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New Business Opportunities for EU Companies in the ASEAN area



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New Business Opportunities for EU Companies in the ASEAN Area

**How to Benefit from the ASEAN Integration:
An Investor's Guidebook**

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EUROPEAID
CO-OPERATION OFFICE

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LIST OF ACRONYMS

| | |
|----------|--|
| ASEAN | Association of South East Asian Nations |
| AIA | ASEAN Investment Area |
| 100%FO | 100% Foreign Owned |
| ACCSQ | ASEAN Consultative Committee on Standards and Quality |
| AEC | ASEAN Economic Community |
| AEPCIC | Automotive Electronics Parts and Components Industry Cluster |
| AFAS | ASEAN Framework on Services |
| AFTA | ASEAN Free Trade Area |
| AHTN | ASEAN Harmonised Tariff Nomenclature |
| AICO | ASEAN Industrial Co-operation |
| APEC | Asia Pacific Economic Co-operation |
| ASC | ASEAN Security Community |
| ASCC | ASEAN Socio-Cultural Community |
| ASEM | Asia-Europe Meeting |
| ASOCIO | Asian-Oceanian Computing Industry Organisation |
| ATCI | Association of Thai Computer Industry |
| ATSI | Association of Thai Software Industry |
| B2B | Business To Business |
| B2C | Business To Consumer |
| BIA | Brunei Investment Agency |
| billion | Billion |
| BILLIOND | Brunei Dollar |
| BOI | Board Of Investment |
| BTA | Bilateral Trade Agreement |
| CBU | Completely Built Up |
| CD | Compact Disk |
| CEPT | Common Effective Preferential Tariff |
| CKD | Completely Knocked Down |
| CMS | Contracting Manufacturing Services |
| CPI | Consumer Price Index |
| CPU | Central Processing Unit |
| CR Tube | Cathode Ray Tube |
| CTV | Colour Television |
| DTI | Department of Trade and Industry |
| EDB | Economic Development Board |
| EDP | Electronic Data Processing |
| EIU | Economist Intelligence Unit |
| EMC | Electromagnetic Compatibility |
| EMS | Electronic Manufacturing Services |
| EPE | Electronic and Precision Engineering |
| EU | European Union |
| FDI | Foreign Direct Investment |
| FTAs | Free Trade Agreements |
| GDP | Gross Domestic Product |
| GEL | General Exemption List |
| HCM City | Ho Chi Minh City |
| HDD | Hard Disk Drive |
| HS | Harmonised System |

| | |
|---------|---|
| IC | Integrated Circuit |
| ICT | Information and Communication Technology |
| IDA | Infocomm Development Authority |
| IDR | Indonesian Rupiah |
| IMF | International Monetary Fund |
| IPR | Intellectual Property Rights |
| ISIC | Information Seeking in Context |
| ISP | Internet Service Provider |
| IT | Information Technology |
| JETRO | Japanese Institute for Foreign Trade |
| JSG | Joint Study Group |
| JV | Joint Venture |
| KHR | Cambodia Riel |
| LAK | Laos New Kip |
| LCD | Liquid Crystal Display |
| LED | Light Emitting Diode |
| M&E | Machinery and Equipment |
| Maj JV | Majority owned Joint Venture |
| MFN | Most Favoured Nation |
| Min JV | Minority owned Joint Venture |
| MMK | Myanmar Kyat |
| million | Million |
| MNCs | Multinational Companies |
| MRAs | Mutual Recognition Arrangements |
| MSC | Multimedia Super Corridor |
| MYR | Malaysia Ringgit |
| NA | Not Available |
| NGO | Non-Government Organisation |
| NPLs | Non-Performing Loans |
| NTBs | Non-Tariff Barriers |
| NTBT | Non-Tariff Barriers to trade |
| OECD | Organisation for Economic Co-operation and Development |
| OEM | Original Equipment Manufacturer |
| OLED | Organic Light Emitting Devices |
| PC | Personal Computer |
| PCA | Post Clearance Audit |
| PCB | Printed Circuit Board |
| PCBA | Printed Circuit Board Assembly |
| PDP | Plasma Display Pools |
| PHP | Philippines Peso |
| PM | Prime Minister |
| ppp | Purchasing Power Parity |
| R&D | Research and Development |
| ROO | Rule Of Origin |
| SEC | Securities and Exchange Commission |
| SEIPI | Semiconductor and Electronics Industries of the Philippines |
| SGD | Singapore Dollar |
| SIP | Silicon-Inpackage |
| SITC | Standard International Trade Classification |
| SITF | Singapore Infocomm Technology Federation |
| SL | Sensitive List |
| SMEs | Small and Medium Enterprises |
| SOC | System-On-Chip |

| | |
|--------|---|
| SPETA | Singapore Precision Engineering and Tooling Association |
| STEER | Singapore-Thailand Enhanced Economic Relationship |
| TAPMA | Thai Auto-Parts Manufacturers Association |
| TEL | Temporary Exclusion List |
| TFT | Thin-Film Transistor |
| THB | Thai Baht |
| UK | United Kingdom |
| UNCTAD | United Nations Conference on Trade and Development |
| UNIDO | United Nations Industrial Development Organisation |
| US | United States |
| USD | United State Dollar |
| VND | Vietnam Dong |
| WGIPC | Working Group on Intellectual Property Co-operation |
| WIPO | World Intellectual Property Office |
| WLP | Wafer Level Package |
| WTO | World Trade Organisation |
| Wto | World Tourism Organisation |

INTRODUCTION

This Guidebook on New Business Opportunities for EU Companies in the ASEAN Area has been prepared under contract for the European Commission with funding for both the research and production financed by the Asia-Invest Programme of the EuropeAid Cooperation Office.

This Guidebook and the research behind it are the work of ECO CONSORTIUM. In the course of their research, the consultants had discussions in many key business centres of the EU Member States and ASEAN countries in order to validate current financial and factual information, and to gain an insight into the perceptions, motivations and experiences surrounding European investment and its potential in the ASEAN area from both viewpoints.

The Guidebook attempts to deal with the various topics that are likely to be relevant to potential investors and also includes useful internet addresses in order to allow investors to update their information.

The material in this Guidebook is solely provided for the guidance of those contemplating investment, but it is no substitute for professional advice, which should be sought before taking any specific action. The information in this document is believed to be correct as of December 2003 but no responsibility is taken for its accuracy.

This report has been produced with the assistance of the European Union under the Asia-Invest Programme. The views expressed herein are those of the consultant and can therefore in no way be taken to reflect the views of the European Union.



Asia-Invest: Building EU-Asia business partnerships

This publication is part of a series of studies supported by the Asia-Invest Programme, aimed at providing independent, detailed analyses of the business environment and trade and investment opportunities available in Asia.

The Asia-Invest Programme is an initiative of the European Commission to promote and support business co-operation between the EU and Asia. The Programme provides assistance to business organisations to facilitate mutually beneficial partnerships between companies, in particular small and medium-sized enterprises (SMEs), in the EU and South and South-East Asia and China; as well as to strengthen the business environment to increase trade and investment flows between the two regions.

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Executive Summary

1. ASEAN as a group of ten nations is a large, fast-growing, and relatively affluent market, characterised by a deepening trade integration and a growing outward reach to even larger markets (India and China). EU companies have a significant market share, but recent figures point to a visible decline. Most European companies operating in ASEAN are satisfied with their performances, and are expecting even better results in the years ahead.
2. During the 90s and early 2000s, and despite the negative impact of the Asian crisis in 1997-98, ASEAN has significantly moved towards an integrated trade area. The most visible advances have dealt with tariff reductions, with the average tariff rate for intra-ASEAN trade declining from 12.7% in 1993 to 3.2% in 2002, against a comparable average of 9.3% tariff protection for goods imported from non-ASEAN countries. 98% of all tariff lines are covered by the preferential tariff scheme. Non-tariff barriers remain substantial however, and slow progress is being made on customs and standards. The increasing intra-ASEAN trade and large intra-ASEAN investment lend comfort to the vision of a progressively integrated economic area, even though this integration is not opposed to a parallel extension of the region's trade relations and flows with other regions and notably China. This integration reflects the specific role of Singapore as a major trade and investment hub for the whole region. The next decade will be characterised by a combination of enhanced 'inward' integration, and a significant outward development with the other Asian areas.
3. The EU is a major trade and investment partner in ASEAN, just slightly behind the position of other leading industrial nations (USA and Japan). EU companies have been the largest foreign investors in ASEAN since the 1997-98 crisis, even though at much lower absolute levels than before the crisis, and with a visible re-orientation towards investments in financial services. This investment is concentrated in Singapore, and to a lesser extent in Malaysia, Indonesia and Thailand. The EU presence by sector mirrors this geographic concentration, with more than 40% of annual flows in financial services and 20% in manufacturing.
4. The EU as a group is among the largest trading partners of ASEAN, and has almost closed the previous gap with Japan, notwithstanding a decline in market share since 2000 to about 11% of total ASEAN imports. Total trade flows have been very sharply affected by the 1997-98 crisis, but have significantly recovered since 1999. EU trade with ASEAN remains concentrated on a limited number of products, on the export side in equipment and intermediate goods, and on the import side in electronics and, consumer goods.
5. The perceptions of EU companies concerning investments and operations in ASEAN vary widely. Awareness and attraction of ASEAN are very low at head office levels in Europe for small, medium and even large companies, while multinational companies are developing a much clearer ASEAN strategy. In parallel, perception "on the ground" is much more positive than in Europe, with obstacles clearly identified and understood (fragmented markets, exchange rate fluctuations, logistic issues, non-tariff barriers), favourable corporate performances, and expansion plans.
6. Indeed, ASEAN offers a wide range of opportunities for EU companies, both for meeting a growing domestic demand for progressively more sophisticated products and for serving as an export base to other destinations, Asia, the US or Europe. The selection of opportunities, especially so for small and medium size enterprises (SMEs), is a difficult exercise because such opportunities are mostly related to specific product characteristics and technical, managerial and marketing know-how. However, it is possible to conclude that food processing, electronics, mechanical engineering, automotive components, information technology and software, and tourism / leisure will be very attractive for foreign investors in the next few years.
7. Moving on to the next steps in investing in any promising sector in ASEAN and benefiting from the regional integration would inevitably require a thorough approach and investigation. Obstacles can be significant, but useful hints can be derived from the experience of EU investors operating in the region, notably how best to adapt to the regulatory and business environment. The definition of the optimal way of investing or benefiting from the positive economic and trade developments has to include the examination of the specific regulations and incentives in different countries, the cost levels and areas of competitiveness (labour, technology, capital intensity), and the overall quality of the business environment.

1. Why invest in ASEAN

Summary:

The process of internationalisation of production and trade facilities is a long-term one, and any European company, small or large, has to question its localisation strategies. Against this background, investing in the ASEAN region, in order to benefit from the regional integration process currently at work, does make sense.

ASEAN as a group of ten nations is a large, fast-growing, and relatively affluent market, characterised by a deepening trade integration and a growing outward reach to even larger markets (India and China).

EU companies have a significant market share, but with recent figures pointing to a visible decline, and a large effective presence in the region. Most European companies operating in ASEAN are satisfied with their performances, and are expecting even better results in the years ahead.

1.1. Size and Growth of the Regional Market

1.1.1. A Quick Introduction to ASEAN

The Association of South East Asian Nations (ASEAN) was formally launched at an inter-governmental meeting held in Bangkok on 8th of August, 1967. At this historical point of time, the initial objective of the five signatories (Thailand, Malaysia, Singapore, Indonesia and the Philippines) was very much political. For a long period, it remained so, and this is why, even today, it is still perceived as a predominantly political construction.

However, things started to change in the 1980s when China opted for a more open diplomacy and a strategy of integration into the world economy; as the bipolar world order collapsed in the 1990s, the initial focus on political co-operation within ASEAN also shifted to economic integration and economic policy issues. Nowadays, ASEAN's political content is balanced with repeated commitments and significant achievements in the field of trade and economic integration.

ASEAN today includes 10 member nations (in alphabetical order: Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam). It is a region of more than 500 million people with a combined GDP of over USD 530 billion that has considerable market potential and provides significant business and

Box 1.1. Chronology of Establishment and Expansion of ASEAN

- 1967 The Bangkok Declaration to establish ASEAN was signed by Indonesia, Malaysia, Philippines, Singapore and Thailand
- 1984 Brunei Darussalam joined ASEAN
- 1995 Vietnam joined ASEAN and acceded to all ASEAN Agreements
- 1997 Laos and Myanmar joined ASEAN and acceded to all ASEAN Agreements
- 1998 The Framework Agreement on the ASEAN Investment Area was signed by all Member countries and Cambodia acceded to the Agreement
- 1999 Cambodia became the tenth member of the ASEAN family and acceded to all ASEAN Agreements
- 2001 ASEAN made a declaration on Joint Action to counter terrorism
- 2002 A framework Agreement on comprehensive economic Co-operation was signed between ASEAN and the People's Republic of China, including a trade agreement targeting free trade between the two areas by 2010; an ASEAN Tourism agreement was also signed.
- 2003 During the Bali Summit, ASEAN political leaders re-affirmed their commitment to a deeper economic integration through a reduction in NTBs, a focus on 11 key industries, and a target date of 2020 for the ASEAN Economic Community (AEC). This was accompanied by enhanced "outward integration" (ASEAN-China, ASEAN-Japan, ASEAN-Korea and ASEAN-India agreements), and stronger political and cultural co-operation.

Table 1.1. ASEAN at a Glance: Short Comparison on Key Figures

| | For comparison | | |
|---|----------------|-------|----------------|
| | ASEAN | China | European Union |
| Total population (million) 2002 | 529 | 1 280 | 379 |
| Total GDP (billion of current \$) 2002 | 629 | 1 237 | 8563 |
| Per capita GDP (purchasing power parity ¹ \$) 2000 | 4 230** | 3 976 | 23 540 |
| Average GDP growth (1990-2002, %) | 4.8 | 9.7 | 1.9 |
| Average annual inflation (1990-2002, %) | 10.1* | 6.1 | 2.7 |
| Total imports (billion \$) 2002 | 411 | 326 | 2 793 |
| Average annual growth in imports (1990-2002, %) | 7.3 | 17.6 | 4.0 |
| Total imports from the EU (billion \$) 2002 | 39 | 32 | 1 361 |
| Total stock of Foreign Direct Investment (billion \$) 2002 | 306 | 448 | 2 624 |

* 1996-2001, ASEAN

** 2001

¹ Purchasing Power Parity (PPP) dollar is a commonly used measure that tries to capture the fact that one dollar spent in an industrialised country has a lower spending power than the same dollar spent in a developing country. GDP per capita in PPP \$ is therefore a more valid indicator of the actual level of economic development of a country than the GDP computed from market exchange rates.

Source: World Bank, UNCTAD, IMF-DOTS

investment opportunities. The summary Table below provides a short overview for the region as a whole, and more detailed country briefs are provided in Section IV of the Report.

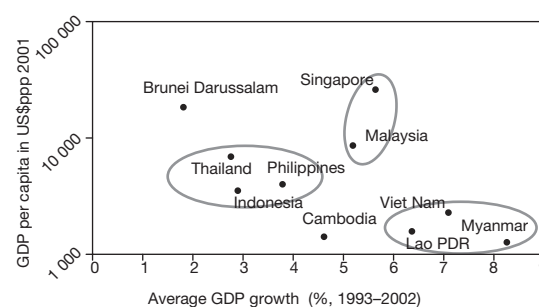
As in the case of most regional groupings, ASEAN is composed of countries that are not homogenous in economic and trade terms. A simple way to identify more homogenous sub-groups of countries is to look at both their level of development (as measured by per capita GDP in purchasing power parity dollar) and their growth performance during the past ten years (1993-2002).

The Chart below highlights very clearly three groups of countries: Singapore, and to a lesser extent Malaysia, are both more advanced in economic development and still registering high economic growth rates, notwithstanding significant cyclical variations, in part precisely because of their large openness to international trade; Brunei has also a high level of development, but should be seen apart as it is highly dependent on oil production and exports, and has not been able to transform its oil revenues into sustained economic growth during the past decade. A second group of countries includes those with a substantial level of development (intermediate position) and satisfactory growth rates of GDP, even though their performances were very seriously dented by the financial and economic crisis of 1997-98 (Thailand, Indonesia, the Philippines). Finally, most of the new members of ASEAN have a much lower level of development, but are registering high economic growth rates in a typical 'catch-up' process (Vietnam, Laos, Myanmar, Cambodia).

1.1.2. ASEAN is a Growing Market for International Trade

Despite having suffered a massive blow in 1997-98, and notwithstanding recurrent questions and alarming news on the region, ASEAN remains a major trading block in the world, with annual external flows of goods (excluding services) of more than USD 650 billion.

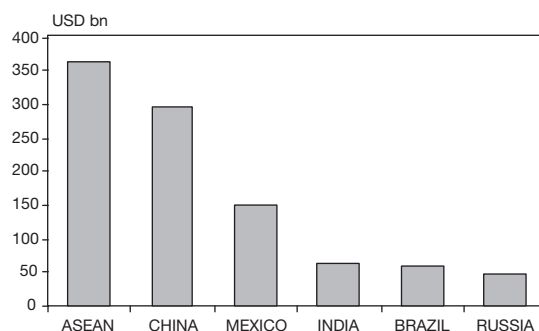
Chart 1.1. ASEAN Countries: Level of Development and Economic Growth



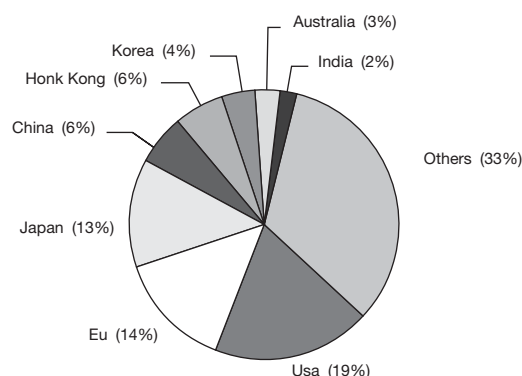
Source: World Bank, ASEAN, ISEAS, DREE. Computation by TAC

Total imports of merchandise into the ASEAN region reached USD 364 billion in 2002 (of which USD 86 billion of intra-ASEAN imports). They were still larger than China's imports (USD 295 billion), and way above that of Mexico (USD 152 billion), India (USD 63 billion), Brazil (USD 59 billion) or Russia (USD 46 billion). ASEAN countries are also leading exporters, both to industrialised nations (US, EU, Japan) and to other developing countries (rest of Asia, Africa, Middle East).

ASEAN Imports in comparison with other countries 2002



Source: IMF Dots. Computation by TAC

Breakdown of ASEAN Exports by partners

Source: IMF Dots.
Computation by TAC

These trade flows are sensitive to the world economic cycle as well as to domestic difficulties, as evidenced by the sharp fluctuations registered since 1993. Nevertheless, they have increased strongly during the past decade (+ 56%, for total ASEAN imports, between 1993 and 2002), and are expected to increase further in the next few years, as a result of their increased trade integration within the area itself, as well as its growing external reach, through improved trade ties with the whole Asian region (China, India, South Korea) as well as with broader economic groups (like APEC).

In terms of openness to international trade (and, correlatively, to international investment), Singapore is, not surprisingly, the most open ASEAN member, with total foreign trade amounting to more than 175% of GDP, and total foreign direct investment (FDI) representing about 120% of GDP. Malaysia and Brunei are in a distant second position on the global 'openness' scale, while, conversely, Myanmar and Laos are more "closed" economies than the rest of the group (foreign trade is below 30% of GDP). In-between are the other ASEAN nations, ranging from a moderate openness to trade but higher for FDI (Indonesia, Vietnam, Cambodia), to a higher openness to trade but smaller FDI (the Philippines, Thailand). Within ASEAN, only Vietnam and Laos are not WTO members¹, as of November 2003.

1.1.3. Growth Potential in ASEAN

An appreciation of ASEAN's economic performance is made more difficult by the immediate consequences as well as the aftermath of the severe crisis registered in 1997-98. Indeed, this crisis proved to be the most severe economic contraction registered by the region since independence days and the 1960s; its causes have been well documented, but remain however the subject of considerable debate and divergences of views. The most common argument explaining the run-up to the breaking point of July 1997² is a combination of corporate and banking issues at the micro-

¹ Cambodia is not yet a complete WTO member; Cambodia has completed negotiations for WTO membership and the request was approved in September 2003. However, in order to become a member of WTO, the Cambodian National Assembly will have to ratify the terms of accession.

² The crisis is usually dated as starting on July, 2, 1997, when the Thai authorities decided to stop intervening on the foreign exchange market and let the Thai Baht depreciate brutally.

economic level on one hand (poor governance, balance sheet structures favouring debt over equity), and high sensitivity to international capital flows against a background of excessive euphoria by major lending institutions, on the other hand. The post-crisis experience, from a macroeconomic perspective, prompts the following comments:

- All the countries affected by the collapse in GDP in 1997-98 have significantly recovered, even though they have not yet achieved the high growth regimes of the pre-1997 years, in part because of a much more subdued international environment.
- Many microeconomic issues have been tackled, even though again not to their fullest extent. Banks' portfolios of bad loans have been reduced and the banking institutions re-capitalised; the largest corporate debtors have gone through continuous balance-sheet restructuring exercises.
- These adjustments have been accompanied by two major shifts, one to structural surpluses on current account balances, and the other to an increased role played by regional trade and domestic demand, at the expense of trade with distant partners.

As indicated above, ASEAN today is a group of 529 million people sharing a total GDP of USD 630 billion. In volume terms (i.e. excluding inflation and exchange rate effects), this GDP has grown by 5.0% per annum over a long-term period (1980-2002), and by more than 41.9% in cumulative terms in the last ten years (1993-2002). During the post crisis period (1999-2002), the average growth rates of GDP and the various components of demand have been much more positive, considering that the international trade environment was not very conducive for open countries like ASEAN members:

Table 1.2. ASEAN Growth Rates

| (annual average, %) | 1999-2002 |
|---------------------|-----------|
| GDP | 4.1 |
| Private consumption | 4.6 |
| Investment | 2.9 |

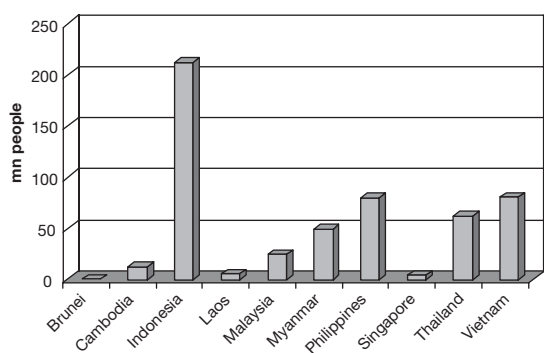
Source: EIU

The Charts 1.2 to 1.4 provide a short visual illustration of the economic size for the different ASEAN members, with indications of population, GDP per capita (on a PPP basis, see note 1), and an estimate of the number of households having an annual income above USD 5.000 (on a PPP basis). These three basic indicators are among the three key factors making ASEAN an attractive area for potential growth and investment.

In terms of population, Indonesia accounts for 40% of the ASEAN total. Among the ten members, three (Indonesia, Philippines and Vietnam) have populations above 80 million persons, and five (including Thailand and Myanmar) at, or above 50 million.

The levels of development and spending abilities of the ASEAN members vary widely. Even though this is sometimes mentioned as an obstacle for deep integration, it is also a very strong growth engine for the whole region. Indeed, the differences in GDP per capita clearly shows the

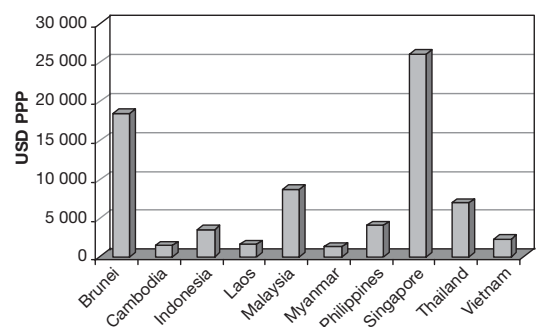
Chart 1.2. ASEAN Population



Source: World Bank

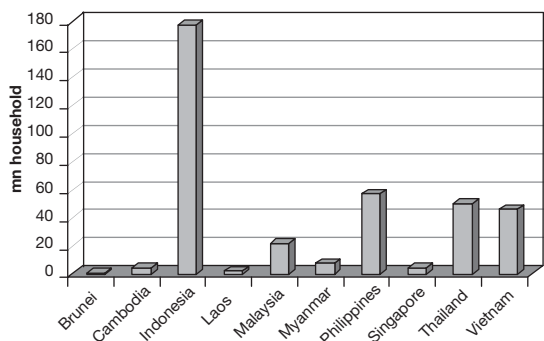
co-existence of highly developed and sophisticated economies (Singapore, and to a lesser extent Brunei and Malaysia), with mostly developing countries, at diverse levels of development and sophistication. As observed before, the low-income countries tend to enjoy faster growth rates in a classic “catch-up” process, and are therefore pulling the other areas forward as suppliers of manufactured goods or services, while also providing the other countries with low-cost production bases and cheap inputs in the value chains.

Chart 1.3. ASEAN GDP Per Capita (in \$ PPP)



Source: World Bank

Chart 1.4. ASEAN Estimated Number of Households having more than \$5,000 in Annual Income



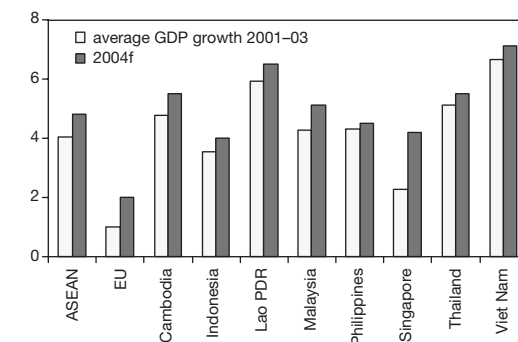
Source: World Bank

Chart 1.4, computed by an estimation of the distribution of national income and household structure, gives another in-

dication of the growth potential of ASEAN countries, by indicating the number of households having an annual income above USD 5,000: this is usually considered as an important threshold in terms of consumption patterns, with a lower share of income devoted to basic necessities, and a growing share to manufactured products, ranging from non-durable (clothing, cosmetics, processed food) progressively to durable equipment (furniture, motorcycles, cars). It is estimated that the total number of such households in the whole ASEAN region is above 70 million, with a concentration in 5 countries (Indonesia, Thailand, Philippines, Vietnam and Malaysia) and the specific case of Singapore.

A final summary representation (chart 1.5) provides the current view on short-term economic performance and prospect. ASEAN obviously offers much higher growth rates of activity than the more mature EU markets, and the short-term prospects indicate an improvement compared to the 2001-03 performances. Within ASEAN countries, the ‘new members’ will continue to enjoy faster economic development in a classical ‘catch up’ process, but the more mature economies will achieve real GDP growth above 4% in 2004.

Chart 1.5. ASEAN Countries: Short-Term Outlook (% Growth)



Source: World Bank, ASEAN, ISEAS, DREE
Computation by TAC

1.2. The Economic Integration of ASEAN

As indicated earlier, the development of ASEAN was initially founded on political objectives and regional factors, but it moved progressively into the economic and trade areas. Nowadays, the economic integration has come a long way, especially in trade and tariff regulations.

The ASEAN integration process is implemented through different and complementary initiatives and areas of co-operation, all of them aiming at providing an economic and regulatory environment that facilitates a greater ease of movement of goods, services and investment in the region. Trade and other facets of economic integration are seen as a way to enhance long-term economic growth as well as reinforcing the region’s attraction in terms of foreign investment.

1.2.1. Regulatory Environment Towards a Free Trade Area within ASEAN

Overall, ASEAN has significantly moved towards an integrated trade area. The most visible advances have dealt with tariff reductions, with the average¹ tariff rate for intra-ASEAN trade declining from 12.7% in 1993 to 3.2% in 2002, against a comparable average of 9.3% tariff protection for goods imported from non-ASEAN countries. 98% of all tariff lines are covered by the preferential tariff scheme. Non tariff barriers remain substantial however, and slow progress is being made in customs and standards.

