A FOREIGN DIRECT INVESTMENT (FDI)

PROMOTION STRATEGY AND ACTION PLAN

FOR

THE AUTOMOTIVE AND ELECTRIC COMPONENTS SECTOR

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In cooperation with Jordan Investment Board

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DISCLAIMER

This report expresses the views of the consultants and do not necessarily represent the views of EJADA and JIB

Abbreviations

AMIR	Achievement of Market-Friendly Initiatives and Results Program
CAD	Computer Aided Design
CAM	Computer Aided Manufacturing
CEM	Contract Electronic Manufacturer
EJADA	Euro-Jordanian Action for the Development of Enterprise
EMS	Electronic Manufacturer Service
EPZ	Export Processing Zones
EU	European Union
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GOJ	Government of Jordan
IO	Intermediary Organisation
IT	Information Technology
IMF	International Monetary Fund
IPA	Investment Promotion Agency
JACMA	Jordanian Automotive Components Manufacturers Association
JAF	Jordanian Armed Forces
JECMA	Jordanian Electronic Components Manufacturers Association
JIB	Jordan Investment Board
JIT	Just In Time
KADDB	King Abdullah II Design & Development Bureau
LJCE	Leading Jordanian Companies and Entrepreneurs
OEM	Original Equipment Manufacturer
OJC	Olé Jordan Company
PCB	Printed Circuit Board
R&D	Research and Development
SME	Small - Medium Enterprise
TIER 1 Companies	Generally, Multinationals Supplying Systems to OEMs
TIER 2 Companies	Suppliers of Parts and Components to TIER 1 or OEMs
TOR	Terms of Reference
TQM	Total Quality Manufacturing
UNCTAD	United Nations Conference on Trade and Development
WIR	World Investment Report

Executive Summary

The methodology used in the assignment concentrated on producing a strategy and practical action plan aimed at securing investment.

FDI statistics are often of poor quality and it is acknowledged in Jordan that the recording of inflows of foreign capital by the Central Bank of Jordan is inadequate. A working group has been established and is seeking to establish more accurately foreign investment inflows.

The advice of donors to developing and transition economies has often focused on structural reforms and improvements in the economic and investment environment, on the basis that this would lead to increased FDI inflows. Although improvements in the legal and regulatory environment are often a necessary precondition for increased FDI flows, they alone are not sufficient. The efficiency of the investment promotion agency is a key factor in the achievement of results. A section has been included in the report, covering activity targets, performance measurement and other guidelines for the success of the IPA's activities (JIB).

The factors influencing companies investment decisions include, political stability, the investment climate and, for the automotive and electronic component sectors, the availability of skills.

Automotive

The automotive and automotive components industry is a dynamic industry that has, since the 1970s, been subject to a great deal of change. This accelerated in the mid eighties when globalization forced car assembly companies to depart from practices that had shaped the industry over decades.

The automotive sector in Jordan is currently small, limiting operations to some manufacturing activities and the distribution of cars for the home and re-export markets. Furthermore, the few manufacturing companies within the sector operate in isolation from each other. Given the small size of the Jordanian market, the political and social problems affecting the region and the lack of suppliers, efforts are being concentrated on responding to niche opportunities such as 4x4 vehicles.

Existing companies include the Olé Jordan Company (OJC), presently in the process of building an assembly plant at Ma'an City in the south of the kingdom, to build Land Rover Defender vehicles, KADDB (King Abdullah Design and Development Bureau), involved in a number of start up projects and Elba House, involved in the production of buses.

A three-strand approach is proposed for the development of the sector:

- The attraction of a vehicle assembly operation, even of modest size, to assemble vehicles for the domestic and/or the export markets, and the attraction of multinational OEM component suppliers.
- The attraction of targeted tier one and tier two suppliers seeking expansion opportunities.
- Build on existing Jordanian capabilities through attracting investment and partnerships with automotive and component companies, with the aim of increasing the local content in the assembly activities proposed and being carried out - KADDB, Elba and Olé.

A three-year action plan covering management, investment promotion and information is proposed. The plan covers staffing, performance measurement, the information required, a detailed promotion program (image building, investment servicing and investment generation) and proposals for encouraging closer co-operation between Jordanian companies through the establishment of an association of Jordanian automotive companies.

Electronic

In recent years the electronic components sector is expanding and concentrating activities in certain geographical locations (particularly in the Far East) influenced primarily by the availability of the skills required at competitive labour rates.

The sector is highly competitive worldwide and in order to prosper a country should aim to acquire the know-how to move along the value added chain from low value added products to more lucrative value added activities such as R&D, product design, increased quality and sophistication, high productivity and distribution and marketing. The clear evidence from Japan, Korea and China,

Indicate that this approach to development is a good path to follow.

Existing Jordanian companies in the electronics sector include LG Haier (a Jordanian/ Korean / Chinese joint venture), Oryx (a Jordanian / Irish joint venture), Hatif Telecom, Century Electronics and Petra Engineering.

A three-strand approach for the development of the sector is proposed:

- The attraction of a leading electronics firm or software development company to set up a manufacturing operation or R&D centre, possibly associated to one of the telephone operators.
- Direct approaches to targeted companies that require the production of less technologically advanced products to be moved to a cheaper location.
- Build on existing and future capabilities within Jordan: LG/Haier, Petra Engineering and KADDB.

A similar three-year action plan to that developed for the automotive sector is proposed.The plan covers staffing, performance measurement, the information required, a detailed promotion program and proposals for encouraging closer co-operation between Jordanian companies through the establishment of an association.

1. INTRODUCTION

The Programme Management Unit (PMU), the executive body responsible for the implementation of activities of the Euro-Jordanian action for the development of the Enterprise (EJADA), which, in turn, is the local identity and working title of the Industrial Modernisation Programme (IMP) in Jordan, decided, under the guidelines and mission of the Policy Support and Institutional Strengthening (PSIS) component of the programme[1] , to support the Jordan Investment Board (JIB) to design a Foreign Direct Investment (FDI) Promotion and Action Plan for attracting investment from E.U. countries in the sectors of automotive parts and electronic components.

1 The Industrial Modernisation Programme in Jordan has four components: Policy Support and Institutional Strengthening (PSIS), Direct Support to SMEs (DSS), Financial Support to SMEs (FSS) and Vocational Training

2. OBJECTIVES

The objectives for the mission were to design an FDI promotion strategy and action plan for selected sub-sectors: automotive spare parts and electronic components.

2.1 Methodology

The methodology followed during the mission was to follow the guidelines and the activities outlined in the T.O.R.

Also, during the meetings with the various departments of both EJADA and JIB, it was requested that the mission should aim to produce practical results and, therefore, it was agreed that, if the preliminary findings did not support the success of the two sectors selected, there was scope to change them.

The methodology concentrated on producing a strategy and action plan based on practical measures to attract investment, rather than providing a large number of figures emanating from our own research or coming from the large number of excellent reports already dealing with FDI in Jordan and other countries. In order to do this, it was necessary to verify the reality of the two selected sectors in Jordan: the number of private companies operating within the sectors, the constraints and advantages perceived by those companies, their awareness of world markets, trends, present industrial capacity and their future projection. Visits were organised to the main players in the private sector to examine current manufacturing and commercial activities, and in some cases, important industrial projects in the pipeline.

In order to establish the prevailing environment regarding FDI and the possible hurdles affecting operations, logistics and distribution companies, Government departments, regulatory bodies, customs and standards, and financial institutions were also visited during the mission.

Some companies visited were apparently outside the two sectors selected, such as distribution of cars and parts and aeronautical companies, but the aim was to gauge the quality of backward linkages - supply - and forward linkages - marketing - and how they affected the operation of leading companies.

Also, the internal organization and working procedures of JIB were examined, as well as its mandate.

3. Foreign Direct Investment: BACKGROUND

3.1 FDI: World Trends

The rapid globalisation of the world economy, characterized by the growth of international production and trade, combined with liberalisation and the privatisation programs of an increasing number of countries led to rapid increases in the levels of global foreign direct investment during the late nineties. Global foreign direct investment (FDI) increased from approximately US$ 205 billion in 1990 to US$ 1,393 billion in 2000, with an annual average growth rate of 39.3% between 1996 and 2000. In 2001 FDI fell to US$ 824 billion and in 2002 fell for a second consecutive year to US$ 651 billion, which is the lowest level since 1998. UNCTAD's World Investment Report 2003 attributes this fall to a range of factors, including slow economic growth, lower corporate profitability, a winding down of privatisation programs and a decline in mergers and acquisitions. The report predicts that FDI flows will stabilise in 2003 and revert to an upward trend in 2004.

Since 1997 an average of more than 70 per cent of global FDI flows have been going to the developed economies - mainly the United States and Europe. The share of FDI flows to developing economies decreased from an average of 36 per cent over the period 1991-1996 to an average of 26.2 per cent over the period 1997-2002; in 2002 it was 24.9 per cent. The statistics for FDI inflows are summarised in Table 1.

UNCTAD includes Jordan in the West Asia grouping, which also includes Bahrain, Cyprus, Iran, Iraq, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, Turkey, UAE and Yemen. The average annual inflow of FDI during the period 1997-2002 was well under one per cent of world flows and has been, generally, on a downward trend. This is disappointing, bearing in mind the privatisation programs in the region and the activities in the oil and gas sector, both of which tend to have an upward distorting effect on FDI inflow statistics. This decline will certainly have been influenced by the conflicts in the region and by the prevailing uncertainties in world economies. Clearly, the region faces significant challenges in its efforts to increase the volume and quality of FDI and thereby upgrade the service, productive and export structures of the regional economies.

Table 1: Regional distribution of FDI inflows, 1997-2002

FDI inflows by Region, 1997 - 2002 (percentage)

Region/ country	1997	1998	1999	2000	2001	2002
Developed countries	56.0	68.8	76.4	80.4	71.5	70.7
Western Europe	28.9	38.3	46.0	51.0	48.7	59.0
European Union	26.5	36.4	44.1	49.1	47.3	57.5
Other Western Europe	2.4	1.9	1.9	1.9	1.4	1.5
North America	23.9	28.8	28.6	27.3	21.0	7.8
Other developed countries	3.2	1.8	1.9	2.2	1.9	3.9
Developing countries	40.1	27.9	21.3	17.7	25.4	24.9
Africa	2.2	1.3	1.1	0.6	2.3	1.7
Latin America and the Caribbean	15.2	12.0	10.0	6.9	10.2	8.6
Asia	22.6	14.6	10.1	10.2	13.0	14.6
West Asia	1.2	1.0	0.1	0.1	0.6	0.4
Central Asia	0.6	0.4	0.2	0.1	0.5	0.6
South, East and South East Asia	20.8	13.1	9.8	10.0	11.9	13.6
The Pacific	0.0	0.1	0.0	0.0	0.0	0.0
Central and Eastern Europe	4.0	3.3	2.3	1.9	3.0	4.4
The World	100	100	100	100	100	100

Source : UNCTAD World Investment Report 2003

Table 2 shows the source of FDI (FDI outflows) over the period 1997-2002. During this period 91 per cent of the total world FDI flows originated, perhaps predictably, from the developed countries, with the European Union averaging 61 per cent and North America 21 per cent of the total.

Table 2: Regional distribution of FDI outflows, 1997-2002

FDI Outflows by Region, 1997 - 2002 (percentage)

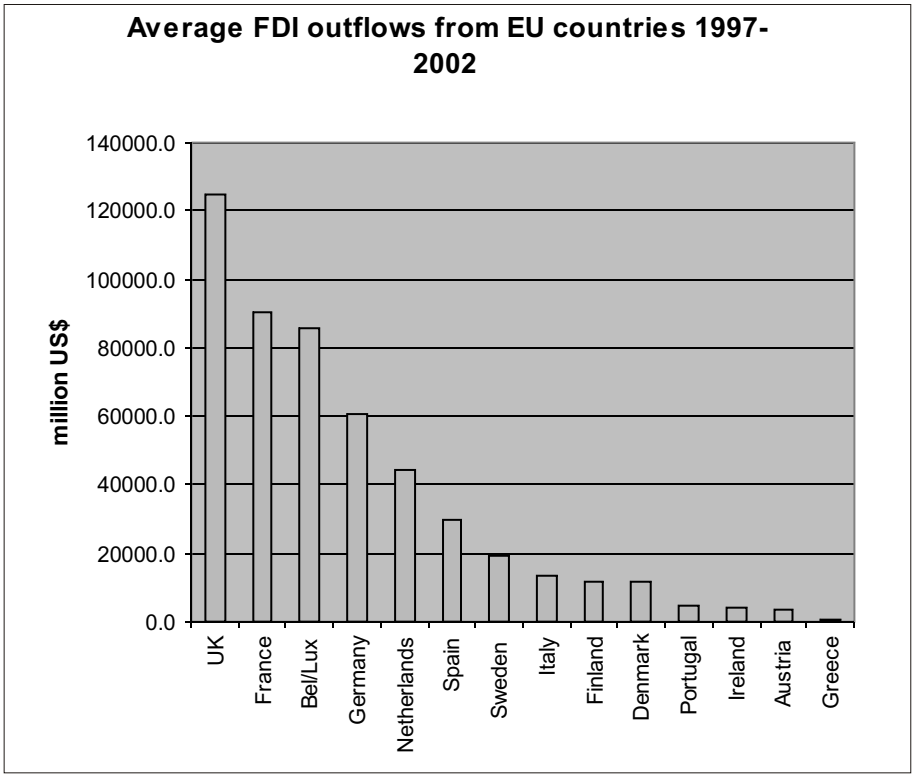
Region/ country	1997	1998	1999	2000	2001	2002
Developed countries	83.0	92.3	93.1	91.4	92.9	92.7
Western Europe	51.2	63.9	70.3	72.7	65.9	63.6
European Union	46.3	60.8	66.7	68.2	63.5	60.9
Other Western Europe	4.9	3.1	3.6	4.4	2.4	2.7
North America	24.9	24.2	20.7	15.8	19.7	22.9
Other developed countries	6.9	4.3	2.2	3.0	7.2	6.2
Developing countries						
Africa	0.8	0.3	0.2	0.1	-0.4	0.0
Latin America and the Caribbean	5.0	2.8	2.8	1.1	1.1	0.9
Asia	10.3	4.2	3.6	7.0	5.9	5.7
West Asia	-0.0	-0.2	0.2	0.3	0.7	0.3
Central Asia	0.0	0.0	0.0	0.0	0.0	0.1
South, East and South East Asia	10.3	4.4	3.4	6.7	5.2	5.3
The Pacific	0.0	-0.0	0.0	0.0	0.0	0.0
Central and Eastern Europe	0.9	0.4	0.2	0.3	0.5	0.7
The World	100	100	100	100	100	100

Source : UNCTAD World Investment Report 2003

3. Foreign Direct Investment: BACKGROUND

During the period 1997-2002, an average of just over 8 per cent of the world's FDI outflows originated from developing economies, with an average of under a quarter of one per cent originating from the West Asia region.

The average FDI outflows from the member states of the European Union during 1997-2000 are shown in the graph below. The biggest outflows originated in the UK followed by France, Belgium / Luxembourg, Germany and the Netherlands.



Source of data : UNCTAD World Investment Report 2003

3.1.1 Benefits from Foreign Direct Investment

Although there are conflicting views about the real benefits of FDI inflows to one country, particularly in certain sectors, there is a fair consensus that, in general, FDI benefits to the recipient country or region can be summarised as follows:

Summary of Benefits of FDI to Recipient Country or Region
• FDI is now the largest and most stable source of private capital for developing countries and economies in transition.
• FDI accounts for nearly 50% of all capital inflows to developing countries. Capital inflows from FDI create new jobs and industries that boost trade and tax revenues for host governments.
• Increased tax receipts benefit society as a whole through spending on education, social programs, and better infrastructure.
• Greater quality and selection of goods and increased competition tend to lower prices.
• FDI is the quickest and most cost-effective method of providing technology transfer to local industry - through partnerships and supplier relationships - which, in turn, speeds economic development.
• Full-scale foreign plants can provide high wages and benefits, sophisticated marketing and managerial techniques, and more research.
• Local suppliers to trans-national companies often begin exporting goods to affiliate locations.
• Local firms frequently become certified as original equipment manufacturers and replacement equipment suppliers.
• Employees trained by foreign firms often set up their own companies, further expanding the local economy.
• WTO membership improves a country's ability to attract FDI.

3.2 FDI World Trends: Implications for Jordan

FDI has been seen by countries as an important element to promote economic growth, increase trade, modernise the bureaucracy of the state, promote institutional development, adapt the financial and education systems to the new challenges brought by globalization and the modernization of infrastructures, particularly in the fields of transport and telecommunications.

In recent years countries have opted to follow several strategies to attract FDI with varying degrees of success, depending on the quality of the strategy, the way the strategy was implemented and the geopolitical situation of the country. Other factors such as relevant world or regional events can, and do, have a considerable bearing on company decisions.

One of the elements contemplated in most country strategies to attract FDI is the creation of a specialised agency dependent on a Government Ministry. These agencies, with various degrees of autonomy in the way they define their strategy, set their objectives, influence government policies and carry out their activities, tend to compete with each other in the contents of the material to be presented to potential investors, the amount of the incentives granted and even in the sectors favoured for rapid development. Schemes for the privatization of power utilities, telecommunications, ports and heavy industry have been a basic element for the attraction of FDI, followed by textiles and, more recently, tourism, electronic components and automotive parts and components.

The objective of this Foreign Direct Investment Promotion Strategy and Action Plan is to attract investments from E.U countries in the sectors of automotive spare parts and electronic components.

The two sectors mentioned above are currently the focus of attention of most of the large number of IPAs trying to attract FDI. This gives rise to a great deal of competition to lure prospective companies. As a result, many of the investments made lack commitment to the country or region, changing location as soon as a better investment incentive or cheaper labour costs location can be found.

Because of this, it is advisable to first examine the development dynamics of the two selected sectors during recent years in order to analyze the investment potential for Jordan, and then design a strategy and action plan to try to capture some of this investment potential.

FDI flows in general are affected by world events, such as the war in Iraq and other national or regional destabilising factors. As noted earlier, according to the United Nations Conference on Trade and Development (UNCTAD), there are good expectations for global investment flows to rise in 2004 from the low levels of 2002[2] .

The flow of investment by sectors is also subject to fluctuations, and for 2004 the expectations are that FDI will favour consumer goods, oil and gas, pharmaceuticals, electronics and telecommunications while investment in aeronautics, machinery and automobiles will decrease.

In Jordan, as might be expected after the war in Iraq and the deterioration of the Palestinian problem, the situation deteriorated considerably with net FDI inflows decreasing 44%, from $100 million in 2001 to $56 million in 2002.

Factors which Encourage FDI Inflows
• Macroeconomic stability • Adequate legislation regulating and safeguarding investments • Political and social stability • Access to markets • Skilled labour force • Good infrastructure • Favourable environment towards investment • Lack of employment constraints • Efficient customs • Low tariffs & taxes • Competitive labour costs • Possibility of profit repatriation • Transparency • Efficient bureaucracy

2 FDI in developing countries dropped from a previous level of $209 billion in 2001 to $162 billion in 2002 (-23%)

3. Foreign Direct Investment: BACKGROUND

It could be said that because none of the countries in the region, with the exception of Turkey and Egypt, have a large internal market, regional integration should help to attract FDI inflows. Macroeconomic stability, adequate legislation regulating and safeguarding investments, political and social stability, access to markets, a skilled labour force, good infrastructure, a favourable environment towards investment, all contribute greatly to encourage FDI inflows. Employment constraints, customs, tariffs, taxes, labour costs, profit repatriation, transparency and an efficient bureaucracy are also important considerations.

Investment is related to profitability, and companies have to evaluate the risk against the projected return of projects they choose to invest in. Given the regional turmoil prevailing in the region, companies willing to invest in Jordan will be looking for high rates of return on their investments.

