Alpes-Côte d'Azur

ANIMA is a European project devoted to helping 10 Southern Mediterranean and Middle Eastern countries partners of the EU ("MEDA" countries: Algeria, Palestinian Authority, Egypt, Israel, Jordan, Lebanon, Morocco, Syria, Tunisia, Turkey), plus Cyprus and Malta (now EU members), to acquire strategies and tools to attract foreign investments. The Invest in France Agency (AFII), assisted by the ICE (Italy) and the Direction des Investissements (Morocco), is running this project, which is financed by the European Union, MEDA Programme. The City of Marseille, the Region Provence-Alpes-Côte d'Azur and the Invest in France Agency also contributed to the publishing of this study.

The automotive sector in the Euro-Mediterranean region

PAPERS & STUDIES N° 11
December 2004

The automobile sector is today the number two sector for foreign investment in the MEDA region in terms of numbers of projects, behind the textile and clothing industry. Turkey and to a lesser extent Tunisia, provide examples of a successful start to industrial development, based largely on the welcome they give to foreign investors. Opportunities will appear in the years to come, associated to the acceleration of the initiatives of restructuring, internationalisation and relocation currently under way in the European automobile industry.

However, despite these opportunities, the MEDA countries have fared less well for the moment than the countries of Eastern Europe, towards which much larger streams of foreign investments flow, originating particularly in Western Europe. This study examines a certain number of courses of action to remedy the handicaps which the MEDA countries currently suffer from.

• *Fabrice Hatem, Head of Studies of the ANIMA programme within the Invest in France Agency (AFII), coordinated this study with the help of contributions from the ANIMA team, the MEDA IPA and various partnerss.*