The economic and trade integration within ASEAN is supported by a number of regulatory initiatives. The main initiatives of this integration can be listed as follows:

- The ASEAN Free Trade Area (AFTA): through the Common Effective Preferential Tariff (CEPT) scheme, tariffs in ASEAN were first reduced to 0-5 percent and later will be reduced to zero percent. By 2010 the six older ASEAN countries will reduce tariffs to zero percent for all products on the Inclusion List and by 2015 for the four new ASEAN members. This means that ASEAN is a region within which goods can flow freely with no internal import tariffs.
- The ASEAN Investment Area (AIA): the aim of the AIA is to enhance the competitiveness of ASEAN in attracting higher levels of FDI. The AIA reflects a concerted regional effort in promoting FDI to ASEAN. The key features include the agreement that industries are to be further opened up for investment and that national treatment is to be granted to investors in ASEAN countries. The AIA agreement was signed in October 1998 and has been actively implemented since 1999.

Schedule for application of national treatment for foreign investors

| | | |
|---------------------|---------------------------|------|
| ‘Old’ ASEAN members | For ASEAN investors | 2003 |
| | For all foreign investors | 2010 |
| ‘New’ ASEAN members | For ASEAN investors | 2010 |
| | For all foreign investors | 2015 |

- Regional Infrastructure Co-operation and linkages: infrastructure linkages include agreements for developing an ASEAN Highway Network, the Singapore-Kunming Rail Link, the trans-ASEAN energy network and the ASEAN Information Infrastructure; all these initiatives are underway.
- Co-operation in services: under the ASEAN Framework on Services (AFAS), the ASEAN countries have implemented a third round of negotiations in the opening up of seven specific sectors which started in 2002 and will be completed by 31 December, 2004.
- Trade facilitation and Customs Initiative: a number of trade facilitation activities are being implemented;

¹ All ‘average measures’ used in this paragraph refer to arithmetic unweighted averages.

among them are the ongoing efforts to harmonise tariff nomenclature and customs procedures, and the harmonisation of product standards and quality, including the implementation of an ASEAN Programme on Mutual Recognition Arrangements.

Trade is the most advanced integration aspect of ASEAN so far, especially in the area of tariff reduction. This has already been widely perceived by many multinational companies (MNCs), which have been designing strategies to benefit from these tariff reductions in ASEAN, but has not yet percolated down to medium size companies, let alone small ones. A plausible explanation for this lack of perception is probably that ASEAN does not have any ‘common external tariff’, and does not negotiate collectively for its members in international trade negotiations, two highly visible attributes of clearly identified “trade zones” as is, for example, the EU. However, this has not prevented the ASEAN countries from moving significantly in terms of tariff reduction, and at a more subdued pace for non-tariff barriers.

1.2.1.a. Current situation for tariffs

Tariff reduction in ASEAN is formally based on the progressive implementation of a wide-ranging set of commitments by each country on tariff reduction for trade between ASEAN members.

Tariff commitments in the AFTA process are defined and scheduled according to the following key concepts:

- **CEPT:** The Common Effective Preferential Tariff (CEPT) is the mechanism by which tariffs on goods traded within the ASEAN region, with 60% of inputs not originating from ASEAN, are reduced to 0-5% in 2002/2003 (2006 for Vietnam, 2008 for Laos and Myanmar, and 2010 for Cambodia);
- **Inclusion List:** refers to products for which tariffs have been lowered to 0-5% since the beginning of the implementation of the AFTA Agreement; the Inclusion List covers more than 85% of the total number of tariff lines in ASEAN, an average of more than 98% for the 6 ‘older’ members and about 60% for the 4 ‘newcomers’.
- **Temporary Exclusion List:** refers to products for which tariffs will ultimately be lowered to 0-5%, but which are being protected temporarily by a delay in tariff reductions. This is permissible under the AFTA Agreement, and is spelled out under a Protocol Regarding the Implementation of the CEPT Scheme Temporary Exclusion List. Malaysia invoked this protocol in 2000, delaying tariff reductions on completely-built-up automobiles, and automobile knock-down kits, in order to protect its local auto industry; The list covers around 13% of all tariff lines.
- **Sensitive Products – Exclusion List:** refers mainly to agricultural products for which a deadline of the year 2010 for their integration into the CEPT scheme had been extended;
- **General Exception List:** refers to products that a country deems necessary for the protection of national security, public morals, the protection of human, animal or plant life and health, and protection of articles of artistic, historic, or archaeological value.

To benefit from the AFTA rates, the regulation on Rule of Origin stipulates that a product must not have non-ASEAN in-

puts counting for more than 60% of the total value of the good (i.e. 40% minimum ASEAN local content).

The number of products with zero tariff rates differs markedly from one country to another in 2003: Singapore is an exception with all products being subject to a zero tariff rate; Brunei has a good coverage with nearly 80% of their products at zero. Malaysia and Indonesia form a second group with more than 50% of their products at zero rates. The rest of the ASEAN countries have less than 5% of their products at zero rates, except Vietnam with nearly 30%.

Proportion of tariff lines at 0% tariff rate within the whole CEPT tariff structure (2003)

| | |
|-------------|--------|
| Brunei | 78.0% |
| Cambodia | 3.0% |
| Indonesia | 54.0% |
| Laos PDR | 0.4% |
| Malaysia | 58.0% |
| Myanmar | 2.0% |
| Philippines | 0.7% |
| Singapore | 100.0% |
| Thailand | 2.0% |
| Vietnam | 28.0% |

Source: ASEAN Secretariat

The relative degree of tariff reduction can be appreciated through the relative positioning of products between the Inclusion List and the other temporary or longer-term exclusion lists. For the whole ASEAN region, the proportion of tariff lines NOT included in the Inclusion List, among a broader classification of traded goods, is as follows:

Proportion of tariff lines not included in the Inclusion List, total ASEAN, % of relevant tariff lines for each product (2003)

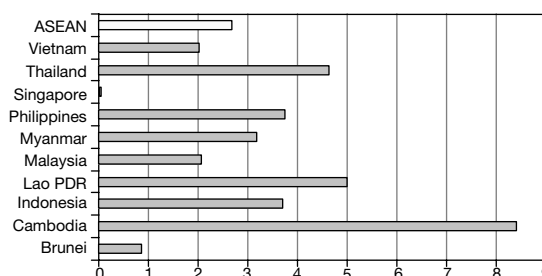
| | |
|--|------|
| Arms | 77,3 |
| Vehicles | 37,5 |
| Prepared Foodstuffs | 35,4 |
| Miscellaneous manufactured articles | 28,1 |
| Gems | 28,0 |
| Vegetable Products | 28,0 |
| Footwear | 25,9 |
| Hides & Leathers | 25,5 |
| Textiles & Apparels | 24,0 |
| Antiques and work of arts | 23,2 |
| Machinery & electrical appliances | 22,3 |
| Stone / cement / ceramics | 21,5 |
| Live animals | 21,3 |
| Pulp & Paper | 20,9 |
| Mineral products | 19,0 |
| Optical, precision & medical instruments | 18,9 |
| Chemicals | 18,5 |
| Base metals & metal articles | 17,4 |
| Plastics | 16,3 |
| Fats & Oils | 16,1 |
| Wood & wood articles | 8,4 |

Source: ASEAN Secretariat, computation by TAC
Reading of the table: 37.5% of tariff lines under the broad 'vehicle' group of products are not in the Inclusion List

The unweighted average CEPT tariff rate for products in the Inclusion List was 2.7% in 2003, down from about 12.7% in

1993 at the start of the tariff reduction program. Among the 6-ASEAN countries, three of them have higher tariffs than the average: Thailand with 4.6%, Indonesia and Philippines with 3.7%. Laos did not register any reduction, its average CEPT tariff rates remaining at 5%.

Chart 1.6. AFTA Tariff Rates: Unweighted CEPT Tariff Rates Inclusion List in 2003 (in %)

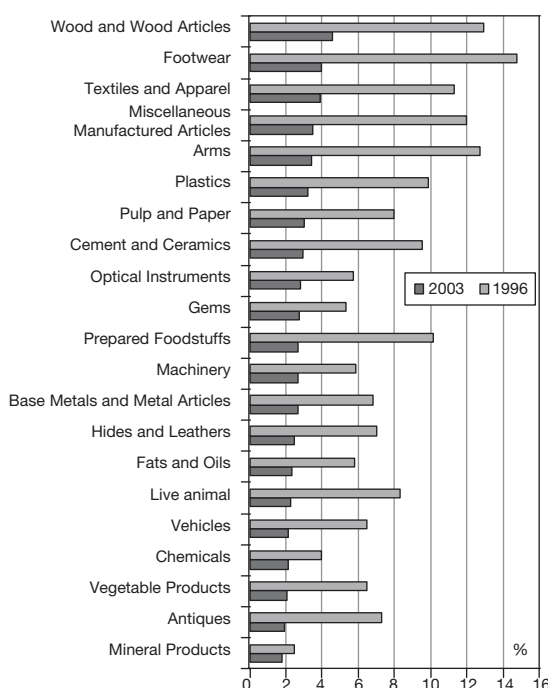


Source: ASEAN Secretariat

By examining tariff reduction based on a classification in 21 broad products (see Chart 1.7 overleaf), 8 products out of 19 were at a high level in 1996 and registered a sharp reduction: footwear, wood and wood articles, miscellaneous manufactured articles, textiles and apparel, arms, prepared foodstuffs, plastics and cement / ceramics. Conversely, minerals products and to a lesser extent, chemicals did not register a very significant reduction between 1996 and 2003.

The tariff rate remains the lowest for mineral products; conversely, wood and wood articles, footwear, and textiles and apparel keep the highest tariff rate despite the past reduction.

Chart 1.7. AFTA Rates by Products: Intra-ASEAN CEPT Evolution of tariff rates by products 1996–2003



Source: ASEAN Secretariat
Computation by TAC

To assess the attraction of ASEAN as an ‘integrated’ trade area, it is useful to compare the tariff rates applied to members (under the CEPT scheme described above) with the standard tariff rates applied to non-ASEAN (but MFN) countries.

Comparison of tariff rates between MFN and AFTA/CEPT

| | MFN rates | | AFTA rates | |
|-------------|------------|-----------|------------|------------|
| | Unweighted | Weighted* | Unweighted | Weighted** |
| Brunei | 3.0 | 5.8 | 1.1 | 1.7 |
| Cambodia | 19.3 | 16.6 | 9.3 | 8.0 |
| Indonesia | 7.6 | 5.8 | 6.4 | 5.0 |
| Laos PDR | 12.2 | 8.1 | 5.7 | 5.1 |
| Malaysia | 10.5 | 9.8 | 3.0 | 2.7 |
| Myanmar | 6.2 | 3.7 | 4.3 | 3.1 |
| Philippines | 8.6 | 5.8 | 5.2 | 4.2 |
| Singapore | 0.0 | 0.0 | 0.0 | 0.0 |
| Thailand | 18.2 | 13.8 | 8.1 | 6.3 |
| Vietnam | 12.8 | 8.6 | 2.1 | 0.8 |

Source: ASEAN Secretariat

Computation by TAC

*: weighted by total ASEAN imports by products at 2-digit level

** : weighted by intra-ASEAN imports by products at 2-digit level

The differences between MFN and AFTA average tariff rates vary widely among the ASEAN member countries, ranging from about 8% (weighted average tariff rates) in Vietnam, Thailand and Cambodia to less than 1% in Indonesia and 0% in Singapore. Such large gaps in relative ‘intra-ASEAN’ protection have significant implications, for ‘loca-

tion’ decisions by foreign investors, as well as for ASEAN policy makers: for the former, a closer look at product-specific differences in intra- versus extra-ASEAN tariff protection can undoubtedly point towards an ‘optimal’ import duty strategy for the whole ASEAN market. For the latter, it raises the issue of a common external tariff as a much more powerful engine for deeper trade integration, including institutional questions for such a policy move.

By crossing countries and products (Chart 1.8), the level of protection and the products concerned differ widely from one country to another: fruit and vegetable products for Thailand, Vietnam and Laos (above 10%), prepared foodstuffs (above 10% for Philippines, Thailand, Cambodia and Laos and Vietnam), plastics for Thailand, Malaysia and Cambodia, textiles & apparel as well as footwear for Vietnam (more than 30% tariff rates), Thailand, Cambodia and Malaysia and to a lesser extent, for Philippines and Indonesia, vehicles for Malaysia (around 55%), Thailand (around 40%), Cambodia and Indonesia. The Table below provides a visual illustration of the differences between MFN and AFTA rates (2001): the darker the colour, the higher the difference and therefore the higher the attraction of operating within ASEAN to meet the whole regional demand instead of exporting from a non-ASEAN country.

1.2.1.b. Current situation for non-tariff barriers to trade (NTBT)

Notwithstanding the progress made in lowering intra-ASEAN tariff rates, the regional integration is still hampered by a vast array of non-tariff barriers to trade. Interestingly, the survey made of EU companies operating in the region does

Chart 1.8. Difference in Tariff Rates (MFN/AFTA) — MFN less AFTA tariff rates by broad products in 2001

| | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam |
|-------------------------------------|--------|----------|-----------|---------|----------|---------|-------------|-----------|----------|---------|
| Live animal | | | | | | | | | | |
| Vegetable Products | | | | | | | | | | |
| Fats and Oils | | | | | | | | | | |
| Prepared Foodstuffs | | | | | | | | | | |
| Mineral Products | | | | | | | | | | |
| Chemicals | | | | | | | | | | |
| Plastics | | | | | | | | | | |
| Hides and Leathers | | | | | | | | | | |
| Wood and Wood Articles | | | | | | | | | | |
| Pulp and Paper | | | | | | | | | | |
| Textiles and Apparel | | | | | | | | | | |
| Footwear | | | | | | | | | | |
| Cement and Ceramics | | | | | | | | | | |
| Gems | | | | | | | | | | |
| Base Metals and Metal Articles | | | | | | | | | | |
| Machinery | | | | | | | | | | |
| Vehicles | | | | | | | | | | |
| Optical Instruments | | | | | | | | | | |
| Arms | | | | | | | | | | |
| Miscellaneous Manufactured Articles | | | | | | | | | | |
| Antiques and Works of Art | | | | | | | | | | |

| | |
|--|--------------------------------|
| | difference below 5% |
| | difference between 5% and 10% |
| | difference between 10% and 20% |
| | difference above 20% |

Source: computation by TAC on data provided by ASEAN Secretariat

not suggest that such NTBT are harmful to the point of voiding the integration process of its substance; the NTBT are not considered as being more pronounced than in other developing countries; but any rapid and visible improvement in such NTBT would undoubtedly reinforce the regional integration mechanisms and the overall attraction of ASEAN as a block to foreign companies.

In examining the impact of non-tariff barriers and other problems facing the EU companies doing business in ASEAN, we need to distinguish between:

- Vertical legislative areas giving rise to NTBs
- Horizontal problems caused by poor and uncertain operational practice

This is shown diagrammatically in Chart 1.9.

Customs Procedures

The harmonisation of customs nomenclature, valuation and procedures is one of the so-called “AFTA Plus” initiatives. Progress is as follows:

- Nomenclature — Implementation of the ASEAN Harmonised Tariff nomenclature (AHTN) which is at the 8 digit-level and is based on the Harmonised System of the World Customs Organisation is due in 2004.
- Valuation — The objective is to adopt the WTO Valuation System throughout the region
 - Indonesia, Malaysia, Philippines, Singapore and Thailand had adopted the system by 2002 and the remaining countries will comply by 2005
- Customs Post Clearance Audit — The target date for implementation of PCA is 2003. Most countries now comply.
 - The establishment of PCA will facilitate the implementation of the WTO Valuation Agreement

The complaints about customs are concerned with horizontal issues and particularly corruption, training and bureaucracy. The degree to which these issues are a problem depends on the country.

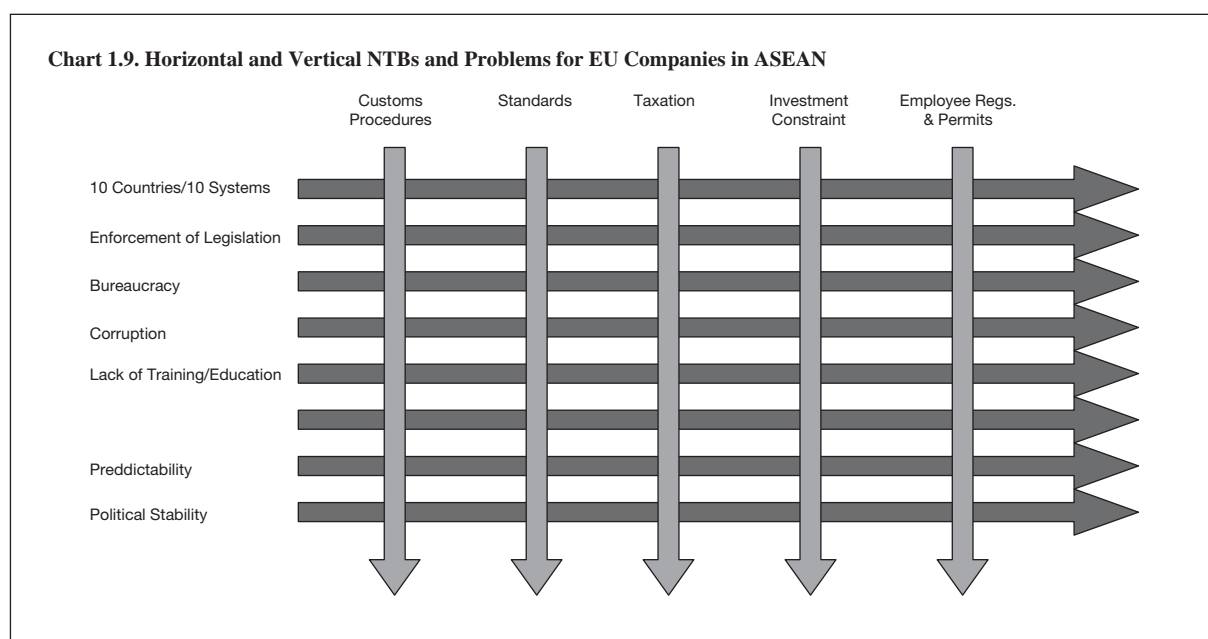
Customs also have a vital role to play in ensuring the efficient implementation of IPR and rules of origin (ROO) legislation. On the latter there has been a problem of differing interpretation of the rules between the issuing and receiving authorities.

Various forums have been identified for the discussion of customs procedures involving ASEAN countries:

- US-ASEAN
Business Council Dialogue with the ASEAN Customs Director Generals. (The last meeting on July 10th, 2003 went into great detail on the subject of customs and AFTA Rules of Origin and on the treatment of the automotive sector).
- ASEM
There is a customs Procedure Working Group, which has its own website containing a database of customs procedures for each member country (www.customs.go.jp/asem/database2.htm).
- APEC
Similarly there is a working group looking at customs within APEC.

Standards

An “AFTA Plus” initiative in the field of standards is being driven by the ASEAN Consultative Committee on Standards and Quality (ACCSQ), which is implementing the Hanoi Plan of Action on standards harmonisation and mutual recognition arrangements (MRAs). ACCSQ is working



on four areas, which are in line with the WTO Agreement on Technical Barriers to Trade:

- Implementation of the ASEAN Framework Agreement on Mutual Recognition Arrangements
- Harmonisation of standards
- Enhancement of standards and conformity assessment infrastructure in Member Countries; and
- Transparency of standards, technical regulations and conformity assessment regimes in the region

Progress on MRAs is as follows:

Cosmetics: The Agreement on the ASEAN Harmonised Cosmetic Regulatory Scheme was endorsed by Economic Ministers in September 2002 providing for:

- An MRA which recognises the product registration approval of any signatory
- The ASEAN Cosmetic Directive which lays down the requirements cosmetic products have to comply with in all signatory countries

The operation of the scheme with tariff reduction is expected to boost the ASEAN trade in cosmetics (USD 452 million in 2001).

Electrical and Electronic Equipment: 8 countries will recognise the test reports and certification of each other by 2003 and the remaining 2 by 2004.

Pharmaceuticals: This is not as advanced as the other two but an ASEAN working group is progressing it.

Food and Telecom Equipment: MRAs are being developed.

The ACCSQ Working Group on Standards and Technical Regulations identified 20 priority products to align with international standards by the end of 2003. The products are:

- i. Air-conditioners
- ii. Refrigerators
- iii. Monitors & Keyboards
- iv. Motors & Generators
- v. Inductors
- vi. Loudspeakers
- vii. Video Apparatus
- viii. Telephones
- ix. Radio
- x. Television
- xi. Parts of TV and Radio
- xii. Capacitors
- xiii. Resistors
- xiv. Printed Circuits
- xv. Switches
- xvi. Cathode Ray Tubes
- xvii. Diodes
- xviii. Mounted Piezo-electric crystal
- xix. Rubber condoms
- xx. Medical gloves

The harmonisation of 72 safety and 10 EMC (electromagnetic compatibility) standards is due for completion by the end of 2004. Many other sectors are under discussion.

Two examples were given, both in the electrical sector:

Box 1.2. Two Examples of NTB Faced by European Companies Dealing in ASEAN

“Thailand doesn’t accept EU and international standards and there is a long wait in certifying each product. There is a charge for each product so the sum can be significant. Some of the information required by the authorities is seen as highly confidential and there is concern about a “leakage” of commercial secrets. All this favours local producers (including, it should be added, foreign investors).”

“Surprisingly Singapore did not accept EU certification for a rather specialised electrical product. For the same product there was a 9-month delay and still no action in Thailand. Malaysia told the company they would accept EU standards if it was manufactured there. This is perhaps an isolated example as the company had no problems with other products in a different sector.”

Intellectual Property Rights (IPR)

Problems encountered by EU companies in the field of intellectual property rights are quite numerous. There have been significant efforts in the region to improve the legislation and regulation in the area of IPR protection, including externally funded technical assistance, from the EC as well as from other donors.

There is also a WIPO¹-ASEAN co-operation programme which has undertaken two studies:

1. Use of IPR as a tool of economic growth in the ASEAN region
2. Feasibility of establishing an ASEAN regional collective copyright management system

Within ASEAN there is a Working Group on Intellectual Property Co-operation (WGIPR) which, among other work, has produced a common ASEAN IPR roadmap. There is also an Expert Group on Trademarks which is planning to establish a regional filing system on trademarks.

The qualitative appreciation derived from interviews and the survey supports the view that the major obstacle faced by foreign companies is not on the regulatory side, but clearly on the implementation of the rules, and the effective enforcement of judicial decision against piracy and IPR violation. In this respect, it has to be recognised that such a move from the proper legislation to the proper functioning of a true IPR protection regime takes time, and includes significant training (economic police, customs, judiciary) and political involvement.

¹ World Intellectual Property Office, Geneva, Switzerland

The different NTBs faced by exporters when targeting the ASEAN market are reinforced by so-called ‘horizontal obstacles’, with two main issues:

1. The pervasive presence of corruption in almost all ASEAN countries, with the notable exception of Singapore. The issue of corruption is deeply intertwined with non tariff barriers to trade, as it usually affects all custom procedures and clearances, all administrative authorisations and licences, and anything related to implementation of a given rule by the proper administration. An illustration of the varying degree of corruption can be derived from the annual study by Transparency International, a widely recognised NGO specialising in political governance.

Table 1.3. Measure of Corruption

| Country | Score noted from 0 (worst case) to 10 (best case) |
|---|---|
| For information, best rated country: Finland | 9.7 |
| For information, best rank within EU members: Finland | 9.7 |
| Singapore | 9.4 |
| Malaysia | 5.2 |
| For information, worst rank within EU members: Greece | 4.3 |
| China | 3.4 |
| Thailand | 3.3 |
| India | 2.8 |
| Philippines | 2.5 |
| Vietnam | 2.4 |
| Indonesia | 1.9 |
| Myanmar | 1.6 |
| For information, worst rated country: Bangladesh | 1.3 |

Source: Transparency International, 2003

Corruption not only creates an unfair playing field but also creates uncertainty and increases costs and hassle for companies, especially SMEs. It also necessitates the need for local help to deal with this.

2. Another broad horizontal issue that is clearly playing against the positive move towards deeper integration relates to the poor predictability of administrative decisions, and the likelihood of having to deal with arbitrary changes in contractual arrangements. This instability of the rules can significantly alter the economics of a foreign investor’s plans. Examples of such discretionary changes and instability of rules include:

- Arbitrary treatment of taxes and tariffs
- Random tax demands as authorities don’t believe returns when prices in export markets higher – think companies are using ‘unfair’ internal transfer pricing mechanisms
- Tariffs keep changing

- Trade laws changing too often, with no advance notification
- Imports can be stopped and kept at point of entry, especially if local production is threatened
- Arbitrary minimum price application
- Non-transparent laws

1.2.1.c. Investment related measures

The concept of an ASEAN Investment Area (AIA) was endorsed at the 1995 ASEAN summit. The Framework Agreement on the AIA was signed in October 1998. The objective of AIA is to lower, and eventually remove, barriers to intra-regional investment so that ASEAN investors are given national treatment. This is intended to lead to increased investment flows from both ASEAN and non-ASEAN sources by enhancing the region’s competitiveness.

AIA is aimed at encouraging investors to adopt a regional investment strategy which can take advantage of the division of labour and comparative advantages throughout ASEAN. This will, it is hoped, lead to improved productivity and cost competitiveness.

The measures proposed to achieve this and the resulting investment benefits are shown in Boxes 1.3. and 1.4. respectively.

There are three categories of exemptions from the AIA:

Temporary Exclusion List (TEL)

Sectors and investment measures temporarily closed to investment and not granted national treatment. As at 1st January 2003 the TELs for the manufacturing sectors in all countries apart from Cambodia, Laos and Vietnam had been phased out.

Full removal of TELs in manufacturing, agriculture, fisheries, forestry and mining and services related to these sectors is scheduled by 2010 for the ASEAN-6 and by 2015 for the four newer members.

Sensitive List (SL)

This covers sectors and investment measures not subject to phasing out but subject to periodic review.

General Exemption List (GEL)

Consists of sectors and investment measures which cannot be opened to investment or granted national treatment for reasons of national security, public morals, public health or environmental protection.

There is a ministerial level ASEAN Investment Area Council to oversee the implementation of the Framework Agreement. The Council is assisted by the ASEAN Co-ordinating Committee on Investment (under the Co-ordinating Committee there is a Working Group on FDI Statistics).

They have a three-pronged strategy of approach:

- Co-operation and Facilitation Programme shall enhance ASEAN’s competitiveness and provide investors with

Box 1.3. Investment Measures

The AIA aims to make ASEAN a competitive, conducive and liberal investment area through the following measures:

- Implementing co-ordinated ASEAN investment co-operation and facilitation programmes;
- Implementing a co-ordinated promotion programme and investment awareness activities;
- Immediate opening up of all industries for investment with some exceptions as specified in the Temporary Exclusion List (TEL) and the Sensitive List (SL), to ASEAN investors by 2010¹ and to all investors by 2020¹;
- Granting immediate national treatment, with some exceptions as specified in the Temporary Exclusion List (TEL) and the Sensitive List (SL), to ASEAN investors by 2010⁵ and to all investors by 2020¹;
- Actively involving the private sector in the AIA development process;
- Promoting freer flows of capital, skilled labour, professional expertise and technology amongst the member countries;
- Providing transparency in investment policies, rules, procedures and administrative processes;
- Providing a more streamlined and simplified process;
- Eliminating investment barriers and liberalising investment rules and policies in the sectors covered by the Agreement.