Investments in the two sectors chosen for this study - automotive parts and electronic components - depend for their development and profitability on very efficient and reliable services in clearing imports and exports, telecommunications, airports, banking and insurance systems. If those services do not match investors' needs and expectations, attracting FDI to Jordan in those sectors will be difficult.

All these factors will have to be taken into consideration in order to design a successful strategy to attract FDI. The action plan will also consider the following points:

1. Various National or Regional Promotion Agencies tend to replicate bureaucratic models prevailing in the country rather than marketing agencies in tune with private companies' working practices[3]. This often contrasts with colourful material presented by IPAs reflecting generally impressive progress made by the country or region in the economic, structural, educational and social fields, as well as removal of investment constraints and the low cost of labour, and is quickly perceived by the potential investor as a negative signal.

3 The concept of "time" and flexibility are of the greatest importance to private companies, and it tends to be a clear signal to companies, particularly medium size companies, of the way an IPA works.

2. The kind of incentives or subsidies granted, the way these incentives are managed[4] and the amount may be important elements to be taken into account by a company considering investing in a given country, but other factors such as stability of the country or region, internal market size, export potential, existence of a trusted financial system, good infrastructure, knowledge of the country, good area or region, tend to be more important when companies, particularly medium size companies, decide to make an investment abroad.

3. Subsidies /incentives tend to work better for large multinational corporations than for small to medium enterprises (SMEs), as they have larger resources - human and financial - and, above all, far greater negotiating leverage with government agencies and financial institutions.

4. There are two main types of FDI investment operations: "export oriented" operations which generally consist of assembly operations which are only marginally or not at all concerned with the local market, and "market oriented" operations which seek to provide goods and services to local customers. As enterprises operating under this latter type of investment prefer to purchase goods and services from the local market in order to avoid customs duties, and also to avoid paying high transport costs, they have the following beneficial effects to the host country:

- Dissemination of technology, methodology, management and organizational
- procedures
- Developing the supply, distribution and marketing systems
- Increase quality
- Increase competition in the local market
- By emulation, improve local companies

4 Incentives for investment - new investment or expansion of existing investment - are well known mechanisms for many companies in Europe. Companies claim the incentives because it is their duty, but generally they have developed a certain degree of scepticism about the way incentives work due to the long time-scale needed to make them effective and the bureaucratic procedures to claim them.

5. SMEs looking for a suitable place to invest are very much aware that they can ill afford an investment mistake as this could jeopardise the whole company. A preferred path leading to investment for many companies would be to set up a distribution network in the country of interest, catering for the national and regional markets, as a way of getting to know the ways of the chosen location. This approach, either as a solo operation or with a partner, has the advantage of initially bringing benefits to the company as it tends to increase sales. Later on, if the venture works well, the investor company will tend to carry out some product integration / assembly including some parts manufactured locally. In a third phase and, if the venture is a success, they will feel confident enough to make a sizable investment. Perceptions of the country or the region are very important at this stage and a country can also suffer the negative effects of political events or even cultural association, through no fault of its own.

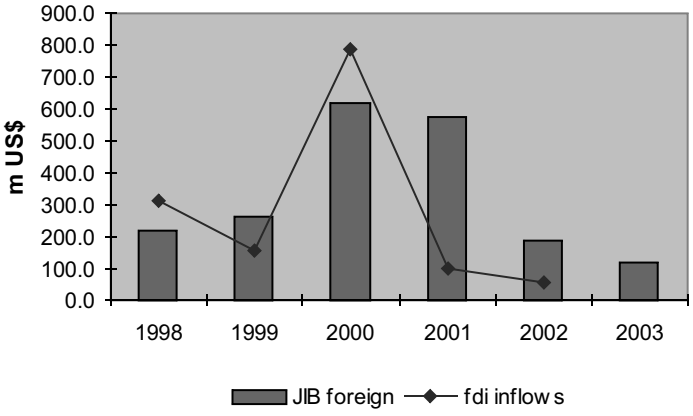
6. TIME: In Europe there is a trend towards reducing working hours with the working week becoming shorter. This means that time has to be used more efficiently as demanded by modern manufacturing techniques. In the car manufacturing sector, low stocks and JIT techniques are an essential requirement of operation and this involves streamlined administrative procedures, agile customs service and good, reliable transport infrastructure at competitive costs. In Jordan, as in many Moslem countries, Friday, rather than Sunday, is the rest day and this reduces the possibility of doing business and communication to 3 to 3 ½ days rather than 4 ½ to 5 days with the negative implications that this event has for many businesses.

7. Investment constraints[5] present in Jordan, particularly constraints related to customs, make it difficult to attract any investment in the original equipment suppliers sector, other than enterprises producing parts for the new Land Rover models to be assembled in Jordan. The same could be said for electronic components, particularly if production is destined for automobile production and consumer electronics.

5 The 2002 Investor Roadmap to Jordan (AMIR Program)

3.3 FDI: Trends in Jordan

Figure 3: Foreign investment into Jordan



Source of data : UNCTAD World Investment Report 2003,JIB statistics

Figure 3 shows FDI inflows to Jordan as reported by the World Investment Report 2003 and the total value of those foreign investment projects processed by the Jordan Investment Board. FDI statistics are often of poor quality and it is acknowledged in Jordan that the recording of inflows of foreign capital by the Central Bank of Jordan is inadequate. A working group has been established and is seeking to establish more accurately foreign investment inflows according to the methodology of the fifth edition of the IMF's Balance of Payments Manual based on equity investment, inter-company loans and retained profits.

The value of foreign projects processed by the Jordan Investment Board records those projects approved by the Board for benefits under the 1995 Investment Promotion Law. The value does not reflect FDI as a Balance of Payments concept involving the cross border transfer of funding and, indeed, some of the projects may not have developed to the implementation phase. Thus, there is no relationship between the two sets of figures.

3. Foreign Direct Investment: BACKGROUND

National FDI statistics are often distorted by individual investments, either very large investments, typically in the oil industry, or acquisitions made commercially or through privatisation programs. The rise in the inflows to Jordan in 2000 probably reflects the sale of 40% of the Jordan Telecommunications Company to the France Telecom / Arab Bank Consortium for US$ 508million under Jordan's Privatisation Program. Similarly, the figures for 1998 are probably influenced by the sale of 33% of Jordan Cement Factories to Lafarge for US$ 102 million. If the statistics (which, as stated earlier, are known to be inaccurate) are corrected for these one-off influences, they present a rather unfavourable picture, with the effect of the conflicts in the region probably being the biggest single influence.

The World Investment Report 2003 reports Jordan's FDI stock in 2002 as being US$ 2,414 million compared to US$ 2,358 million in 2001.

In an attempt to show Jordan's statistics in a more favourable light, Table 4 shows the average FDI inflows over the period 1997 - 2002, together with the population and GDP, for five countries in the region.

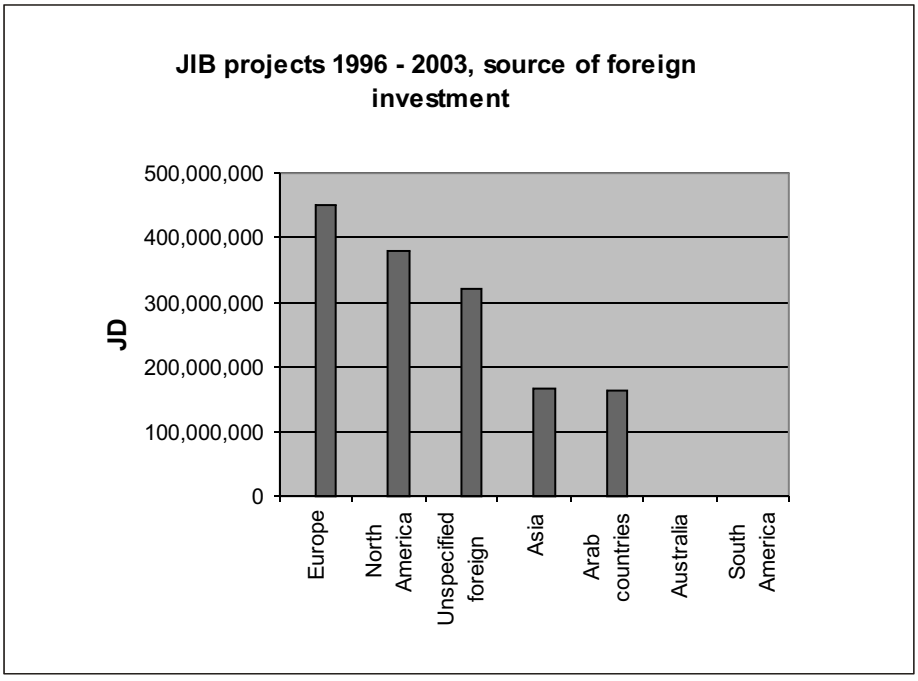
Table 4: Population, GDP and average FDI inflows 1998-2002

	Population million	% of total	GDP m US$	% of total	Average FDI 1998-2002 m US$	% of total
Egypt	66.37	64.58	89,845	56.34	906.6	39.89
Jordan	5.17	5.03	9,296	5,83	282.2	12.42
Lebanon	4.44	4.32	17,294	10.84	250.8	11.03
Syria	17.00	16.54	21,872	13.71	209.0	9.19
Tunisia	9.79	9.53	21,169	13.27	624.4	27.47
Total	102.77	100.00	159476.00	100.00	2273.00	100.00

Source UNCTAD World Investment Report 2003
World Bank Development Indicators

The results are inconclusive; whereas Jordan's performance in securing over 12 per cent of the FDI to the five countries, while having 5.03% per cent of the population and just under 6 per cent of the collective GDP, is better than that of Egypt and Syria, it is surpassed by that of Tunisia and Lebanon.

An indication of the source of FDI into Jordan is given by the analysis of the projects approved by JIB over the period 1996-2003. This breakdown is shown below. The largest individual investor is the USA, followed by the UK and Saudi Arabia.



Source of data: JIB statistics

3.4 FDI - A Successful Model

The attraction and securing of FDI is essentially a selling activity. The selling of a country as a location for an investment is normally spearheaded by an investment promotion agency using investment promotion activities (see below). It is not always understood that the good operation of this delivery mechanism is critical for success.

The advice of donors to developing and transition economies has often focused on structural reforms and improvements in the economic and investment environment, on the basis that this would lead to increased FDI inflows. Governments have often been frustrated and disappointed with this advice, having found that, despite having undertaken these reforms, investment has failed to materialise. What is not fully appreciated is that, although improvements in the legal and regulatory environment are often a necessary precondition for increased FDI flows, they are not in themselves sufficient. The investors will not simply arrive - they need to be targeted, wooed, developed and secured. The efficiency of the investment promotion agency is a vital factor in the achievement of results in the form of actual investments.

The experience of other countries bears this out. The acknowledged success of Wales in attracting FDI was influenced by the prevailing investment climate but was also in no small part due to the ruthless efficiency of the Welsh Development Agency (WDA) as the means for identifying and securing that investment. The WDA was a focused, professional, determined and performance-driven organisation, staffed with high calibre executives, who were specially trained, highly rewarded, well managed and required to deliver results. Wales managed to secure over 70 Japanese companies, making it the biggest concentration of Japanese industry outside Japan. Not one of these investments simply arrived - every single company was targeted, serviced and developed, often over a long period of time, before the investment was made

In Jordan, the JIB is a well established institution which is well placed to lead the Jordanian effort to accelerate investment inflows into the country. The reviews of its structure and modus operandi currently being carried out should improve its capabilities to deliver results.

4. FDI: Investment Promotional Strategy

4.1 FDI: Investment Promotional Strategy

The promotional strategy for a foreign investment promotion agency such as the JIB should be all embracing. It should consider a wide range of issues, including:

- The role of foreign investment in Jordan's economic development policy;
- The legislative framework for foreign investment in Jordan;
- The business climate including legislation and regulatory issues;
- The existing foreign capital inflows into the country, including country of origin and destinations within the Jordanian economy;
- An analysis of the strengths and weaknesses of Jordan as a location for foreign investment (infrastructure, skills, property, utilities, support services, finance, financial regulations, transportation, markets, raw materials, etc.);
- An analysis of the local and regional competition for foreign investment;
- An analysis of potential investors' attitudes and perceptions of Jordan;
- The sectors where Jordan offers opportunities for investment;
- The experiences of existing investors;
- The countries from which investment will be targeted;
- The selling messages which will be used;
- The promotional methods and balance of those methods, to be used- sometimes called the marketing mix;
- Performance measurement;
- Strategy adjustment implications and mechanisms;
- Cost/ budget implications.

This report will focus primarily on the promotional methods and promotional initiatives that, it is suggested, should be used and undertaken by the JIB in order to secure investment into the automotive and electronics components sectors. Thus many of the above issues will not be considered or will only be considered superficially.

4. FDI: Investment Promotional Strategy

The general concept of investment promotion is well known. The clear evidence from many countries throughout the world, which have been successful in attracting foreign investment, shows that a mix of functions - image building, investor servicing, and investment generation - is required to achieve results. These activities have been well documented elsewhere but are summarized below for convenience:

The Main Investment Promotion Functions

Image Building: Image building is the function of creating a positive awareness of a country as a location for international investment. Media reports, in the media read or viewed by the potential investors being targeted, which portray the country in a favourable light help to achieve this. Case studies of existing investments are often used for this purpose. Focused advertising and public relations events may also be used to build up the positive image required. It also involves the cultivation of 'multipliers' - those groups such as diplomats, trade associations, professional advisers and Chambers of Commerce who represent potential investors or are in contact with them and are in a position to influence them. The multiplying effect of working through such groups can be very powerful.

Investor Servicing: Servicing (or facilitation) refers to the range of support services provided in a country to assist potential investors in reaching an investment decision, in setting up and operating the investment. This typically includes the provision of information on opportunities, legislation, sites, partners and so on; providing a 'one-stop-shop' service to deal with approval processes: assistance with site or land identification and on negotiations for land; contacts to authorities and utilities and other services which make it easier for the investor to finalise the investment. Investor servicing includes both pre- and post- investment activities. Expansions by existing investors often provide greater economic benefits than the initial investment and post-investment servicing helps to secure this.

4. FDI: Investment Promotional Strategy

Investment Generation: Investment generation involves targeting specific sectors and companies in those countries that are considered likely sources of investment, with a view to creating investment enquiries. Activities include the identification of potential investors, direct marketing, telephone campaigns, investor seminars and individual presentations to targeted investors. It is a prerequisite that effective investor servicing should be in place before investment generation activities are initiated, in order that the investment enquiries generated can be converted into actual investments.

The emphasis that is placed on each investment promotion function varies from country to country depending on circumstances, budgets, institutional structures and national objectives and priorities. The emphasis will also tend to change over time as economies and priorities change; the balance of investment promotion functions needs to be constantly reviewed and adjusted.

The aftercare provided to existing foreign investors also has an important role to play in attracting foreign investment. Expansions from existing investors can be a valuable source of further foreign investment. In countries with a solid base of existing foreign investment it is not unusual for well over half of the future annual inflows to result from expansions by existing investors. This may be new investment or reinvestment of earnings or a combination of the two.

Contact with existing investors is important for a range of reasons, including:

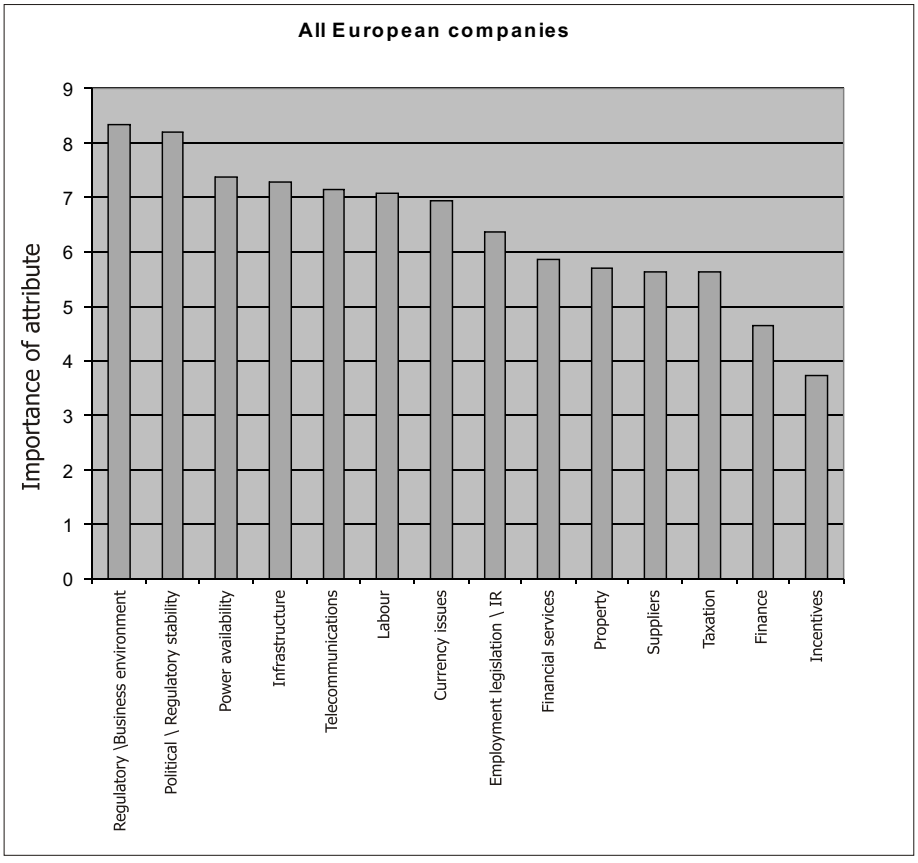
- They are obvious targets from which further investment can be obtained.
- They have the potential to identify further potential investors such as suppliers, customers, group members or neighbours.
- They can identify opportunities for existing Jordanian companies or new incoming companies to supply materials, components, services etc.
- They can be used as references when new potential investors are visiting.

4.2 Determinants for FDI into Jordan

Surveys are often used to identify the factors that influence a company's investment decisions. The results from a survey, to assess the relative importance of a range of factors that typically affect a company's decision on the location for a foreign investment, are given below. Such surveys are useful to give a general indication of companies' priorities but inward investment is not an exact science and surveys should not be over analysed. It should be noted that:

- The relative importance of factors will tend to change at the various stages of an investment decision; in the early stages the overall political and investment climate are more important while at later stages (or for expansions) more operational factors such as skills, telecommunications and infrastructure become bigger issues.
- The relative importance of factors will tend to vary from sector to sector; the computer sector for example will rate telecommunications and skills highly.
- Different executives in a company will have different views; the finance director will be focused on money, the production director on practical issues and the marketing director on sales potential.
- The geographical location of companies will influence views; a company in Saudi Arabia for instance will view Jordan differently to a European or North American company.
- Small and start-up companies will have different views to larger companies.

In a survey of European companies in relation to investment in India, companies were asked to list the relative importance they attach to a range of fourteen factors that typically influence a company's decision on a location for an investment. These were analysed to provide modes, medians and averages. The averages are shown in the bar chart.