¹ These dates were later reduced to 2003 and 2010 (by 2015 for all investors for the newer ASEAN countries)

Box 1.4. Investment Benefits

Current and potential investors will benefit from the AIA arrangements in the following ways:

- Greater investment access to industries and economic sectors as a result of the opening up of industries under the AIA arrangements, if investors qualify as ASEAN investors;
- National treatment, if investors qualify as ASEAN investors;
- Greater transparency, information and awareness of investment opportunities in the region;
- More liberal and competitive investment regimes; and
- Lower transaction costs for business operations.

an efficient and low-transaction cost investment environment. It includes activities aiming at facilitating investment flows, human-resource development and the up-grading of skills of ASEAN investment agencies;

- Promotion and Awareness Programme shall promote ASEAN as a single investment destination. It aims to give investors a better understanding and awareness of the region's investment opportunities. This programme includes regular high-level outward ASEAN Joint Investment Promotion Missions, the creation of investment websites and databases, and the publications of timely and useful investment information.
- Liberalisation Programme shall open up investment regime throughout the region by eliminating investment barriers, liberalising investment rules and policies and granting national treatment.

The fact that AFTA allows (or will allow) all countries to be serviced freely by trade flows between each other removes the argument for investment restrictions (at least for products covered under AFTA). The country may as well have the benefits of FDI and serve its market from within.

At the 5th Council Meeting in September 2002, a two-year ASEAN Investment Initiative to improve the competitiveness and attractiveness of the region was endorsed for immediate implementation. This involves collective activities for promoting and facilitating FDI in the region, including:

- ASEAN Business and Investment Summit (first one was held on October 4th-7th, 2003 in Bali, Indonesia)
- Industry events
- ASEAN Investment Networking and Outreach Programme
- Capacity building programme to narrow the development gap

ASEAN has also established a framework to support regional integration strategies by companies operating in more than one ASEAN country, the ASEAN Industrial Co-operation (AICO), signed on April 27, 1996 and entered into force on November 1, 1996. This provides ASEAN-based companies with economies of scale through resource sharing and industrial complementation. Companies participating to the AICO scheme immediately benefit among other from preferential tariff rates of 0-5%, instead of waiting for the official deadline. Until now, it is mostly large multinational companies that have benefited from this scheme.

1.2.2. A Reality Check: Trade and Investment Inside ASEAN

Increasing intra-ASEAN trade and large intra-ASEAN investment offer solid evidence of a growing regional integration, even though it was strongly affected by the 1997-98 financial crisis. This integration reflects a specific role of Singapore as a major trade and investment hub for the whole region.

Historically, i.e. long before the trade integration process was launched in 1992 through AFTA, most South East Asian countries had developed an export base targeting massively the developed markets, be it for commodities or manufactured products. Geography (scattered territories spanning over thousands of kilometres, archipelagos, limited infrastructure) was (and is still) a strong argument for limiting regional trade. In this trade strategy / geographic characteristic, export industries were mostly competing against each other for market shares in the US, the EU and Japan, with no incentives to increase intra-sector trade between countries.

However, from the early 1990s, trade flows as well as intra-regional investments started to increase more rapidly, reflecting the need for the most advanced countries within ASEAN to delocalise labour-intensive industries to the lower-cost countries, the microeconomic strategies of large regional firms looking for market expansion, and the rapid development of regional networks of assembly plants by leading multinationals (especially in the electronics and computer equipment industries). Between 1993 and 1997, intra-ASEAN trade increased by 84%, compared with 60% for the other trade flows of the region. Similarly, foreign investment from ASEAN countries (mostly Singapore, and to a lesser extent, Malaysia and Thailand) into other ASEAN members (Thailand, Malaysia, Indonesia, Philippines, Vietnam) reached USD 3.9 billion in 1997.

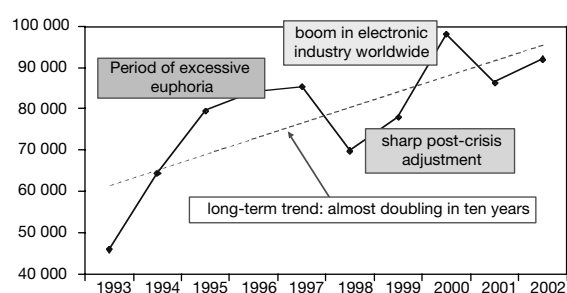
The economic and financial crisis of 1997-98 was a major disruption in this integration process. While the causes and unfolding of events leading to this economic shock are still debated, a few points have to be highlighted:

- The speed and extent of the transmission of the crisis from one country (Thailand registered the first sharp depreciation of its currency on July 2, 1997) to the others (Indonesia, Malaysia and the Philippines) are themselves a testimony to the importance of integration within the area. Contagion stemmed from both trade multiplier effects within ASEAN, and from parallel exchange rate policies with a lot of 'convergence' factors in cyclical developments in each of the large ASEAN countries.
- The intensity of the crisis (with the region as a whole registering a GDP contraction of -6.6% in 1998, the worst performance for most ASEAN countries in recent history) has had lasting consequences on the microeconomic structure of many ASEAN countries, with therefore very visible effects on intra-ASEAN investments; at the same time, it showed that the previous years were characterised by a significant dose of euphoria, including in intra-regional activities and trade, and that the absorption of these past excesses would take time.

The aggregate figure for intra-ASEAN trade in 2002 was slightly below the previous peak of 2000 and above the level of 1997, with a two-way total of USD 178 billion. Looking at the export figures¹, Chart 1.10 below (in USD terms) indicates that there have been sharp fluctuations over the past

10 years, but clearly around a growing medium-term trend. In any case, at USD 92 billion, this intra-ASEAN trade is a significant trade flow (amounting to about a third of total Chinese imports). The share of intra-ASEAN trade in the total external trade of the region has increased modestly (from 20% in 1993 to 23% in 2002), a result that can be viewed as indicating a slow intra-regional process, but which is also the consequence of the global openness of each ASEAN member. The reliance of ASEAN countries on other ASEAN members to source their inputs has increased much faster than the share of ASEAN in total exports from the region, the latter hovering around 22% during the whole 1993-2002 period, while the former increased from 19% to 23.5%. Interestingly, these figures are higher than comparable observations for other regional groupings like Mercosur² (20% of intra-regional trade) and SADC³ (12%).

Chart 1.10. Intra ASEAN Trade Flows



The analysis of this intra-ASEAN trade, both in global terms and by products is reveals two different types of 'integration', with significant consequences for what can be derived for EU companies:

- The 'excessive' intra-ASEAN trade prior to the crisis (as measured by the gap between actual and long-term trend figures), and the sharp correction during the Asian recession of 1998 would suggest that such intra-regional trade is in part related to the domestic demand 'pull-factor'. This would in turn highlight the fact that the complementarities of the different economies is increasing as compared to the historic pattern of export development. The negative performance in 2001 can also be partly explained by this 'increased complementarity' because of a sharp economic slowdown in Asia, in tune with the world economic slowdown and the US recession.
- But simultaneously, the product breakdown of intra-ASEAN trade (equipment and electronic products account for about 50% of the total, see Chart below), as well as the observation of the specific characteristics of these sectors (especially IT products) reveal another type of integration, through a network of production facilities spread over different ASEAN countries with a final destination which is likely to be the developed markets. In this 'production network' type of integration, ASEAN is itself integrated in a broader Asian region, including notably Taiwan (chip production) as a

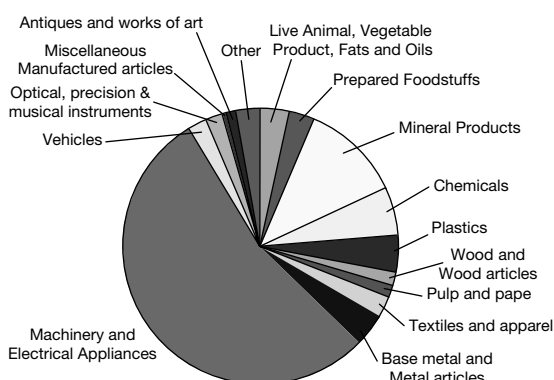
¹ Statistical discrepancies and valuation differences make intra-ASEAN figures for imports and exports slightly different. In 2002, imports were registered at USD 86 bn, while exports stood at USD 92 bn.

² Argentina, Brazil, Paraguay and Uruguay

³ Angola, Botswana, Dem. Rep. Of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe

primary supplier of intermediate products as well as complex assembly.

Chart 1.11. Intra ASEAN Trade by Products



Source: ASEAN Secretariat
Computation by TAC

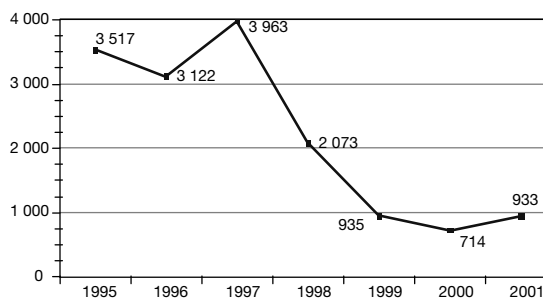
Total intra-ASEAN trade has been driven by three major countries since 1993: Singapore (trade between Singapore and other ASEAN nations accounts for about 40% of total intra-ASEAN trade), Malaysia (about 25%) and Thailand (around 15%). Conversely, intra-ASEAN trade is a dominant feature in total external trade in the countries having joined recently, including Laos, Cambodia, Myanmar, and to a lesser extent Vietnam and Brunei.

When looking at intra-ASEAN direct investments as a measure of the on-going integration, it has to be recognised that the crisis of 1997-98 has had major consequences, and basically led to an abrupt reversal of intra-ASEAN investment flows (see Chart 1.12). Indeed, this intra-ASEAN investment has contracted from its peak of USD 3.9 billion in 1997 to USD 934 million in 1999, USD 715 million in 2000 and USD 933 million in 2001. Between 1995 and 1997, intra-ASEAN investment was about 14% of the total FDI flows in the region. In the period 1998-2000, the intra-ASEAN share of the reduced direct investment in the region was only 7%. As mentioned earlier, the collapse in approvals as well as actual flows can be attributed to two coincident factors:

- A (necessary) correction of the previous euphoria that characterised the 1993-1996 period, where 'herd behaviour' in many companies led to unwise and excessive investment plans in neighbouring countries (very visible, for instance, in the concentration of FDI in real estate projects in many ASEAN countries in 1995-97). With GDP and demand growth rates collapsing in most ASEAN countries, and with panic succeeding euphoria, this over-investment was clearly not sustainable
- The financial dimension of the crisis (rapidly growing financial leverage and low cost of capital expenditure prior to the crisis, total breakdown of companies' balance sheets after the crisis) has led to wide-ranging corporate restructuring, still unfinished in some of the countries (Indonesia, Thailand). This micro-economic process is still taking its toll on local companies' ability to invest, let alone to invest outside their home base.

The decline in intra-ASEAN investment appears to have stabilised since 2001. The pick-up in figures for both approvals and balance-of-payment flows is coherent with anecdotal evidence of a new phase of internationalisation for large local groups. It is confirmed by the figures available for the first half of 2002 (with actual flows jumping from a net USD 94 million to USD 224 million, from 2001H1 to 2002H1), even though such short-period comparisons can be misleading because of the unit size of a few major projects and the statistical registration of such large transactions.

Chart 1.12. Total Intra ASEAN FDI Flows (balance of payment basis, millions of US*)



Source: ASEAN Secretariat

The analysis of intra-ASEAN FDI again reveals the very pivotal role of Singapore in the overall integration process within ASEAN. In cumulative terms between 1995 and 2001, FDI from Singapore into other ASEAN countries accounted for 65% of total intra-ASEAN FDI¹. Until the 1997-98 crisis, Singapore was also an important destination for investment by companies in other ASEAN countries (22% of total intra-ASEAN FDI during the 1995-97 period, but only 6% in 1999-2001).

A key feature of recent investment trends within ASEAN is precisely related to the changing pattern of Singapore's out-flows of investments in the region. Prior to the crisis, a very large share of such investment was concentrated in Indonesia and Malaysia (almost a third of total intra-ASEAN FDI, and close to 50% when integrating FDI from Indonesia and Malaysia into Singapore). After the crisis (1999-2001), Singapore FDI into these two countries turned highly negative (USD -1.5 billion during these three years), as well as FDI from Malaysia to Singapore, and Singapore's investment turned massively into Thailand, and to a lesser extent the Philippines and Vietnam. In parallel, Malaysia's FDI were re-oriented towards other ASEAN countries, including Vietnam and Thailand, while FDI from Thailand to Vietnam also increased.

When looked from a sector-wise perspective, intra-ASEAN FDI reveals the following key aspects:

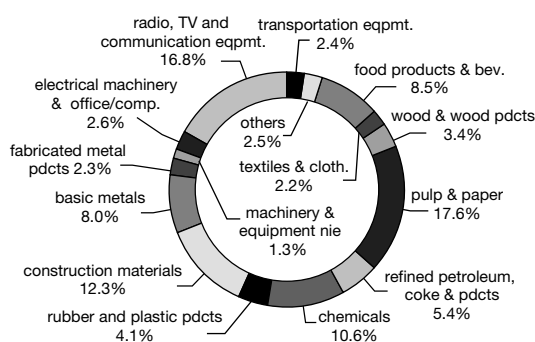
- After clear excesses before the 1997-98 crisis, intra-ASEAN FDI into real estate and construction activities collapsed in the period 1999-2001, with three consecu-

¹ Statistical recording of FDI flows is a very difficult exercise. In the case of FDI made from Singapore, it is very likely that a significant share of these flows is made by non-Singaporean companies operating from Singapore as a regional headquarters. Such FDI would be registered as 'Singapore investment' and not counted in the statistics of mother-company's home base

tive years of divestment. Conversely, mining (including the oil and gas sector) and manufacturing each account for almost a quarter of the cumulative flows during the period 1999-2001, with tourism and real estate still being large areas of intra-ASEAN investment.

- Within the manufacturing sector (Chart 1.13), and over a longer period (1995-2001), the largest intra-ASEAN FDI has been in pulp and paper, electronic products other than computers, construction and building materials, chemicals, basic metals, food products and beverages, and petroleum refineries. This pattern is paralleling the changes in trade flows, and clearly points towards a further integration stage, with both consumer goods and intermediate products dominating the intra-regional investments.

Chart 1.13. Intra-ASEAN FDI in Manufacturing Industries (cumulative 1995-2001, approval basis)



Source: ASEAN Secretariat

1.2.3. Future Steps for ASEAN: Inward and Outward Integration

Now a 30-year old development, ASEAN is confronted by new challenges and the need for a second stage of integration. This will occur in the next decade both through enhanced 'inward' integration, and with significant outward development with the other Asian areas.

As indicated previously, ASEAN was first a political forum and association, before embarking on an economic and trade integration development. A peculiar characteristic of the ASEAN decision process is that of continuous consensus between members, associated with the belief that dialogue and mutual agreement may indeed slow this process but make it stronger once an agreement is reached and the relevant decisions are taken. Added to the core principle of non-interference in each member's domestic issues, and to the consequences of the ASEAN enlargement to much less developed nations, this has given rise to concern about ASEAN's ability to adapt rapidly to changing conditions both in the region and world-wide. This section of the report aims at providing some clues allowing to understanding the possible future development of the ASEAN integration process, by looking successively at the main challenges facing ASEAN in the coming years, current answers as indicated by the ASEAN countries and Secretariat, and some

key points on what ASEAN should (or could) and should not (or could not) be in 10 to 20 years time.

- There are a number of **challenges** that ASEAN has to face to pursue its development over the next decade, as would be the case for any region of the world. It is possible however to focus on three major points that need to be tackled or confronted:

- The trend towards increased economic and financial **globalisation** has significant consequences for ASEAN, notably because it is associated with an increasing share of intra-company trade in total world trade, and with the rapid development of mergers and acquisitions as a favoured instrument for foreign direct investment (as opposed to so-called 'green-field' investment). This has very strong implications regarding the development and expansion of large companies within ASEAN, companies that would have the size and reach to be able to compete with world leaders, and/or to insert themselves in the production/value chain of other MNCs¹. In turn, these microeconomic requirements bring to the fore the issues of **corporate governance**, accountability, capital opening and deeper financial markets.

- The **political situation** is evolving rapidly as a consequence of the world situation and the US-led 'war against terrorism'. Indeed, two important ASEAN members have been the targets of political violence during the past two years (Indonesia and the Philippines), and two others have been very active in tracking down (and in some instances arresting) suspected members of terrorist organisations (Malaysia and Thailand). This comes on top of more long-lasting political issues, ranging from disputed borders or territories, to the degree of military/cross-border co-operation, to ethnic or religious divide and/or discrimination, and to forms of government. Indeed, the core principle of non-interference by ASEAN members (and by the ASEAN Secretariat) in other members domestic affairs can be a brake on further political co-operation and may hinder deeper integration mechanisms and processes. These political issues are taking place in a global context where 'regional super-powers' are starting to emerge, with potentially negative consequences for regional stability.

- ASEAN countries have to find their 'economic position' as regards **the emergence of China** as a leading economic powerhouse in the region and in the world. Indeed, a number of observers are predicting the demise and decline of ASEAN (and, in the same vein, of many intermediate developing countries, ranging from Mexico to India) because of the irresistible competition from China on almost the complete range of goods produced by any developing nation. China has been gaining substantial market shares during the past decade (with total Chinese exports moving from 1.8% of total world imports in 1990 to 4.9% in 2002), and its attraction to foreign direct investment has remained massive. Both trade and FDI trends have been registered partly at the expense

¹ MNCs: multinational companies

of the ASEAN position. As labour costs are much lower in China, and the infrastructure base is being vastly improved, the strategic 'positioning' of ASEAN in the world and regional development pattern is clearly a key challenge for ASEAN leaders as well as companies operating in ASEAN.

- Faced with these key challenges, ASEAN is not resource-less or without proper strategic answers and adaptation. Indeed, the recent ASEAN Summit (Bali, Indonesia, October 2003) looked quite openly at these challenges, and came up with appropriate reactions and new policy objectives. These can be summarised under three headings:

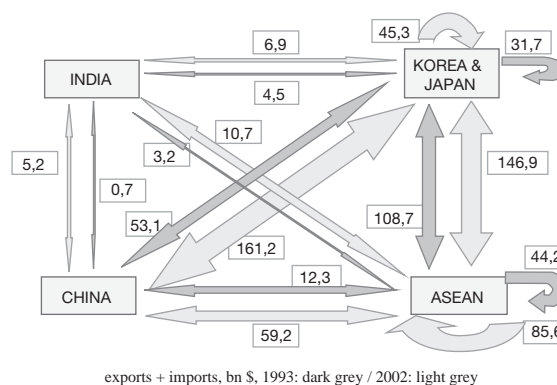
- A commitment to **stronger regional co-operation in the field of security** (establishment of the ASEAN Security Community, ASC), mostly based on having an improved sharing of intelligence information, and a willingness to enhance cultural exchanges (establishment of the ASEAN Socio-Cultural Community, ASCC, and support for regional tourism and travel). Even if such commitments are still vague, they express ASEAN countries concern and indicate both the preoccupation with, and the desire to tackle, the issues related to terrorism, organised crime (including maritime security) and drug trafficking that are prevalent in the region. It is however recognised that such initiatives would not go beyond exchanges between fully independent national bodies, and would imply neither a common external/defence policy, nor a sharing of military forces.

- A **focus on 11 targeted industries** to enhance the economic and trade integration. The idea, partly put forward by a McKinsey report commissioned by the ASEAN Secretariat, is that these sectors offer a high potential for intra-ASEAN development, and would also serve as 'leading' or 'structuring' industries for other related upstream or downstream sectors. For these 11 sectors, intra-ASEAN tariff rates would be brought to zero, and non-tariff barriers significantly removed (including the harmonisation of technical standards and a true 'fast lane' for customs clearance), by 2010. The 11 sectors are: fisheries, wood-based products, rubber and associated products, automotive, electronics, textiles, clothing/garments, health care, air travel, tourism, e-commerce. The list is rather heterogeneous, but reflects a compromise on 'non-sensitive but crucial' industries for the overall economic development. This would serve as an 'advanced integration' for the objective of a comprehensive ASEAN Economic Community (AEC) by 2020, with free flows of goods, services, capital and skilled labour. This industry-focus is also related to a wider consideration in ASEAN to boost domestic demand and domestic investment as major engines of future growth as compared with a stronger export-led and foreign invested pattern of growth in the previous period.

- A **clear outward strategy** in order to integrate ASEAN into the wider Asian regional development. This was underlined by the signature of many trade agreements with neighbouring countries (with China in 2002 and a time objective of 2010 for free trade flows, with India in 2003 with a target date of 2012) and extensive discussions with Japan and Korea. This was also exemplified in the progressive 'structuring' of the so-called ASEAN+3 (ASEAN,

China, Japan, South Korea), with leaders from the three non-ASEAN countries attending now on a regular basis the ASEAN Summits. It is also indicated by a range of 'ASEAN+' initiatives, ranging from currency swap agreements between the region's Central Banks to the issue and management of an 'Asian Bond Fund' (USD 1 billion so far). The Chart below gives an illustration of the position of ASEAN in this wider Asian trade developments (figures indicate total two-way trade between countries or regions, in 1993 and in 2002).

Chart 1.14. Regional Trade Flows in Asia



Source: TAC, from IMF-DOTS

- Overall, the ASEAN answer to the strategic challenges that face further regional integration appears satisfactory, but also suggest **what will remain the most important features of the future ASEAN construction**. Here again, these features can be broadly described around three points:

- ASEAN will remain an **open and flexible 'caucus'**, and not a 'closed' or exclusive group or block. The simple fact that ASEAN co-exists with other larger groupings (ASEAN+3, APEC) as well as sub-regional initiatives (Greater Mekong, Indonesia-Philippines-Malaysia regional initiative) would suggest that a 'closed' construction will not be the main characteristics of the future ASEAN integration. Added to that is also the fact that ASEAN has to take into account the large geopolitical and economic role of the USA in the region, as well as China's overall Asian strategy.

- ASEAN will move forward through **'issue-led leadership'**, and not through the emergence of a mightier member that would structure the region around its own economic development. In this respect, the construction of ASEAN will be very different from the EU construction, where the Franco-German 'axis' played a critical role in fostering the European integration. Notwithstanding the greater role played by China in the whole region, it is very unlikely that the country could emerge as a 'political and structuring leader' vis-à-vis ASEAN, not only because of historical resentment against China's expansionist moves, but also because such a 'single' leadership is very difficult in the absence of a deep reconciliation between Japan and China on one hand, and because other important countries in the region would clearly prefer to stick to regional agreements and co-

operation with ASEAN outside Chinese influence (South Korea, India). Conversely, ASEAN countries have repeatedly shown that they would probably be willing to accept that, on specific issues, one or a small number of countries take the regional leadership in promoting and implementing new elements of integration (e.g. Thailand and Malaysia on peace-keeping, Singapore on trade, Indonesia on energy).

- ASEAN will remain a **'coalition of the willing'**, with boundaries flexible to include non-ASEAN members on specific issues (e.g. trade), and intra-ASEAN deeper integration processes allowed within the region. There is still a deep defiance against any 'supra-national' body that could impinge on national sovereignties, and a transfer of powers, (even in the realm of economic integration of financial development), to a fully-fledged regional institution on the lines of the European Commission. This is very unlikely in the near future.

What will ASEAN look like in another 10 or 20 years? Obviously a difficult question, but the most likely answer is to see ASEAN remaining an open group of 10 countries, with a much deeper trade and microeconomic 'inward' integration and a fairly open 'outward' integration with the rest of Asia. It will still be led by consensual decision (with therefore a longer time required for bold decisions) and through the identification of specific issues that can be tackled by limited policy action under one or some countries' leadership.

1.3. EU Competitive Position in ASEAN

The EU is a major trade and investment partner in ASEAN, just behind the two other leading industrial nations (USA and Japan). EU companies have been the largest foreign investors in ASEAN since the 1997-98 crisis, even though at much lower absolute levels than before the crisis, with a visible re-orientation towards investments in financial services. The EU market share in ASEAN imports remained roughly stable between 1993 and 2000, before declining significantly over the past two years, and with a large concentration of exports in equipment goods.

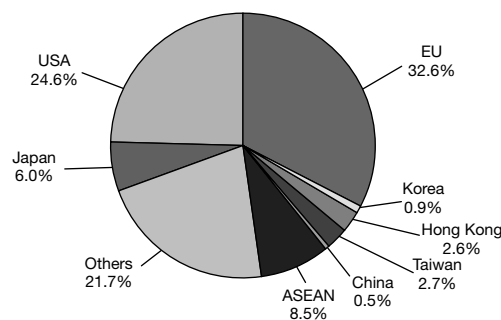
1.3.1. EU Investments in ASEAN

The EU as a group is the largest foreign investor in ASEAN, with about a third of annual inflows. This investment is concentrated in Singapore, and to a lesser extent in Malaysia, Indonesia and Thailand. The EU presence by sector mirrors the geographic concentration, with more than 40% of annual flows in the financial services, and 20% in manufacturing.

¹ Average annual flows during 1999-2001

Over the past few years, companies from the European Union have been the largest foreign investors in the overall ASEAN region, with USD 13.8 billion invested (actual flows, balance of payment basis), or 33% of the total, during 1999-2001. US investments accounted for 24% of total FDI into ASEAN during the same period 1999-2001. Intra-ASEAN investment was 9% of the total, slightly above Japanese investments.

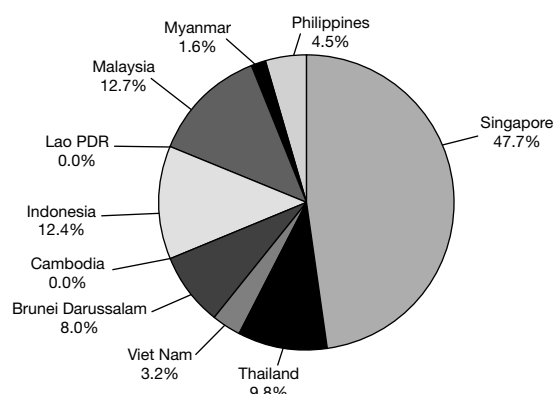
Chart 1.15. Total FDI in ASEAN by Investing Country (cumulative flows 1999-2001, balance of payment basis)



Source: ASEAN Secretariat

Singapore is by far the major recipient country of FDI from the EU with nearly half of the FDI. Malaysia, Indonesia and Thailand are in a second group, each receiving 10% to 13% of total EU investments in the region. Investment in oil related projects has also pushed the share of Brunei to 8%, double that of the Philippines. The 'newcomers' altogether attract 6% of total EU investments.

Chart 1.16. EU FDI by ASEAN country



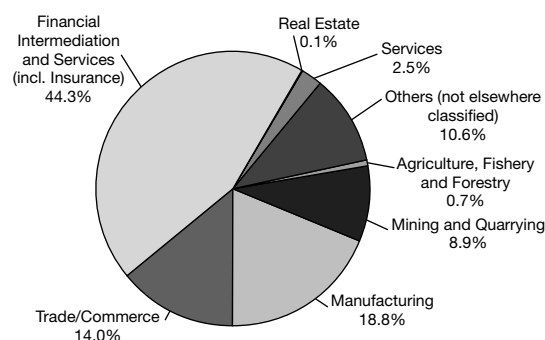
Source: ASEAN Secretariat

The EU plays a leading role in overall FDI in many ASEAN countries, including Singapore (38% of total FDI flows in 1999-2001, making it the largest foreign investor) as well as in Brunei and Myanmar. In Malaysia and the Philippines, the EU is a large investor (respectively 29% and 24% of total flows in 1999-2001), but clearly falls behind the USA (respectively 51% and 41% of total FDI). Similarly, inflows from the EU amounted to 16% of the total in Thailand, and 25% in Indonesia, but were much lower than the share of Japan (respectively 21% and 37%).

In Thailand, as well as in the four ‘newcomers’ (Vietnam, Cambodia, Laos and Myanmar), EU investors are also facing increased competition from Asian investors (outside Japan), from ASEAN countries themselves (19% of the flows in Thailand and in Vietnam, 26% in Myanmar and 44% in Laos) as well as from South Korea, Taiwan and Hong Kong.

The EU is mainly investing in three sectors: financial services (including insurance) with a share of 44% of all EU inflows into the whole region during the period 1999-2001, manufacturing recording 19% of investments, and trade / commerce 14%.

Chart 1.17. EU FDI in ASEAN by broad sectors of industry (cumulative 1999-2001, balance of payment basis)



Source: ASEAN Secretariat

In the manufacturing sector only, Europe’s position is fairly different. Approval figures have to be used with caution, as there is a significant uncertainty on the effective implementation of projects (some may just be cancelled and never occur) and on the schedule of implementation. However, they also provide some clues on ‘likely’ future trends. In this respect, the ‘approvals’ during the 1999-2001 period do say a lot for the next few years’ development and on the “strategic” interest of different investing countries for expanding their production base in the ASEAN region. The most notable variation when confronted with actual figures is the strong increase in Japan’s share, and to a more moderate extent, that of East Asian investors, compensated by a significant decline in European and US shares.

FDI Approvals in the Manufacturing Sector (cumulative 1999-2001, million \$ and % of total)

| Japan | USA | EU | East Asia* | ASEAN | Others |
|--------|-------|-------|------------|-------|--------|
| 12 418 | 6 998 | 8 520 | 6 708 | 4 662 | 4 407 |
| 28.4% | 16.0% | 19.5% | 15.3% | 10.7% | 10.1% |

Source: ASEAN Secretariat, computation by TAC
* South Korea, Taiwan, Hong Kong and China

When looking at the characteristics of these FDI approvals for manufacturing projects, three features are prominent:

- EU and US investment are concentrated in a limited number of industries (two thirds of total manufacturing approvals are in just two sectors for the EU and just one sector for the US), much more concentrated than Japan and East Asia (same proportion of total manufacturing

FDI approvals attained with respectively four and six industries). This is evidenced by the relatively large size of an average project by US or EU companies (USD 44 million and USD 26 million respectively for US and EU FDI) and limited number of projects (respectively 290 and 512), compared with 1209 projects and an average size of USD 9 million for Japan, and 1918 projects of USD 3.9 million on average for East Asian countries.

- EU investors are very active in the electronics industry, a dominant area for overall FDI in ASEAN, but European FDI approved in this sector in 1999-2001 was still much lower than corresponding projects by US and Japanese investors. Conversely, the EU is dominant in the downstream petroleum industry, but given that this represents a couple of large projects (refining, gas transport and exploitation). A specific characteristic of EU investment is also its large (relative) share in food processing.
- Asian investors, notably from Japan and East Asia have invested more markedly in the intermediate goods industries, ranging from chemicals to rubber and plastics, and including basic metals and pulp / paper. EU investors seem to partly lose out to competitors in these key industries, except for refined petroleum products, chemicals, and to a lesser extent, rubber and plastic.

1.3.2. EU Trade with ASEAN

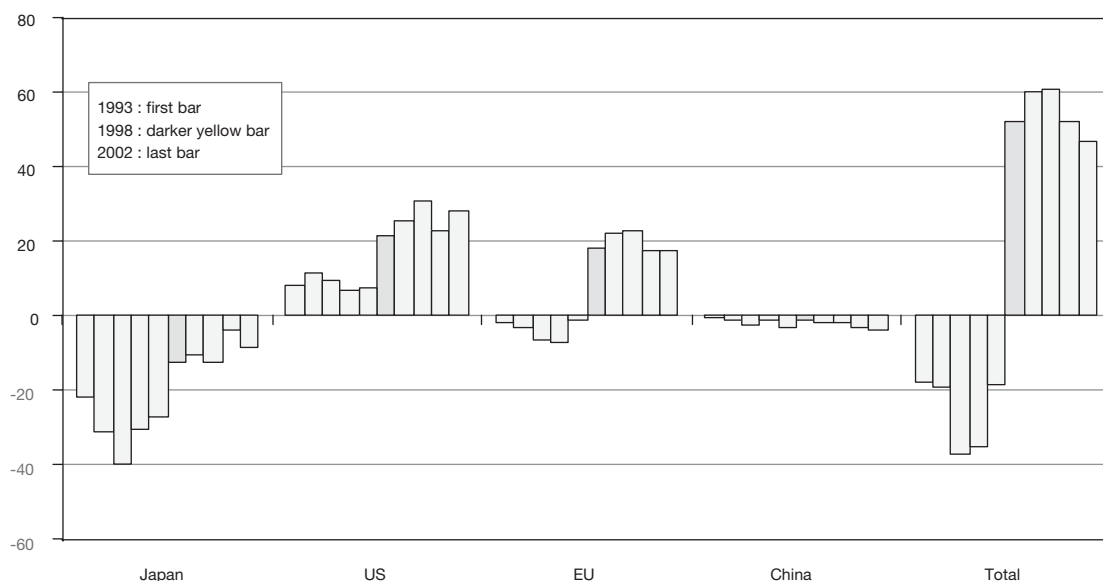
The EU as a group is among the largest trading partners of ASEAN, and has overall closed the previous gap with Japan, notwithstanding a decline in market share since 2000. Total trade flows have been very sharply affected by the 1997-98 crisis, but have significantly recovered since 1999. EU trade with ASEAN remains concentrated, on the export side, on a limited number of equipment and intermediate goods, as well as on the import side (electronics, consumer goods).

Europe’s position in the overall trade with ASEAN is roughly at par with that of the other developed nations, between 12% and 17% according to the period and whether imports or exports. In 2002, total EU trade with ASEAN was almost USD 97 billion, against USD 64 billion in 1993. The bilateral trade balance between the EU and ASEAN shifted considerably when the 1997-98 crisis erupted. From 1993 to 1997, the EU registered small but persistent trade surpluses; from 1998 onwards, the balance shifted into larger deficits. This compares with structural but declining surpluses for Japan’s trade with the region, and structural and increasing deficits for the US.

The EU is a smaller market for ASEAN exports than the US, but larger than Japan; conversely, it is a slightly smaller supplier than both Japan and the US. All developed countries have lost shares in ASEAN external trade since 1993, with China taking most of the lost ground for ASEAN exports, and sharing it with other suppliers for ASEAN imports.

Total ASEAN trade and therefore EU trade with ASEAN registered a sharp decline in 1998, because of the do-

Chart 1.18. Bilateral Trade Balances of ASEAN with its Major Partners 1993-2002 (seen from ASEAN statistics, bn \$)



Source: IMF DOTS

Chart 1.19. Shares in ASEAN exports by Partners

| | 1993 | 2002 |
|-----------|--------------|--------------|
| Japan | 16,0% | 12,5% |
| US | 19,7% | 18,2% |
| EU | 15,0% | 13,8% |
| China | 2,5% | 5,8% |
| Other | 46,8% | 49,7% |

Shares in ASEAN imports

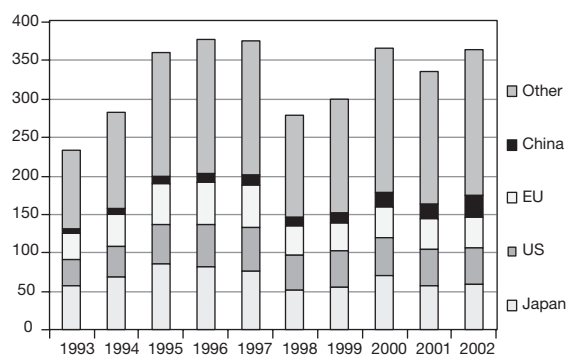
| | 1993 | 2002 |
|-----------|--------------|--------------|
| Japan | 24,2% | 16,4% |
| US | 14,9% | 12,9% |
| EU | 14,7% | 10,8% |
| China | 2,6% | 7,7% |
| Other | 43,5% | 52,2% |

Source: TAC from IMF DOTS data

mestic collapse in demand in almost all ASEAN countries. EU exports fell by 34% between 1997 and 1998 (to USD 34 billion), while EU imports from ASEAN remained almost stable (USD 59 billion). In part because the 1997-98 crisis was associated with huge exchange rate depreciations, triggering large import substitution strategies in the ASEAN countries, total ASEAN imports (Chart 1.20) have not yet recovered their pre-crisis levels, and the EU exports (Chart 1.21) in 2002 are still about 30% lower than the peak of 1996.

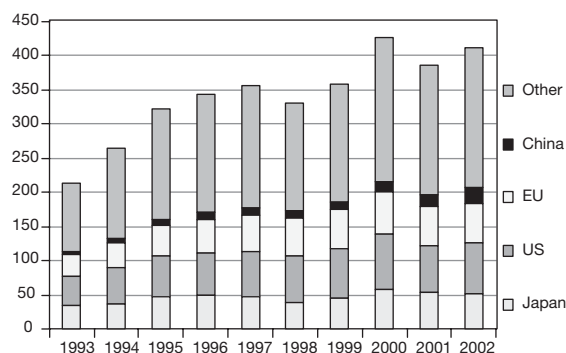
A detailed cross analysis of country / products trade of ASEAN countries can help in identifying the areas where the competition is the most intense: the identification is made by looking at the relative position of the EU (versus the US, and then versus Japan) in terms of market share (ratio of EU share in total ASEAN imports, to its competitor's share) and in terms of market dynamics (ratio of EU

Chart 1.20. ASEAN Imports by Origin (bn US\$)



Source: IMF DOTS

Chart 1.21. ASEAN Exports by Destination (bn US\$)



Source: IMF DOTS

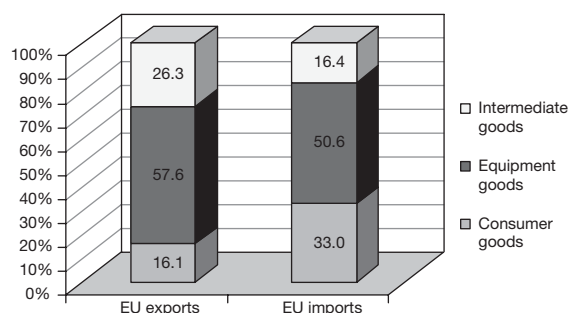
increase in export to ASEAN, to the increase registered by its competitors). The following conclusions can be draw:

- With the US, the competitive pressure is the strongest for construction materials, metal articles, prepared foodstuffs and vehicles.
- With Japan, the most intense competition has been on prepared foodstuffs, vehicles, textiles, and precision instruments.

A broad ‘economic’ classification of EU exports (Chart 1.22) to ASEAN shows the heavy dominance of equipment goods. Conversely, the economic breakdown of EU imports is more surprising, but has to be looked at closely because of classification issues: the large share of ASEAN exports of ‘equipment goods’ is related to the inclusion, at a 2-digit level, of all electrical and electronic appliances (notably consumer electronics) into the ‘equipment goods’ definition. The convergence between EU export and import structure is an interesting point, as it would suggest, for the near future, a faster increasing intra-industry and intra-branch trade and not the classic ‘international specialisation’ pattern that was prevalent earlier.

A closer examination of EU trade with ASEAN, derived from Eurostat data and including 2002 figures, highlights both the ‘dominant’ products, in EU exports as well as EU imports, and the most impressive growth over the past few years, notably since the crisis.

Chart 1.22. Structure of EU Trade with ASEAN by Category of Products (1999-2002 figures)



Source: TAC, from Eurostat

Among the 100 products covered at a 2-digit classification, a first list can be established for products accounting for more than 1% of total EU exports (Table 1.4) to ASEAN (average 1999-2002) and having registered a positive increase between 1999 and 2002:

A second list can be established for products having registered the fastest increase since 1999, but which accounts for a much smaller share of total EU exports (with a threshold of 0.1% of total, i.e. about USD 35 million, used here):

1.4. Perception of Existing EU investors

The perceptions of EU companies concerning investments and operations in ASEAN vary widely. Awareness and attraction of ASEAN are very low at head office levels in Europe for small, medium and even large companies, while an ASEAN strategy is being developed by multinational companies. In parallel, perception “on the ground” is much more positive than in Europe, with obstacles clearly identified and understood, favourable corporate performances, and expansion plans.

1.4.1. Awareness and Strategies Differ Markedly

An analysis of EU companies’ perception about the reality and prospects of the ASEAN integration process has been conducted through a mix of qualitative interviews with business representative organisations, both in Europe and in ASEAN, and a quantitative survey made with 124 EU-invested companies operating in one or more ASEAN countries¹. The major conclusions drawn from the whole exercise can be summarised under three main items:

¹ The survey was conducted in July-November 2003 with 124 European companies in Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam. The survey sample is adequately spread across host and investing countries, as well as across sectors.

Table 1.4. Large and Growing Export Products from EU to ASEAN (fastest growth highlighted)

| Name of product | HS code | Share of EU exports to ASEAN (1999-2002) | Dynamics of EU exports to ASEAN (2002 as an index of 1999) |
|---|---------|--|--|
| Electrical machinery and equipment | 85 | 29.3% | 1.06 |
| Machinery and mechanical appliances | 84 | 20.7% | 1.37 |
| Optical, precision instruments | 90 | 3.8% | 1.32 |
| Vehicles other than railway | 87 | 3.8% | 1.60 |
| Plastics and plastic products | 39 | 2.9% | 1.22 |
| Organic chemicals | 29 | 2.8% | 1.01 |
| Pharmaceutical products | 30 | 2.2% | 1.31 |
| Paper and paperboard | 48 | 1.6% | 1.27 |
| Miscellaneous chemical products | 38 | 1.5% | 1.05 |
| Tanning or dyeing ext. paints and varnishes | 32 | 1.4% | 1.11 |
| Iron and steel | 72 | 1.3% | 1.28 |
| Perfumery, cosmetic | 33 | 1.1% | 1.38 |
| Beverages, spirits and vinegar | 22 | 1.1% | 1.14 |

Source: Eurostat

Table 1.5. Small but rapidly Growing Export Products from EU to ASEAN (largest exports highlighted)

| Name of product | Share of EU exports to ASEAN (1999-2002) | Dynamics of EU exports to ASEAN (2002 as an index of 1999) |
|---|--|--|
| Other products | 0.90% | 2.03 |
| Wood and articles of wood | 0.18% | 1.77 |
| Tools, implements, cutlery, of base metal | 0.56% | 1.58 |
| Miscellaneous edible preparations | 0.55% | 1.57 |
| Fish and crustaceans | 0.13% | 1.37 |
| Articles of apparel and clothing knitted or crocheted | 0.12% | 1.34 |
| Wool, yarn and fabrics of horsehair | 0.16% | 1.32 |
| Preparations of cereals, flour, starch or milk | 0.48% | 1.30 |
| Albuminous substances; enzymes | 0.34% | 1.27 |
| Apparel and clothing acc. not knitted or crocheted | 0.23% | 1.26 |
| Mineral fuels, mineral oils | 0.71% | 1.24 |
| Furniture | 0.77% | 1.20 |
| Rubber and articles thereof | 0.65% | 1.20 |
| Glass and glassware | 0.38% | 1.18 |
| Knitted or crocheted fabrics | 0.14% | 1.17 |

Source: Eurostat

- Multinational companies have a clearly integrated “ASEAN+” investment strategy** in the region, in parallel with a world-wide review and reallocation of plant location. European giants like Unilever, Siemens, Alcatel, Nestlé, Philips, DaimlerChrysler, Shell, Thyssen, L’Oréal, STMicroelectronics... have shifted, or are in the process of shifting from an industrial organisation based on country-targeted units (one or more production units manufacturing a range of products to be sold locally), to a product-targeted structure, where regional units are producing the same goods (with corresponding economies of scale) in dedicated plants, to be sold across the whole ASEAN market. In many instances, this change in industrial and marketing organisation includes non-ASEAN countries, notably China, as a source of inputs or as a destination for certain categories of products. Most of these MNCs have a regional headquarters based in Singapore. They state that tariff reduction is an important feature in their industrial organisation, and acknowledge the fact that different domestic tax structures and the absence of a common external tariff raise problems, but also offers fiscal optimisation opportunities. As a general statement, they do not see the competition with other investment destinations, notably China, as a threat or a challenge to their ASEAN strategies, because they have world-wide strategies to exploit economies of scale, to tap local competitive advantages, and to maintain a global geographic coverage.
- Conversely, **small and medium size enterprises (SMEs)**, but also larger companies and most representative bodies in Europe **are almost completely unaware** of the ‘ASEAN’ economic area and integration process. ASEAN is seen as mostly a political construction engaged in a vague process of discussion without any effective impact on their business opportunities or strategies. The proliferation of regional organisations (notably APEC, ASEM), the mix of objectives in each of these different fora (political dialogue, fight against terrorism, drug trafficking, human right issues), and the absence of any meaningful European business organisation focusing specifically on ASEAN

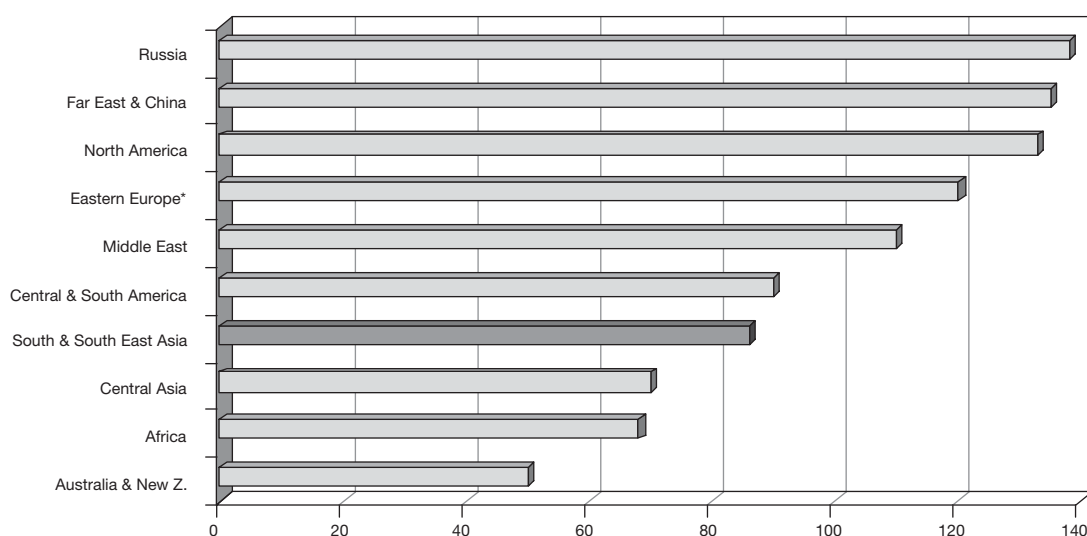
matters, have combined to create a very low level of attraction and awareness about ASEAN. A revealing measure of this lack of interest was provided to Eurochambres, the EU umbrella organisation for all Chambers of Commerce in Europe, through a simple survey made through their members (and therefore targeting mostly SMEs) on the ‘level of interest’ towards different non-EU areas. A first indication of this non-interest was even in the questions themselves, where South East Asia and South Asia (Indian sub-continent) were grouped as one area, even though the differences between the two sub-groups are large enough to warrant being treated separately. The second stronger indication was in the answers, where the “South & South East Asia” region came 7th out of 10 different regions, with only Australia, Africa and Central Asia showing a lower level of interest (Chart 1.23.).

This low level of interest is also associated with the scars left by the 1997-98 crisis (where weaknesses in local corporate governance and severe restructuring difficulties were blatant) and a poor “political” image over the past few years, which have left a vague image of a crisis-hit area, turbulence, religious violence, political instability, and corruption.

- The survey conducted with EU-invested companies in ASEAN does however show convincingly that **the “microeconomic and trade integration” is indeed taking place on the ground**, even if clearly not as the unique or even the dominant strategic parameter of European companies. It is probably fair to suggest that European perception on the ground is much closer to the “reality” of the business opportunities and difficulties than what is considered at head offices or by representative bodies in Europe, while it must also be recognised that there is usually a slight positive bias in such surveys based on voluntary participation.

This “truer” perception on the ground can be articulated around four points:

Chart 1.23. Level of Interest in Geographic Areas by European SMEs



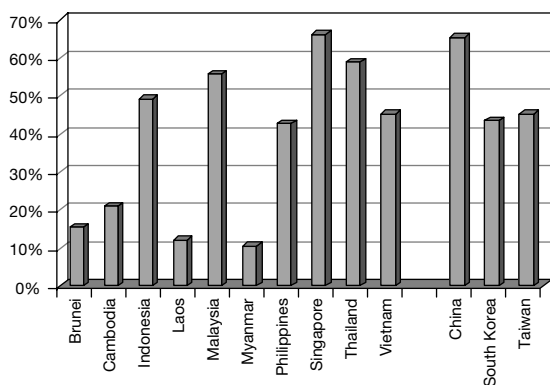
Source: Eurochambres Survey, Jan-2003

— Companies responding to the survey show an interesting combination of *smaller operations* in each country, a *multi-country presence*, and a *large size world-wide*. Concerning the latter, 46% of the respondents have a world-wide activity above USD 1 billion, against 31% being below USD 100 million, and only 15% below USD 10 million. Notwithstanding this substantial global size, the ‘usual’ size of the local units is small, with 58% of the respondents declaring units of less than 100 employees and 11% above 500 employees. Most of the companies have a presence in more than one Asian country: almost 60% of the respondents have a presence in three ASEAN countries or more, and 31% in six ASEAN countries or more. The presence is particularly large in Singapore (51% of companies having the regional headquarters there), but also in Thailand and in Malaysia, and to a lesser extent Indonesia, Vietnam and the Philippines. The same companies also have a presence in China (65% of the respondents), South Korea and Taiwan.

— *Servicing the local market* from the local ASEAN unit (production or sale) remains the dominant business line of the companies, whatever their regional presence, but *pan-ASEAN activity* is the second market, before exports to other destinations, developed or developing nations alike (chart 1.25.). Conversely, 62% of the companies source some of their inputs from the other ASEAN countries (mostly for raw materials and intermediate goods, but a significant share also in equipment goods)

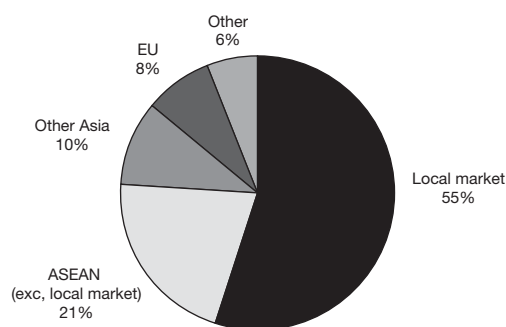
— Despite this operational orientation towards ASEAN (presence and cross-border sales), the *awareness of the regulatory process* behind the economic and trade integration is *still low* (Chart 1.26), even when operating on the ground. The only (but most important) aspect of the ASEAN integration of which EU companies are well aware of is related to the tariff reduction under AFTA. The initiatives launched by the ASEAN Secretariat and various working groups concerning IPR, the ASEAN Investment Area and standards are not well known by EU companies.

Chart 1.24. EU Presence in Asia (% of surveyed companies having a presence in ,,,)



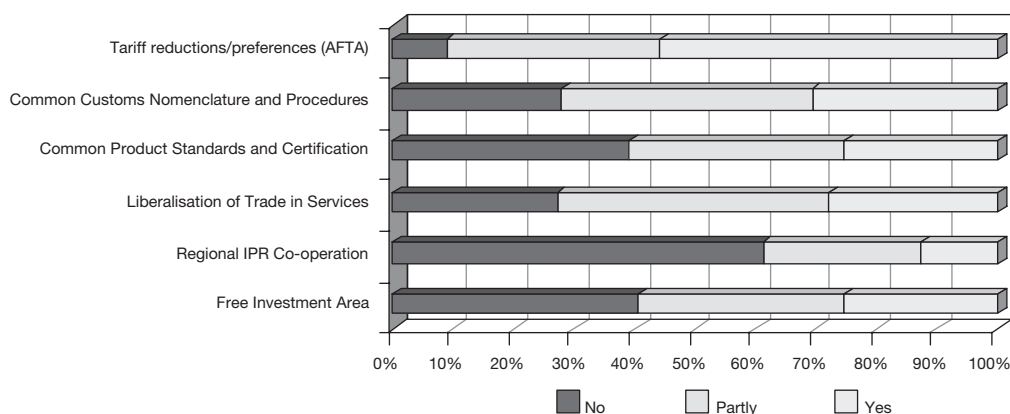
Source: TAC/METRA survey - Oct2003

Chart 1.25. EU Companies' Sales by Destination in ASEAN



Source: TAC/METRA survey — Oct2003

Chart 1.26. Awareness of ASEAN Integration Process by European Companies in ASEAN



Source: TAC/METRA survey — Oct2003

— The *development of an integrated ASEAN economic region was not a primary motive* for the current investment in ASEAN (56% of respondents declaring that it was not an important consideration when deciding to invest), but the current process *is more likely than not to encourage further investment* in the area. Similarly, 40% of the respondents believe that the integration process will lead to further inter-country collaboration in their industry, and 34% for their own unit.

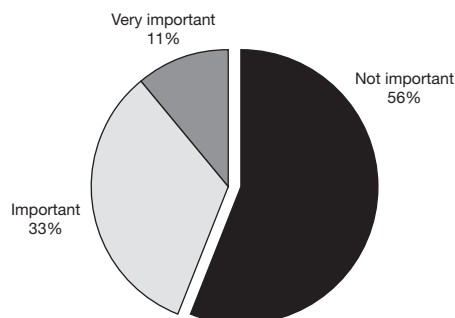
1.4.2. Performances and Plans “On the Ground” are Very Positive

Here again, the feedback derived from the survey of companies having a concrete experience of business in the ASEAN area stands in stark contrast with the negative images most present in Europe. The quantitative results are also coherent with the qualitative views collected in the different countries, where the “good business” feeling is undoubtedly more prevalent than in Europe. Indeed, EU-invested companies (see survey results in Chart 1.28 overleaf):

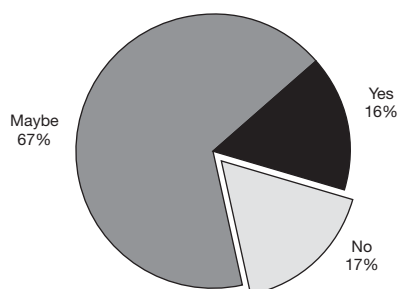
- are satisfied with their performances,
- still find considerable attraction for investing in ASEAN in comparison with other possible destinations. The single and important exception is China: but 46% of the respondents still consider that ASEAN is getting more attractive than China, and 54% the reverse;
- do not feel threatened by the opening-up of ASEAN to further trade competition through planned Free Trade Agreements; here again, the competition with China is perceived as strongest, but there are still a higher proportion of respondents claiming to be ‘not worried’ than those stating that they are ‘worried’ by the prospect of a full implementation of the China-ASEAN free trade agreement.
- believe that cross-border collaboration within ASEAN will increase, both at the industry level and for their own operation;
- expect their performances to improve in the near future, against a background of solid development for their respective industries.

Chart 1.27. Importance of the ASEAN Integration for EU Companies’ Investments

Was the integration of ASEAN an important consideration in establishing your operation?



Will the ASEAN economic integration process lead to further investment by your company in the ASEAN Region?

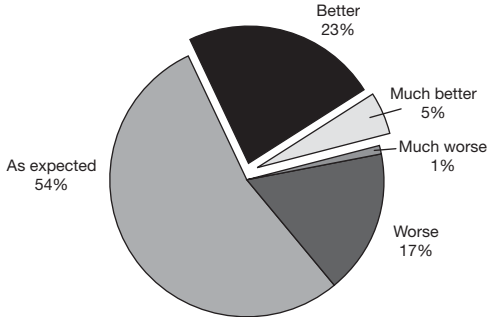


Source: TAC/METRA survey — Oct2003

Chart 1.28. Survey Results

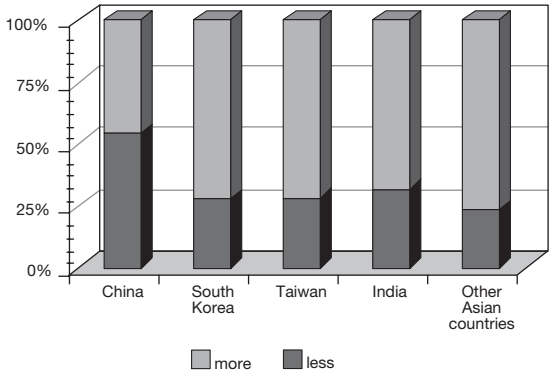
Company performance, as expected or better

How would you measure your company performance compared to expectations?