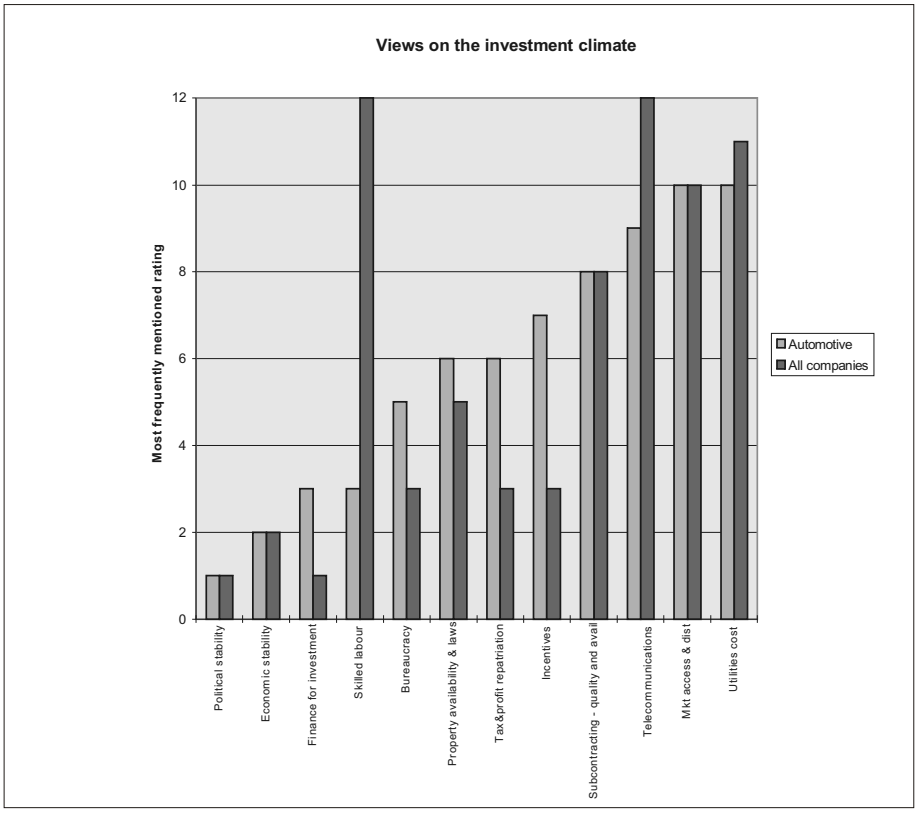
Although the survey was in relation to investment in India the results are very typical of investors views in general. As a broad generalisation, the more important determinants for FDI are usually revealed as political stability and the business and regulatory environment, while the least important determinants are usually incentives and finance.

The automotive sector and the electronics sector generally attach higher priorities to the availability of skills. The results of a survey of existing investors in a Central European country are shown below. The views of companies from the automotive sector and the electronic sector are shown in comparison to the views of all companies in the survey.

Although these views are from another country, they are typical for the sectors and indicate some of the selling messages that need to be used if Jordan is seeking to secure investment from these sectors, namely:

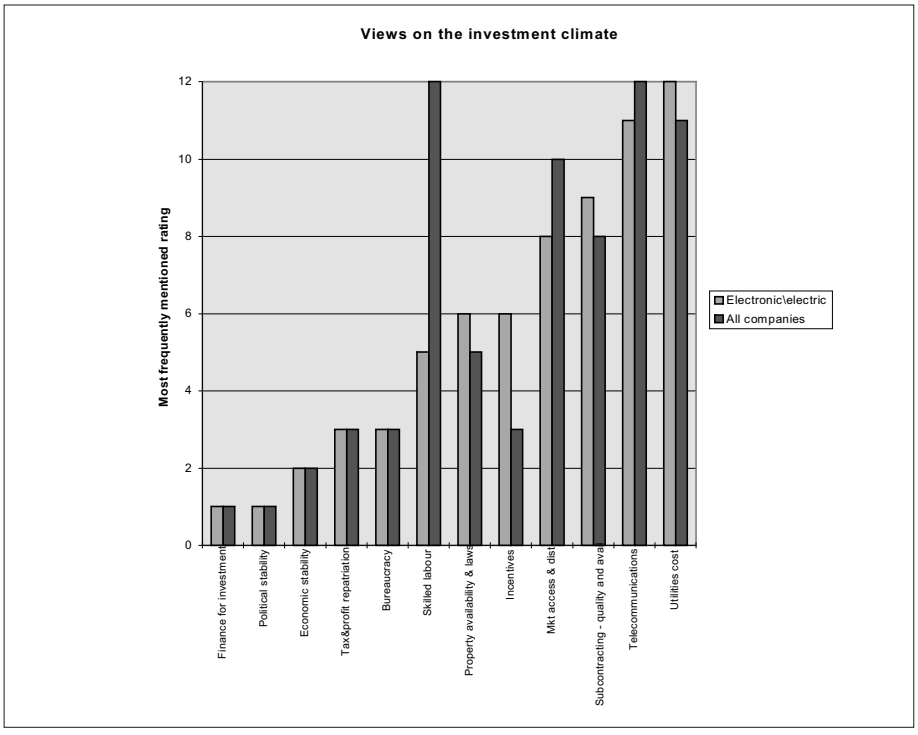
- The political stability of Jordan
- The good legal and regulatory environment for investment in Jordan
- The availability of skills - 22 universities with x number of engineering graduates, y number of electronics and IT graduates
- The supporting industrial 'infrastructure' in Jordan; the availability of toolmakers, subcontractors, suppliers…

Automotive sector:



- The bar chart represents the most frequently quoted rating to the importance of the 12 factors in relation to a company's future investment plans;
- The factors are ordered according to their importance for the automotive sector, with the all companies ratings shown for comparison; a low rating indicates that the factor is very important and thus a barrier to future investment;
- The automotive sector rates political stability, economic stability, the availability of finance for investment and the availability of skilled labour as being the most important factors; the first three factors are consistent with the overall pattern but the availability of skilled labour is seen as being much more important to the sector than the all companies rating;
- The automotive sector rates market access and distribution together with the cost of utilities as being the least important barriers to future investment.

Electronics sector:



- The bar chart represents the most frequently quoted rating to the importance of the 12 factors in relation to a company's future investment plans;
- The factors are ordered according to their importance for the electronic/electrical sector, with the all companies ratings shown for comparison; a low rating indicates that the factor is very important and thus a barrier to future investment;
- The electronic/electrical sector rates the availability of finance for investment, political stability and economic stability as being the most important factors; the availability of skilled labour is given a higher rating by the sector than the all companies rating;

4.3 Investing In Jordan

From a company perspective, the decision to invest in Jordan in the sectors being analysed would most likely come from:

- Investment on parts and components by international companies interested in supplying to the projects in the automotive/ electronics components sectors, already progressing in Jordan, namely: Olé Jordan, Elba bus company, KADDB, Petra, LG/Haier.

- Existing Jordanian companies with a visionary management and successful commercial/ industrial record.

- Large corporations to manufacture a niche product and capable of steamrolling over local bureaucracy and imposing their own conditions

- Enterprises connected to Jordanian companies. Jordanian ex-pat entrepreneurs with know-how, business connections and ideas, interested in returning and investing in Jordan.

- Enterprises acting in a very particular sector that can move into the Jordanian/regional market provided there is little risk (commercial venture and possible some product integration) and with a Jordanian partner ready to undertake the largest share of the investment needed.

- Investments from Gulf countries.

4. FDI: Investment Promotional Strategy

- Companies that, taking advantage of Jordan's geographical position within the region, political stability, availability of skills[6] and good infrastructure, can provide services such as education, health, transport, logistics and know-how to the Islamic world. The provision of these services from Jordan would then be less likely to be disrupted by international politics/events. These activities should be based on competitive advantages and they have the added favourable point of needing relatively modest investment.

- Entrepreneurs to provide value added products and services based on know-how to other industries. Specialised, tailor made, software development services to professionals, distribution services, banking sector and telecommunications, are just a few of the fields offering possibilities.

- Investments from Israeli based companies.

6 Some of the companies visited mentioned that finding skilled personnel was often a problem.

5. AUTOMOTIVE INDUSTRY

5.1 Industry Overview

The automotive and automotive components industry is a very dynamic industry that has, since the 1970s, being subjected to a great deal of change. This trend accelerated in the mid eighties when globalization forced car assembly companies to depart from practices that had shaped the industry during decades. Traditional practices were discarded and new approaches to maximise efficiency were introduced, first by GM, followed shortly afterwards by Volkswagen and all the other car assemblers. This new approach of the car assemblers placed great emphasis on meticulous studies to improve their organization in order to find out ways to reduce wasted time during their manufacturing/ assembly operations, reduction of stocks to the minimum possible and also the number of suppliers, a progressive transfer of responsibility over the design of their products to the selected suppliers and the emergence of logistics as a key concept in the manufacturing and distribution processes. Outsourcing of parts and systems became the norm and exclusive contracts over the life of the car model were awarded with first equipment suppliers, with clauses that forced the selected supplier to reduce unit costs by a given amount, on a yearly basis, to the vehicle assembler.

Challenges to Automotive Manufacturers

- Globalization: Increase in the number of vehicles produced in emerging countries
- Consolidation: Lower costs through acquisitions
- Integration of Value added Chain: Integration of suppliers and clients
- Lower model life and increased number of models: Reduction of Platforms

These policies put a great deal of pressure on large suppliers of first equipment to take over competitors and/or companies that produced complementary products to their own, in order to strengthen their position in the suppliers market and secure contracts with the car assemblers. Globalization trends and the ever-increasing pressure to reduce costs in the automotive sector are producing very fast changes in the sector.

Activities that car assemblers tend to keep in-house:

- Design and Style
- Engine production
- Manufacturing of some large body components and subassemblies
- Painting process
- The assembly of the vehicle

Increasing responsibility for the development of the products they supply to the main car companies and continuous pressure to reduce costs has meant an unprecedented consolidation of suppliers into some 20 large multinational companies[7] manufacturing and assembling whole systems in different areas - most of them spun off from the car manufacturers themselves - to supply original parts and systems[8] .

These large multinational manufacturers of original equipment (OEM) tend to follow the main car companies to new locations as they pursue their expansion to capture new markets and reduce costs. Standard practice manufacturing techniques such as Just in Time (JIT) and Total Quality Management (TQM), together with pressure to reduce manufacturing costs, as demanded by the main car assembly companies, favour this movement of relocation of production units to emerging countries.

7 It is estimated that TIER-1 Suppliers will decrease from around 1,000 in 1998 to 20-30 in 2010. TIER-2 suppliers will also decrease from 10,000 in 1998 to 800 in 2010. Of the large multinational companies that presently dominate the original equipment market for cars and industrial vehicles, more than half are of USA origin, followed by German, French, Japanese, UK and Italian companies.

8 It is estimated that automotive suppliers supply between 60 and 70 % of the total value of a new car. This value is set to increase to as high as 90% of the total cost of the vehicle.

5. AUTOMOTIVE INDUSTRY

In this environment, SMEs, often family owned and managed companies, are forced to concentrate on reducing costs, becoming more efficient in their operation: they aim to set up a strategic alliance with one of the leading multinational suppliers, they increase collaboration among complementary companies forming clusters and, above all, they try to provide a better service to their customers by increasing their flexibility in order to survive. Some of these companies, generally sizable, independent companies - but also smaller second tier suppliers - have, however, the technology and the financial capacity to invest and they are willing to follow their customers[9] to emerging countries.

However, the smaller companies, although very much aware of their strengths and weaknesses and world trends in the industry, have limited resources to invest and generally take a very cautious approach to investment in third countries.

Challenges for Components Manufacturers
• Sufficient financial structure
• Sufficient company size
• Technical capability and know-how
• Delocalization of production
• Capacity to adapt : Technical and Managerial Flexibility
• Undertake future projects with their larger customers

9 The large multinational suppliers of first equipment

5.2 Future Trends for the Automotive Sector

It appears clear that regions where labour costs are high - that includes the three traditional automotive regions[10] - will follow the path of developing and manufacturing more sophisticated, higher specification vehicles, while the emerging countries or regions will concentrate on high volume manufacture of less expensive vehicles. All companies, but particularly those of the mature, affluent markets, will try to promote brands and models that customers are prepared to pay a higher price for than for similar models from less well regarded brands. And this despite the fact that quality, which has increased steadily over the past two decades, has ceased to be an important issue when selling cars.

Expansion of the manufacturing activities of car companies to emerging countries has meant that market/customer proximity is one of the most important parameters to be considered by the manufacturers of automotive components and low end of the market car manufacturers. The equation between cost and market potential is ever more present and, if this tendency continues, as would appear to be the case, volumes in numbers of vehicles produced could fall in western European countries.

Former eastern European countries are expected to continue to attract a great deal of the investment in new vehicle manufacturing plants and, therefore, also investment from the suppliers of first equipment.

Despite the cultural differences that are even forcing some medium size automotive components to withdraw their investment, **China** is attracting FDI to the point of investing companies calling the present situation, a "fashion". Many companies are investing in China because "they have to be there".

Brazil, with a powerful car assembly industry and a large internal market, is another country that continues to attract FDI, and Mexico, despite the recession in the sector that has forced many redundancies, also is attracting FDI.

10 North America, Western Europe and Japan

5. AUTOMOTIVE INDUSTRY

Current trends[11] in the automotive sector are likely to increase during the next few years and will probably centre on:

5.2.1 For mature car manufacturing countries

Financial and Technical Challenges for vehicle manufacturers in mature manufacturing countries:

In general:

- Increasing global competition
- An increasingly difficult business environment

1. Financial:

- Low profitability
- Excessive installed capacity
- Strong fiscal pressure over the sector

2. Technical:

- Brand Identification
- Increased performance and safety of the vehicle
- Environmental pressures:
  - Lower noise
  - Low CO2 emission
  - Recycling regulations

- High car specifications on road handling, safety issues, and environmental performance, including fuel consumption, low emissions, low noise and recycling of the materials of the vehicle. Electronics and materials will be of even greater importance. Other areas of expected growth will be those related to transmissions, audiovisual entertainment and automation, where electronics will play a central role.
- Larger number of models and a shortening of the manufacturing life of individual models with lower volume numbers. This, in turn, is already forcing manufacturers to share platforms and engines, while introducing elements that can be readily identified with a given brand.

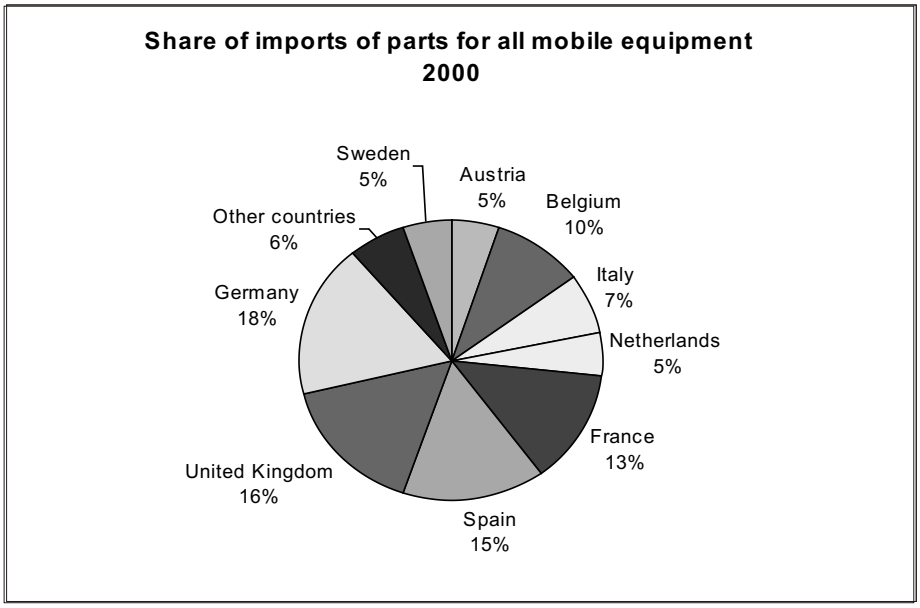
11 Many of the trends will be the result as a result of present or coming Government regulations.

5.2.2 For emerging markets

- Expansion of production facilities of cheaper small cars[12] and of medium sized cars, many of which will be adaptations of models manufactured for traditional auto producing countries and, in many cases, one generation old models.

- Increased production of parts, components and sub-assemblies to supply the new vehicle assembly facilities being set up. These assembly facilities will range from tractors to automobiles.

EU Auto Statistics



12 Small cars have developed some of the most sophisticated technologies in the car industry, particularly in fuel economy, suspensions, transmissions and safety, and increasingly, in air conditioning and cooling systems.

5. AUTOMOTIVE INDUSTRY

Shares of European countries for sales and production of parts and cars 2000

	parts sales	parts production	car sales	car production
Germany	26%	30%	24%	34%
France	17%	21%	15%	19%
Spain	17%	14%	10%	16%
United Kingdom	13%	10%	16%	11%
Italy	12%	14%	17%	9%
Belgium	5%	3%	4%	6%
Sweden	3%	2%	2%	2%
Netherlands	3%	2%	4%	1%
Portugal	2%	2%	2%	1%
Austria	2%	1%	2%	1%
Greece	0%	0%	2%	0%
Finland	0,4%	0,2%	1%	0%
Ireland	0,3%	0,1%	2%	0%
Denmark	0,2%	0,1%	1%	0%
Luxembourg	0,1%	0,1%	0,3%	0%
Total	**100%**	**100%**	**100%**	**100%**

Source: Parts for Cars, Trucks, Trailers and other mobile equipment, CBI Netherlands 2002

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EU imports from developing countries per product 1998-2000 (€ million)

	Imports €			%Change
	1998	1999	2000	98-00
Total	**3,160**	**3,790**	**4,561**	**44%**
Car parts, accessories and ancillaries	**2,980**	**3,586**	**4,301**	**44%**
Tyres	1,031	1,199	1,295	26%
Audio equipment	448	458	599	34%
Other accessories	364	452	583	60%
Cylinders	221	300	364	65%
Parts and acc. of bodies	193	246	347	80%
Road wheels	174	240	295	70%
Brakes and servo-brakes	79	125	143	82%
Gearboxes	34	107	96	185%
Lighting equipment	51	68	71	39%
Radiators	33	38	51	54%
Axles	59	39	48	-20%
Oil filters	35	39	47	36%
Shock absorbers	32	36	44	35%
Exhaust systems	27	37	40	47%
V-belts	30	29	39	29%
Safety seat belts	8	11	35	331%
Steering wheels	28	22	35	23%
Clutches	31	29	34	11%
Bumpers	12	24	28	132%
Sparking plugs	9	15	23	166%
Batteries	14	14	16	18%
Distributor caps	16	15	16	2%
Inner tubes	21	16	15	-28%
Wipers	6	9	15	136%
Car alarms	15	12	10	-34%
Horns	8	7	9	12%
Parts for agricultural & horticultural machinery	**16**	**17**	**19**	**16%**
Parts for agricultural, horticultural or forestry machinery	11	12	13	15%
Parts for harvesting or threshing machinery	5	6	6	20%
Parts for other mobile equipment	**164**	**188**	**241**	**47%**
Parts for pulley tackle and hoists	4	3	7	65%
Parts for fork-lift trucks & other lifting equipment	16	18	23	42%

5.3 Automotive Sector in Jordan: An Overview

At present, the automotive sector in Jordan is small, limiting operations to some manufacturing activities and the distribution of cars for the home market and also for re-export. Furthermore, the few companies carrying out manufacturing operations within the sector do so in isolation from each other. Given the small size of the Jordanian market, the political and social problems affecting the region and the lack of suppliers, efforts are being concentrated on creating a niche sector industry based on supplying military vehicles to the Jordanian Armed Forces with a range of 4x4 vehicles, that could also find a market for export.

The **Olé Jordan Company (OJC)** is presently in the process of building an assembly plant at Ma'an City, situated in the south of the kingdom, to build Land Rover Defender vehicles. The plant, with a capacity to produce 10,000 units annually and employ up to 1,200 workers when in full operation, will assemble cars from imported parts and kits from the UK, but this could change if the market for the vehicle proves to match expectations and suppliers of Land Rover can be persuaded to set up companies or partnerships in Jordan to produce those parts. The fact that the Defender is a very expensive vehicle to produce, due to the high labour input required and the simple design of the vehicle should encourage this process[13] .

Chassis manufacture, filters, wiring, bumpers, fibre roof panels, exhaust systems, flat glass panels and even some aluminium or steel panels are some of the parts that could be produced in Jordan. It would probably be better to import the numerous body panels made of aluminium from the UK for the time being, as pressing operations are fairly automated and labour content is not high, although the programmed replacement of the Defender by a more advanced and cheaper to produce version in the UK could open up the opportunity to transfer some of the pressing machinery to Jordan. If the operation to produce the Defender is successful in reaching the projected goals, the Olé Company could become a locomotive for developing a cluster of automotive components in Jordan.

13 During the mission, contacts with the Land Rover representative for the region were made, and initial reaction was positive.

At a later stage, the company is projecting to assemble other models produced by the same manufacturer, such as the Discovery and the Free Lander. Although there is a reported delay on the building of the plant, covering an area of 300.000 m2, the company expects to start producing vehicles at the end of 2004.

Other efforts to set up an automotive industry in Jordan are managed by **KADDB, (King Abdullah Design and Development Bureau).** The Bureau was set up in 1999 with the primary aim of providing high quality equipment and services to the Jordanian Armed Forces and, in doing so, to help to create a sustainable industrial base in Jordan based on pursuing excellence through R&D and high technology. The model to be followed by KADDB is the creation of a company incubator on a purpose to build industrial park located on the outskirts of Amman, to produce - first as a prototype and then on a commercial production basis - models of special vehicles suited to the requirements of the Jordanian Armed Forces, and the export market. Each company emanating from a perceived requirement and with market potential is set up with the idea of finding a leading foreign partner which provides know how and marketing skills in order to secure the future and efficiency of the company. During the last four years, several specialised vehicles have been developed and are in the process of being manufactured, some of them with substantial orders from the JAF and for exports. Among the vehicles developed are: the Tactical Intervention Vehicle, Al- Jawad, Desert Iris and a motorbike for desert operations.

Other companies operating with foreign partnerships specialise in manufacturing wiring and harnesses for special vehicles, repair of fuel injection units, critical electrical components and producing synthetic fibre parts and components for special vehicles -among others.

KADDB has a clear strategy and a very open attitude towards collaborating with existing Jordanian industry. In only four years they have covered a lot of ground and their immediate project is the development - adjacent to the present 18Ha. industrial park - of a new 30Ha.Free zone industrial area to accommodate industrial activities from companies emanating from the activities of the Bureau. Activities projected for the near future include the manufacturing of lorries, trailers and tippers.

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The KADDB has the attitude and the potential to become one of the key elements in promoting the establishment of an industrial base in Jordan.

Another notable contribution to the automotive sector in Jordan is made by **Elba House,** a company originally set up in the mid seventies to produce prefabricated buildings but which later expanded, first to manufacture trailers, tankers and tippers and, more recently, to develop what has become their core business: the production of bodies for buses and coaches. They have an integrated production line capable of producing up to 600 Mercedes based buses per year and the number of employees varies from 600 to 1,000 depending on market conditions. They currently consume electrical cables, plastic electrical connectors, aluminium sheets and plain glass from Jordanian suppliers. They import most parts and material needed to complete the buses from Brasil, Germany, Spain, Turkey, Syria, Saudi Arabia, UAE, UK, France, Austria and Italy and their export markets are Libya, Kuwait, Saudi Arabia and Sudan.

The company is trying to design their own chassis with help from a Brazilian company, but otherwise they do not perform major design or any other significant product development operations. If the company should decide to channel a higher proportion of their resources to research and development, together with a decisive drive to increase quality and the technological capability and the technical capacity of the company in areas such as design, testing, and quality of finish of their products, it could create a good niche for Jordanian operating companies.

Mold Technologies Corporation w.l.l: This company was set up in 1992 under another name and was rescued by new shareholders in 1997 to produce injection and blow moulds for PVC and PET packaging applications. At present the company employs 68 workers in two shifts.

They design and manufacture their moulds[14] from high quality steels imported from Sweden and Austria and a range of components imported from Belgium, Germany and Canada. The company has CAD-CAM design capability and their equipment and company organization is adequate for the markets it serves.

14 Some of the moulds seen were quite sophisticated

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Mold Technologies exports to Saudi Arabia and Sudan, and is looking to expand their activities by producing PVC valves for the Jordanian market and for export to Saudi Arabia, where they would distribute the product through a large distributor - also a partner of the Jordanian company.

Mold Technologies is encountering competition at the low end of the market from Taiwanese and Chinese manufactured products, although they can compete when the customer demands higher quality.

The company is projecting to enter the automotive sector in Europe and USA, once they have the technical resources, obtain ISO certification and acquire the capacity to increase production. In any case, the company could play an important role in any future development of the Jordanian automotive industry.

Other companies present in the automotive sector are producing:

- Batteries
- Air and fuel filters
- Exhaust pipes
- Carpets and internal body fittings
- Radiators
- Electric wires
- Plastic injection moulding
- Cooling fluids

5.4 OPPORTUNITIES for Automotive FDI in Jordan

Jordan aspires to attract foreign Investment in the automotive sector in order to develop its technology base, adopt manufacturing, quality and organizational methods associated with the automotive sector, as well as to increase its export potential and the provision of employment opportunities for a young and educated labour force. The development of the sector could come in either of the ways outlined below.

5.4.1 Top - down, "Export Driven" investment: Large car assembling companies and multinationals suppliers of original equipment

- The fastest way[15] to considerably expand the industrial base in the automotive sector would be to attract one of the major car manufacturers into the country. This is not impossible, but, given the tendencies of investment for the industry and industrial practices followed by the car assembly operations, it could prove difficult[16]. On a regional level, Turkey, Egypt[17] and Iran have large internal markets, a considerable automotive industry and an expanding industrial base. In the case of Turkey and Egypt, they also have cooperation and commercial agreements with the EU.

- If that were to prove possible, the most likely scenario would be setting up a production plant to assemble fairly low volume or niche products, such as a small car model/s, commercial vans[18] , small industrial trucks[19] , small city/touring buses[20] and 4x4 vehicles which could then be distributed in local but mainly export markets[21] .

15 Not exempt from certain risks for Jordan a FDI recipient, if the project fails to reach expected goals.
16 Unless a major/middle size manufacturer could be persuaded, at the highest possible level or by a determined leading Jordanian company or businessman, to produce a relatively low volume operation: small car or, more likely, niche products, such as light industrial vans, light industrial trucks, and 4x4 vehicles
17 Egypt and Iran also have cheaper labour force costs.
18 Renault's Kangoo and Traffic, Peugeot/Citroën's "Partner"/"Berlingo", Fiat's "Doblon" etc. Demand for this type of vehicle is bound to increase substantially in the local and regional markets as entrepreneurship becomes more common.
19 Up to 3.5 Tonnes.
20 Microbuses up to max 24 seats manufactured by Toyota, Mitsubishi, Iveco, Mercedes, etc.
21 Vehicles that could be included in this category could be: "Touareg" model from Volkswagen, the "XC90" from Volvo or the GM "Hummer" for both civil and particularly military applications and some Far East models and American models that could be assembled in a free zone, mainly for export markets.

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- Another good option would be the attraction of some Tier-1 multinational companies supplying original equipment either for cars to be assembled in Jordan or for export markets. Companies producing labour intensive products, small volume parts (so transport becomes less burdensome to the final price of the product) like wiring harnesses, lighting systems, hoses and small injection moulded plastic parts and components come into this category. Also the possibility to produce next generation systems such as CO2 based air conditioning systems[22] for the automotive sector (cars, lorries and buses) in which a company like Petra, with its strong engineering base, could be the ideal partner to form a joint venture.

- These leading companies would then act as a locomotive for the sector and could help to create an automotive sector with local companies supplying quality products and services to them.

- In order to attract those leading companies, the possibility to find an efficient local company as partner, good human resources, quality of infrastructure, business environment and an effective and efficient FDI agency to smooth operations, together with an attractive financial offer, are important considerations.

- Financial Incentives to invest, although not necessarily the most important tool to attract investment, are probably more effective if directed towards tax incentives and support for training of human resources rather than direct grants. Of course, if this path is chosen, suitable agreements to avoid double taxation and an efficient administration of the scheme are essential.

22 Rather than systems based on hydro fluorocarbons

5.4.2 Bottom - up, "Market Driven" investments: Development of a manufacturing automotive sector through building up the capabilities of an efficient, quality driven network of supplier's companies serving the local and export markets

This path of development is a slower one, but, in the long run, it may prove as beneficial and even more comprehensive than the previous one. Originally at least, it would be centred around flexible, efficient SMEs - given the relatively small size of the market - but the multiplying effect on job creation in manufacturing and service provision, as well as the dissemination of know-how and industrial culture, would prove very valuable to the country.

Given the geographical position of Jordan, the pro business environment and all the other favourable conditions mentioned elsewhere on this report, the best possibilities to achieve this situation in the medium term would probably centre around the following:

a. Develop the Jordanian technological and industrial base, as well as the industrial culture, required to manufacture quality parts for the projects currently in operation or soon to be undertaken in Jordan, and briefly outlined above, through partnerships of Jordanian companies with successful European medium size enterprises that own their own technology, are aware of market trends and are looking for opportunities to expand. With some of the ongoing projects, such as the one in Ma'an - Ole Jordan - and KADDB, successful ventures could be arranged with some of the original equipment manufacturers - especially those that are labour intensive - to manufacture parts in Jordan.

b. For many European medium size companies, and in order to ease the process of investment in Jordan, the formula could be the transfer of technology and, where possible, the establishment of a regional distributorship agreement with the foreign partner. In this way, the foreign partner would be inclined to see the investment as an opportunity to acquire knowledge of Jordan as a country to do business in and to expand their business with very little or no exposure of their own.

At a later stage, the Jordanian company should naturally aspire to do an increasing share of the manufacturing process and carry out the final integration of the product. Some of the possibilities opened are:

- Seats for public transport vehicles, including buses, city buses and coaches, trains etc, and
- Modern trailers, tankers, refrigerated trailers and tippers / dumpers for heavy and medium transport lorries.

c. Manufacture parts for the multinationals - first equipment suppliers - operating in the E.U and Turkey and, in very specific products, also Egypt.

d. Due to its strategic geographical position, Jordan acts as an obligatory transit point for the large fleet of heavy transport lorries, buses and private vans and cars connecting the Gulf countries with Syria and Turkey. This presents Jordan with a large market already well in evidence as shown by the very large number of outlets selling automotive parts, and the equally impressive large number of service providers to these captive markets. As it stands, the retailing of automotive parts and services sector gives employment to thousands of workers and provides the country with income from "hidden[23] " exports. The existence of such a large, captive market should provide companies based in Jordan with good business opportunities to supply a substantial part of the demanded automotive spares with quality made parts manufactured in Jordan.

If supply and distribution linkages are adequate, automotive parts manufactured in Jordan should be cheaper than competitive parts and manufacturing companies, as well as dealers and clients, would benefit as a result.

e. Companies catering for the aftermarket would most likely be SMEs and, therefore, if efficient and flexible, very well suited to specialise in small production batches. This could create a market niche that would help to create an industrial base necessary to form sectoral associations of automotive parts manufacturers in order to approach export markets and give individual companies the opportunity to improve their technological capacities and to expand.

23 Much of the revenue accrued from those activities comes from serving foreign registered vehicles, but it is not accounted as an export.

5.5 Strategy to Develop the Automotive Sector and attract FDI into Jordan

Based on the data gathered during the mission in Jordan, opportunities to attract FDI in the automotive sector do exist. The proposed strategy outlined below to develop the automotive sector should be a threefold approach. The three approaches are complementary to each other, so any success in any direction will benefit the possibilities of the other two and vice-versa. In any case, the success of the strategy to attract investment will depend on taking a gradual, flexible approach and to develop a coherent programme of measures[24] to be adopted.

The effectiveness of the strategy to attract investment in the selected sectors covered in this report could be strengthened by activities that project the overall image of Jordan as a place to do business and develop investment projects. The organization of promotional events in the targeted countries an annual International Economic Forum, bringing together industrial and financial leaders to Jordan, would contribute significantly to enhancing the perceived image of the country abroad and would also facilitate the meeting of business leaders.

In the medium term, the development of entrepreneurship in Jordan should also be a pivotal element to develop the industrial and services capabilities of the country. Although entrepreneurship should be encouraged in all activities, the automotive parts and electronics sector could greatly benefit from an extensive programme based on sending good students on work training scholarships to good, international companies in order to gain both professional experience and a network of contacts and to build bridges of trust that could be put to great effect - creating companies - when these graduates return to Jordan a few years later.

Matchmaking, presentations, direct approach to companies and sectoral associations, the provision of good quality information and the required follow-up should provide the backbone of the work plan to promote FDI in Jordan.

24 Lack of skilled workers in sufficient numbers appears to be a common complaint of Jordanian companies. Among the measures to be undertaken, the education system should be capable of delivering skilled labour to be able to take advantage of the opportunities offered by new enterprises, as well as reducing costs and increasing productivity to those companies investing in Jordan.

5. AUTOMOTIVE INDUSTRY

Focusing on Europe as a source of FDI for Jordan and a market for Jordanian made parts and components, the countries/regions that have the greatest potential are:

1. UK[25]
2. Germany and Holland
3. France and Belgium
4. Iberian peninsula (Spain and Portugal)
5. Italy

5.6 Opportunities for Investment

The European Market for automotive parts and accessories has continued to increase over the past years. Some of the components most suitable to be manufactured in Jordan have recorded very significant increases as the table below shows.

Most suitable Components to be Manufactured in Jordan

Parts	% Increase from 1998 to 2000
Brakes and servo Brakes	82
Radiators	54
Oil Filters	36
Safety Belts	331
Bumpers	132
Batteries	18
Wipers	136
Exhaust Systems	47

25 The UK market should be the first market to target as both, Olé Jordan and KADDB are already active on that market

5. AUTOMOTIVE INDUSTRY

Taking into account the world trends of delocalization of the auto parts industry, labour costs in Jordan as well as the existing capabilities of the Jordan's industrial base, the best opportunities for investment in Jordan during the next three years are shown in the box below.

Opportunities for FDI in Jordan in Automotive Sector

- Manufacturing of seats for public transport vehicles
- Manufacturing of modern trailers, tankers, tippers etc
- Manufacturing of wire harnesses
- Manufacture of radiators for cars and lorries
- Manufacture of batteries
- Manufacture of plastic components
- Manufacture of suspension arms
- Manufacture of safety belts
- Manufacture exhaust pipes and systems
- Manufacture of radiators
- Manufacture of carpets and internal body fittings
- Air conditioning units for cars and buses

5.7 Strategy to Attract Investment in the Auto Parts Industry

Threefold Approach: All three approaches should be pursued simultaneously

Approach/Objective	Agent	Activities
Approach 1: 1.1 Attract a vehicle assembly operation, even a small one, to assemble vehicles mainly for export and /or	1. Contacts at very high political/ diplomatic level 2. Leading Jordanian companies or entrepreneurs (LJCE) willing to invest in the sector	This could be a long term process in providing results, but it is not impossible if determination, vision, opportunity, funds to invest, good information package, and the right contacts exist
1.2 Attract a vehicle assembly operation to assemble vehicles destined for the home market and export	1. LJCE willing to invest in the sector	Idem
1.3 Attract Tier-1 multinational/s supplying first equipment, original parts, components and systems for the automotive industry	1. LJCE + JIB+EJADA + External Consultancy services	**LJCE:** Contact with individual companies to form partnership or business association to set up manufacturing operations in Jordan (with or without the help of JIB, etc) **JIB+EJADA:** **A. Information Material** 1. Create quality presentation material about Jordan as a country ready to do business. 2. Quality presentation tailored to the automotive sector (Outlining opportunities). 2. Commission a study of the competitive advantages of Jordan - on several selected products or components - benchmarking Jordanian costs against some targeted European countries plus Turkey and five or six possible competitor countries. 3. Prepare comparative, accurate information about production costs in Jordan and other countries - European, Middle Eastern, China, Brazil and Mexico - which should be regularly updated (every six months).

Approach/Objective	Agent	Activities
		4. Provide information about Jordan's legislation favouring investment, non double taxation agreements and incentives to invest, such as tax advantages, financial help, grants, etc. 5.Select target markets B. **EXTERNAL HELP** (Consultancy) 6. Select sectoral associations and companies. 7. Direct mailing campaign + e-mail communication 8. Approach and visit selected associations (as information multipliers) and, more importantly, individual companies. 9. If company shows any sign of interest, build relationships and trust with company representatives through continuous follow-up and provision of information. 10. When time is right invite company representatives to visit Jordan - at their own expense - in order to introduce them to Jordan, Jordanian institutions and companies, possible partners, etc. 11. Pursue a decision to invest in Jordan. Continue with periodical follow-up. 12. Organise, at periodic intervals, promotional/Presentation Seminars of the Competitive Advantages of Jordan to Automotive manufacturers organizations, Business associations, prestigious Business Schools. These seminars could, and should, cover more than one sector.
Approach 2: 2.1 Direct approach to targeted companies - First and Second tier suppliers of parts, components and systems. Generally these companies are medium to large size and have experience of international markets.	1.LJCE + JIB, EJADA + External Consultancy services	**LJCE:** Contact with individual companies to form partnership or business associations to set up manufacturing operations in Jordan (with or without the help of JIB, etc). In most cases, the association could start as a commercial venture for Jordan or the region, with product integration activities developing later. **JIB+EJADA:** 1. Information material 2. External Help (Consultancy)

5. AUTOMOTIVE INDUSTRY

Approach/Objective	Agent	Activities
2.2 Approach companies, generally medium size companies with considerable international operations, that own their own technology and are looking for opportunities to expand.	1. LJCE + JIB + EJADA + Consultancy services	**LJCE:** Contact with individual companies to form partnership or business association to set up manufacturing operations in Jordan (with or without the help of JIB, etc) In most cases, the association could start as a commercial venture for Jordan or the region, with product integration activities developing latter. **JIB+EJADA:** 1. Information material 2. External Help (Consultancy)
Approach 3: 3.1 Build on existing and future capabilities: Manufacture an increasing number of parts and components for ELBA, KDBB and, if the Ole Jordan project finally materialises - for the Defender - once the manufacturing facility currently being built by Ole Jordan enters production. NOTE: The concept of KADDB links possibly the three most important concepts to enlarge the Jordanian Industrial base and the development of technological know how: 1. Company incubator. 2. Sectoral Cluster development. 3.Investment, in partnership with a Jordanian enterprise, by a foreign, technologically strong company. 3.2 Develop the capabilities of a Jordanian sector of manufacturers of quality automotive parts and components, to supply the needs of the internal market as well as the large numbers of foreign vehicles that circulate through Jordan (hidden exports).	1. Entrepreneurs, Leading Jordanian companies (LJCE), JIB EJADA, Entrepreneurs, businessmen individual companies, External consultancy	1. It should be possible to persuade some suppliers of original equipment for the Defender to set up, either alone or as a joint venture, manufacturing facilities in Jordan to produce, at first, low risk, low technology parts for the vehicle. With an assured market, albeit small, the number of different parts manufactured in Jordan should increase as experience accumulates on the model working under local conditions. Some of the parts to offer at a cost advantage could be the following: - Oil, Fuel and air filters - Exhaust systems - Window glass panels - Bumpers - Seats - Internal trimmings - Safety belts - Plastic components - Silent blocks - Wire harnesses 2. Determine the most suitable parts to be produced and distributed in Jordan to supply the present market. Initially at least, these parts should have a fairly low technological content. Ideally these parts should also have a fairly large volume (to take full advantage of lower transport costs against comparable imports): -Exhaust pipes and systems -Radiators -Batteries, etc

5. AUTOMOTIVE INDUSTRY

Approach/Objective	Agent	Activities
3.3 Set up the **"Jordanian Automotive Components Manufacturers Association" (JACMA)** to promote collaboration among manufacturers of components and to promote export activities.	Enterprises, JIB, EJADA, AMIR, Chamber of Industry	3. Exchange of information, collaboration in Quality Certification of companies, Promotional Missions to open export markets, Testing, R&D.
3.4 Strengthen the distribution system of parts and components.	JACMA, JIB, Individual Jordanian enterprises, Entrepreneurs	4. Jordanian companies or partnerships with specialised European distribution companies should be set up to supply and distribute a large catalogue of parts to existing outlets. This partnership should try to manufacture some specialised component/s of their choosing while purchasing, if possible, from other Jordanian manufacturers as well as importing and distributing the rest of the catalogue.
3.5 Set up franchises of Retailing of spare parts and Servicing centres.	LJCE, large chains of fast-fit and DIY retail chains	5. These spare parts and service centres should be strategically located at roads and commercial centres. The wide range of spare parts available at affordable prices together with the fast and efficient repair service, should be an ideal way of distributing parts, among them, an increasing number of items manufactured in Jordan such as batteries, cooling fluids and filters (oil, fuel and air filters).
6. Once sufficient capability to produce high quality parts at competitive prices has been achieved, approach the large and medium size parts distributor groups operating in Europe.	Jordanian Enterprises, JACMA, JIB	6. Engage in Export activities.