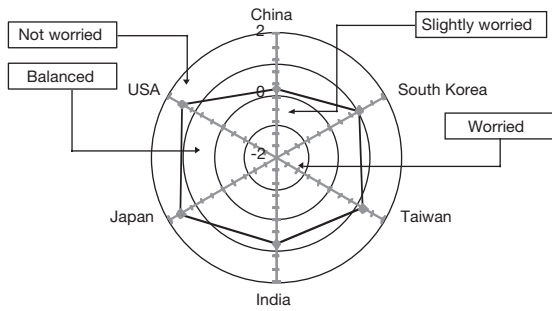


China is the major competitor, but no excessive worries

Is ASEAN getting more or less attractive for investment in your industry than ...

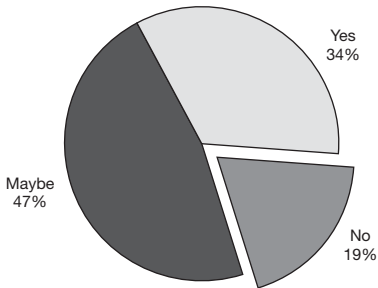


How worried about your future company's prospects opening-up of ASEAN to... (*)

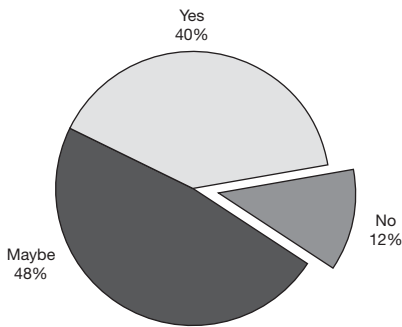


ASEAN integration favouring local links

Will ASEAN integration lead to more collaboration between ASEAN based companies, for your company?



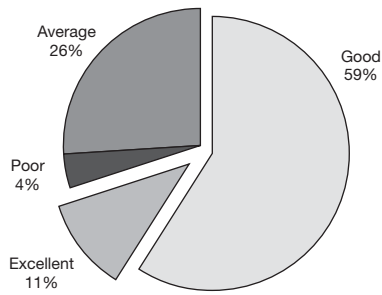
Will ASEAN integration lead to more collaboration between ASEAN based companies, for your sector?



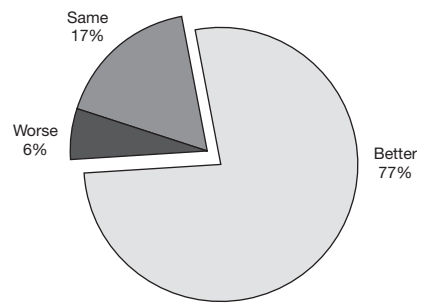
(*) Index computed as : [(not worried) - (worried)]/(neutral); a positive index denotes a majority of 'not worried', a negative index a majority of 'worried'

Sector growth and company performance expected to be solid

How would you rate the development prospect of your industry in ASEAN in the next 5 years?



How do you expect your performance to be in the next 3 years compared to the past 3 years?



Source: TAC/METRA Survey Oct-2003

2. Promising Sectors and Opportunities

Summary:

ASEAN offers a wide range of opportunities for EU companies, both for meeting a growing domestic demand for progressively more sophisticated products and for serving as an export base to other destinations: Asia, the US or Europe. The selection of opportunities, especially for small and medium size enterprises (SMEs), is a difficult exercise because such opportunities are mostly related to specific product characteristics and technical, managerial and marketing know-how. However, it is possible to identify food processing, electronics, mechanical engineering, automotive components, information technology and software, and tourism/leisure as attractive for foreign investors in the next few years.

No company would accept that a pure ‘top-down’ approach, from a macro- and industry perspective down to specific niche or product and investment opportunity, can be made with no initial inputs from the company itself concerning its objectives and strategy. In this respect, the present report cannot pretend to be a substitute for detailed ‘in-the-field’ examination of each potential investor’s unique characteristics and aims. The objective of this section of the Report is to provide companies with some initial inputs into what would be the industries most attractive to SMEs and what are the broad features of such attractive sectors. It also includes a ‘number crunching’ exercise designed to highlight some potential ‘niches’ within the broad sectors, assuming that an expanding trade between the EU and ASEAN is a good forerunner to investment interest.

The first part of this section briefly presents the methodology that was used to identify the attractive ‘broad’ sectors, and the second part provides useful statistics and qualitative information on each of the six selected industries.

2.1. Sector Selection

In order to rank sectors according to the potential interest for European SMEs, a set of selection criteria has been drawn up as shown in Table 2.1, including quantitative as well as qualitative data. For quantitative information, data was collected on trade, FDI, and production, from internationally recognised sources (IMF, Eurostat, UNCTAD, UNIDO) and local sources in the various countries. Qualitative inputs were derived from the extensive contacts and interviews with business representative organisations, both in Europe and in Asia, as well as from all available sector analyses from published sources¹. The sectors are somewhat broad as this was the only level at which both EU and ASEAN organisations were able to discuss/comment on them.

¹ More than 200 organisations were met both in Europe and in ASEAN countries ; see Annex A for the complete list of contacts.

All data were converted in a pre-defined scale to enable computation across indicators. The results are shown in Table 2.2. (Manufacturing) and 2.3 (Services).

This sector selection has led to the identification of six broad sectors that appear to offer the most attractive opportunities for European SMEs targeting the ASEAN market. These six sectors are:

- Manufacturing:**
- Electrical/electronics
 - Food processing
 - Automotive components
 - Mechanical engineering (machinery)
- Services:**
- Tourism/leisure
 - IT/software

2.2. Sector Profiles and Opportunities

Each of the six promising sectors identified in the previous step are described below. Again, it is important to highlight that such overviews and definition of specific opportunities aim mostly at enhancing the interest of European companies into further investigation for their own products and strategies.

The analysis by sector is structured around a common frame: a first part gives the most important and useful statistics available (including data on domestic production and markets, and data on exports from the EU to the whole ASEAN region); then, a second part is devoted to a description of the structure of the sector (types of companies, foreign presence, country-specific features); finally, a third part contains some elements for a more detailed focus on specific opportunities or niches, derived from both qualitative inputs (interviews, review of literature) and a quantitative exercise based on trade figures².

2.2.1. Food Processing

Agriculture is still an important sector of the economy in all countries except Singapore, accounting for 10% to 30% of the GDP, with a higher proportion for the newcomers into ASEAN (e.g. 24% in Vietnam) than for the older members (e.g. 9% in Malaysia). The downstream activities related to food are also key sectors in all ASEAN economies, for both domestic and export markets. There are a large number of

² This quantitative identification is presented in a box, for each sector, called ‘Quant’s Corner’: the selection of products is made at a 6-digit level of customs classification, and is the result of a combination of quantitative criteria on trade flows: size of EU exports, growth of EU exports over the past 4 years, dispersion of EU exports across different ASEAN countries, size of intra-ASEAN trade

Table 2.1. Sector Selection Criteria

Score from 0 to 5¹

1. Interest to EU Industry

- Based upon meetings/contacts with EU business organisations and companies in EU and ASEAN

2. Interest to ASEAN Industry

- This is taken from desk research and enquiries with ASEAN government and intermediary organisations

3. Spread of EU Interest (Number of Countries)

- The sector should have broad appeal and be of interest to a number of EU countries

4. Spread of Company Interest (Number of Companies / SME Involvement)

- The sector should provide opportunities for a large number of private sector SMEs and not be controlled by MNCs or state companies

5. Market Size and Potential Growth

- Domestic and export combined

6. Sector Takes Advantage of ASEAN Integration

- Possibilities for vertical and horizontal integration

7. High Intra ASEAN Export Potential

Score from 0 to 3¹

8. Export Potential with EU/other Countries

- Taken from Eurostat and ASEAN trade statistics for non-EU countries (USA, Japan, China and others of significance)

9. FDI/approvals in the Sector

- A balanced view has to be made taking into account existing FDI/approvals from EU as showing interest and too much FDI as a sign that the sector may already have realised its potential

10. Degree of Openness of the Sector Now and in Near Future

- Reflecting restrictions such as market access (especially in service sectors)/NTBs

11. Sector Opportunities Consistent with EU Approaches

- E.g. labour practices
- Environmental practice / not harmful to environment

12. Perceived Relative Competitive Advantage of ASEAN

- Qualitative view from contacts in EU / ASEAN and desk research
- Particularly against China and India

13. Level of Technology Required

- Hi-tech preferred to low-tech

14. Technological and Comparative Advantage for EU vs. Other Countries

- We can only give a qualitative view of sectors where EU industry has a comparative technological advantage over other countries such as USA and Japan. This is supplemented by the analysis of EU exports to ASEAN compared to these two countries

¹ The possible range for individual scores, 0 to 5 or 0 to 3, was defined by the experts as a result of the perceived importance of each criteria by companies and representative organisations

Table 2.2. Criteria Ranking Matrix - Manufacturing

| Criteria | Sector | | | | | | | | | | |
|----------------------------------|-----------------|-----------------|--------------------|----------------|--------------------|-----------|----------------|------------------------|-----------------------|------------|-----------|
| | Food processing | Pharmaceuticals | Chemicals/Plastics | Wood/Furniture | Building Materials | Fashion | Metal Products | Mechanical Engineering | Electrical/Electronic | Automotive | Bio-Tech |
| Score 0-5 | | | | | | | | | | | |
| Interest to EU industry | 5 | 2 | 2 | 2 | 1 | 3 | 1 | 4 | 5 | 3 | 2 |
| Interest to ASEAN industry | 4 | 2 | 3 | 2 | 1 | 3 | 2 | 4 | 5 | 4 | 3 |
| Spread of EU interest | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 4 | 3 | 3 |
| Spread of company interest | 4 | 2 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 |
| Market size and growth | 3 | 4 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 4 | 3 |
| Advantage from ASEAN integration | 4 | 2 | 3 | 3 | 2 | 4 | 2 | 3 | 4 | 4 | 2 |
| Intra ASEAN export potential | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 4 | 5 | 4 | 3 |
| Score 0-3 | | | | | | | | | | | |
| Export potential (EU/others) | 3 | 2 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 3 | 2 |
| FDI approvals | 3 | 1 | 3 | 1 | 1 | 2 | 1 | 2 | 3 | 3 | 1 |
| Openness of sector | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 3 |
| Consistency with EU approach | 1 | 3 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 |
| Competitive advantage of ASEAN | 3 | 2 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 3 | 2 |
| Level of technology | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 3 |
| Comparative advantage of EU | 3 | 3 | 2 | 2 | 1 | 3 | 2 | 3 | 3 | 3 | 3 |
| TOTAL | 44 | 33 | 33 | 32 | 23 | 35 | 26 | 43 | 50 | 44 | 36 |

Table 2.3. Criteria Ranking Matrix - Services

| Criteria | Sector | | | | | | | | | | |
|----------------------------------|-------------|-----------|--------------|-----------|--------------|-----------|-----------------|-----------|-----------|-----------|-----------|
| | IT/Software | Financial | Professional | Retail | Construction | Energy | Tourism/Leisure | Transport | Telecoms | Education | Health |
| Score 0-5 | | | | | | | | | | | |
| Interest to EU industry | 3 | 3 | 3 | 3 | 2 | 4 | 4 | 2 | 2 | 2 | 2 |
| Interest to ASEAN industry | 4 | 2 | 3 | 3 | 2 | 4 | 4 | 3 | 4 | 3 | 2 |
| Spread of EU interest | 4 | 2 | 3 | 3 | 2 | 3 | 4 | 3 | 3 | 2 | 3 |
| Spread of company interest | 4 | 2 | 4 | 2 | 3 | 1 | 4 | 2 | 1 | 4 | 3 |
| Market size and growth | 4 | 3 | 3 | 4 | 2 | 3 | 4 | 3 | 3 | 3 | 4 |
| Advantage from ASEAN integration | 1 | 2 | 2 | 3 | 1 | 1 | 4 | 4 | 2 | 1 | 1 |
| Intra ASEAN export potential | 2 | 3 | 3 | N/A | 3 | 2 | 4 | 4 | 1 | 2 | 2 |
| Score 0-3 | | | | | | | | | | | |
| Export potential (EU/others) | 2 | 0 | 1 | 0 | 1 | 3 | 3 | 1 | 0 | 1 | 1 |
| FDI approvals | 2 | 3 | 0 | 3 | 1 | 1 | 2 | 1 | 2 | 1 | |
| Openness of sector | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 |
| Consistency with EU approach | 3 | 3 | 3 | 2 | 1 | 1 | 2 | 1 | 3 | 3 | |
| Competitive advantage of ASEAN | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 1 | 2 | 2 | n/a |
| Level of technology | 3 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 2 | 2 |
| Comparative advantage of EU | 3 | 2 | 2 | 3 | 1 | 2 | 3 | 2 | 3 | 2 | 2 |
| TOTAL | 39 | 30 | 33 | 29 | 22 | 30 | 43 | 29 | 30 | 30 | 19 |

N/A = not applicable

domestic SMEs involved in this industry and many are believed to be seeking foreign partners.

2.2.1.a. Data and statistics

The only roughly compatible production statistics are those produced by UNIDO. The latest figures produced for the 2003 Industrial Statistics series are for the year 2000 as shown in Table 2.4. Even these statistics are not complete or directly comparable for all countries. Malaysian data is for 1999 only and conforms to a different nomenclature. Notwithstanding these limitations, production statistics highlight the weight of the food processing sector in ASEAN (above EUR 60 billion in the 6 countries for which data is available), and the relative importance of processed meat, fish and vegetables in the total production (43%) and the relatively low share of beverages (12%).

The examination of EU exports of food products to the whole ASEAN region conversely reveals the importance of beverages in the total market for EU products (almost a third of total exports of food products). Imports of EU beverages have also grown very rapidly since 1998, with

a 72% growth in just 4 years, compared with a 32% increase for all food imports from the EU. This sharp increase is partly compensated by a significant decline in EU exports of tobacco products, from EUR 274 million in 1998 to only EUR 88 million in 2002.

2.2.1.b. Structure of the sector

The only corporate ASEAN structure reported was for large multinational companies such as Nestlé and Unilever. The sector is heavily dominated by domestic SMEs, as shown in the Table below: the average size of food processing units is between 20 and 200 persons, depending on the sub-sector and on the country (larger in Thailand, Vietnam and Indonesia, smaller in Malaysia), but there are a number of large multinational companies as well as foreign invested companies.

The only single source data on the structure of the sector is that prepared by UNIDO for the 2003 Industrial Statistics series. The structure in terms of employment and number of establishments by major sub-sector is shown in Table 2.7.

Table 2.4. Output of Processed Foods in Producers' Prices (2000)

(Euros Million)

| ISIC | Industry | Indonesia | Malaysia ^b | Philippines ^b | Singapore | Thailand | Vietnam | |
|-------------|--|---------------|-----------------------|--------------------------|--------------|---------------|--------------|-----|
| 151 | Processed Meat, Fish, Fruit, Vegetables, Fats | 5 131 | 9 219 | 2 461 | 548 | 6 694 | 1 808 | |
| 1511 | Processing/preserving of meat | 94 | 202 | | 145 | 983 | 68 | |
| 1512 | Processing/preserving of fish | 1 439 | 267 | | 143 | 4 161 | 1 476 | |
| 1513 | Processing/preserving of fruit & vegetables | 180 | 116 | | 16 | 686 | 77 | |
| 1514 | Vegetable and animal oils and fats | 3 418 | 8 634 | | 244 | 864 | 187 | |
| 1520 | Dairy Products | .. | 455 | 1 016 | 224 | 323 | 334 | |
| 153 | Grain Mill Products; Starches; Animal Feeds | 2 815 | 1 096 | 1 051 | 53 | 3 858 | 2 027 | |
| 1531 | Grain mill products | 497 | 509 | 128 | | 1 843 | 1 512 | |
| 1532 | Starches and starch products | 1 092 | | } 923 | | 223 | 53 | |
| 1533 | Prepared animal feeds | 1 226 | 587 | | | | 1 792 | 462 |
| 154 | Other Food Products | 3 115 | 1 586 | 4 056 | 1 092 | 2 266 | 1 017 | |
| 1541 | Bakery products | 239 | 426 | 446 | 196 | 344 | 57 | |
| 1542 | Sugar | 719 | 358 | 741 | .. | } 1 211 | 200 | |
| 1543 | Cocoa, chocolate & sugar confectionery | 354 | 299 | 588 | 134 | | | 51 |
| 1544 | Macaroni, noodles & similar products | 580 | } 503 | } 2 281 | 58 | 245 | 213 | |
| 1549 | Other food products nec | 1 223 | | | | | 704 | 466 |
| 155 | Beverages | 394 | 369 | 2 011 | 335 | 3 769 | 702 | |
| 1551 | Distilling, rectifying & blending of spirits | 3 | } 117 | | | } 2 161 | 20 | |
| 1552 | Wine | 3 | | | | | | 5 |
| 1553 | Malt liquours and malt | 42 | | | | | | 456 |
| 1554 | Soft drinks; mineral waters | 346 | 252 | | | 1 608 | 221 | |
| | Total | 11 455 | 12 725 | 10 595 | 2 251 | 16 910 | 5 888 | |

Notes: ^a Original national currency figures of UNIDO computed into Euros at average rate over 12 month

^b 1999 Data

^c Including Coconut oil, copra, neals & pellets

Source: UNIDO Industrial Statistics 2003, National Sources

Table 2.5. EU Exports to ASEAN – Food Products (EUR 1000 / HS2).

| | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|------------------|------------------|------------------|------------------|------------------|
| Chapter 11 Products Of The Milling Industry; Malt; Starches; Inulin; Wheat Gluten | 113 701 | 148 350 | 131 658 | 123 758 | 145 268 |
| Chapter 12 Oil Seeds And Oleaginous Fruits; Miscellaneous Grains, Seeds And Fruit; Industrial Or Medicinal Plants; Straw And Fodder | 6 764 | 6 906 | 9 544 | 9 982 | 9 600 |
| Chapter 13 Lac; Gums, Resins And Other Vegetable Saps And Extracts | 11 534 | 14 804 | 16 460 | 18 077 | 20 753 |
| Chapter 14 Vegetable Plaiting Materials; Vegetable Products Not Elsewhere Specified Or Included | 72 | 91 | 139 | 241 | 209 |
| Chapter 15 Animal Or Vegetable Fats And Oils And Their Cleavage Products; Prepared Edible Fats; Animal Or Vegetable Waxes | 55 629 | 23 554 | 23 566 | 24 692 | 45 390 |
| Chapter 16 Preparations Of Meat, Of Fish Or Of Crustaceans, Molluscs Or Other Aquatic Invertebrates | 11 894 | 14 892 | 20 057 | 17 885 | 19 292 |
| Chapter 17 Sugars And Sugar Confectionery | 36 408 | 51 512 | 53 737 | 73 261 | 52 513 |
| Chapter 18 Cocoa And Cocoa Preparations | 16 037 | 21 633 | 33 621 | 33 916 | 39 857 |
| Chapter 19 Preparations Of Cereals, Flour, Starch Or Milk; Pastry cooks' Products | 143 399 | 146 874 | 174 695 | 216 179 | 206 385 |
| Chapter 20 Preparations Of Vegetables, Fruit, Nuts Or Other Parts Of Plants | 15 303 | 17 631 | 23 593 | 31 140 | 40 453 |
| Chapter 21 Miscellaneous Edible Preparations | 113 599 | 145 670 | 189 849 | 231 440 | 260 221 |
| Chapter 22 Beverages, Spirits And Vinegar | 272 892 | 361 917 | 471 618 | 417 886 | 470 784 |
| Chapter 23 Residues And Waste From The Food Industries; Prepared Animal Fodder | 66 370 | 97 071 | 136 354 | 93 481 | 107 785 |
| Chapter 24 Tobacco And Manufactured Tobacco Substitutes | 274 049 | 199 850 | 228 087 | 173 286 | 87 800 |
| Total | 1 137 650 | 1 250 757 | 1 512 978 | 1 465 224 | 1 506 310 |

Source: Eurostat

Table 2.6. Average Size of Food Establishments (2000)

| Sub-sector | Indonesia | Malaysia ^b | Philippines | Singapore | Thailand | Vietnam | |
|---|-----------|-----------------------|-------------|-----------|-----------------|-----------------|----|
| Processed Meat, Fish, Fruit, Vegetables, Fats | 179 | } | 196 | 41 | 230 | 200 | |
| Grain Mill Products, Starches, Animal Feeds | 116 | | 33 | 60 | 46 | 45 ^a | 19 |
| Other Food Products | 115 | | 111 | 36 | 78 ^a | 174 | |
| Beverages | 91 | 42 | 287 | 156 | 257 | 42 | |

^a Some sub-sector excluded from figures

^b 1999 figures

Source: UNIDO Industrial Statistics 2003

The structure in each country is described briefly below:

Indonesia:

There are currently an estimated 960,000 companies of all sizes in the sector but only 4550 employing 20 or more. Total employment in these large companies in 2002 was 583,000. In Table 2.7. the largest category is other food and this includes the very large and important palm oil sector. In 2002 palm oil exports from Indonesia world-wide were worth more than USD 2 billion compared to fish at USD 1.2 billion and processed food at USD 1.2 billion.

Malaysia:

The Malaysian food industry is also dominated by small companies (64% of the total number of units, and only 5% of large companies). There were more than 1,000 food man-

ufacturing projects approved over the period 1980-2002 with a capital investment of MYR 13.2 billions. The dominant sector is oils and fats, reflecting the importance of palm oil processing where Malaysia is the world leader with 50% output and 60% of exports. 2002 Malaysian exports of vegetable oil products were close to USD 5 billion.

Philippines:

The 2000 census of manufacturing Establishments showed 1420 establishments employing 20 or more in the food-processing sector, employing 200,000. In fresh fruit production however the number are in the millions, with 5.9 million farms and households producing bananas, 2.5 million mangoes and 420,000 farmers producing pineapples. Fresh fruit exports in 2002 were USD 473 million out of a total agro-food exports of USD 2.1 billion.

Table 2.7. Food – Number of Establishments and Employment (2000)*(Employment in 000s)*

| ISIC | Industry | Indonesia | | Malaysia ^a | | Philippines ^{a,b} | | Singapore | | Thailand | | Vietnam | |
|--------------|--|--------------|--------------|-----------------------|--------------|----------------------------|--------------|------------|-------------|--------------|--------------|--------------|--------------|
| | | Estab | Empl | Estab | Empl | Estab | Empl | Estab | Empl | Estab | Empl | Estab | Empl |
| 151 | Processed Meat, Fish, Fruit, Vegetables, Fats | | | | | 340 | 64.5 | | | | | | |
| 1511 | Processing/preserving of meat | 36 | 5.1 | 53 | 5.6 | | | 32 | 1.5 | 143 | 40.1 | 41 | 3.9 |
| 1512 | Processing/preserving of fish | 552 | 82.6 | 129 | 7.0 | | | 33 | 1.2 | 382 | 108.0 | 411 | 85.9 |
| 1513 | Processing/preserving of fruit & vegetables | 67 | 17.1 | 213 | 3.9 | | | 9 | 0.2 | 268 | 43.4 | 70 | 19.1 |
| 1514 | Vegetable and animal oils and fats | 292 | 64.8 | 404 | 35.0 | | | 13 | 0.7 | 79 | 9.1 | 41 | 3.6 |
| 1520 | Dairy Products | na | na | 58 | 4.0 | 31 | 8.2 | 5 | 1.2 | 119 | 9.7 | 13 | 5.3 |
| 153 | Grain Mill Products; Starches; Animal Feeds | | | | | 238 | 14.4 | 7 | 0.3 | | | | |
| 1531 | Grain mill products | 481 | 61.0 | 342 | 6.3 | | | | | 663 | 23.1 | 1503 | 20.4 |
| 1532 | Starches and starch products | 264 | 23.4 | | | | | | | | 51 | 4.9 | 66 |
| 1533 | Prepared animal feeds | 87 | 11.8 | 78 | 3.0 | | | | | 145 | 10.9 | 77 | 7.5 |
| 154 | Other Food Products | | | | | | | | | | | | |
| 1541 | Bakery products | 489 | 45.5 | 966 | 19.5 | 336 | 27.1 | 64 | 2.8 | 196 | 17.1 | 32 | 7.0 |
| 1542 | Sugar | 121 | 74.1 | 7 | 2.4 | 35 | 18.1 | .. | .. | 110 | 28.6 | 180 | 28.2 |
| 1543 | Cocoa, chocolate & sugar confectionery | 104 | 17.4 | 78 | 4.4 | | | 6 | 0.3 | | | | |
| 1544 | Macaroni, noodles & similar products | 315 | 28.8 | | | | | 32 | 0.9 | 132 | 11.8 | 28 | 9.7 |
| 1549 | Other food products nec | 1553 | 131.2 | 793 | 13.1 | 330 | 35.7 | 127 | 4.4 | 564 | 20.8 | 225 | 35.4 |
| 155 | Beverages | | | | | 110 | 31.5 | 12 | 1.9 | | | | |
| 1551 | Distilling, rectifying & blending of spirits | 10 | 0.6 | 23 | 1.6 | | | | | 33 | 17.6 | 23 | 2.1 |
| 1552 | Wine | 8 | 0.6 | | | | | | | | | | |
| 1553 | Malt liquours and malt | 4 | 1.1 | | | | | | | | | 138 | 13.8 |
| 1554 | Soft drinks; mineral waters | 237 | 21.2 | 94 | 3.3 | | | | | 204 | 43.4 | 602 | 15.7 |
| Total | | 4 620 | 586.3 | 3 238 | 109.1 | 1 420 | 199.5 | 340 | 15.4 | 3 089 | 388.5 | 3 480 | 265.9 |

Notes: ^a 1999 figures^b Only includes establishments employing more than 20 people

na = Not available

Source: UNIDO Industrial Statistics 2003, National Sources

Singapore:

Estimates for 2002 showed 337 establishments in the food, beverages and tobacco sector employing 16,428 people. These are in line with UNIDO data in Table 2.7, which confirms the small size of the sector compared to other ASEAN countries. Total agro-food exports were USD 2.4 billion in 2002 of which USD 600 million were beverages.

Thailand:

There are an estimated 9,000 food processing factories in Thailand employing some 600,000 people. These data cannot be compared with UNIDO figures, which are incomplete, but do show how the sector is dominated by fish processing. Factory size is large in both fish processing and breweries / bottling plants. Total exports world-wide were USD 12.25 billion in 2002 of which USD 3.6 billion were fish products.

Vietnam:

There are a vast number of "cottage industries" in the food-processing sector. The number of manufacturing companies with foreign investment was 172 in 2001. Investment is mainly Asian but there are EU investments in sub-sectors such as breweries, dairy products, sugar, tea processing and animal feed. Fish processing is the largest sub-sector and also has a large average factory size. The latest estimate is that there are 260 fish processing companies of which 68 have been approved for export to EU and a larger number

for the US market. Exports of fish products in 2002 were USD 2.0 billion out of total agro-food exports of USD 5.0 billion. Developing sectors include floriculture where it is targeted to have 10,000 ha under cultivation by 2010 and dairy products. Even by 2005 it is only planned to meet 20% of demand for fresh milk. This will involve doubling the dairy herd to 117,000 by 2005 and to 200,000 by 2010 to meet 40% of demand for fresh milk.