5. AUTOMOTIVE INDUSTRY

5.8 Products and Companies to approach

Approach	Product	Company
Approach 1	-Automotive vehicles assembly operations -OME manufacturers /Tier 1 Shock absorbers, Steering systems, Radiators Clutch systems Break systems Aluminium and Magnesium Wheels Wiring harnesses Lighting systems Gearboxes Safety belts Castings Gearboxes Suspension arms	■ All the major car/ industrial vehicles assemblers ■ All OME manufactures: Valeo, Robert Bosch, Siemens, Faurecia, Delphi, Lear, Carlyle group, GKN, Visteon, Magnetti Marelli, ZF Friedrichshafen AG, Continental AG, Autoliv, Grupo Mondragon, Thyssen Krupp Automotive, TWR, Labinal Group, Tyco electronics, Sumitomo, Denso, VDO instrument, Cherry Corporation, Mannesmann VDO.
Approach 2	1. European enterprises, medium to large size and with their own technology, willing to expand 2. Tier 1- 2 Manufacturers/specialised manufacturers: Steel wheels Parts for Clutching systems Parts for Breaking systems Axles Coils and transformers Condensers Parts for radiators Batteries Wiper motors V-belts Horns Mounting brackets Seats for Public transport Plastic components Bumpers Piston rings Seals Cooling fluids Air conditioning units/components	-Montenegro Iberica s.a, Schmitz, Kogel, Krone, Goldhofer, LeciTrailer, Lecinena, Zamarbu, Fruehauf (trailers, etc) -Irizar, Setra, Castrosua, Caetano (Bus/ coaches etc) Grupo Antolin, (Spain) Asientos Esteban/AUNDE Acter & Ebels GmbH (Spain/Germany) FICOSA (Spain) FAINSA (Spain) Deissa (Spain) ACE (Spain) Gestamp Automocion (Spain) AP parts (UK) Edscha (Germany) Metzeler (Germany) Bentler Automobiltechnik GmbH & Co. KG (Germany) Continental Teves AG & Co (Germany) Eberspacher GmbH (Germany) Heinrich Gillet GmbH Modine Behr

5. AUTOMOTIVE INDUSTRY

Approach	Product	Company
Approach 3	1.Original equipment suppliers of Land Rover that could be persuaded to set up small scale manufacturing operations - at first - in order to produce in Jordan some labour intensive parts for the Defender to be assembled in Ma'an by Olé Jordan. 1.1.Manufacturers of parts and equipment interested in working with KADDB. 2.All high consumption spare parts and components.	1. Lucas, Smith Manufacturing Pty, Leoni AG, Bosal NV, Llanelli Radiators (Calsonic Kansei) 2. Large Parts Distributors operating in Europe: -ADI (Auto Distribution International) -Group Auto Union -Auto Teile Ring International -Temot International (in EU and USA) -Unipart -Multipart (trucks) -Brown Brothers -Cecauto -Carda -Copafa
	3.Providers of services - distribution and/or repair for the aftermarket	Fast -fit, Retail Chains and DIY shops: -Euromast (1200 outlets) -Norauto (200 outlets) -Kwik-fit (2000 outlets in UK, France and Germany) - owned by Ford -Rapid Fit (Ford) -FeuVert -Aurgi -Halfords -Masterfit (Vauxhaul) -Maxauto -Charlie Brown Hypermarkets: -Carrefour -Midas -Leclerc

5.9 Action Plan (JIB) - Automotive Sector

Action 1: Management	Responsibility
■ Select team members - Research (1), Promotion (3) ■ Establish Training Plan aiming at excellence ■ Prepare operating manual for JIB ■ Establish targets, timescales and review mechanisms, including budgets. ■ Share the promotion programme among Jordanian Industry ■ Establish reward programmes ■ Establish working group ■ Establish advisory group ■ Engage Jordanian Diplomatic mission support ■ Set up committee to attract assembly plant ■ Engage support of existing Jordanian companies: Petra, LG, Nuqul Group, TIG, Oryx, Magnesia ■ Develop initial promotion materials ■ Visit all EU commercial attaches in Jordan ■ Actively encourage the creation of the "Jordanian Automotive Components Association" ■ Deal with Policy advocacy issues ■ Creation of Jordan PLC ■ Follow on training: external consultancy ■ Review progress and adjust action plan	
Action 2 :Research	
■ Obtain comprehensive background information on automotive: - National and regional sales statistics - National and regional distribution networks - National and regional logistics for automotive - National and regional automotive and components, including ownership, size, production, technical/technological capabilities etc. ■ Target company lists broken down by country and component ■ General Servicing Information ■ Set up performance measurement system ■ Implement performance measurement Competitive Advantages: Benchmark Jordan against target E.U countries and five other competitors on selected components and on general production costs. ■ Monitor international media and trade press	

5. AUTOMOTIVE INDUSTRY

Action 3: Promotion	Responsibility
3.1 Image Building ■ Develop communication strategy, including selling messages -political stability, regional hub, success stories, etc ■ Develop list trade of press contacts ■ Establish media contacts ■ Plan year one press releases: Land Rover, Magnesium, Elba, Hoppecke, regional hub, KADDB ■ Produce promotional materials ■ Consider producing newsletter (but only if sustainable) ■ Produce company profiles **3.2 Investment Servicing** ■ Visit (background, intelligence etc) and document existing, on going and, if possible, future sectoral interests ■ Visit (as above) and document existing target country interests ■ Respond to enquiries generated and develop (multi-level) relationships, relationship selling, drip-feed selling, understand company politics and strategies, relate to Jordan, provide information of use to the company. This could be accomplished with the help of in situ consultancy services. ■ Plan and arrange company visits to Jordan tailored to investor's needs, to diminish investors fears and address other relevant issues ■ Hand holding and trouble shooting **3.3 Investment generation** ■ Establish multiplier contacts: - Diplomatic missions of targeted countries in Jordan - Large consulting and professional groups - Banking fraternity (Amman) - National Investment banks (Cofides, Finnfund, FMO, IFU, DEG/KfW, CDC, Proparco, FMO, Swedfund, Simest) - Bilateral Chambers of Commerce - Regional trade associations (Middle East Business Association, etc) ■ Establish Jordan Diplomatic mission contacts (In association with management) ■ Develop network of contacts: linkages with potential investors in the region (Land Rover, Ford, MAN, IVECO, etc) ■ Develop automotive trade associations linkages (VDA, SMMT, AICA, ANFIA, CCFA, FIEV, etc) ■ Arrange presentations to trade associations and cluster associations ■ Arrange missions to targeted companies: may be with the help of external consultancy ■ Direct marketing to selected companies: ie Land Rover contacts and those obtained from multiplier visits ■ Direct marketing to components groups: beginning with wire harnesses such as Valeo, Tyco electronics, Yazaki, SEI, Leoni, etc ■ Attend selected trade shows : Automechanika and IAA in Frankfurt, International Motor transport show in Paris, International Motor show in Birmingham, Barcelona Motor show, etc	

5. AUTOMOTIVE INDUSTRY

5.9.1 JIB AUTOMOTIVE PROMOTION ACTION PLAN

	2004				2005	2006
	Q1	Q2	Q3	Q4		
Management						
Select team members		○	●			
Establish training plan			●			
Prepare Operations Manual				●		
Establish targets, timescales, budgets, review mechanisms			●			
Promotion program to Jordanian Industry				●		
Establish reward programmes			●			
Establish Advisory Group			●			
Engage Jordanian Diplomatic mission support				●		
Set up committee to attract assembly plant			●			
Engage support of existing Jordanian industry				●	●	
Visit all EU diplomatic missions				●	●	
Encourage formation Jordan Automotive Trade Association				●	●	
Deal with Policy Advocacy issues				●	●	●
The creation of Jordan PLC				●	●	●
Follow on Training				●	●	●
Review progress and adjust action plan				●	●	●
Research						
Comprehensive background info on automotive			●	●	●	●
Develop and maintain target company database			●	●	●	●
Develop general servicing information			●	●	●	●
Set up performance measurement system			●			
Implement performance measurement system				●	●	●
Benchmark Jordan against competitors					●	
Monitor international media and press			●	●	●	●
Promotion						
Image building						
Develop comms strategy, selling messages, PR strategy			●			
Develop list of trade press contacts			●			
Establish media contacts			●			
Plan year 1 press releases - Land Rover, magnesium…				●	●	
Produce promotional materials				●	●	●
Newsletter? - if sustainable				○	○	○
Company profiles				●	●	●
Investment servicing						
Visit and document existing sectoral and geographic cos.			●	●		
Respond to enquiries			●	●	●	●
Plan and arrange company visits			●	●	●	●
Hand-holding and trouble shooting					●	●
Investment generation						
Establish multiplier contacts			●	●		
Develop regional network contracts			●	●		
Develop automotive trade associations and cluster links				●	●	
Arrange presentations to trade and cluster associations					●	●
Arrange missions to targeted companies					●	●
Direct marketing to selected companies					●	●
Direct marketing to component groups					●	●
Attend selected trade shows					●	●

● proposed action ○ possible action

6. ELECTRONIC COMPONENTS

6.1 Industry Overview

The electronics industry is one of the most important manufacturing sectors in the world in terms of market value, technology, R&D and innovation and employment capacity. The electronics industry has become a basic industry for all manufacturing sectors - from sophisticated industrial products to toys - and it is estimated to have a worldwide market volume well in excess of €1,000 billion. With the continuous rise in demand for electronic digital consumer products and the increasing trends in the market for telecommunications, information technologies, industrial products and automation, it would appear that the electronics industry will play a decisive role for many years to come.

For the purpose of this report, the electronics industry can roughly be divided into two sub-sectors:

1- Consumer electronics: TVs radios, CDs, audiovisual equipment, etc and some sophisticated washing machines, microwave ovens and air conditioners.
2- Electronic components: integrated circuits, connectors, diodes…..

In recent years the electronic components sector has being expanding activities in certain geographical locations depending on the technological content and the availability of local skills required at low labour rates. The most successful countries attracting and keeping FDI are those that managed, over the years, to disseminate knowledge and to progress to more sophisticated operations within the value chain. Countries like Malaysia, with more than 20 years of experience of FDI in the electronics component industry, reckons that with labour costs not surpassing 10% of total manufacturing costs for many enterprises, their success in continuing to be attractive to FDI compared to some of their lower costs neighbours is based on:

A An efficient supplier's network
B Quality systems
C Warehousing and logistics
D Purchasing and procurement systems
E Good production planning
F Good production engineering
G Capability to develop Information systems to implement traceability of production

6. ELECTRONIC COMPONENTS

The electronic components sector is a very competitive sector worldwide that, in order to prosper in a given location, should, in time, be able to acquire the know-how to move along the value added chain from low value added products to more lucrative value added activities such as:

1. R&D
2. Product design and innovation
3. Increasing quality and sophistication of products
4. High productivity through automation, best management practices, good utilization of resources.
5. Distribution and marketing

First Japan, then Korea and now China indicate that this approach to development, not just in the electronic components sector, is a good path to follow.

Jordan, with 22 universities and an open attitude towards development, is well placed to take advantage of the availability of qualified graduates[26] , not just in the electronics components sector but also in the more lucrative, know-how based provision of services in prototyping, software design and research and development. The setting up of contact centres for telecommunications companies and banks operating within the Arab world as well as offering professional services such as accountancy, law, etc, should also be one of the pillars of growth in the IT sector in general.

Last, but not least, is the importance of entrepreneurship for the development of the IT sector. The setting up of a special fund to help alleviate the problem of the high bank guarantees demanded by commercial banks should go a long way towards encouraging more entrepreneurs to come forward.

Another scheme to help entrepreneurs could come from the public/private sector, with the creation of "Cities for Innovation" where a [27]building equipped with all the necessary technology is made available at reasonable rental rates. The promoter of the "Cities for Innovation" could also make some financing formula available to the entrepreneur and / or secure a percentage of the new company[28] - or even take a percentage of sales - in compensation for providing the facilities.

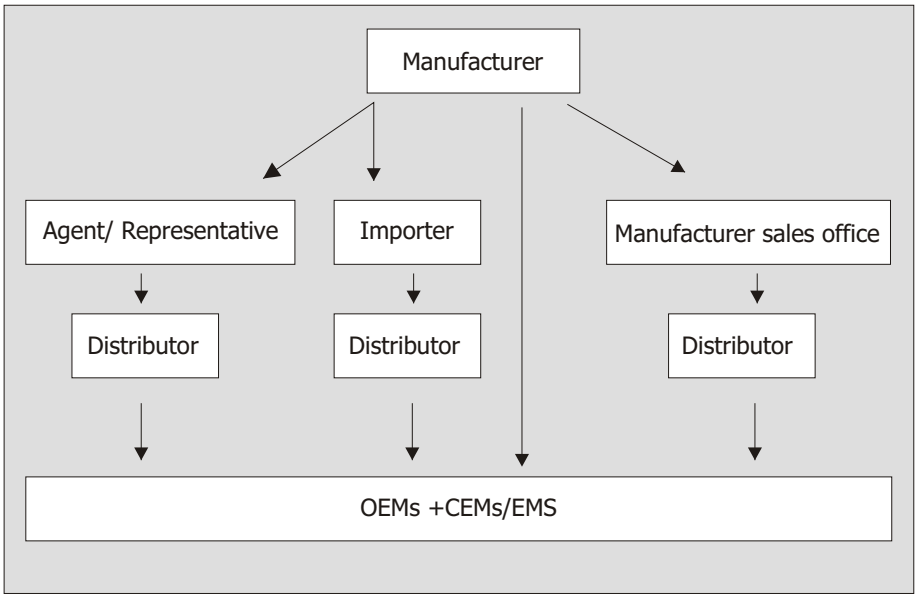
26 Up to 1600 graduate every year with an IT degree.
27 The building would be divided into industrial partitions of offices of between 20 m^2 and 100m^2 to be rented to the entrepreneurs.
28 Or any other formula

6. ELECTRONIC COMPONENTS

As outlined in the section dedicated to the automotive components sector, the placing of good students in training scholarships with international companies in the IT sector could have a very positive effect in the setting up of new enterprises.

Outsourcing of electronic manufacturing operations, which currently represent over 30% of operations, will probably increase considerably during the next few years. Contract Electronic Manufacturers (CEM) and Electronic Manufacturer Service chains (EMS) are continuously expanding the volume of their operations and outsourcing is central to the strategy for profitability and growth. Besides, in the European manufacturing context, high labour costs are pushing companies to concentrate in multilayer and fine line technology of PCBs, creating opportunities for companies operating in emerging countries to produce single and double-sided PCBs, in association with European and American companies.

In Europe, the typical distribution system for electronic components is represented below:



6. ELECTRONIC COMPONENTS

In recent years, the operations of EMS companies worldwide have been growing faster than Contract Electronics Manufacturers and the market is dominated by American based companies[29]

EU Electronics Statistics

Market electromechanic components EU15 1999-2002 € billion

	1999 €	2000 €	2001 €	2002 €
Austria	0,28	0,30	0,26	0,27
Belgium	0,26	0,28	0,31	0,32
France	1,40	1,59	1,71	1,84
Germany	4,48	4,69	4,70	4,94
Italy	0,86	0,87	0,90	0,93
Netherlands	0,27	0,30	0,30	0,32
Spain	0,37	0,40	0,39	0,41
UK	1,85	2,06	2,22	2,30
Subtotal	**9,77**	**10,49**	**10,79**	**11,33**
Rest EU 15	2,16	2,43	1,64	1,72
Total	**12,57**	**13,61**	**12,43**	**13,05**

Source: EU Market Survey 2002- Electronic components, CBI Netherlands

Market passive components EU15 1999 -2002 € billion

	1999 €	2000 €	2001 €	2002 €
Austria	0,16	0,19	0,19	0,19
Belgium	0,22	0,22	0,16	0,16
France	0,94	1,14	1,02	1,10
Germany	1,45	2,05	2,29	2,32
Italy	0,22	0,25	0,25	0,25
Netherlands	0,29	0,30	0,31	0,32
Spain	0,18	0,20	0,19	0,20
UK	1,13	1,33	1,34	1,40
Subtotal	**4,59**	**5,68**	**5,75**	**5,94**
Rest EU 15	0,35	0,41	0,41	0,42
Total	**5,26**	**6,43**	**6,16**	**6,36**

Source: EU Market Survey 2002 - Electronic components, CBI Netherlands

29 Out of the 100 largest EMS companies operating in the world, only 4 are European and 10 are Asian.

6. ELECTRONIC COMPONENTS

Market active components EU15 1999 - 2002 € billion

	1999 €	2000 €	2001 €	2002 €
Austr	0,59	0,74	0,79	0,85
Belgium	0,37	0,41	0,73	0,79
France	4,84	8,19	8,62	9,41
Germany	8,26	12,26	12,91	14,12
Italy	1,39	1,46	2,15	2,40
Netherlands	0,93	1,21	0,97	1,11
Spain	0,83	0,89	0,99	1,06
UK	9,11	10,98	10,36	11,10
Subtotal	**26,32**	**36,14**	**37,52**	**40,84**
Rest EU 15	3,97	5,93	5,23	5,69
Total	**31,87**	**44,18**	**42,75**	**46,53**

Source: EU Market Survey 2002 Electronic components, CBI Netherlands

Market electronic assemblies (CEM) EU15 1999 - 2001 € billion

	1999 €	2000 €	2001 €	2002 €
Austria	0,92	1,26	1,49	
Belgium	1,07	1,46	1,72	
France	11,73	15,92	18,79	
Germany	19,78	26,16	23,78	
Italy	4,90	6,79	8,06	
Netherlands	1,85	2,52	2,99	
Spain	1,40	1,94	2,41	
UK	17,15	23,00	26,87	
Subtotal	**58,80**	**79,05**	**86,11**	
Rest EU 15	13,20	18,17	21,49	
Total	**71,14**	**97,06**	**114,82**	

Source: EU Market Survey 2002 Electronic components, CBI Netherlands

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EU Imports of electronic components

	World (Million US $)					Developing Countries (Million US $)				
EU imports of electronic components	1997	1998	1999	2000	**Trend**	1997	1998	1999	2000	**Trend**
Electronic assemblies	15,567	18,671	18,984	21,212	11%	3,770	6,457	5,880	5,571	19%
Active components	11,298	12,042	21,099	34,718	49%	2,798	3,203	5,580	7,980	44%
Electromechanical Components	3,559	3,852	3,148	4,688	13%	500	614	499	610	9%
PCB	1,524	1,749	1,440	2,421	22%	308	467	311	567	34%
Passive Components	3,404	3,493	4,639	9,030	43%	705	727	1,333	2,898	68%

Source: EU Market Survey 2002 - Electronic components. CBI Netherlands

As the above table shows, the EU market for electronic components from developing countries has continued to grow during the past 5 years. The two sections that, in principle, are of the greatest interest to Jordan (PCBs and Electromechanical components) have experienced healthy increases of 34% and 9% respectively. It is expected that the market for these components from developing countries, especially for PCBs, should continue to expand as European manufacturers switch to producing fine line circuits. Electronic assemblies, such as basic TV sets, could also offer good opportunities for exports for Jordanian companies, particularly for companies like LG (Middle East Complex for Engineering, Electronics and Heavy Industries PLC) as its production increases and its exports to the European market though their partnership with Haier Europe increase.

6.2 Electronic Components Industry in Jordan: An Overview

At present the electronic components industry in Jordan is restricted to a very limited number of companies. Factors which have prevented the development of this industry in the past are the absence of a large internal market, the lack of companies capable of exporting their products in sufficiently large numbers and the high labour costs relative to some of the emerging countries that assemble most of the low quality electronics. However, the emergence of Jordanian companies with the critical mass and an exporting mentality could alter this equation.

Another factor that could very well favour the development of a Jordanian electronic components industry is the vigorous growth being experienced by the telecommunications industry in the country. The projected development of the automotive parts industry should also provide an impulse to the electronic components sector in Jordan.

Four companies were visited in this sector:

Oryx, a joint venture company (Jordanian and Irish capital) set up in 2003. The company is trying to introduce electronic bill payment systems and electronic mobile telephone rechargeable machines.

The company employs 20 electronic engineers and concentrates in high value added services such as design of electronic circuits for Hatif Telecom and all the design and prototyping.

Hatif Telecom, the only company in Jordan making telephone sets for the home market, is also part of the group of companies that include Oryx and other operations in Egypt. The company assembles a low volume of sets using a manual assembly line. They do, however, have a pilot line to assemble electronic components for prototyping and small-scale operations. Insertion of components is manual. Their low volume - they cater primarily for the local market - does not allow automation and they find production costs in Jordan are considerable higher than in Egypt. The current import duty on parts used on cordless telephones prevents them from doing any assembly in Jordan and consequently restricts their competitiveness on the market. They import the complete set, which is exempted from paying any import duty.

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Century Electronics is a private company, which was set up 8 years ago to assemble printed circuits and boards for Motorola. They have two production lines and appear geared to produce fairly small production batches. Their work is not on a continuous basis. Despite being a very flexible company and having a loyal and dedicated workforce, lower prices from Chinese and Mexican companies have prevented them from obtaining clients other than Motorola. The company does not have any design capability and finds it difficult to compete due to a combination of higher salaries than its competitors and low volumes of production.

LG: The company is a joint venture of Jordanian capital and LG from Korea. They have been producing a range of TV sets under licence from LG since 1991. They import tubes from China and yokes from Egypt but carry out all the injection moulding, including push buttons and assembling - manually - and testing of their electronic circuits. The company has expanded greatly and is aiming to reach a production of 1.0 million units per year of which 70% goes for export to the regional market. They have recently formed a joint venture with the Chinese company HAIER to produce a range of TV sets and, due to the projected growth, they are in the process of purchasing an assembly line from China to assemble their printed circuit boards (PCBs).

With volume on their side, they find that the savings on transport due to the difference in volume of plain boards and finished PCBs justifies the setting up of the automatic insertion line in the medium term[30] . But the management of LG is aware that the great value for the company will be in the increase of the Jordanian value added in their products and the upgrading of their engineering capabilities to develop their own products in the future.

LG has plans to sell their products in the European markets, and they are upgrading their manufacturing installations, manufacturing standards and know-how capabilities with a view to increase the value added to their products and the percentage of Jordanian content. The new investment in the production line for PCBs shows their commitment to these goals.

30 The company expects to have a utilization rate for the PCB line of 40 to 50% during the first two to three years

Once the insertion line is fully operational they are also carefully monitoring the fast growth of the telecommunications market in Jordan and the neighbouring regional markets, with a view to be able to assemble boards for telephone exchanges, and other products, for the Jordanian market and for the export market.

Petra: This company produces a complete range of high quality air conditioning units for the world markets. Founded in 1987, the company has grown to employ 1,000 workers[31] and produce very sophisticated units in an integrated factory on the outskirts of Amman. Given the small size of the Jordanian market, they concentrate on export markets and currently export to 40 countries. Their main market is the USA where they have recently captured some emblematic contracts and they are hopeful that they can increase their exports by 300% to that area within the next few years.

The company is well run and has a global vision. They are aware of the disadvantages that the poor image of Jordan as a provider of quality, sophisticated products may have for their business and have taken steps to correct this perception by striving for excellence in all operational aspects - human resources, design, quality of products manufactured, and service. The results achieved in a relatively short period of time are remarkable and a great credit to the company.

Because of their engineering skills and their integrated manufacturing structure, Petra can provide a very flexible service, tailored to their clients' needs. The company competes on quality and not on price and strives towards excellence. Petra designs and assembles all the electrical control systems for their installations and also designs and tests the electronic printed circuits needed on their machines, although they import the completely assembled units from Italy and USA.

31 Of which 150 are qualified engineers

6.3 Opportunities in Jordan

Despite the fact that very few companies in Jordan have any experience in the field of electronic components, there are strengths that, given the right strategy, could well make the sector an important contributor to the Jordanian economy in the future including:

- Human resources: 22 universities with an annual output of 1600 IT graduates
- Leading companies with global vision

These are assets that should favour the development of the electronics components industry and make Jordan[32] an attractive location for FDI in the sector. Jordan may have a small internal market and little industrial background, but, as some local industries have shown, success can be achieved if a strategy is in place aiming at:

- Understanding the handicaps faced by Jordanian products and services
- Global vision
- Striving for excellence
- Competing on quality rather than price

The electronic components industry in Jordan would benefit from a good industrial base and the existence of local know how. Manufacturing of electronic components, other than connectors, transformers and other electromechanical devices, would appear not to be viable in the short to medium term. Higher costs than in countries like India, Vietnam and China for cheap components and Malaysia, Singapore and Mexico for more sophisticated components and components and PCBs mean tough competition. Furthermore, attempts to produce quality PCBs in Jordan have not been successful, as the operations did not achieve:

- Critical production mass (lack of markets and clients)
- Technological input on the product
- High production costs.

32 Jordan has industrial quantities of very pure Silicon mineral that could be used to produce solar cells, and electronic components.

6.4 Strategy to Develop an Electronic Components Industry in Jordan

Independently of the not so positive experiences of the past and the apparent lack of experience in the sector, and also the possible FDI that could come to this sector, there are several companies in Jordan that could change this situation. These companies, most notably LG/HAIER have the necessary expertise and are achieving the fairly large volumes necessary to support an operation of PCBs assembly and inspection. Furthermore, as the company moves along the value added chain and increase their technological input on the products they make, the flexibility used to produce quality PCBs should prove very valuable. In the future, LG may consider spinning off the PCBs operation to make it more responsive to market and manufacturing trends and needs.

The rapid development of the telecommunications industry, including internet services and commerce, banking sector and software development, in Jordan, should also make a positive contribution to the growth of the market for electronics components sector. However, even with large internal demand, a viable PCBs assembly can only prosper if the regional and world markets are considered.

As the trend for European companies to switch to fine line circuits increases, the pressure to outsource production of PCBs from third countries will also increase. This process should also bring with it opportunities to forge alliances between Jordanian companies with large corporations and also SMEs operating in the sector. However, this process, that could help a cluster type development of the sector in Jordan, should be directed, with the help of the leading Jordanian private companies, towards a model more suited to Jordanian conditions[33] . The model should be capable of integrating some of the Jordanian strengths, such as human resources, in order to increase value: Design and Prototyping, software development, setting up of research and development centres and contact centres, are but some of the activities that could be encouraged. These activities would greatly benefit SMEs, which, despite their low profile in a world dominated by the big names, constitute the backbone of the industry the world over.

33 In order to avoid, where possible, that only the "labour added content" be added to the product in Jordan. Given the higher manufacturing costs prevailing in Jordan and, in many cases, the lack of a proper industrial base, could make operations based on this model uncompetitive, unless undertaken in Free Zones and large investments are undertaken to cater for a world market.

6.5 Strategy to Attract Investment in the Electronic Components Industry: Threefold Approach

Threefold approach: All three approaches should be pursued simultaneously

Approach/Objective	Agent	Activities
Approach 1: 1.1 Attract a leading electronics firm or software development company to set up a manufacturing operation or R&D centre. Given the rapid expansion of the telecommunications industry in Jordan, this company could be associated to one of the telephone operators.	1.Contacts at very high political/ diplomatic level 2. Leading Jordanian companies or entrepreneurs **(LJCE)** willing to invest in the sector	This could be a long term process in providing results, but it is not impossible if determination, vision, opportunity, funds to invest, good information package, and the right contacts exist.
Approach 2: 2.1 Direct approach to targeted companies that require to move production of less technologically advance products to a cheaper location. Generally these companies are medium size and have experience of international markets, and international distribution channels.	1. LJCE + JIB, EJADA + External Consultancy services	**LJCE:** Contact with individual companies to form partnership or business associations to set up manufacturing operations in Jordan (with or without the help of JIB, etc). In some cases, the association could start as a commercial venture for Jordan or the region, with product integration activities developing later. **JIB+EJADA:** **A. Information Material** 1.Create quality presentation material about Jordan as a country ready to do business. 2.Quality presentation tailored to the electronic components sector (Outlining opportunities). 2.Commission a study of the competitive advantages of Jordan - on several selected products or components - benchmarking Jordanian costs against some targeted European countries plus Turkey and five or six possible competitor countries.

Approach/Objective	Agent	Activities
		3. Prepare comparative, accurate information about production costs in Jordan and other countries -European, Middle Eastern, China, Brazil and Mexico - which should be regularly updated (every six months). 4. Provide information about Jordan's legislation favouring investment, non double taxation agreements and incentives to invest, such as tax advantages, financial help, grants, etc 5.Select target markets **B. External Help (Consultancy)** 6. Select sectoral associations and companies. 7. Direct mailing campaign + e-mail communication. 8. Approach and visit selected associations (as information multipliers) and, more importantly, individual companies. 9. If company shows any sign of interest, build relationships and trust with company representatives through continuous follow-up and provision of information. 10. When time is right, invite company representatives to visit Jordan - at their own expense - in order to introduce them to Jordan, Jordanian institutions and companies, possible partners, etc. 11. Pursue a decision to invest in Jordan. Continue with periodical follow-up. 12. Organise, at periodic intervals, promotional/Presentation Seminars of the Competitive Advantages of Jordan to Automotive manufacturers organizations, Business associations, prestigious Business Schools. These seminars could, and should, cover more than one sector
2.2 Approach companies, generally medium size companies with considerable international operations that own their own technology and are looking for opportunities to enter the regional market.	1. LJCE + JIB + EJADA + Consultancy services	**LJCE:** Contact with individual companies to form partnership or business association to set up manufacturing operations in Jordan (with or without the help of JIB, etc)**.** **JIB+EJADA:** 1. Information material 2. External Help (Consultancy)

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Approach/Objective	Agent	Activities
Approach 3: 3.1 Build on existing and future capabilities: Manufacture an increasing number PCBs to supply export markets of local companies such as LG/Haeir and, on small scale, even KADDB.	1. Entrepreneurs, Leading Jordanian companies (LJCE), JIB	1. It should be possible to manufacture PCBs to supply the needs of a growing export market for products produced by LG/Haier and Hatif. This would considerably increase the Jordanian value added of products assembled in Jordan and would also increase and disseminate the know-how base on to R&D and testing.
3.2 Set up the **"Jordanian Electronic Components Manufacturers Association" (JECMA)** to promote collaboration among manufacturers of components and to promote export activities.	EJADA, Entrepreneurs, businessmen individual companies, External consultancy	2. Exchange of information, collaboration in Quality Certification of companies, Promotional Missions to open export markets, Testing, R&D
3.3 Once sufficient capability to produce high quality parts at competitive prices has been achieved, approach the large and medium distributor groups operating in Europe.		3. Engage in Export activities

6.6 Action Plan - Electronic Components

Action 1. Management	Responsibility
- Select team members -Research (1) and Promotion (3) - Establish training plan, with focus on on-the job training - Establish targets, timescales and review mechanisms, including budgets - Establish reward programmes - Establish working group, including private sector, intermediary organizations (Chambers of Industry, etc) and Public (ministries) sector representatives - Establish advisory group, private sector (the great and the good), academia, media and International - Engage the support of Jordanian diplomatic missions - Engage University support - Specialisations, research programmes, industry linkages - Establish political linkages to ensure political support - Establish reporting, review and progress systems - Review and adjust action plan - Establish mechanisms and linkages for policy advocacy issues - Work towards the establishment of Jordan PLC	

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Action 2. Research	Responsibility
- Obtain background information on electronic sector - National and regional sales statistics - electronic components and assemblies - National and regional distribution networks - National and regional logistics for electronics - National and regional electronics and component assembly companies -ownership, size, production etc. - National and regional subcontract companies (toolmakers, moulders, light metalwork fabrications, platers, painters, anodisers, etc) ownership, size, production - Statistics on skill availability in Jordan, including output of graduates - Target company lists broken down by country and component - General servicing information - Establish performance measurement system - Implement performance measurement - monthly reporting - Benchmark Jordan against targeted E.U. countries and five competitor countries - Monitor International media and press	
Action 3. Promotion	
3.1. Image building - Develop communications strategy for Jordan in general and for the electronics sector in particular - Develop selling messages -Political stability, hub for region, good business environment and investment climate, skill availability, success stories etc - Develop PR strategy and delivery mechanisms - Develop lists of trade media contacts - Plan year one press releases (Haier, Petra, Research programmes at Jordan Universities, – Oryx, KADDB, Arabization of Software) - Produce promotional materials - Consider producing a newsletter on the electronics sector in Jordan, but only if judged to be sustainable - Implement PR and communications strategy **3.2 Investment servicing** - Visit (Background, expansion, intelligence, etc) and document existing electronic sectoral interests - Visit (as above) and document existing target country interests - Respond to enquires generated and develop (multilevel relationships, relationship selling, drip-feed selling, understand company politics and strategies, relate to Jordan, provide useful information to companies - Plan and arrange visits to companies covering investors needs, investor fears and other relevant issues - Hand-holding and trouble shooting	

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Action 3. Promotion	Responsibility
3.3 Investment generation - Establish multiplier contacts - The diplomatic missions of targeted countries in Jordan - Large consulting and professional groups - Banking Fraternity (Amman) - National Investment banks (DEG/KfW, CDC, Proparco, Cofides, Finnfund, IFU, FMO, Swedfund, Simest) - Bilateral Chambers of Commerce (Arab - British Chamber of Commerce) - Regional trade associations (Middle East Business Association, etc) - Establish Jordanian Diplomatic missions contacts (in association with management) - Develop industrial linkages with potential investors in the region: Alcatel, Siemens, LME, Nokia etc. - Develop electronics trade associations linkages (ANIE (Italy), ZVEI/BE (Germany), Gixrel (France), Fapel (Netherlands), FEI (UK) - Arrange presentations to trade associations - Arrange missions - Direct marketing to selected companies, particularly those obtained from servicing and multiplier visits - Direct marketing to selected groups such as telecommunications, software customisation of - Arabisation related products, BPO / call centres, etc - Attend selected trade shows -Electronica and Produktronica in Munich, IEI in Paris, Simo, in Madrid, etc	

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	2004				2005	2006
	Q1	Q2	Q3	Q4		
Management						
Select team members		●	●			
Establish training plan, including on the job training			●			
Establish targets, timescales, budgets, review mechanisms			●			
Establish reward programmes			●			
Establish working group, including private sector			●			
Establish advisory group			●	●		
Engage Jordanian Diplomatic mission support				●		
Engage University support			●	●		
Establish political linkages			●	●		
Establish reporting, review and progress systems			●			
Review and adjust action plan				●	●	●
Establish mechanisms and linkages for Policy Advocacy issues				●	●	●
Work towards the creation of Jordan PLC				●	●	●
Follow on Training				●	●	●
Research						
Comprehensive background info on electronics			●	●	●	●
Statistics on skill availability			●	●	●	●
Develop and maintain target company database			●	●	●	●
Develop general servicing information			●	●	●	●
Set up performance measurement system			●			
Implement performance measurement system				●	●	●
Benchmark Jordan against competitors					●	
Monitor international media and press			●	●	●	●
Promotion						
Image building						
Develop comms strategy, selling messages, PR strategy			●			
Develop list of trade press contacts			●			
Establish media contacts			●			
Plan year 1 press releases - Haier, Petra…				●	●	
Produce promotional materials				●	●	●
Newsletter? - if sustainable				●	●	●
Company profiles				●	●	●
Implement communications program				●	●	●
Investment servicing						
Visit and document existing sectoral and geographic cos.			●	●		
Respond to enquiries			●	●	●	●
Plan and arrange company visits			●	●	●	●
Hand-holding and trouble shooting					●	●
Investment generation						
Establish multiplier contacts			●	●		
Develop regional network contacts			●	●		
Develop electronic trade associations and cluster links				●	●	
Arrange presentations to trade and cluster associations					●	●
Arrange missions to targeted companies					●	●
Direct marketing to selected companies					●	●
Direct marketing to component groups					●	●
Attend selected trade shows					●	●

● proposed action ● possible action

7. Investment Promotion Agency(IPA)Guidelines

7.1 Performance Measurement

Organisations such as IPAs need to ensure that their resources are being allocated efficiently over time and thus information on the performance of the institution is required. Such information is important for internal management and for those wishing to evaluate the performance of the organization. Information is required on both the activities undertaken by the IPA and the results that it has achieved; a performance measurement system is frequently used to provide this information.

Generally, IPAs need to be successful to receive the full support of national and regional political leaders and thus secure sustainable funding. Ultimate success for most IPAs will be measured by the amount of FDI that they are able to attract into the country, consistent with the economic and industrial development policies of the national government. Excellence in investment promotion or research or any of the other components of an IPA is not sufficient; these are all means to an end and the IPA will ultimately be judged on actual foreign investment inflows to the country.

The introduction of targets and monitoring instruments allow the management of IPAs to evaluate performance and also help to focus all staff within the IPA on the "raison d'être" of the organization and the goals to be achieved. Performance measurement is also a potentially valuable instrument for changing attitudes and mind-sets in the move to develop the culture required for a service and results oriented organization.

Performance targets can be mapped down to activity targets for departments and individuals. In many cases the activity targets can be achieved by simply performing a function. The production of a certain number of brochures for instance can be achieved by performing the assigned function. But the setting of overall performance targets and focusing the whole organization on their achievement helps to ensure that activity targets are directed towards the wider goal.

There is not one single performance indicator that can capture all the activities of an investment promotion agency. Many IPAs choose to measure some or all of, number of investment projects secured, amount of capital invested, number of jobs projected and value of forecast exports. Another decision is whether to include all foreign investment projects or just those in which the IPA played a significant role in the process.

Activity targets

The overall performance targets for an IPA can be supplemented with activity targets for departments (and further to individual executives). If achieved, these activities should lead to accomplishment of the overall targets. This framework ensures that the organization is working to the common goal of achieving the desired results. Also these targets are important tools for self-evaluation for the management team. Using these measures will provide each team with data to monitor performance of each team and fine-tune operations when necessary.

Activity targets should be set by departmental managers, agreed with the Chief Executive and allocated to individual executives. Suggested activity measures are shown below.

Section	Measure type	Measures	Frequency of review
Investment Servicing	Input	number of meetings with existing investors inward visits from potential investors arranged and implemented	Monthly Monthly
	Output	Number and type of inward visits number of new investment decisions	Monthly Monthly
Investment generation	Input	number of multiplier meetings arranged number of direct marketing initiatives arranged number of investment missions organized number of other promotional initiatives arranged	Quarterly Quarterly Quarterly Quarterly
	Output	number of enquiries generated assessment of effectiveness of promotional activities	Monthly Monthly
Image building	Input	promotional materials produced number of personalized presentations produced media releases produced and briefings given	Six months Monthly Quarterly
	Output	independent assessment of the country's image among the international investment communities being targeted	Occasional
Research	Input	research studies produced number of comparative studies produced	Six months
	Output	number of generation initiatives undertaken	Six months

7. Investment Promotion Agency(IPA)Guidelines

An example of how an IPA analyses its investment enquiries is given below. Such analyses enable the effectiveness and cost effectiveness of promotional initiatives and promotional expenditures to be made.