Major players in the sector:

Most of the US and European multinationals have a manufacturing or major distribution base in the ASEAN region. Some major foreign players include:

EUROPE

Nestlé
Cadbury – Schweppes
Unilever
Danisco
Dutch Lady
Danone
Clouet
EAC Group
Heineken
Carlsberg

OTHER

Cargill
Dole
Del Monte
Golden State Foods
Beatrice Foods
Ajinomoto
Yakult
Lan Soon
Yeo Hiap Seng
Foster-BGI
San Miguel

ASEAN co-operation:

There is an ASEAN Food Club, which meets every 6 months to discuss major issues such as EU directives and the possibility of diversifying markets away from EU and US. It has also discussed the upcoming Mutual Recognition Arrangements (MRA) for food products.

NTBs and other problems:

The food processing sector is said to be the one with the highest incidence of Non Tariff barriers (NTBs) in ASEAN. This is partly because of the great importance of the sector to all countries (other than Singapore) and the fact that they all produce similar products. It is also because the industry is a very sensitive one, both on political grounds, and from a public health perspective. Although a MRA is being discussed for processed foods, there are no harmonised standards as of 2003. This extends to a lack of phyto-sanitary standards and for residues and support products (e.g. Veterinary medicines). Cases of Form D (official document to show the meeting of AFTA rules of origin requirements) being refused or accepted on an inconsistent basis by customs were reported in the sector.

2.2.1.c. Opportunities

There are many opportunities for collaboration between ASEAN countries in the agro-food sector, but these are restricted by:

- The fact that most countries have access to similar local raw materials which encourages the development of industry locally,
- There are different tastes between countries
- There are different packaging / unit size requirements between countries.

A few examples of collaboration between countries exist in terms of multinationals concentrating production facilities for different material based products (e.g. dairy, cocoa, fruit) in different countries or serving similar product plants (e.g. beer) from a central sourcing / procurement point. There is also some intra-ASEAN trade in raw materials (e.g. fish to Thailand) to more advanced / larger scale production facilities in other countries. Whilst EU food products are widely respected, the EU as a market is seen as very difficult for many products because of the demanding standards, regulations and procedures. Some ASEAN producers are even targeting alternative markets because of this. Opportunities for EU companies are however widespread and include:

General

- Provision of marketing and technology throughout the range of processed foods,
- In most countries there are widespread opportunities to add value on the processing of local materials. This takes the form of just processing more local materials, a significant proportion of which are otherwise wasted, or adding value to the basic processed products already produced.
- Food packaging (Indonesia, Thailand, Vietnam)
- Opportunities in support industries and services such as fertilisers, pesticides, veterinary medicines, animal feed.

Fruit and vegetable

- For fruit and vegetable processing there is a need for technology to preserve the products and cold storage / logistics expertise (especially Vietnam and Indonesia),
- Still opportunities for import substitution in preserved fruits and vegetables and fruit juices, as well as for export
- Potential for collaboration with EU on fruit juices (Indonesia, Malaysia, Thailand)

Dairy / livestock

- EU input is sought for technology and management for animal feed plants (Vietnam),
- Development of the dairy sector, including the expansion in terms of size and quality of dairy herds (Vietnam)

Others

- Convenience and health foods including Halal products (Malaysia)
- Also import substitution opportunities for chocolate products, high quality confectionery and ice cream.
- Opportunities for the development of cosmetics (e.g. from cocoa) and medicinal products from plants
- Development of floriculture and supporting products and services (Vietnam)
- Development of flavour and fragrance companies to customise products for export and local markets, including the establishment of R&D centres (Malaysia, Singapore)

Marine Products

- Development of seaweed products in Indonesia, Malaysia and Philippines
- Particular opportunities in fish processing for EU companies to bring the quality environment as well as technology and marketing (Indonesia, Thailand, Vietnam)
- Bringing added value to marine products in design of product and packaging and some machinery to existing companies (Vietnam)
- Investment in equipment and technology on buy-back arrangement (Vietnam)

2.2.2. Automotive Components

ASEAN is considered to be one of the few remaining automotive markets in the world with a significant growth potential. Despite an enormous set back to market growth caused by the financial crisis, the market has since recovered to its pre-crisis levels. Forecasts are optimistic for a further growth in both production and consumption of vehicles over

Box 2.1. Quant's Corner: Opportunities in the Food Processing Industry

The following selection of products, defined at a 6-digit level of customs classification, is derived from an extensive screening of trade flows, between the EU and ASEAN as well as intra-ASEAN. The selection is defined as: products having a minimum export flow from EU to ASEAN of EUR 1 million, having the fastest growth since 1998, with EU exports spread over at least three ASEAN countries, already significant intra-ASEAN trade, and the largest difference between MFN and AFTA tariff rates.

The 15 products identified in the food processing industry are:

- Malt extract & limited cocoa pastry cooks products
- Beer made from malt
- Whiskies
- Food preparations
- Communion wafers, rice paper, bakers wares
- Refined sugar, in solid form, pure sucrose
- Alcoholic liqueurs
- Crustaceans, prepared or preserved
- Peaches, otherwise prepared or preserved
- Glucose, glucose syrup < 20% fructose
- Chocolate/cocoa food preparations
- Coffee extracts, essence
- Vodka
- Sugar, invert sugar, caramel and artificial honey
- Single fruit, vegetable juice, not fermented or spirited

the next few years but stress that an integrated ASEAN market is the key to achieving this growth. Component manufacturers are, however, already following the vehicle manufacturers and are looking beyond ASEAN to East Asian markets and even further.

The automotive sector is of interest to a wide range of both EU and ASEAN countries. In this brief overview of the market, all types of road vehicles as well as motorcycles have been included. The automotive components sector includes a wide variety of products (mechanical, electrical, electronic, metal rubber, plastic, glass etc.) and sizes of company. It is an area where many opportunities exist for SMEs. A growing problem in defining the sector is the overlap with the electronics sector as the use of electronics systems in vehicles increases.

With a growing ASEAN production base in terms of both numbers and sophistication, the demand for ASEAN produced components will increase. Statistics of vehicle production and sales are therefore shown as indicative of the demand for components and parts.

2.2.2.a. Data and statistics

The growth in vehicle sales of all types (excluding motorcycles) over the period 1996-2002 in the four main ASEAN countries is shown in Table 2.8:

Table 2.8. Vehicle Sales 1996-2002 (Excluding Motorcycles)*(Units = 000s)*

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|--------------|--------------|--------------|------------|------------|--------------|------------|--------------|
| Indonesia | 333 | 387 | 58 | 94 | 311 | 200 | 317 |
| Malaysia | 365 | 405 | 164 | 289 | 343 | 396 | 435 |
| Philippines | 162 | 145 | 80 | 74 | 84 | 79 | 86 |
| Thailand | 589 | 363 | 144 | 218 | 262 | 297 | 409 |
| TOTAL | 1,449 | 1,300 | 446 | 675 | 1,000 | 972 | 1,247 |

Source: National Sources

In the first half of 2003 most markets showed rapid growth compared to the same period of 2002 with Thailand up 36%, Philippines up 20%. A widely held target in recent years has been sales of 2.0 million vehicles in the ASEAN region by 2005.

The three largest markets between them have a vehicle park of around 16 million vehicles (excluding motorcycles) which provides a significant replacement and repair market. There is considerable scope for growth as the ownership ratios in the major markets are 1 vehicle for 12 people in Thailand, 1 for 6 in Malaysia, and 1 for 37 in Indonesia (as compared with 1 for 2 in Japan)

Five of the six countries under study have vehicle production plants. From this production, more than 250,000 units were exported in 2002 making ASEAN the third largest exporter in Asia after Japan and Korea. The production and capacity of the four largest markets are:

Table 2.9. Vehicle Production and Production Capacity*(Units = 000s)*

| Country | Production | | Capacity |
|--------------|--------------|--------------|--------------|
| | 2001 | 2002 | 2002 |
| Indonesia | 279 | 319 | 700 |
| Malaysia | 419 | 457 | 600 |
| Philippines | | | 367 |
| Thailand | 459 | 585 | 1,074 |
| TOTAL | 1,157 | 1,361 | 2,741 |

Source: National Sources

The activity in the car industry is complemented by a large sector for the production and sales of motorcycles, with the following figures for 2002:

No detailed data is readily available for the production of the whole range of **components and parts** for each country. An estimate by the BOI in Thailand puts the value of the component industry at USD 5.0 billion in 2001 (of which USD 1.0 billion was replacement). The total sales turnover of the Malaysian automotive components sector was MYR 5.2 billion (USD 1.4 billion) in 2002 compared to MYR 4.7 billion in 2001, MYR 3.9 billion

Table 2.10. Sales and Production of Motorcycles
(Units = 000s)

| Country | Sales | Production |
|-------------|------------------|------------|
| Indonesia | 2,300 | 2,174 |
| Malaysia | 223 | 228 |
| Philippines | 227 | |
| Thailand | 901 ^a | 1,210 a) |
| Vietnam | 1,800 | |

^a 2001 figures

Source: National Sources

in 2000 and MYR 3.3 billion in 1997 before slumping to MYR 2.0 billion in 1998.

An appreciation of the importance and size of the component industry can be approached through data on trade flows. ASEAN countries are large importers but also large exporters of automotive components:

Components and accessories are also included under rubber products and electrical / electronics and other headings. Total exports for 2002 have been estimated as follows

| | Overall Component and Parts Exports - 2002 – USD billion |
|-----------------------|--|
| Thailand ^a | 1.45 |
| Malaysia | 0.19 |
| Philippines | 1.2 |
| Indonesia | 0.63 (excl. rubber) |

^a 2001

Trade figures for EU exports to the whole ASEAN markets indicate that the market for EU automotive components has recovered sharply since the slump of 1998, from a total (car and motorcycle components and parts) EUR 178 million, to EUR 445 million in 2002. Most of the components are for car manufacturing, and almost half the total is concentrated on technical products like airbags, anti-roll bars and torsion bars.

Table 2.11. Exports and Imports of Automotive and Motorcycle Components

| Country | HS 8708 Parts & Accessories for Motor Vehicles | | | | HS 8714 Parts & Accessories for Motorcycles & Bicycles | | | |
|-------------|---|------|---------|------|---|------|---------|------|
| | Imports | | Exports | | Imports | | Exports | |
| | 2001 | 2002 | 2001 | 2002 | 2001 | 2002 | 2001 | 2002 |
| Indonesia | 936 | 826 | 255 | 288 | 404 | 401 | 94 | 124 |
| Malaysia | 275 | 330 | 131 | 150 | 52 | 44 | 111 | 120 |
| Philippines | 246 | 289 | 625 | 754 | 38 | 32 | 27 | 31 |
| Singapore | 626 | 736 | 429 | 516 | 131 | 146 | 200 | 227 |
| Thailand | 1 493 | 1632 | 489 | 623 | 68 | 70 | 214 | 231 |

Source: National Trade Statistics

Table 2.12. EU exports to ASEAN – Automotive components (EUR 1000 / HS6)

| Parts and accessories of the motor vehicles of heading 8701 to 8705 | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|----------------|----------------|----------------|----------------|----------------|
| 870810 — Bumpers and parts thereof | 3 797 | 4 676 | 6 390 | 7 469 | 9 577 |
| 870821 — Safety seat belts | 529 | 862 | 2 320 | 3 719 | 2 445 |
| 870829 — Other (mostly for the industrial assembly of pedestrian controlled tractors of subheading) | 12 851 | 22 487 | 61 254 | 65 408 | 75 849 |
| 870831 — Mounted brake linings | 4 521 | 4 857 | 7 900 | 8 250 | 9 213 |
| 870839 — Other (mostly for the industrial assembly of pedestrian controlled tractors of subheading) | 9 260 | 11 133 | 15 798 | 17 243 | 20 365 |
| 870840 — Gear boxes | 6 149 | 9 194 | 23 063 | 22 422 | 19 428 |
| 870850 — Drive-axles with differential, whether or not provided with other transmission components | 1 056 | 2 124 | 3 782 | 6 288 | 9 545 |
| 870860 — Non-driving axles and parts thereof | 1 232 | 1 508 | 2 741 | 3 043 | 2 820 |
| 870870 — Road wheels and parts and accessories thereof | 5 210 | 7 818 | 14 425 | 13 145 | 11 770 |
| 870880 — Suspension shock-absorbers | 8 217 | 12 999 | 14 929 | 16 130 | 15 222 |
| 870891 — Radiators | 3 154 | 5 110 | 6 458 | 8 270 | 7 839 |
| 870892 — Silencers and exhaust pipes | 1 345 | 1 523 | 4 537 | 5 922 | 5 717 |
| 870893 — Clutches and parts thereof | 3 582 | 3 552 | 4 183 | 4 742 | 6 528 |
| 870894 — Steering wheels, steering columillions and steering boxes | 4 015 | 4 887 | 11 373 | 18 547 | 16 888 |
| 870899 — Other (airbags, anti roll bars, other torsion bars,...) | 108 795 | 154 636 | 247 196 | 224 297 | 215 029 |
| Total | 173 713 | 247 367 | 426 350 | 424 895 | 428 234 |

Table 2.12. EU exports to ASEAN – Automotive components (EUR 1000 / HS6) (Continued)

| Parts and accessories of vehicles of headings 8711 to 8713 | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|--------------|--------------|---------------|---------------|---------------|
| 871411 — Saddles | 12 | 11 | 39 | 70 | 31 |
| 871419 — Other | 2 411 | 2 695 | 6 872 | 9 208 | 11 583 |
| 871420 — Of carriages for disabled persons | 44 | 72 | 301 | 375 | 89 |
| 871491 — Frames and forks, and parts thereof | 311 | 147 | 760 | 295 | 391 |
| 871492 — Wheel rims and spokes | 275 | 212 | 210 | 99 | 198 |
| 871493 — Hubs, other than coaster braking hubs and hub brakes, and free-wheel sprocket-wheels | 8 | 22 | 6 | 81 | 56 |
| 871494 — Brakes, including coaster braking hubs and hub brakes, and parts thereof | 287 | 209 | 928 | 854 | 994 |
| 871495 — Saddles | 33 | 39 | 43 | 265 | 140 |
| 871496 — Pedals and crank-gear, and parts thereof | 16 | 31 | 94 | 29 | 52 |
| 871499 — Other (handlebars, luggage carriers, derailleur gears, ...) | 1 030 | 933 | 1 899 | 2 577 | 3 139 |
| Total | 4 428 | 4 371 | 11 153 | 13 853 | 16 672 |

Source: Eurostat

2.2.2.b. Structure of the sector

The automotive industry in ASEAN is dominated by Japanese companies although there is a significant presence of US and EU companies. The presence of passenger and commercial vehicle companies is summarised in the table below.

The major motorcycle manufacturers with a presence in ASEAN countries include:

- Honda
- Suzuki
- Yamaha
- Piaggio
- MZ Motorrad
- Kawasaki
- Chinfon
- Sangyang

Complementary data on an ASEAN-wide structure related to the specific component and parts industry is not available but some national data are available on major producers.

Indonesia:

There are an estimated 250 automotive component manufacturers employing 41,000 people.

Malaysia:

Of the 350 component manufacturers in Malaysia 234 are Proton vendors and 126 Perodua vendors (some serve both). There are also 150 motorcycle component manufacturers. The sector employed 23,000 people in 2002.

Philippines:

The latest figure available is that there are 256 automotive components manufacturers in the Philippines employing 45,000 people (2000).

| Manufacturer | Indonesia | Malaysia | Philippines | Thailand | Vietnam |
|-----------------------------|-----------|----------|-------------|----------|---------|
| BMW | ✓ | ✓ | | ✓ | |
| Daimler Chrysler | ✓ | ✓ | | ✓ | ✓ |
| VW | | | | ✓ | |
| Volvo | ✓ | ✓ | | ✓ | |
| Peugeot | ✓ | | | | |
| Fiat | ✓ | | | ✓ | |
| Ford | ✓ | ? | ✓ | ✓ | ✓ |
| GM | ✓ | | | ✓ | |
| Toyota | ✓ | | ✓ | ✓ | ✓ |
| Nissan | ✓ | | ✓ | ✓ | |
| Daihatsu | ✓ | ✓ | | | |
| Isuzu | ✓ | ✓ | ✓ | ✓ | ✓ |
| Mitsubishi | ✓ | ✓ | ✓ | ✓ | ✓ |
| Honda | ✓ | ✓ | ✓ | ✓ | |
| Hino | ✓ | | ✓ | ✓ | ✓ |
| Mazda | | | | ✓ | ✓ |
| Suzuki | ✓ | | | | |
| Hyundai | ✓ | | | ✓ | |
| Kia | ✓ | ✓ | | ✓ | ✓ |
| Daewoo | ✓ | | | ✓ | ✓ |
| Others & National Companies | ✓ | ✓ | ✓ | ✓ | ✓ |

Singapore:

Although having no vehicle production or assembly industry Singapore has around 60 companies with an interest and capability to serve as 2nd or 3rd tier suppliers.

Thailand:

There are estimated to be some 400 “first tier” (system integrators) components suppliers including many joint ventures, mainly involving Japanese companies. There are a further 800 or so “second and third tier” suppliers, who also supply the replacement market. Most of these are locally owned SMEs. The BOI estimated that there were more than 1700 companies in total in 2001 including supporting industry suppliers. It is estimated that total employment exceeds 100,000. The sector is able to supply 80% of the pick-up truck market needs (which accounts for 60% of all vehicles produced in Thailand) and 60% of passenger car needs. As Thailand becomes more of a global, as well as regional hub, for some models the percentage of local content will increase.

Vietnam:

The vehicle sector is all CKD or CBU so few local components were produced in the past, but the government is now insisting on reaching 20% local content by 2005. At present, only Japanese and some Taiwanese component manufacturers have invested. There is a large motorcycle industry in Vietnam using some local components.

Foreign investment in the sector

The component manufacturers very often follow the vehicle production and assembly investments of their major customers. There is a great deal of FDI and technical assistance input to the automotive components sector in ASEAN, the majority coming from Japanese companies. Some of the major players established in the region include:

EU Companies

Robert Bosch
Michelin
Autoliv
Lucas

Others

VDO
Delphi
Denso
TRW
United Technologies
Yazaki – Torres
Bridgestone
Goodyear

Pirelli is planning a 5,000 unit a day tyre plant in Indonesia with an investment of \$100million. This will also serve the ASEAN market.

Intra ASEAN Actions:

A Joint Study Group on Automotive Electronics Parts and Components Industry Cluster (KSG-AEPCIC) has been formed by Thailand and Singapore under the Singapore-Thailand Enhanced Economic Relationship (STEER) initiative. Members include private sector businessmen from the two countries. The objective is to take advantage of the two countries complementary competencies to create larger global players able to tackle third markets and offer higher

added-value products. This does not exclude the possibility of involving an additional third country partner. To take this co-operation further, the Singaporean and Thai industry associations (respectively SPETA and TAPMA) have formed the Thai-Singapore Automotive Club.

Malaysia has continued tariff protection on automotive products until 2005 and the removal of this protection is likely to see some restructuring in the protected automotive components sector. There have been attempts with Indonesia to increase imports of components as the latter considers it could have lost up to USD 750 million because of the closed market.

NTBs and problems serving the ASEAN market

No particular problems were mentioned by European companies and organisations in this sector. NTBs mentioned in various sector reports are local taxes and emission standards. As part of the APEC Automotive Dialogue NTBs being researched and discussed are:

- Customs
- Standards and certification requirements
- Investment requirements and restrictions
- IPR

2.2.2.c. Opportunities

As the sophistication of automotive components and the need to add value increases, the requirement for more advanced technology also increases. The technology can be transferred through a joint venture or technology agreement or may be brought into the region in a 100% foreign owned company. There is also a demand for the machinery to produce these more sophisticated products.

There are a limited number of EU vehicle production and assembly plants, but EU components suppliers looking for opportunities may well already have experience of supplying Japanese, American and Korean vehicle manufacturers in Europe and other parts of the world.

Opportunities exist across a wide range of products from small rubber and plastics parts up to sophisticated electronic systems. In the support services to the sector there are good opportunities in mould and die technology.

With the rationalisation of the “first tier” suppliers to meet the demands of the vehicle manufacturers, there is a need to increase the design, R&D and testing capabilities of automotive component manufacturers in ASEAN. This usually requires collaboration with a foreign manufacturer who can bring these skills and technology.

Other products and services mentioned in different sources as offering opportunities include:

- Engine components
- Suspension and chassis parts
- Transmissions
- Fuel injection pumps

- Electronic systems
- Electronic control units
- Catalytic converters
- Plastic & rubber parts
- Differential gears
- Engineering plastics
- Bearings
- Steering columns
- Electronic security systems
- Injection nozzles
- Flywheel housings
- Design services
- Instrumentation
- Mirrors and vision systems
- Steering housings
- Brake systems

With an expanding vehicle park there are also opportunities in garage equipment for service and repairs of vehicles. This includes franchising opportunities for repair and maintenance outlets (e.g. exhausts, brakes, tyres, windscreens).

All four countries highlighted earlier offer opportunities although Thailand is recognised as the regional (and even for some products a global) hub. Even Singapore offers some opportunities for high precision and advanced technology components, which don't need to be made close to the production / assembly plant and cannot as yet be manufactured in Thailand.

One possible threat (as well as an opportunity) to the sector in ASEAN is the increased competition which will come from the bilateral trade agreement partners when this sector is opened to lower or zero tariffs. Components could then come directly from the countries with investments in vehicle production plants – Japan, Korea and USA (and even from component plants in China). Without similar BTAs, EU companies could be disadvantaged.

2.2.3. IT / Software

There is considerable overlap between the electronics sector (manufacturing) and information technology (IT) and software services. The latter heading has been used rather than ICT (Information and Communication Technology) as computer hardware and telecommunications equipment are covered in the section on the electrical and electronic industries. However data is often only available at the level of the overall ICT sector including hardware and software.

2.2.3.a. Data and statistics

The development of the ICT sector is shown on a broadly compatible basis in Table 2.13. Whilst there is not a huge range in ICT total revenues, the level of development of the six markets varies widely between the very low usage in Vietnam and Indonesia and the very high usage (highest in the world) in Singapore.

Box 2.2. Quant's Corner: Opportunities in the Industry of Automotive Components

The following selection of products, defined at a 6-digit level of customs classification, is derived from an extensive screening of trade flows, between the EU and ASEAN as well as intra-ASEAN. The selection is defined as: products having a minimum export flow from EU to ASEAN of EUR 1 million, having the fastest growth since 1998, with EU exports spread over at least three ASEAN countries, already significant intra-ASEAN trade, and the largest difference between MFN and AFTA tariff rates.

The 12 products identified in the automotive components industry are:

- Parts and accessories of bodies for motor vehicles
- Motorcycle parts except saddles
- Transmissions for motor vehicles
- Steering wheels, columns & boxes for motor vehicles
- Diesel powered trucks weighing 5-20 tonnes
- Mufflers and exhaust pipes for motor vehicles
- Drive axles with differential for motor vehicles
- Wheels including parts/accessories for motor vehicles
- Radiators for motor vehicles
- Bicycle parts
- Brake system parts except linings for motor vehicles
- Bumpers and parts thereof for motor vehicles

Table 2.13. Development of the ICT Sector

| Indonesia | 1995 | 2000 | 2001 | 2002 |
|--|--------|------|---------|-------|
| Population (mid year) Millions | 192.8 | | | 211.7 |
| ICT Infrastructure & Access | | | | |
| Telephone mainlines per 1,000 | 17.0 | | 35.0 | |
| Mobile phones per 1,000 | 1.0 | | 31.0 | |
| Computers & the Internet | | | | |
| Personal computers per 1,000 | 5.0 | | 11.0 | |
| Internet Users ('000) | 50.0 | | 4,000.0 | |
| ICT Expenditures | | | | |
| Total ICT (\$ Million) | 4337.0 | | 3,540.0 | |
| ICT as % of GDP | 2.1 | | 2.2 | |
| ICT per capita (\$) | 22.3 | | 16.6 | |
| Malaysia | | | | |
| Population (mid year) Millions | 20.6 | | | 24.3 |
| ICT Infrastructure & Access | | | | |
| Telephone mainlines per 1,000 | 166.0 | | 196.0 | |
| Mobile phones per 1,000 | 50.0 | | 314.0 | |

(Continued on the next page)

Table 2.13 (Continued)

| | | | | |
|--|---------|---------|---------|--------|
| Computers & the Internet | | | | |
| Personal Computers per 1,000 | 37.3 | | 126.1 | |
| Internet Users ('000) | 40.0 | | 6,500.0 | (7840) |
| ICT Expenditures | | | | |
| Total ICT (\$ Million) | 4,438.0 | | 6,325.0 | |
| ICT as % of GDP | 5.0 | | 6.6 | |
| ICT per capita (\$) | 220.7 | | 262.1 | |
| Philippines | | | | |
| Population (mid year) Millions | 68.3 | | 77.0 | |
| ICT Infrastructure & Access | | | | |
| Telephone mainlines per 1,000 | 21.0 | 40.0 | | |
| Mobile phones per 1,000 | 7.0 | 84.0 | | |
| Computers & the Internet | | | | |
| Personal computers per 1,000 | 9.6 | 19.3 | | |
| Internet Users ('000) | 20.0 | 2,000.0 | | |
| ICT Expenditures | | | | |
| Total ICT (\$ Million) | 1,933.0 | | 3,131.0 | |
| ICT as % of GDP | 2.6 | | 4.2 | |
| ICT per capita (\$) | 28.2 | | 40.5 | |
| Singapore | | | | |
| Population (mid year) Millions | 3.5 | | 4.1 | |
| ICT Infrastructure & Access | | | | |
| Telephone mainlines per 1,000 | 412.0 | 484.0 | | |
| Mobile phones per 1,000 | 88.0 | 684.0 | | |
| Computers & the Internet | | | | |
| Personal computers per 1,000 | 201.9 | 483.1 | | |
| Internet Users ('000) | 100,000 | 1,200.0 | | |
| ICT Expenditures | | | | |
| Total ICT (\$ Million) | 5,735.0 | | 9,592.0 | |
| ICT as % of GDP | 6.9 | | 9.9 | |
| ICT per capita (\$) | 1,920.4 | | 2,110.0 | |
| Thailand | | | | |
| Population (mid year) Millions | 58.6 | | | 61.6 |
| ICT Infrastructure & Access | | | | |
| Telephone mainlines per 1,000 | 61.0 | | 99.0 | |
| Mobile phones per 1,000 | 23.0 | | 123.0 | |
| Computers & the Internet | | | | |
| Personal computers per 1,000 | 14.1 | | 27.8 | |
| Internet Users ('000) | 55.0 | | 3,536.0 | (4600) |
| ICT Expenditures | | | | |
| Total ICT (\$ Million) | 4,464.0 | | 4,751.0 | |
| ICT as % of GDP | 2.7 | | 3.7 | |
| ICT per capita (\$) | 75.2 | | 75.6 | |
| Vietnam | | | | |
| Population (mid year) Million | 73.0 | | 79.5 | |
| ICT Infrastructure & Access | | | | |
| Telephone mainlines per 1,000 | 11.0 | 32.0 | | |
| Mobile phones per 1,000 | 0 | 10.0 | | |
| Computers & the Internet | | | | |
| Personal computers per 1,000 | 1.4 | 2.8 | | |
| Internet Users ('000) | 0 | 200.0 | | (250) |
| ICT Expenditures | | | | |
| Total ICT (\$ Million) | 740.0 | | 2,124.0 | |
| ICT as % of GDP | 3.6 | | 6.7 | |
| ICT per capita (\$) | 10.0 | | 26.2 | |

Sources: ITU, UNESCO, WITSA, National Sources. Latest figures in brackets.