An analysis of an IPA's enquiries

The table below shows an analysis of the investment enquiries received by a UK Regional IPA during the six-month period ending in March 1999. The statistics include both domestic (from within the UK) and foreign enquiries. The breakdown is obviously directly relevant to the promotional strategy of the agency concerned. Although it is not possible to draw any meaningful conclusions in isolation, without reference to the Agency's promotional strategies and promotional expenditures, a number of interesting points emerge and are commented on in the notes. Another interesting statistic is that, based on past experience, the IPA estimates that the conversion rate of enquiries (i.e. the number of enquiries which are converted into actual investments) is in the region of 5%. In other words, they estimate that 20 enquiries must be generated in order to secure one investment.

Source of enquiry	Domestic	North America	Asia Pacific	Japan	Europe	Rest of	Total
Overseas offices[1]	-	18	12	6	21	-	57 (13%)
Direct[2]	94	7	2	-	7	1	111 (26%)
Telephone[3]	92	7	2	-	18	3	122 (29%)
Consultants	12	4	3	1	4	1	25 (6%)
Other multipliers[4]	32	8	7	-	5	2	54 (13%)
Web site[5]	10	17	2	-	8	1	38 (9%)
Recommendations[6]	2	-	-	1	-	1	4 (1%)
Seminars/exhibitions	9	1	-	-	3	-	13 (3%)
Total	251 (59%)	62	28 (6%)	8 (2%)	66 (16%)	9 (2%)	424

Notes

1. The agency has overseas offices in Europe, North America, Japan, and elsewhere in Asia that generated 13% of the total enquiries.

2. A large number (26%) of enquiries are received directly by the project executives within the agency. This is partly a reflection of the fact that the agency is well established, has a good reputation and a high profile, but more importantly it indicates that the project executives servicing and networking activities are effective.

3. The agency has a high profile and high awareness among potential investors as a result of its long track record and its long and sustained promotional program, including media relations, participation in exhibitions, brochures and advertising, although the amount of advertising that it currently carries out is very little. The result of this long-term promotional program is that it now receives a very high number (29%) of direct telephone enquiries.

4. The enquiries received from multipliers (including consultants which are shown separately) is 19%.

5. The number of enquiries arising from the web site is 9% of the total, with the main visitors being from North America, Europe and domestic (UK). The agency has however noticed that the number of enquiries from this source has increased significantly compared to the previous six months and expects the number to increase further in the future. Currently, it is their view that the quality of enquiries from this source is rather low.

6. The agency has a very good aftercare program in place and receives a small number (1%) of recommendations for potential investors from the existing investors in the region.

7.2 Guidelines for the Planning of Investment Missions

The objectives to be achieved from an investment mission will usually be some or all of those outlined in the box below:

Objectives
1. To identify new potential investors to Jordan. 2. To progress the projects of already identified potential investors. 3. To meet with companies who have enquired about, or are known to have an interest in, Jordan in relation to an investment. 4. To raise awareness of Jordan as a location for foreign investment. 5. To meet with the Head Offices of existing foreign investors in Jordan: (A) to learn of their experiences with their investment; (B) to encourage further investment; (C) to pick up intelligence on other potential investors to Jordan (other group companies, suppliers, customers etc.).

Looking at each of these objectives in turn and with a view to how these objectives might be achieved, the following can be considered:

1.The identification of new potential investors

(a)Arrange a (or a series of) formal presentation(s) to groups, identified through associations (eg (source country)/Middle East Trade Association, (source country/Arab Chamber of Commerce, Confederation of Industry,.....), through multipliers (eg Banks, Accountants...) or through other means.

(b)Arrange visits to multipliers such as banks, investment banks and accountants.

(c) Participate at a Trade Fair or Investment Forum.

(d)Arrange strategic advertising in appropriate business media.

(e)Arrange PR in the form of specific media articles.

2. Progress the projects of identified potential investors

(a) Include in the team individuals to cover the issues such as power supplies, property, suppliers or whatever, that are important to the potential investor.
(b) Include in the team an existing investor, with whom the prospect can be identified, to convey a positive message.

3. Meetings with enquirers

(a) Arrange a direct marketing initiative, either aimed at a sector (or series of sectors) or at a specific investment opportunity, well in advance of the mission in order to generate enquiries.
(b) Obtain, from the Investor Tracking System, details of all previous enquiries from the country to be visited.
(c) Obtain from the relevant Commercial Counsellor, or Jordanian Embassy, details of companies with an interest in investment in Jordan.
(d) Gain intelligence from the foreign Embassy in Amman on companies that might have an interest in investment in Jordan.

4. Raise awareness of Jordan as a location for investment

(a) Arrange individual interviews with journalists identified through previous contacts, through the foreign Embassy in Amman, through the Jordanian Embassy in the country or through other sources.
(b) Arrange a press conference for correspondents from the relevant media identified as above.
(c) Arrange for media coverage of any formal presentation or participation at a trade fair or investment forum.
(d) Arrange strategic advertising in targeted media identified as above.
(e) Arrange meetings with multipliers.

5. Visits to the Head Offices of existing investors in Jordan

(a) Identify existing investors in Jordan from the country to be visited.
(b) Visit the investment in Jordan for discussion with the management and arrange for the head office visit through the Jordanian subsidiary.

6. Visits to existing investors in Jordan

The aim of this activity is:

- To become fully familiar with the operations and experiences of the investor;
- To identify problem areas that can be resolved, either directly, in collaboration with other government departments or outside organizations, or through the policy advocacy activity;
- To encourage expansion and further investment in Jordan;
- To identify those companies which can be used as references with visiting potential investors;
- To identify success stories which can be used as case studies or examples in promotional materials;
- To identify suppliers, customers, and other companies that can be targeted for investment into Jordan.

8. Some Companies/Associations to be contacted in Automotive Components Sector

TIER 1 Companies	TIER 2 Companies	Associations
Autoliv	Grammer AG	APMA (Canada)
ArvinMeritor	AMES	CLEPA (E.U.)
Dana/Getrag Getriebe	Fersa	FIEV (France)
Decoma/ Magna	ACE Automotive Group	SERNAUTO (Spain)
Denso	Grupo Antolin	ACEA (Belgium)
Carlyle Group	Asientos Esteban/AUNDE Acter & Ebels GmbH (Spain/Germany)	MEMA (USA)
Continental AG	Gestamp Automocion (Spain)	ANFAC (Spain)
CTS GmbH	FAINSA	VDA (Germany)
Grupo Mondragon	FICOSA	FEBIAC (Belgium)
Cherry Corporation	Deissa (Spain)	AIA-SAP (Czeh Republic)
Behr GmbH & Co	Metzeler (Germany)	CCFA (France)
Hayes Lemmerz	Edscha (Germany)	Autotuojat r.y. (Finland)
HDO Druckguss- und Oberflächentechnik	Haldex Brake Products	ANFIA (Italy)
GKN Plc	Benteler Automobiltechnik GmbH & Co. KG (Germany	JAMA (Japan)
Faurecia	Ebersp?cher GmbH (Germany)	JAMA -Europe (Bruxelles)
Delphi	FICO Cables	KAMA (South Korea)
Inergy	Borgers	AIMA (Portugal
Lear	Continental Teves AG & Co (Germany)	AIA-ZAP (Slovak Republic)

8. Some Companies/Associations to be contacted in Automotive Components Sector

TIER 1 Companies	TIER 2 Companies	Associations
Linamar	Heinrich Gillet GmbH	OSD (Turkey)
Johnson Controls	Gates	SMMT (UK)
MAHLE	FTE Automotive	(AAM) (USA)
MBLenkngen	Hengst	(CEAGA)
Montupet	Ebersp?cher	
Cherry	Brembo	
Borg - Warner Automotive	Contitemic	
BSRS Restraint Systems	Hutchinson	
TRW Automotive	Bendix	
Tower Automotive	Plastic Omnium	
Siemens VDO Automotive AG	TI Group Automotive Systems	
Robert Bosch	Leipold	
Tenneco Automotive	Clairemont (Wiring)	
Tyssen Krup Automotive	Lander Automotive	
Pilkington	Oldbury UK Ltd (Trailers)	
VDO Instrument	Montenegro (Trailers)	
Sumimoto	John Dennis (Coachbuilders)	
Tyco Electronics	Castrosua (Coachbuilders)	
Valeo	Irizar (Coachbuilders)	
Visteon	Caetano (Coachbuilders)	
ZF Friedrichshafen AG	Hengst	
Freudenberg-NOK	Dytram	
Grupo Antolin	Swansea Industrial Components Ltd.	
Johann Borgers GmbH	Plastal	
Labinal Group	Plastic Omnium	
Magnetti Marelli	Venture	

8. Some Companies/Associations to be contacted in Automotive Components Sector

TIER 1 Companies	TIER 2 Companies	Associations
Magnetti Marelli	Venture	
HP-Chemie Pelzer	Weigl Antriebstechnik	
GmbH	Linnecross	
Leoni AG	Thermoplastics	
Eaton Controls GmbH	Dometic Gmbh	
Federal - Mogul	Airtex	
Air International	Relats S.A.	
Otto Egelhof GmbH	Frenco	
Timken Bearings	Grupo Copo	
Westcast	Aludec	
ZF Friedrichshafen AG	Zanini	

9. Some Companies/Associations to be contacted in the Electronic Components Sector

Acer	Dainet	Microsoft	Pentax	TDK
Akai	Elson	Minolta	Philips	Teac
Alcatel	Ericsson	Motorola	Pioneer	Vaio
Alpine	Fujitsu	NEC	Planar	ViewSonic
Asus	Fujitsu - Siemens	NEC-Mitsubishi	Rover Book	Murata
Benq	Hewlett Packard	Neovo	Samsung	Vishay
Canon	Hitachi	Nikon	SanDick	EvoxRifa
Casio	iRiver	Nokia	Sharp	Arcotronics
Compaq	JVC	Olympus	Siemens	AVX
D-Link	Kenwood	Palm	Sony	EPCOS
D-Pro	Matrox	Panasonic	SonyEricsson	Toshiba
Semiconductor Products Sector (SPS)	STMicroelectronics	Infineon	OKI Automotive Electronics	Temic/Daimler
Nippondenso	Continental Teves	Lucas Varity	Sagem	Clarion
Standex International	Toyota Tsusho	Micronas Semiconductor	Altis Semiconductor	Evox Rifa
Omron	Xenarc Technologies	Ami Semiconductor	Eems Spa	Atmel Corporation
Drake Automotive	TDK	Alden Products Co.	Schurter Electronic Components	Yazaki
Beru AG	KEMET	Walter Soehner	ON semiconductor	Terk Technologies
Erich Jaeger GmbH	IRC	MRP Electronics PLC	UMS	Advanced Circuits
Kostal Group	AB Automotive Electronics Ltd	Seag	SOISIC	Elbasa
EPCOS	ACME\Electronics	SOITEC	Tecnomec	Hughes Circuits

9. Some Companies/Associations to be contacted in the Electronic Components Sector

Important business partners: Electronic Components

Hyundai	Labtec	Thermaltake	Trascend	Intel	Roline	3 Com
DFI	Frontier	Terratec	Prolink	AMD	Power Color	BH Electronics

Important trade associations: Electronic Components

EECA	Intellect
ZVEI	ANIEL
FEEI	GIXEL
AGORIA	SITELESC

Appendix I

List of TIER 1 suppliers to VW TOURAN model range **Appendix I**

Product	Company Product	Company
Auxiliary belt drive system idler Gates Gasoline injection system Bosch Auxiliary belt drive system belt Gates Gear Shaft 02S 311 205 D K-W Weigl Antriebstechnik Auxiliary belt drive system tensioner Gates Gearbox bearings Woco All valve stem seals Freudenberg Gearbox housing to VW Kassel Guedel Frame gasket for double-clutch drive Freudenberg Heat shields Carcoustics Assembly bearings Woco Heat shields ElringKlinger Beading seals for the 2.0 diesel Freudenberg Heater pipes Benteler Bearings Dana Joint drive shaft bellows Freudenberg Belt tensioners Muhr + Bender Lead free clutch lining Aptec Reibtechnik Cam cover modules ElringKlinger Manual transmission Woco Camshafts ThyssenKrupp Metallic catalyst supports Emitec Charge air cooler Behr Oil "mist" separator Hengst	POWERTRAIN	

Appendix I

Product	Company Product	Company
Charge-airline Contitech Oil cooler lids/caps for diesel units Kurz Clutch Valeo Oil filter Hengst Clutch facings Valeo Oil tube Benteler Clutch housing to VW Kassel Guedel Wheel drive shaft Neumeyer Fliesspressen Clutch linings, supply as tier 2 to ZF Sachs Raybestos Piston for automatic gearbox Hutchinson/Paulstra Clutch master and slave cylinder FTE Automotive Piston rings Dana Clutch sets ZF Friedrichshafen Piston rings Federal-Mogul Complete hydraulic clutch actuation system FTE Automotive Pistons Federal-Mogul	POWERTRAIN	

Appendix I

Product	Company Product	Company
Complete timing system on 1.6I DOHC GDI BorgWarner Positive crankcase ventilation Alfmeier Coolant hoses Hutchinson Power train components Hella Coolant hoses Tekias Radiator bearings Woco Cooling fan Contitemic Radiator tank lower part Claas Fertigungstechnik Cooling water pipe Benteler Reservoir hose FTE Automotive Cooling lines Contitech Rotary shaft seals for the transmission Freudenberg Crankhousing ventilation Hengst Rubber-cog-belt Contitech Crankshaft bearing cover Kuepper Seal for transmission selector Hutchinson/Paulstra	POWERTRAIN	

Appendix I

Product	Company Product	Company
Crankshaft bearing cover Kuepper Seal for transmission selector Hutchinson/Paulstra Crankshafts ThyssenKrupp Seals for the water pump Freudenberg Cylinder head gasket Dana Secondary seals Reinz Dictungs Cylinder head gaskets ElringKlinger Shaft seal for output of gearbox Hutchinson/Paulstra Cylinder head seal Reinz Dictungs Shift lock magnet for A/T to ZF Lemf?rder Kendrion Binder Design acoustic engine covers 1.9 TDI + 1.6 MPI Weber Simmerrings for sealing the engine crankshaft Freudenberg Design covers for 2.0 TDI engines Seeber Spark plug locks FCI Automotive Deutschland Differential level pinion Holzer Zell Special purpose gaskets ElringKlinger	POWERTRAIN	

Appendix I

Product	Company Product	Company
Differential loop Kuepper Starter Bosch Diffusers Sarna Starters Valeo Dual mass flywheels ZF Friedrichshafen Swivel bearings to Lindenmaier Guedel non-production parts EGR-tube Benteler Timing belt Gates Engine bearings KS Geitlager Torsional dampers for gas engine CF Gomma Engine components for 74 Kw and 100 Kw TDI TRW Turbocharger Borgwarner Engine encapsulation Carcoustics Turbocharger hoses Teklas Engine mount Vibracoustics Turbocharger on 2.0-l diesel Garrett	POWERTRAIN	

Appendix I

Product	Company Product	Company
Exhaust gas actuator pv Siemens VDO Valve springs Muhr + Bender Flanges for differential ThyssenKrupp V-ribbed belt Contitech	POWERTRAIN	
ABS magnetic encoder Hutchinson/Paulstra Hytrel boots CF Gomma Axle shaft level pinion Holzer Zell Mounting plate left control arm Claas Fertigungstechnik Bearing bracket brake ThyssenKrupp Fahrzeugguss Mounting plate right control arm Claas Fertigungstechnik Bearing bracket steering ThyssenKrupp Fahrzeugguss Rear axle VW Braunschweig Bellows Woco Rear axle dampers Vibracoustic Brake booster Continental Teves Longitudinal control arm Vibracoustic	CHASSIS	

Appendix I

Product	Company Product	Company
Brake hose Continental Teves Rear axle spring steering arms Vibracoustic Caliper front axle Continental Teves Outside spring steering arm Vibracoustic Chassis bearings Woco Inside steering tie rod Vibracoustic Chassis components ZF Friedrichshafen Outside steering tie rod Vibracoustic Clamps Vibracoustic Inside transverse control arm Vibracoustic Connecting pipes Vibracoustic Outside transverse control arm Vibracoustic Console ThyssenKrupp Rautenbach Rear brake discs Fritz Winter Crossmember Kirchoff Automotive Rear control arms ThyssenKrupp Tallent	Chassis	

Appendix I

Product	Company Product	Company
Degas line for carbon canister Hutchinson Rear disc brakes TRW Diaphragms Contitech Rear shock absorbers Tenneco Disc Rafflenbeul Rear springs ThyssenKrupp Fill limit valve Alfmeier Rear wheel bearings SNR Roulements Frames left side Claas Fertigungstechnik Rubber boots at 100% CF Gomma Frames mounting plate front Claas Fertigungstechnik Shock absorbers ZF Friedrichshafen Frames right side Claas Fertigungstechnik Shock absorber boot Contitech Front axle Business Unit Braunschweig Sprocket wheel Holzer Zell	Chassis	

Appendix I

Product	Company Product	Company
Front axle subframe ThyssenKrupp Stabilizer bars Muhr + Bender Front break discs Fritz Winter Steering boot Contitech Front springs ThyssenKrupp Steering brackets ThyssenKrupp Front stabilizer bars ThyssenKrupp Strut mounts Teklas Front wall Claas Fertigungstechnik Subframe ThyssenKrupp Rautenbach Fuel components Siemens VDO Summer tire Continental Fuel filler module Alfred Engelmann Suspension springs Muhr + Bender Fuel filler pipe Kautex Textron Suspension strut mount Contitech	Chassis	

Appendix I

Product	Company Product	Company
Fuel filler modules Veritas Tie rods TRW Fuel lines Contitech Tires Bridgestone Fuel lines TI Automotive Underfloor panel Rieter Fuel supply units Siemens VDO Ventilated front brake discs Buderus Guss HA-subframes to Maha Korz Guedel Wheel bearings to Honsberg Lamb Guedel Hose clamps Muhr + Bender Electrical power steering gear ZF Lenksysteme	Chassis	
5 point eps connector to Sumitomo Walter Soehner Gateway [body electronics] Contitemic LHS 75 point connector climate control to BHTC Walter Soehner Headlamp leveller axle sensor Hella	ELECTRICAL /ELECTRONIC	

Appendix I

Product	Company Product	Company
RHS 75 point connector climate control to BHTC Walter Soehner Immobilizer components Delphi LHS 75 point connector heating to BHTC Walter Soehner Inclination sensor Delphi RHS 75 point connector heating to BHTC Walter Soehner Instant start system Iss for diesel vehicles Beru ABS electronics Siemens VDO Instrument cluster Siemens VDO ABS motors Valeo Instrument panel Johnson Controls Airbag control unit Siemens VDO Instrument panel switches TRW Airbag lead cords FCI Automotive Deutschland Knock sensor Siemens VDO Alternators Valeo Lead free core wires Drake Automotive	Electrical/Electronic	

Appendix I

Product	Company Product	Company
Audio amplifier Delphi Level control Siemens VDO Audio cd-tuner Siemens VDO Multicomponent diecast parts for electrical systems Veritas Battery Johnson Controls Batteries Europe Navigation system Bosch Battery cables Draka Automotive Oil level sensor Hella Cable holder Hellerman Tyton Radio key for the radio remote control system Hella Car radio Bosch Radio r100 Grundig Circuit board (tier 3/4/5) Seag Radio rcd 300 Grundig Comfort control unit Hella Reception systems Delphi	Electrical/Electronic	