The World Economic Forum has compiled a Networked Readiness Index for ICT capability in 82 countries. This is an amalgam of indices of ICT environment, readiness and usage. The standing of ASEAN countries in this list is:

| | <u>World Ranking</u> |
|-------------|----------------------|
| Singapore | 3 |
| Malaysia | 32 |
| Thailand | 41 |
| Philippines | 62 |
| Indonesia | 64 |
| Vietnam | 71 |

Singapore is in fact ranked number 1 in the world on the readiness and usage indices. Technologically Singapore is one of the most advanced countries in the world as shown above. 99% of all homes, schools and businesses have access to broadband (but only 30% are connected), there is free internet access from 10,000 public access points and 61% of homes have a PC. The growth in Singapore's "Info-comm" (ICT) sector is shown in Table 2.

The rate of growth has been slowing in recent years from 16.5% in 1998/9 to 4% estimated for 2001/2. Growth for 2003 has since been projected at 4.5% and 2004 at 7.5%. For the total infocomm market in 2001, the domestic and export markets accounted for around 50% of revenue each. The leading export market was ASEAN with 20.4% in 2001 (estimated 25% in 2002). The EU took 14%. The value of domestic and export market revenue for software and IT services was:

B2B e-commerce transactions grew from USD 54 million in 2000 to USD 62 million in 2001 and B2C from USD 690 million to USD 1,550 million in the same period.

Malaysia is second only to Singapore in absolute value for ICT market, but it is heavily dominated by computer hardware sales. Malaysian software and IT service companies are largely associated with the Multimedia Super Corridor (MSC), a government-sponsored scheme to encourage a cluster of high-tech companies in an area endowed with significant ICT infrastructure. Around 760 of the projects approved up to November 2003 involved software and IT services (including e-commerce).

At the opposite end, the industry is very under-developed in **Indonesia**. The whole ICT sector takes by far the lowest percentage of GDP (2.2%) of any of the six countries.

In the **Philippines**, the estimated IT/software and hardware market in 2002 was USD 3.5 billion of which local output accounted for around USD 2.0 billion. There is a major training programme underway to produce IT professionals. The Philippines is pushing its English language skills in the sector and the fact that it claims to be substantially cheaper than India. A number of IT parks are being developed to assist in the growth of the sector.

In **Thailand**, the total value of the ICT market in recent years, with a forecast for 2003 taken from the Association of Thai Software Industry (ATSI) 2003 survey, is broken down as follows:

Table 2.14. Total Infocomm Industry Revenue by Products and Services (SGD million)

| | 1998 | 1999 | 2000 | 2001 | 2002 (Est.) |
|----------------------------|--------|--------|--------|--------|-------------|
| Hardware Retail | 7,775 | 8,969 | 9,828 | 10,138 | 10,787 |
| Software | 2,211 | 2,466 | 2,847 | 3,127 | 3,310 |
| IT Services | 2,536 | 3,012 | 3,549 | 3,898 | 4,207 |
| Telecommunication Services | 7,432 | 8,364 | 9,120 | 9,999 | 9,619 |
| Online Digital Media | N/A | 100 | 210 | 463 | 820 |
| Others | An | 331 | 379 | 401 | 410 |
| Total | 19,954 | 23,241 | 25,932 | 28,026 | 29,153 |

Source: IDA (Infocomm Development Authority)

Table 2.15. Value of Domestic and Export Market Revenue

| | S\$ Million | | |
|---------------------|-------------|-------|-------------|
| | 2000 | 2001 | 2002 (Est.) |
| IT Services: | | | |
| Domestic | 2,218 | 2,417 | 2,604 |
| Export | 1,330 | 1,481 | 1,603 |
| Software: | | | |
| Domestic | 1,575 | 1,698 | 1,761 |
| Export | 1,272 | 1,429 | 1,549 |

Source: IDA

Table 2.16. Value of the ICT Market (USD million)

| Sub-Sector | 2000 | 2001 | 2002 | 2003 |
|-------------|------|-------|-------|-------|
| Hardware | 498 | 701 | 1,069 | 1,213 |
| Software | 156 | 188 | 291 | 340 |
| IT Services | 216 | 213 | 291 | 368 |
| Total ICT | 870 | 1,102 | 1,651 | 1,921 |

Source: ATSI (Figures converted from THB to USD at an average of 12 monthly rates)

In the software sub-sector, application solutions accounted for around 60% of value. In IT Services, professional services accounted for 80% and maintenance services for 20%.

Software services are relatively under-developed in **Vietnam**, having grown from USD 50 million in 2000 to USD 60 million in 2001 and USD 75 million in 2002. This compares to a market of USD 325 million for computer hardware. The Vietnamese administration is determined to develop the software sector, however, as a leading sector of the economy and a number of incentives have been established to help with development. The government set a target in a Decree of October 2000 of USD 500 million for software revenue in 2005 of which USD 300 million is to be exports and USD 200 million domestic sales. The target will probably take longer to achieve than planned. Exports in 2002 were only USD 15 million. IT services are little developed and only really used by foreign companies at present. To achieve the plans within a reasonable time of the original target dates, a great deal of foreign input is required.

2.2.3.b. Structure of the sector

Malaysia

Of the 760 or so software/IT services projects in the MSC, 236 are foreign owned and 200 joint ventures between for-

eign and Malaysian companies. 9% (91) of all approved projects (944 which includes hardware and non software/IT services) in the MSC have a European majority shareholding. The total employment created in all 944 projects is an estimated 21,000 for 2003.

Philippines

The number of IT companies registered with Securities and Exchange Commission (SEC) in 2002 was 3,563 broken down as follows:

| Description of Services | Number of Companies | |
|---|---------------------|--------------|
| | 1999 | 2002 |
| Computer & Related Activities | | 252 |
| Hardware Consultancy | 143 | 37 |
| Software Consultancy & Supplies | 87 | 219 |
| Software Development | 99 | 523 |
| Data Processing & Data Conversion Services | 1,203 | 1,228 |
| Database Activities | 120 | 401 |
| Maintenance & Repair of Office Machinery & Computer Peripherals | 22 | 51 |
| Other Computer Related Activities | 65 | 852 |
| Total | 1,739 | 3,563 |

The Government Business Plan for IT – Enabled Services up to 2004 is as follows:

(USD millions)

| Type of Service | 2001 | 2004 |
|-------------------------|------------|--------------|
| Software Development | 115 | 268 |
| Animation | 21 | 40 |
| Medical Transcription | 40 | 483 |
| Customer Contact Centre | 173 | 864 |
| Total | 349 | 1 655 |

The Government's aim is to make the Philippines a regional centre for outsourcing ICT services. There has been a growth in call centres, customer relations management and other back office services. There are an estimated 20,000 call centre places in the Philippines which could generate as many as 40,000 jobs. The Government plan to double this number in a year.

Singapore

Efforts have been made to drive the ICT industry from one concentrated government body (Infocomm Development Authority – IDA) and one private sector association (Singapore Infocomm Technology Federation – SITF). IDA was formed in 1999 as a merger of the Telecommunications authority of Singapore and the National Computer Board. SITF was also formed in 1999 by a merger of the two largest IT associations. A strategic plan called Infocomm 21 was formulated with six thrust areas:

- To develop Singapore into a premier global infocomm hub in the Asia-Pacific
- To develop Singapore into a premier, trusted, global e-business hub
- Position the Singapore Government as one of the best e-governments in the world (an E-government Action Plan was launched in June 2000 committing S\$ 1.5 billion for development)
- Develop Singapore into a leading “infocomm-knowledgeable” society with a pervasive e-lifestyle
- Position Singapore as an infocomm talent capital and e-learning hub
- Create a conducive policy and regulatory environment for business and the consumer

In 2001 there were 93,000 infocomm professionals working in Singapore and 104,000 in 2002 (5% of the workforce). It is estimated that this will grow to 250,000 by 2010.

Thailand

There were an estimated 600 companies in the software industry with a professional workforce of 25,000 in 2002. By

2001 there were 154 large BOI (Board of Investments) approved companies of which 43 were foreign and 33 JVs. 25% of foreign companies were Japanese and nearly 30% EU.

IT/software is a priority development sector for the Government. Initiatives include:

- E-Government development
- Creation of the Software Industry Promotion Agency by the ICT Ministry to assist the development of local software houses
- ICT Masterplan 2002-06
- IT 2010 which is a national policy to further develop Thailand into a “Knowledge-Based Society and Economy” during the period 2001-2010
- Creation of Software Park Thailand as a government agency under the National Science and Technology Development Agency. This provides services to the industry via state of the art infrastructure, incubator environment, training and establishment of a national and international B2B exchange
- Software parks are also being established in Chiang Mai and Phuket

Major problems that Thailand has to address are software piracy which is still at a high level, quality of education of IT professionals and English language skills which are holding back development.

Vietnam

There are an estimated 8,000 software professionals in Vietnam in 400 companies having grown from only 1,900 in 95 companies in 1996 as shown below:

Table 2.17. Number of Software Service Companies (1996-2003)

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 (Est.) |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------------|
| Number of companies | 95 | 115 | 140 | 170 | 230 | 300 | 400 | 520 |
| Software Workers | 1,900 | 2,300 | 2,800 | 3,400 | 4,600 | 6,000 | 8,000 | 10,000 |

Source: HCM City IT Association

Total employment in software and IT services is put at 20,000 in 2002 and is planned to grow to 40,000 by 2005. This will involve a large amount of training as only 3,500 graduates with IT qualifications will be produced each year. In September 2001, the ISP market was opened up to private and foreign companies and there are plans to increase the number of ISPs from 9 currently to 30-40 by 2005.

ASEAN Co-operation

As noted previously (page 35), intra-ASEAN trade is an important export market for the ICT sector. In August 2002 the Manila Declaration was signed to exploit ASEAN’s competitive advantage in the ITC sector. Five working groups were established for:

- Information infrastructure: to develop linkages determine common requirements, to establish an ASEAN Broadband network, to enhance interconnec-

tivity of design and standards of the national information infrastructure.

- Capacity building
- Universal access and digital divide in ASEAN
- Intra-ASEAN trade and investment
- Positive use of the internet

ASEAN initiatives in the ICT sector include:

- MRA for telecomm equipment
- Working on a common and standard system of evaluating IT professional skills to include in an MRA. Also planning common certification of ICT professionals
- Study on how e-commerce can be developed regionally and the plan to create an e-commerce ASEAN market place.

The growth of both Pan-ASEAN and Pan-Asian companies in ICT is being considered. In response to an initial proposal by the Singaporean PM at an ASEAN summit in November 2000 for an Asian IT Belt, SITF proposed a “Connected Asia” Initiative at a meeting of the Asian-Oceanian Computing Industry Organisation (ASOCIO).

SITF together with the Association of Thai Computer Industry (ATCI) are working together to implement this idea through events, joint projects, shared databases of tenders and other business opportunities. “Connected Asia” calls for more common standards and practices in the sector.

In September 2003 SITF and ATCI under the auspices of ASOCIO set up a strategic cross-border industry collaboration to jointly develop a system for travel agents to exchange business documents electronically.

Externally ASEAN is developing ICT co-operation agreements with China, Korea and Japan. There is also a major EU-ASIA IT&C Programme including ASEAN countries based in Bangkok (details available on the website: www.asia-itc.org)

NTBs and problems serving the ASEAN market

A major problem facing the sector is software piracy. The Business Software Alliance in its latest Asia Pacific study 2003 shows piracy rates on the rise in 2002 with losses at an all time high of USD 5.5billion. Software piracy rates for individual countries were:

Table 2.18. Software Piracy Rates

| Country | 2001 (%) | 2002 (%) |
|-------------|----------|----------|
| Indonesia | 88 | 89 |
| Malaysia | 70 | 68 |
| Philippines | 63 | 68 |
| Thailand | 77 | 77 |
| Vietnam | 94 | 95 |

Rates are down overall on mid 90s figures. In the Philippines, for example, the rate fell from 94% in 1994 to 68% in 2002. This compares to China which only fell from 97% to 92% over the same period.

2.2.3.c. Opportunities

The level of development of IT/Software services varies greatly from an infant industry in Vietnam to a highly developed and technological advanced sector by any international standards in Singapore.

These differing levels of development give rise to different business opportunities:

- Developing IT infrastructure and usage in business and government (Vietnam). This includes opportunities for expansion in the number of ISPs operating. Initially Vietnam will develop applications software for the domestic market and gradually move towards processing of software for the international market.
- Niche opportunities in graphics and animation in Thailand, where it is realised they cannot compete with India on more technical applications.

- Opportunities on a broader front in Philippines, where IT/Software is an important priority sector and it is claimed they can compete on costs and skills, but perhaps not scale with India. Areas mentioned as offering opportunities include;

- Call centres
- Internet security
- Customer services management
- E-commerce/business (including government programmes)
- E-learning

Call centres have been expanding rapidly and Philippines has the advantage of being English speaking and closer to Western culture. There are many US and EU companies already present in the sector in the Philippines.

- Singapore and Malaysia offer opportunities in software and services at a more sophisticated level and often integrated with the electronics/telecommunications sector development. Singapore is concentrating on a front-end development (even with Indian companies) whilst the back-end is undertaken in India.
- The IDA in Singapore has identified 5 ICT clusters for development:
 - Value added mobile services
 - Multimedia processing and management
 - Web services and portal
 - Security and trust infrastructure
 - Wireless/wired network infrastructure
- Malaysia is seeking EU technology rather than finance for IT/Software development. Special incentives are available for companies establishing their base in the Multimedia Super Corridor. This area will include the new seat of government and administrative capital of Malaysia where the concept of electronic government will be introduced. Also Cyberjaya which is planned as an “intelligent” city with multimedia industries and R&D centres.
- Indonesia is not very advanced in IT/Software and suffers from language problems in developing export markets. Opportunities have been mentioned in:
 - Development of internet including internet security
 - Due to shortage of trained staff there are opportunities for training and to offer professional services locally
 - Support systems and systems integration

2.2.4. Mechanical Engineering

Machinery or mechanical engineering was a sector of strong interest to both EU and ASEAN organisations interviewed during the sector selection phase. It was clearly not possible to cover the whole of this sector even briefly and a number of niche sectors in different countries have been briefly reviewed in this profile.

The major product area in the trade statistics for the mechanical engineering chapter heading is data processing machinery and parts, but this is dealt with under electronics and also touched on in the IT/Software profile.

Conversely engineering support industries and tool, die and mould manufacture are discussed in this profile although not included under mechanical engineering in the international trade classification system.

2.2.4.a. Data and statistics

The only production overview available from any source is that provided by the UNIDO Industrial Statistics 2003 database. These data are shown in Table 2.19. Singapore and

Thailand are the dominant producers. Singapore is even more important if the non-machinery products of the precision engineering sub-sector are included.

Information on individual ASEAN countries had to be taken from general sources (e.g. Investment Promotion Agencies, Ministries of Trade and Industry, Federations of Manufacturers and Industry, Chambers of Commerce) as generally no one trade association covers all aspects of the sector.

With 85 headings for the trade in mechanical engineering products at the four-digit level within the HS classification system, it is not possible to have a comprehensive review at this level. The only other data readily available is for the

Table 2.19. Mechanical Engineering Output in Producers' Prices (2000)

(Euros Million)

| ISIC | Products | Indonesia | Malaysia ^a | Philippines | Singapore | Thailand ^b | Vietnam |
|--------------|--|------------|-----------------------|-------------|--------------|-----------------------|------------|
| 291 | General Purpose Machinery | 224 | | 277 | 1,719 | | 64 |
| 2911 | Engines & Turbines (not for transport equipment) | 51 | | | - | | 12 |
| 2912 | Pumps, compressors, taps and valves | 70 | | | 65 | | 12 |
| 2913 | Bearings, gears, gearing and driving elements | 37 | | | 389 | 945 | 5 |
| 2914 | Ovens, furnaces and furnace burners | 12 | | | - | | 1 |
| 2915 | Lifting and handling equipment | 34 | | | 418 | | 15 |
| 2919 | Other general purpose machinery | 20 | | | 847 | | 19 |
| 292 | Special Purpose Machinery^c | 402 | | 377 | 2,876 | | 219 |
| 2921 | Agriculture and forestry machinery | 28 | | | - | | 28 |
| 2922 | Machine tools | 35 | 118 | | 656 | | 9 |
| 2923 | Machinery for metallurgy | 20 | | | - | 2,805 | .. |
| 2924 | Machinery for mining and construction | 246 | | | 862 | | 15 |
| 2925 | Food/beverage/tobacco processing machinery | 12 | | | - | | 48 |
| 2926 | Machinery for textile, apparel and leather | 28 | | | - | | 30 |
| 2929 | Other special purpose machinery | 33 | | | 1,358 | | 89 |
| 2930 | Domestic appliances n.e.c | 113 | | 267 | 226 | | 58 |
| Total | | 739 | 1,911 | 921 | 4,821 | 3,750 | 341 |

^a Figures for Malaysia are for 1999 and do not total as categories do not conform to those of other countries. Only 2,922 can be identified separately.

^b Includes woodworking machines

^c Excludes weapons and ammunition and data processing machinery

^d 2,919 includes 292 and 2,930

Source: UNIDO Industrial Statistics 2003, National Sources

whole chapter at the two digit level. The major problem at this level, apart from it being too general, is that it includes data processing machinery and parts. This heading is more often considered part of the electronics or ICT sector.

The Intra-ASEAN and world trade for five of the six ASEAN countries for Chapter 84 – mechanical engineering, is shown in Table 2.20.

EU exports of machinery and equipment to the whole ASEAN region are presented below in two tables of selected 4-digit level products, one based on the 20 largest items in 2002, the other on the 20 products having the fastest growth rate (in dollar terms, between 1998 and 2002).

Indonesia

Indonesia's external trade of mechanical engineering products, excluding data processing machinery and parts, is characterised by low, but fast-growing exports, and much larger

Table 2.20. Intra-ASEAN Exports of Mechanical Engineering Products – 2001

| | Value USD Million |
|-----------------------------|---------------------|
| Indonesia | 1,364 |
| Malaysia | 3,240 |
| Philippines | 1,330 |
| Singapore | 5,576 |
| Thailand | 3,925 |
| Total Intra-ASEAN Exports | 15,454 ^a |
| Total ASEAN – World Exports | 74,039 ^a |

^a 5 countries plus Brunei, Cambodia and Myanmar only

Source: ASEAN Secretariat

imports, which have not however recovered to pre-1998 crisis. Trade in the period 1997-2002 was as shown in Table 2.23.

Table 2.21. EU exports of Mechanical Engineering Equipment to ASEAN (20 largest exports in 2002)

| EU export to ASEAN (EUR 1000 / HS4) - MECHANICAL ENG. | | 1998 | 1999 | 2000 | 2001 | 2002 |
|--|--|-----------|-----------|-----------|-----------|-----------|
| P8411 | Turbo-jets, turbo-propellers and other gas turbines | 563 850 | 501 897 | 791 749 | 1 110 990 | 772 664 |
| P8479 | Machines and mechanical appliances having individual functions | 399 364 | 461 523 | 695 609 | 601 130 | 505 891 |
| P8481 | Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks | 263 684 | 281 804 | 280 976 | 320 916 | 331 554 |
| P8422 | Dishwashing machines; machinery for cleaning or drying bottles or other containers | 216 705 | 181 156 | 214 833 | 334 233 | 304 013 |
| P8443 | Printing machinery used for printing by means of the printing type, blocks, plates, cylinders | 176 178 | 124 523 | 248 750 | 301 362 | 279 319 |
| P8414 | Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods | 203 684 | 271 053 | 276 820 | 333 960 | 264 894 |
| P8431 | Parts suitable for use solely or principally with the machinery of headings 8425 to 8430 | 232 520 | 191 073 | 215 455 | 266 626 | 247 082 |
| P8413 | Pumps for liquids, whether or not fitted with a measuring device; liquid elevators | 212 872 | 195 702 | 239 923 | 258 271 | 245 475 |
| P8421 | Centrifuges, including centrifugal dryers; filtering or purifying machinery and apparatus | 182 880 | 190 544 | 215 296 | 224 447 | 239 679 |
| P8477 | Machinery for working rubber or plastics | 156 483 | 150 183 | 229 986 | 243 766 | 235 555 |
| P8419 | Machinery, plant or laboratory equipment | 279 523 | 242 404 | 269 056 | 309 222 | 228 769 |
| P8409 | Parts suitable for use solely or principally with the engines of heading No 8407 or 8408 | 200 444 | 221 688 | 201 264 | 223 646 | 222 253 |
| P8482 | Ball or roller bearings | 92 820 | 128 779 | 174 577 | 185 885 | 218 275 |
| P8483 | Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings | 95 079 | 100 923 | 115 293 | 135 949 | 154 149 |
| P8408 | Compression-ignition internal combustion piston engines (diesel or semi-diesel engines) | 143 901 | 115 184 | 137 253 | 182 353 | 151 310 |
| P8438 | Machinery, not specified or included elsewhere in this chapter, for the industrial preparation | 54 348 | 60 448 | 100 988 | 126 173 | 117 811 |
| P8474 | Machinery for sorting, screening, separating, washing, crushing, grinding earth | 154 622 | 65 534 | 90 301 | 140 285 | 116 980 |
| P8428 | Other lifting, handling, loading or unloading machinery | 165 203 | 86 333 | 95 988 | 135 808 | 105 302 |
| P8485 | Machinery parts, not containing electrical connectors, insulators, coils, contacts | 67 781 | 64 713 | 94 580 | 84 328 | 97 174 |
| P8418 | Refrigerators, freezers and other refrigerating or freezing equipment, electric or other | 63 401 | 67 918 | 90 690 | 93 595 | 94 093 |
| <i>Total exports of products under HS code 84, excluding data processing equipment and parts</i> | | 5 921 499 | 5 063 237 | 6 646 692 | 7 693 627 | 6 970 197 |

Source: Eurostat

Table 2.22. EU exports of Mechanical Engineering Equipment to ASEAN (20 fastest growing over 1998 - 2002)

| EU Export to ASEAN (EUR 1000 / HS4) – MECHANICAL ENG. | | 1998 | 2002 | % growth 1998-2002 |
|---|---|--------|---------|--------------------|
| P8449 | Machinery for the manufacture or finishing of felt or non-woven in the piece or in shapes | 2 795 | 25 678 | 819% |
| P8467 | Tools for working in the hand, pneumatic, hydraulic or with self-contained electric or non-electric | 6 521 | 51 379 | 688% |
| P8436 | Other agricultural, horticultural, forestry, poultry-keeping or bee-keeping machinery | 5 581 | 37 000 | 563% |
| P8407 | Spark-ignition reciprocating or rotary internal combustion piston engines | 4 788 | 29 041 | 507% |
| P8447 | Knitting machines, stitch-bonding machines and machines for making gimped yarn, tulle, lace | 18 086 | 53 729 | 197% |
| P8457 | Machining centres, unit construction machines (single station) | 6 655 | 16 458 | 147% |
| P8478 | Machinery for preparing or making up tobacco, not specified elsewhere | 28 038 | 68 724 | 145% |
| P8456 | Machine-tools for working any material by removal of material, by laser or other light | 6 637 | 16 126 | 143% |
| P8482 | Ball or roller bearings | 92 820 | 218 275 | 135% |
| P8442 | Machinery, apparatus and equipment (other than the machine-tools of headings 8456 to 8465) | 10 448 | 22 953 | 120% |
| P8438 | Machinery, not specified or included elsewhere in this chapter, for the industrial preparation | 54 348 | 117 811 | 117% |
| P8437 | Machines for cleaning, sorting or grading seed, grain or dried leguminous vegetables | 13 990 | 29 893 | 114% |
| P8432 | Agricultural, horticultural or forestry machinery for soil preparation or cultivation | 3 126 | 6 508 | 108% |
| P8426 | Ships' derricks; cranes, including cable cranes; mobile lifting frames, straddle carriers | 48 589 | 94 038 | 94% |
| P8446 | Weaving machines (looms) | 6 808 | 12 894 | 89% |
| P8448 | Auxiliary machinery for use with machines of heading 8444, 8445, 8446 or 8447 | 44 446 | 79 728 | 79% |
| P8445 | Machines for preparing textile fibres; spinning, doubling or twisting machines | 34 733 | 60 805 | 75% |
| P8451 | Machinery (other than machines of heading 8450) for washing, cleaning, wringing, drying | 38 778 | 67 508 | 74% |
| P8427 | Fork-lift trucks; other works trucks fitted with lifting or handling equipment | 19 637 | 33 798 | 72% |
| P8484 | Gaskets and similar joints of metal sheeting combined with other material | 16 909 | 28 540 | 69% |

Source: Eurostat

Table 2.23. Indonesian Imports and Exports in the Mechanical Engineering Sector

Trade for HS84, excluding data processing equipment and parts, USD million

| | 1997 | 2001 | 2002 | % change 1997-2002 |
|------------------------|-------|-------|-------|--------------------|
| Exports from Indonesia | 342 | 684 | 866 | +153% |
| Imports to Indonesia | 9,576 | 4,483 | 4,439 | -54% |

Source: National Trade Statistics

Malaysia

With Malaysia's aim to become a fully industrialised country by 2020, there is a large market for mechanical machinery and equipment, most of which has to be imported. Imports and exports in the four main sub-sectors for mechanical machinery and equipment are shown in Tables 3 and 4.

One very important engineering support industry in Malaysia is the mould and die sub-sector. The total local market in 2002 was valued at USD 455 million, 60% of which was served by imported equipment. On top of supplying 40% of the market, local suppliers exported USD 98 million of equipment. Imports were split fairly evenly between moulds for rubber and plastics products (USD 135 million, 49.5% of total) and moulds and dies for metalworking (USD 120.5 million, 44% of total).

Philippines

Total imports of mechanical engineering goods less data processing machinery were USD 5.3 billion in 2002 and ex-

ports were USD 2.9 billion. Imports of food processing machinery in 2001 were USD 130 million.

Singapore

By far the most important mechanical engineering sub-sector in Singapore is precision engineering. In 2001 the sub-sector had a turnover of S\$ 13 billion (USD 7.2 billion). The sub-sector crosses over between electronics and mechanical engineering in Singapore as precision engineering is vital in providing the tools, moulds and dies to make the parts and components for the electronics sector. Precision engineering is also a vital contributor to the automotive sector. The sub-sector grew initially to supply the means to produce metal and plastic components for the electronic multi-nationals in the 1970s. It expanded in the 1980s and 1990s with the development of the disk drive industry. Now the move is into photonics and medical equipment.

Whilst some electronics and automotive component companies may be moving to cheaper manufacturing bases, the precision engineering remains and develops in Singapore. Singapore claims such a competitive advantage in precision engineering that it is a major factor in attracting high value added electronics projects to Singapore.

Thailand

As Thailand has developed as an industrialised country, the machinery sector has assumed a very important position. Total mechanical engineering imports in 2002 after deducting data processing machinery and parts were USD 7.9 billion.

Table 2.24. Exports of Mechanical Machinery and Equipment – USD Million

| Sub-Sectors | 1999 | 2000 | 2001 | 2002 | Jan-Jun 2003 | Major Destinations |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|---|
| Power Generating M&E | 744 | 777 | 740 | 842 | 363 | Singapore, USA, Japan, Germany, UK |
| M&E for Specific Industries | 524 | 672 | 708 | 679 | 376 | Singapore, USA, Indonesia, Japan, Thailand |
| Metalworking M&E | 115 | 121 | 111 | 155 | 84 | Singapore, Hong Kong, Japan, USA, Thailand |
| General Industrial M&E and Parts | 1,143 | 1,279 | 1,306 | 1,258 | 754 | Singapore, Hong Kong, Japan, USA, Australia |
| Total | 2,525 | 2,849 | 2,865 | 2,934 | 1,577 | |

Source: National Trade Statistics

Table 2.25. Imports of Mechanical Machinery and Equipment – USD Million

| Sub-Sectors | 1999 | 2000 | 2001 | 2002 | Jan-Jun 2003 | Major Destinations |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|--|
| Power Generating M&E | 1,251 | 1,443 | 1,793 | 1,833 | 653 | USA, Japan, Singapore, China, Thailand |
| M&E for Specific Industries | 1,934 | 3,379 | 2,291 | 1,975 | 942 | Japan, Germany, USA, Taiwan, Singapore |
| Metalworking M&E | 594 | 851 | 726 | 655 | 313 | Japan, Germany, USA, Taiwan, Singapore |
| General Industrial M&E and Parts | 2,530 | 2,611 | 2,668 | 2,552 | 1,183 | Japan, USA, Germany, Singapore, Taiwan |
| Total | 6,309 | 8,284 | 7,478 | 7,016 | 3,091 | |

Source: National Trade Statistics

The huge agro-food industry in Thailand provides a large market for both agricultural machinery and food processing equipment. The market for food processing equipment has been estimated at close to USD 500 million, of which two-thirds is imported. There is a large niche market for aquaculture and fish processing equipment in Thailand. Another sub-sector in which Thailand is strong is in the air-conditioning and refrigeration sub-sector. Textile machinery has been a booming market recently as Thai producers seek to upgrade to improve competitiveness ahead of 2005. Imports were USD 200 million in the first six months of 2003.