Appendix I

Product	Company Product	Company
Crank- or camshaft sensor AB Elektronik Werne Rotary light switch TRW Screened and unscreened special wires Draka Automotive Seat adjustment switch Kostal Door electronic control unit Kostal Sensor wires Draka Automotive Door electronics Brose Several spark plugs NGK Electric motor for compressor Contitemic Side impact sensor Siemens VDO Electronic control unit for twin clutch (DSG) Contitemic Speaker for driver information and indicator sounds Digisound Electronic Engine management system Siemens VDO Speakers Bosch ESP Continental Teves Speed sensors in airbag system to Siemens VDO Analog Devices	Electrical/Electronic	

Appendix I

Product	Company Product	Company
ESP electronics Siemens VDO Stamped parts for fuse box as tier 2 KM Europa Metal Flat contact systems FCI Automotive Deutschland Sun sensor Hella Battery console bushing with 'drilling ring' Kerb-Konus-Vertriebs Temp sensor Siemens VDO Battery console: threaded bush in brass Kerb-Konus-Vertriebs Temperature sensor for climate control Hella E-box bushing in brass Kerb-Konus-Vertriebs Variable camshaft control Denso For the holder-e-box: threaded bush in brass Kerb-Konus-Vertriebs Wiring system Kroschu Fuse plugs Pudenz Wiring systems for fuel Veritas	Electrical/Electronic	

Appendix I

Product	Company Product	Company
Aerotwin wiper system Bosch First aid box Hans Hepp Back quarterlite Saint-Gobain Sekurit Fog lamps Hella Backlite (one fix and one movable) Splintex Front bumper structure Benteler Badge Hein Ulbrichts Wwe Front bumper Dynamit Nobel Corrosion protection Valvoline (Deutschland) Front door glazing Pilkington Door handle bracket Hüf Hulsbeck & Furst Gas spring for bonnet Stabilus Door hinge Edscha Gas spring for tailgate Stabilus Door latches ArvinMeritor Go-no-go spring lock systems FCI Automotive Deutschland	EXTERIOR	

Appendix I

Product	Company Product	Company
Door reflector FER Fahrzeugelektrik Headlamp lens cleansing equipment Hella Electric window regulators with anti-squeeze ArvinMeritor Headlights Automotive Lighting Electrodeposition coatings [ced] DuPont High mounted stop light Seima Exterior mirror system Alfred Engelmann Hood hinge Edscha Lockset Hüf Hulsbeck & Furst Sunroof Webasto Low/high gloss powdered c-pillar cappings Dura Automotive Body & Glass Tailgate closure system Tubsa Automocion Mirror integrated side repeater FER Fahrzeugelektrik Tailgate covering Polytec Radiator grille Gerhardi Tailgate hinge Edshca	EXTERIOR	

Appendix I

Product	Company Product	Company
Rear bumper Dynamit Nobel Tailored welded blanks [reinforcement tunnel] Euroweld Rear door glazing Pilkington Tool kit ThyssenKrupp Rear lamps Hella Washer wiper nozzles Siemens VDO Rear wiper arms and blades Valeo Washer wiper pumps Siemens VDO Side window assy [rear] incl. Encapsulation Dura Automotive Body & Glass Waterborne basecoats DuPont Quarterlite and front door fix glass Splintex Window frame Polytec Structural adhesives Sika Windshield Pilkington	EXTERIOR	
Part of selector lever handle Merkt Make-up lamp FER Fahrzeugelektrik	INTERIOR	

Appendix I

Product	Company Product	Company
Part of switch handles: aluminium trimmed with wood Merkt Manual seat height adjuster Brose Accelerator pedal module Hella Mechanical steering column lock Valeo Additional heater Webasto Mobile coupling rod Hellerman Tyton Air condition compressor Denso Mount for additional heater tier 2 Dometic GmbH Air distributors Olho Technik, Oleff+Holtman JV Mounting seat black FSN System Technik Arm rest with cup holder 3rd row of seats on the RHS Weber Mounting seat chromium plated FSN System Technik Ashtray in RHS door pocket in the 2nd row Weber Non woven materials: sound damping (tier 2) Eswegee Vliesstoff Bag holder Olho Technik, Oleff+Holtman JV Open shelf Sarna	INTERIOR	

Appendix I

Product	Company Product	Company
Boot floor, lower part Kendrion O-ring seals for the air conditioning system Freudenberg Center console Kendrion Overhead system Johnson Controls Complete door panels Seeber Parking brake Edscha Complete interior side panels Seeber Parking heater Webasto Components for seat structure as indirect supplier Dometic GmbH PTC additional heater Beru Console Georg Fischer Garching Seat belts TRW Curtain airbags TRW Seat frames Faurecia Disposal bowl right and left with cup holder Weber Seat tracks C Rob Hammerstein	INTERIOR	

Appendix I

Product	Company Product	Company
Dome lamps SLI Miniature Lighting Seatbelt guide ito Lenz, Kaemper GmbH & Co. Kg Door handle Olho Technik, Oleff+Holtman JV Seats for the third row Johnson Controls Door warning lamp FER Fahrzeugelektrik Sewing thread Amann & Soehne Film for dashboard Contitech Shelf center Sarna Front 'ash' systems in centre console Sarna Shelf in cover/panel center Sarna Front sign Sarna Shifter / push-pull cables Küster Automotive Control Sys Gear lever trim Olho Technik, Oleff+Holtman JV Slip rings for steering wheel KM Europa Metal Grips for third row seats Olho Technik, Oleff+Holtman JV Steering column Faurecia	INTERIOR	

Appendix I

Product	Company Product	Company
Handbrake cable Lenz, Kaemper GmbH & Co. Kg Steering column module Kostal Head rests Grammer Sun visors Intier Hole plugs TRW Tray with cupholder for 3rd row of seats Weber HVAC unit Valeo Variable loading trim Polytec Inside door control Olho Technik, Oleff+Holtman JV Various badges Sarna Instruction signs for seat adjustment CD Design Ventilators Olho Technik, Oleff + Holtman JV Interior reading lamp FER Fahrzeugelektrik Warning lamp Sarna Instrument panel support Benteler Window handle Polytec	INTERIOR	

Appendix 2

Automotive Component Suppliers

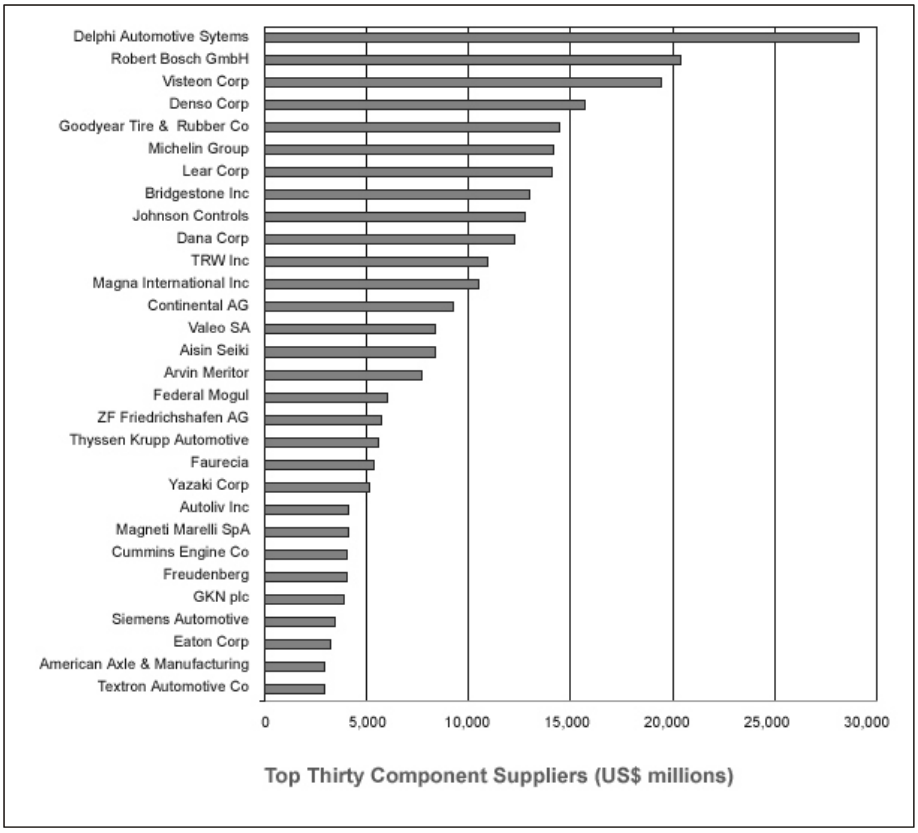
Top Thirty Automotive Component Suppliers by Turnover

Group	Turnover (US$ millions)	Employees (000s)	Country
Delphi Automotive Systems	29,139	211	North America
Robert Bosch GmbH	20,402	130	Europe
Visteon Corp	19,467	82	North America
Denso Corp	15,689	81	Japan
Goodyear Tire & Rubber Co	14,417	107	North America
Michelin Group	14,118	128	Europe
Lear Corp	14,073	120	North America
Bridgestone Inc	12,996	97	Japan
Johnson Controls	12,739	112	North America
Dana Corp	12,317	79	North America
TRW Inc	10,994	75	North America
Magna International Inc	10,513	63	North America
Continental AG	9,262	62	Europe
Valeo SA	8,363	75	Europe
Aisin Seiki	8,335	33	Japan
Arvin Meritor	7,722	36	North America
Federal Mogul	6,013	51	North America
ZF Friedrichshafen AG	5,685	32	Europe
Thyssen Krupp Automotive	5,601	40	Europe
Faurecia	5,355	32	Europe
Yazaki Corp	5,203	n/a	Japan
Autoliv Inc	4,116	28	Europe
Magneti Marelli SpA	4,082	24	Europe
Cummins Engine Co	4,050	17	North America
Freudenberg	4,000	23	Europe
GKN plc	3,898	22	Europe
Siemens Automotive	3,485	27	Europe

Source: Automotive World April 2001

Appendix 2

Component Suppliers Chart



Source: Automotive World

Appendix 3

Servicing Information Typically Requested by Companies in Relation to an Investment

General

- Geography, political, ethnic and religious groupings
- Populations and breakdown - age, sex, religion
- Maps
- Culture

Economy

- Economic history
- Economic structure
- Economic performance
- Investment ratings (Moodys, S&P…)
- Future prospects
- Inflation rates
- National Bank

Political

- Constitution
- Political history, structure and stability of country / region
- Political parties
- Attitude of government towards foreign investment
- Local political structures

Legislation

- Legislation, regulations and procedures applying to foreign investment
- Commercial legislation
- Intellectual property legislation
- Legal system, enforcement and procedures
- Settlement of disputes

Appendix 3

Finance

- National and local taxation regime
- Depreciation and other allowances
- Repatriation of profits
- Sources of funding:
  - Equity
  - Venture capital
  - Loan
  - Leasing
  - Overdraft
  - Trade finance

Interest rates

- Banking structures
- Transfer pricing regulations
- Investment guarantees
- Audit requirements

Currency

- Convertibility
- Stability (historical against major currencies)

Exports / Imports

- Support structures for exports
- Export credit guarantees
- Customs procedures
- Customs duties
- Chamber of Commerce structures
- Export quotas

Appendix 3

Property

- Legislation on land and property
- Ownership legislation
- Availability of land and premises (including details of utilities and transportation)
- Availability of EPZs
- Typical land and property costs (purchase and rental)
- Construction costs
- Planning permission requirements and procedures
- Environmental legislation and authority

Labour

- Demographics
- Skill availability
- Education institutes
- University structures and output of graduates
- Employment legislation
- Union structures and legislation
- Wage and salary rates, including on-costs
- Training support
- Training providers
- Recruitment support
- Recruitment companies
- Expatriate quotas
- Expatriate employment visa requirements

Transportation

- Availability - road, rail, air and sea
- Costs
  - sea freight e.g. a 40ft container from Amman to Rotterdam
  - Airfreight
  - Road freight
  - Rail freight
- Transportation times
- Transportation companies in Jordan
- Shipping lines serving Jordan
- Airlines serving Jordan

Appendix 3

Utilities

- Availability (power, gas, water)
- Cost structures

Telecommunications

- Details of providers
- Services available
- Costs

Suppliers / services

- Availability
- Professional services
- Availability of subcontract services
- Standards and certification capabilities

Raw materials

- Availability and costs

Lifestyle

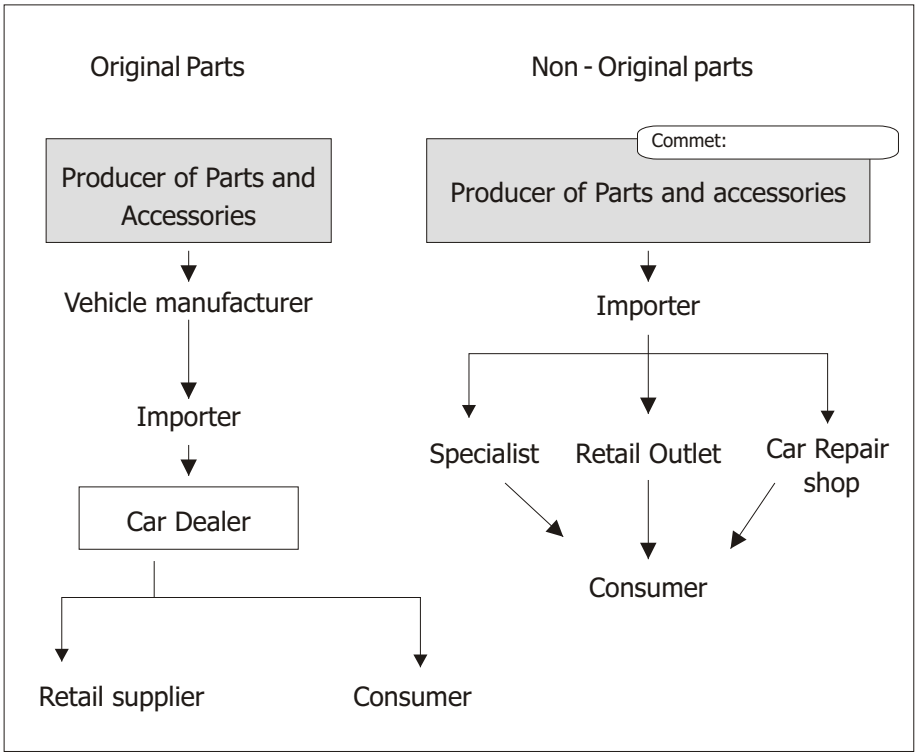
- Housing - availability and costs
- Schools - availability and costs
- Health care availability
- Leisure facilities available
- Residence-permit requirements and procedures
- Crime statistics
- Security needs and providers

Other

- Information on existing foreign investors, by sector and by country of origin
- Research institutes
- Corruption

Appendix 4

Generic Distribution Systems for Spare Parts and Components in Europe



Appendix 5

Organisations and Companies met

Ejada Amman +962 6 5657940	Ms Nesreen Barakat, Component Manager PSIS Mr Tahar Ben Amor, Expert, Policy support and institutional strengthening Mr Brendan Russell, Component Manager FSS
Jordan Investment Board Amman +962 6 5608400	Ms Reem Badran, Chief Executive Officer Mr Mazen Homoud, Deputy Chief Executive Officer Mr Fawwa Al Nahar, Promotion Department Director Mr Issa Gammoh, Senior Promotion Officer Eng. Abeer Al-Ahmad, Investment Promotion Officer Mr Adnan Alawneh, Economic Researcher Ms Sahar Hijazi, Senior Promotion Officer Ms Rania Soubar, Promotion Officer Eng Ghaith Sawalha, ICT Promotion Officer Mr Imad Ababneh, Studies Department Director Ms Suzan Saber, Legal Services
Technological Industrial Group Co Ltd Amman +962 6 4203155	Eng Nabil Kamal, VP-CEO, Technical Manager Dr Sami Kamal, Business Development Manager
Jordan Magnesia Company Ltd Amman +962 6 5691201	Eng Munther Saudi, General Manager
Executive Privatization Commission Amman +962 6 5678451	Ms Sireen Yashruti Hikmat, Communications Manager Mr Abdel Rahman El-Khatib
Ministry of Industry and Trade Amman +962 6 5629060 /137 Directorate	Eng Abeer Haj Hassan, Assistant Director, Industrial Development Directorate Dr Jamal Mahasneh, Head, Industrial Development
Jordan Institute for Standards ad Metrology Amman +962 6 56801390	Eng Salem Qulheiwi, Assistant General Manager Eng Rula Madanat, Director Information Centre
Bureau Veritas (BIVAC) Jordan Amman +962 6 5639100	Mr Brian Smith, General Manager Mr Vincent Travers, BIVAC International, Paris
Oryx Amman +962 6 5535393	Mr Amer Al Muhaisen, Chief Executive Officer
Hatif Telecom Amman +962 6 4884792	Mr Ayman Damiri, Factory Manager Mr Nidal Sowan, Quality and Sales Manager

Appendix 5

Fadil & Sons Co. Amman +962 6 4163051	Mr Fadil, Owner
T Gargour & Fils Co (Mercedes-Benz) Amman +962 6 4162410	Mr Nadim John Gargour, Chairman Mr Jeryes Turk, Service Manager
Shaheen Business & Investment Group Amman +962 6 5608777	Mr Hasan Mansur, Director Business Development
Olé Jordan (BMW Group Importer) Amman +962 6 5815500	Mr Mohammad Al-Zaro, Marketing Manager
AMIR Amman +962 6 5503050	Mr Brad Fusco, Manager Investment Promotion Subcomponent
Al Jidara Consulting Amman +962 6 5677908	Mr Lufti Sayegh, Projects Director Mr Gabi Afram, Senior Consultant
Century Electronics Irbid +962 6 7395209	Mr Agil Baidoun, General Manager
Irbid Filters Limited Irbid +962 2 7395335	Eng Badr Imreish, Factory Manager
Cableco Limited Amman +962 5 3650437	Eng Saber Hourani, Factory Manager
Central Bank of Jordan Department Amman	Mr Nabeeh Mousa, Head of Research and Studies
Jordan Aerospace Industries Amman +962 6 5560511	Mr Muayad Al Samaraee, President & CEO
Jemiss Company Amman +962 6 4027961	Eng Falah Abdul A,Al, Factory Manager
Mold Technologies Corporation Amman +962 6 4026898	Mr Nasser Kamal, General Manager
Nuqul Group Amman +962 6 465 2688	Mr Ghassan Nuqul, Vice-Chairman

Appendix 5

Darwish Khalili and Sons Co (LG) Amman +962 6 5827831	Mr Darwish Khalili, General Manager Mr Hisham Al-Thabbah, Assistant General Manager, Factories
Petra Engineering Industries Ltd Amman +962 6 4051055	Eng Omar Abu Wishah, Deputy Managing Director Eng Mohannad Abu-Bakir, Electrical Department
Haier Middle East Trading Co Amman +962 6 5515981	Mr Moiz Al Imam, Vice Chairman/ CEO
Al Jazy Shipping & Forwarding Amman +962 6 5662111	Eng Mohammed Al-Jazy, Director Mr Sabri Gharbieh, Freight Director
KADDB Amman +962 6 5627201	Mr Khalid Jamokha, Director General Eng Maram Samara, Marketing and Business Dev. Mr Moiz Samman, Director
KADDB Duleil +962 2 6256024	Dr Ghazi Khdairi, Deputy DG/ED
Amman Chamber of Industry Amman +962 6 4643001	Dr. Hatem Halawani , Chairman Mr Juma Abu-Hakmeh, Director General
Royal Scientific Society Amman +962 6 5344701	Dr. Naseem I. Haddad, Manager, Mechanical Design Ms. Abeer R. Arafat, Materials Engineer Mr. Samir Al-Qutub, Manager of Training Division Mr. Mazen Y. Salman, Manager, Electronic Services