Vietnam

The Government plans to develop the following sub-sectors:

- Agricultural and food processing machinery
- Machine tools and instruments
- Complete production lines (e.g. sugar, cement) aimed at import substitution
- Shipbuilding

Realising the key importance of the sector, the Government approved a Mechanical Engineering Master Plan in December 2002 for the period 2003-2010 with the objective of enabling the sustainable development of a modern machinery industry. The target is to meet 45-50% of the country's mechanical engineering demand by 2010 with

30% of production going for export. At present demand in most sub-sectors is very largely met by imports.

There is a huge need to mechanise in the agricultural sector and to improve post harvest handling. This continues through to the food-processing sector where equipment is required to raise the very low levels of processing and raise value added.

2.2.4.b. Structure of the sector

The structure of the mechanical engineering sector in each country in terms of number of establishments and employees by sub-sector is shown in Table 2.26. These are the latest comparable figures available from census of production data.

The Table shows Thailand as being the major player, but Malaysia and Singapore have very strong and sizeable engineering support industries that are not shown here but are described under the individual country headings.

Indonesia

The stock of machinery is old and needs refurbishing, but this has been held back by the crisis and slow recovery. A past World Bank survey found Indonesia is best for so-called "Bloc 3" products (medium technology) such as automotive components, refrigeration and air-conditioning. The Indonesian Statistics Office gives employment in the machinery and equipment sector as 49,000 in 2001.

Table 2.26. Mechanical Engineering – Number of Establishments and Employment (2000)

(Employment in 000s)

| ISIC | Industry | Indonesia | | Malaysia ^a | | Philippines ^{a,b} | | Singapore | | Thailand | | Vietnam | | | |
|--------------|--|------------|-------------|-----------------------|------|----------------------------|-------------|------------|-------------|------------------|-------------------|------------|-------------|------------|-------------|
| | | Estab | Empl | Estab | Empl | Estab | Empl | Estab | Empl | Estab | Empl | Estab | Empl | | |
| 291 | General Purpose Machinery | | | | | 77 | 8.9 | | | | | | | | |
| 2911 | Engines & Turbines (not for transport equipment) | 24 | 2.5 | 34 ^d | 1.1 | | | .. | .. | 142 | 20.9 | 6 | 2.8 | | |
| 2912 | Pumps, compressors, taps and valves | 32 | 5.4 | 1,097 | 32.0 | 9 | 0.3 | 9 | 0.3 | | | 26 | 1.8 | | |
| 2913 | Bearings, gears, gearing and driving elements | 34 | 2.9 | | | 15 | 3.2 | | | | | | | | |
| 2914 | Ovens, furnaces and furnace burners | 7 | 1.6 | | | 2 | 0.1 | | | | | | | | |
| 2915 | Lifting and handling equipment | 11 | 0.9 | | | 9 | 1.5 | | | | | | | | |
| 2919 | Other general purpose machinery | 45 | 2.9 | | | 20 | 1.8 | | | | | | | | |
| 292 | Special Purpose Machinery | | | | | | | 106 | 11.7 | | | | | | |
| 2921 | Agriculture and forestry machinery | 26 | 2.2 | | | | | .. | .. | 738 ^c | 62.1 ^c | 31 | 4.4 | | |
| 2922 | Machine tools | 42 | 3.3 | 65 ^e | 2.8 | | | 217 | 7.8 | | | 17 | 2.3 | | |
| 2923 | Machinery for metallurgy | 1 | 1.1 | 74 | 1.9 | | | .. | .. | | | .. | .. | | |
| 2924 | Machinery for mining and construction | 25 | 7.0 | | | 8 | 1.7 | | | | | | | | |
| 2925 | Food/beverage/tobacco processing machinery | 15 | 1.3 | | | 17 | 1.5 | | | | | | | | |
| 2926 | Machinery for textile, apparel and leather | 30 | 5.3 | | | 6 | 1.4 | | | | | | | | |
| 2929 | Other special purpose machinery | 24 | 1.9 | | | 39 | 4.2 | | | | | | | | |
| 2930 | Domestic appliances n.e.c | 25 | 4.7 | | | 42 | 3.7 | 46 | 6.7 | 6 | 1.2 | | | 42 | 3.8 |
| Total | | 341 | 43.0 | | | 1,312 | 41.5 | 229 | 27.3 | 621 | 38.3 | 880 | 83.0 | 238 | 30.5 |

Notes: ^a 1999 figures
^b Only includes establishments employing more than 20 people
^c 2919 includes 292 and 2930
^d 2911 includes 2921
^e includes woodworking machines

Size of establishments covered:
Indonesia 20 + Employees
Malaysia 30 + Employees and estimate of those under 30
Philippines 20 + Employees
Singapore 10 + Employees
Thailand 10 + Employees
Vietnam 5 + Employees

Source: UNIDO Industrial statistics, National Sources

Malaysia

The industry sector has shifted from general fabrication and machining works to manufacture/assembly of higher-end, specific machinery components/equipment and heavy machinery and equipment manufacturing such as the manufacture of cranes and heavy process equipment for petrochemical, oil and gas industries. High-end specialised/process machinery with specific functions like PET bottle manufacturing machinery, high speed knitting machinery and handling and testing machinery and equipment for the semiconductor industry are currently being manufactured incorporating a high level of local R&D, engineering design and components and parts. The manufacturing sector has moved towards industrial automation and systems integration which has prompted the development and manufacture of automatic and semi-automatic equipment and factory automation systems both for production processes and material handling.

The total number of projects approved for investment in the sector between 1997-July 2003 was 307 with a potential employment of 14,900 if all projects are/were implemented. The total potential investment was USD 792 million of which USD 406 million (51%) was foreign. The local engineering supporting industry which has been very successful in supporting the electrical and electronics industry over the last three decades has now started to focus more on other sectors such as the automotive and the machinery and equipment manufacturing sectors.

The important mould and die-supporting sector has around 300 companies employing 14,000 (of which 7,000 are skilled or professional). The sectors serviced are:

- Electrical/electronics 40%
- Plastics 27%
- Metalworking 15%
- Automotive 6%
- Rubber 4%
- Others 8%

Around one-third of companies are wholly foreign owned by investors from Japan, Taiwan, Singapore, Germany, Hong Kong, USA and Korea. Some of the remaining two-thirds are joint ventures with foreign companies. The mould and die industry is a specially promoted sector subject to a number of incentives. High technology incentives are also available for:

- Trim and form dies
- Semi-conductor cavity/encapsulation moulds
- Suspension tooling for hard disk drive parts
- Progressive tooling for lead frames
- Fibre optic connector tooling

Singapore

In the important precision engineering sub-sector, there are around 1,100 companies employing 76,000 people. About 80% of the companies are locally owned. The sub-sector is, however, always seeking even higher added value tech-

nology from foreign investors or technology partners. Singaporean companies are not only ready to work with EU partners in Singapore but also in 3rd countries as local companies do not have the resources alone to develop everywhere at once. Most of the companies in Singapore are SMEs and need strategic alliances to develop and survive in a global industry.

The Singapore Precision Engineering and Tooling Association (SPETA) has machine tool and automotive components chapters. In the machine tool sub-sector foreign companies with little manufacturing use Singapore as a distribution and service base. There is little EU presence and foreign companies are mainly Japanese.

Thailand

Thailand has a major production capability in air-conditioning and refrigeration equipment with 2001 production of :

| | | |
|------------------|-----------------|----------------|
| Air-conditioning | USD 1.1 billion | (16 companies) |
| Refrigeration | USD 0.4 billion | (11 companies) |
| Compressors | USD 0.4 billion | (7 companies) |

ASEAN Co-operation

No mention was made of ASEAN collaboration in this sector, but developments similar to those in electronics based on a division of labour to undertake different stages of the design – production – marketing process depending on skills and engineering “infrastructure” required can be envisaged. Alternatively, different countries may specialise in different machine types, but this will again to a large extent, be determined by available skills and “infrastructure”.

Singapore precision companies have a strong foothold in Malaysia and Thailand. They not only have an ASEAN development strategy but often a more global perspective.

NTBs and problems serving the ASEAN market

Standards and certification were mentioned as a major problem in trading with the EU and US and to some extent in ASEAN.

Customs procedures still pose some problems. In particular there are problems with country of origin (and thus acceptance of local content on Form D) with so many parts and components in a machine.

Any hassle caused by NTBs create particular problems for intra-ASEAN trade in parts, components, tools, dies, etc. where, increasingly, speed of delivery is of importance.

2.2.4.c. Opportunities

The opportunities for mechanical machinery and parts sales and manufacture do of course follow the major production industries of ASEAN, namely:

- Electronics
- Agro-food
- Textiles and garments

There are also opportunities for machinery to perform horizontally across industries of which packaging machinery and test and control equipment were mentioned as offering opportunities.

A few of the “machine and parts type” opportunities mentioned were:

Electronics

An important support sub-sector is precision engineering and in particular tool, die and mould manufacturing for electronic parts and components. This also has applications in many other sub-sectors including automotive components. Opportunities in tool, die and mould manufacture were mentioned in Singapore, Malaysia and Thailand.

The most sophisticated development opportunities exist in Singapore where precision engineering is an integral part of the electronics cluster. The further development of this sector, both in terms of diversification and value added (e.g. design) are being promoted by EDB.

Opportunities also exist throughout the region for test and control equipment and in packaging.

Agro-Food

Opportunities for manufacture and assembly are mainly in the more basic machinery as the sector is dominated by SMEs. Economies of scale for more sophisticated machinery in the region are a problem. All six countries have some interest in this sector, although Malaysia and Singapore are interested in more sophisticated machinery and components. Specific types of machinery mentioned as offering opportunities were:

- Agriculture equipment: opportunities extend beyond mechanical engineering to areas such as test and control equipment. Improved equipment is required by the farmers in all stages of the farm development, rearing, testing, harvesting and transport in order to meet strict international quality standards and to remain competitive.
- Food Processing equipment: the need to meet international standards and remain competitive is also driving the market for upgraded equipment throughout the food processing sector. Types of equipment mentioned includes: drying, cooling purifying equipment; fruit, vegetable and cereal processing; animal feed equipment; bakery, confectionery and brewery equipment; snack food equipment. There is strong competition in many areas from Asian and US equipment manufacturers.
- Packaging machinery: good quality packaging appropriate to the market is essential to all ASEAN countries to remain competitive in the processed foods market. Opportunities exist at all stages in the packaging process; filling, closing, sealing, wrapping and labelling. There is a correlation between the quality, standards and types of packaging required in a market and local machine design. As the EU is a major market for ASEAN processed foods this should help EU packaging (and processed food) equipment manufacturers to enter the market.

- Agricultural machinery: there is a need to upgrade machinery and equipment to ensure countries in the region remain competitive in all stages of the growing/rearing process from land preparation through to post-harvest and transportation/cold chain logistics.

Textile and Garment Machinery

Opportunities exist, particularly in Vietnam, Indonesia and Thailand. Again, the opportunities extend to packaging and test and control equipment as well as production machinery and parts.

Specific Country Development Opportunities

Malaysia has made special incentives available for companies undertaking the production of the following high value-added and high technology machinery and equipment:

- Machine tools
- Plastic injection machinery
- Plastic extrusion machinery
- Packaging machinery
- Material handling equipment
- Robotics and factory automation equipment
- Specialised/process machinery and equipment for specific industries

In addition, certain products qualify for incentives for high technology companies:

- Design, development and manufacture of:
 - Medical equipment
 - Scientific equipment
 - Medical implants or devices
 - Cyclonic separation equipment
- Development of high pressure water cutting equipment
- Development and production of:
 - Computer process control systems/equipment
 - Process instrumentation
 - Robotics equipment
 - CNC machine tools

Singapore is specifically seeking technology partners in precision engineering. It is keen to develop manufacturing and services to the aerospace, oil field equipment, shipbuilding and repair sub-sectors. In the engineering sector, Singapore works widely with Indonesia, Malaysia and Thailand. Singapore is used as an ASEAN distribution centre for machine tools.

In **Vietnam**, the Mechanical Engineering Master Plan for the period 2003-2010 highlights opportunities to EU companies in many areas including: engines, food processing equipment, agricultural machinery, machine tools, construction machinery, shipbuilding, electrical and electronic equipment, auto industry and transport engineering.

Box 2.3. Quant's Corner: Opportunities in the Mechanical Engineering Industry

The following selection of products, defined at a 6-digit level of customs classification, is derived from an extensive screening of trade flows, between the EU and ASEAN as well as intra-ASEAN. The selection is defined as: products having a minimum export flow from EU to ASEAN of EUR 1 million, having the fastest growth since 1998, with EU exports spread over at least three ASEAN countries, already significant intra-ASEAN trade, and the largest difference between MFN and AFTA tariff rates.

The 20 products identified in the mechanical engineering industry are:

- Cranes & lifting frames, self-propelled, not on tyres
- Chain saw parts
- Printing machinery
- Poultry-keeping machinery
- Parts of spinning, combing, drawing machines
- Self-propelled works trucks, non-electric
- Bearings, spherical roller
- Industrial machinery for food, drink preparation
- Parts of refrigerating or freezing equipment
- Parts of printing machinery and ancillary equipment
- Machinery for treatment by temperature change
- Rubber or plastic vacuum moulders, thermoformers
- Parts of power transmission equipment
- Parts of machinery for making pulp, paper or board
- Condensers for steam or vapour power units
- Machine tools for stone, ceramics and cold glass
- Sawing machines for working wood, cork
- Air compressors mounted on wheeled chassis for towing
- Machines, confectionery, cocoa, chocolate manufacture
- Machinery to fill, close, aerate, etc. bottle, container

2.2.5. Tourism

The ASEAN tourism sector is recovering from a series of events which tarnished the image of the region as a whole, notably the bombings, terrorist attacks and kidnapping in some of the ASEAN countries (Indonesia and the Philippines). This came on top of the impact on world-wide

tourism of the Iraqi War, September 11th and the Asian Crisis. One positive result of the latter, however, was that the devaluation of ASEAN currencies made their tourism industries more competitive. Tourism is an important contributor to the economy in all six countries under study reaching 5.9% of GDP in Thailand and 7.8% in Malaysia.

2.2.5.a. Data and statistics

In 2002, countries from South East Asia received more than 42 million visitors, almost double the 1990 figure:

| Number of tourist arrival (millions) | |
|--------------------------------------|------|
| 1990 | 21.5 |
| 1995 | 29.2 |
| 2000 | 37.0 |
| 2001 | 40.2 |
| 2002 | 42.2 |

Source: World Tourism Organisation (Wto¹)

South East Asia accounted for 6.0% of world tourist arrivals in 2002. In terms of growth in recent years as well as since 1990, the region has only been out-performed by North East Asia where China is the major player (28% of the Asia Pacific market). The following Table gives some elements of comparison between South East Asia and other regions world-wide.

Table 2.27. Tourism Growth - World-wide
(annual % change in number of visitors)

| Region | 2001 | 2002 |
|-------------|------|------|
| S.E. Asia | 8.7 | 5.0 |
| N.E. Asia | 5.0 | 12.2 |
| S. Asia | -4.5 | 0.9 |
| W. Europe | -2.6 | 1.4 |
| S. Europe | 2.3 | 1.5 |
| N. America | -7.5 | -3.3 |
| Caribbean | -1.6 | -5.0 |
| Total World | -0.5 | 2.7 |

Source: Wto

Growth has not been even throughout ASEAN however, as the following figures for the major markets show.

Table 2.28. Tourism Growth - S.E. Asia

| Country | Total Arrivals (000s) - 2002 | % Change | | Share of Asia Pacific Market in % |
|----------------------|------------------------------|----------|-------|-----------------------------------|
| | | 01/00 | 02/01 | |
| Indonesia | 5,033 | 1.8 | -2.3 | 3.8 |
| Malaysia | 13,292 | 25.0 | 4.0 | 10.1 |
| Philippines | 1,933 | -9.8 | 7.6 | 1.5 |
| Singapore | 6,996 | -2.8 | 4.0 | 5.3 |
| Thailand | 10,873 | 5.8 | 7.3 | 8.3 |
| Vietnam ^a | 2,630 | 8.9 | 12.9 | 2.0 |

^a National Sources

Source: Wto

¹ To avoid confusion with the World Trade Organisation (WTO), the World Tourism Organisation is noted Wto

Revenues derived from tourism are very significant in most ASEAN countries, ranging from USD 9.7 billion in Thailand to USD 1.5 billion in Vietnam (see the table to the right).

The country of origin of tourist arrivals for the six countries under study, taken from national sources, is shown in Table 2.29.

| International tourism revenues (USD billion) | |
|--|------------|
| Indonesia | 5.0 (2000) |
| Malaysia | 6.8 |
| Philippines | 2.1 (2000) |
| Singapore | 6.0 (2000) |
| Thailand | 9.7 |
| Vietnam | 1.5 |

Source: National Sources and Wto

Table 2.29. Visitors by Country from Major Markets — 2001-2002

| Country | Indonesia | | Malaysia | | Philippines | | Singapore | | Thailand | | Vietnam | |
|--------------------|------------------|------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|------------------|------------------|
| | 2000 | 2001 | 2001 | 2002 | 2001 | 2002 | 2001 | 2002 | 2001 | 2002 | 2001 | 2002 |
| Europe: | | | | | 195,936 | 177,682 | | | | | | |
| France | 93,477 | 98,807 | 32,922 | 27,434 | | | 72,000 | 72,000 | 238,550 | 254,610 | 97,700 | 111,546 |
| Germany | 151,897 | 159,881 | 70,401 | 54,645 | | | 167,000 | 158,000 | 407,353 | 412,968 | 39,096 | 46,327 |
| UK | 161,662 | 189,027 | 262,423 | 239,294 | | | 460,000 | 459,000 | 522,117 | 574,007 | 64,673 | 69,682 |
| ASEAN: | | | | | 115,566 | 133,790 | 2,523,000 | 2,533,000 | | | | |
| Indonesia | — | — | 777,449 | 769,128 | | | (1,400,000) | | 153,734 | 165,295 | 11,116 | 13,456 |
| Malaysia | 475,845 | 484,692 | — | — | | | | | 1,161,490 | 1,297,619 | 26,265 | 46,086 |
| Singapore | 1,427,886 | 1,477,132 | 6,951,594 | 7,547,761 | | | — | | 669,166 | 687,982 | 32,110 | 35,261 |
| Thailand | 48,477 | 50,489 | 1,018,797 | 1,166,937 | | | | | | | 31,789 | 40,999 |
| Other Asia: | | | | | 831,109 | 958,510 | | | | | | |
| Japan | 643,794 | 611,314 | 397,639 | 354,563 | | | 756,000 | 723,000 | 1,179,202 | 1,233,239 | 204,860 | 279,769 |
| China | | | 453,246 | 557,647 | | | 497,000 | 670,000 | 695,372 | 763,708 | 672,846 | 724,385 |
| Korea | 213,762 | 212,237 | 66,343 | 64,301 | | | 359,000 | 371,000 | 553,441 | 717,361 | 75,167 | 105,060 |
| Australia | 459,994 | 397,982 | 222,340 | 193,794 | | | 551,000 | 538,000 | 366,468 | 358,616 | 84,085 | 96,624 |
| USA | 176,379 | 177,869 | 145,827 | 127,920 | 447,921 | 451,201 | 344,000 | 328,000 | 494,920 | 519,668 | 230,470 | 259,967 |
| Other | 1,211,044 | 1,294,190 | 2,376,092 | 2,188,586 | 342,145 | 75,710 | | 1,670,000 | 3,690,696 | 3,887,903 | 759,873 | 798,826 |
| Total | 5,064,217 | 5,153,620 | 12,775,073 | 13,292,010 | 1,932,677 | 1,796,893 | 7,691,000 | 7,522,000 | 10,132,509 | 10,872,976 | 2,330,050 | 2,629,990 |

Source: National Sources

2.2.5.b. Structure of the Sector

The availability of accommodation in the six markets is shown in Table 2.30. When information is available, it shows that between 75% and 90% of the total number of rooms available is in 2 and 3-star hotels. Overall occupancy rates have been as follows (2002 unless specified):

- Indonesia: 41% (2000)
- Malaysia: 58%
- Philippines: 59% (Manila only)
- Singapore: 74%
- Thailand: 51% (2000)
- Vietnam: 54%

ASEAN Co-operation

There is already an ASEAN Tourism Association which promotes the whole region. This comprises the national trade associations from each country and its main objective is to capture a larger share of the long-haul travel market for the region. The ASEAN Tourism Forum also meets once a year to discuss ways and means to accel-

erate the growth of ASEAN tourism. Two ASEAN tourism task forces met at a 2003 Forum in order to improve common marketing efforts and enhance communications on the ASEAN theme. An ASEAN Tourism Agreement was concluded at the 7th ASEAN Summit in November 2001. This has the following objectives:

Table 2.30. Number of Hotels and Hotel Rooms (2002 unless specified)

| Country | Hotels | Rooms |
|--------------------------------|-------------------|-----------------------|
| Indonesia ^{b)} | 10,400 | 260,000 |
| Malaysia | 1,900 | 137,000 |
| Philippines | 820 ^{d)} | 30,000 ^{c)} |
| Singapore | 200 | 28,000 |
| Thailand | | 319,000 ^{c)} |
| Vietnam ^{a)} | 1,490 | 53,000 |

^{a)} Includes other accommodation such as youth hostels, self catering accommodation and unclassified

^{b)} Figures for year 2000 for 3 to 5 star and 2002 for 1 and 2 star (including unclassified)

^{c)} Figures for 2000

^{d)} Figures for 1998

Source: National Sources, WTO

- To co-operate in facilitating travel into and within ASEAN
- To enhance co-operation in the tourism industry among ASEAN Member States in order to improve its efficiency and competitiveness
- To substantially reduce restrictions to trade in tourism and travel services among ASEAN Member States
- To establish an integrated network of tourism and travel services in order to maximise the complementary nature of the region's tourist attractions
- To enhance the development and promotion of ASEAN as a single tourism destination with world-class standards, facilities and attractions
- To enhance mutual assistance in human resource development and strengthen co-operation to develop, upgrade and expand tourism and travel facilities and services in ASEAN; and
- To create favourable conditions for the public and private sectors to engage more deeply in tourism development, intra-ASEAN travel and investment in tourism services and facilities

NTBs and Other Problems

Being a service sector, tourism is not as open as the manufacturing sectors to foreign investment. There are some constraints to investment and doing business in the sector for a European company in some countries (e.g. Vietnam). Equally there are strong incentives in countries where tourism is a priority sector (e.g. Malaysia). One common issue is related to land ownership and title for non-residents, because most countries do not allow foreign entities to own land.

2.2.5.c. Opportunities

Investment by European companies in the tourism industry in ASEAN offers a paradox, as most large European hotel chains and tour operators have a visible presence, but in almost all cases through simple management contract and marketing support, or through sales and marketing arrangements, but very rarely through equity investment or direct ownership. Part of the reason is to be found in the difficulties for owning land, but part of the reason is due to the overall strategies of large tourism companies (especially hotel chains) to lower their level of risk by limiting all capital injection in developing countries. One area for larger EU companies may be global or regional alliances amongst hotel chains, e.g. recently reported Dusit (Thailand) and Kempinski AG (Germany) collaboration.

Other opportunities open to EU companies include:

- Eco tourism
- Adventure tourism
- Cultural tourism
- Conference tourism
- Travel agents/tour operators (particularly collaborating on above)

- Retirement homes/tourism
- Restaurants/catering
- Health "tourism"

Opportunities in most of the above niches are available in all six countries but health and retirement homes are more limited to Malaysia and Thailand, and Singapore for health only. Health tourism is more orientated towards the local market although more "exotic feel-good" treatments are also targeted on Europeans and Americans. The idea of retirement homes is linked to a good health service but is looking at the growing concept in Europe of spending the winter months somewhere warm in a second home or rented/hotel/self-catering accommodation.

2.2.6. Electrical & Electronics

The electronics sector is the most important sector in terms of both production and exports for ASEAN as a whole. Electrical products, whilst providing some interesting opportunities for EU companies, is a much smaller sub-sector and not so dominated by foreign companies. Electronics production is dominated by foreign multinationals, with a significant US and EU presence. There are, however, many foreign SMEs in the sector having followed their multinational customers to the region. The sector has taken more advantage of ASEAN economic integration than any other and there is a very large intra-ASEAN trade in electronic products.

For trade statistics, electronic data processing (EDP) machinery and parts are included in mechanical engineering, but in terms of the structure of the electrical and electronics sector they are included in this sector Profile. EDP machinery and parts, together with electronic components, dominate the sector in terms of importance in both production and trade.

2.2.6.a. Data and statistics

Statistics for the production/output by value are difficult to obtain in detail or even total on a compatible basis. The latest year this can be attempted for actual figures is 2001 and these are shown in Table 2.31. Table 2.32. provides both recent figures and estimates for 2002 and 2003 for the aggregate sector in each country.

The latest Intra-ASEAN export figures (2001) for Chapter 85 show the predominant position of Singapore and Malaysia in the regional network of production facilities:

| Intra-ASEAN exports of electrical and electronic products - Value USD million | |
|---|----------------------|
| Indonesia | 1,864 |
| Malaysia | 8,091 |
| Philippines | 2,815 |
| Singapore | 14,699 |
| Thailand | 2,731 |
| Total Intra-ASEAN Exports | 30,239 ^a |
| Total ASEAN – World Exports | 113,138 ^a |

^a 5 countries plus Brunei, Cambodia and Myanmar only

Source: ASEAN Secretariat

Table 2.31. Consolidated Summary of Production 2001 (USD millions)

| | Indonesia | Malaysia | Philippines | Singapore | Thailand | Vietnam |
|-----------------------------|--------------|---------------|---------------|---------------|---------------|--------------|
| Electronic Data Processing | 2,340 | 13,342 | 4,500 | 17,877 | 6,081 | 250 |
| Office Equipment | 57 | 178 | 96 | 240 | 239 | 18 |
| Control and Instrumentation | 125 | 684 | 90 | 447 | 113 | 24 |
| Medical and Industrial | 170 | 132 | 45 | 206 | 59 | 78 |
| Radio Communications | 692 | 2,632 | 530 | 1,173 | 495 | 144 |
| Telecommunications | 400 | 1,211 | 90 | 486 | 788 | 144 |
| Consumer Electronics | 2,408 | 6,551 | 571 | 1,192 | 1,817 | 825 |
| Components | 3,500 | 11,826 | 5,109 | 13,249 | 4,757 | 454 |
| TOTAL | 9,692 | 36,556 | 11,031 | 34,870 | 14,349 | 1,937 |

Source: Yearbook of World Electronics Data 2003, Reed Electronic Research

Table 2.32. Consolidated Summary of Electronics Equipment and Components Production in ASEAN Countries

| Country | 2000 | 2001 | 2002 ^a | 2003 ^a |
|--------------|----------------|----------------|-------------------|-------------------|
| Indonesia | 11,096 | 9,692 | 8,774 | 9,223 |
| Malaysia | 43,184 | 36,555 | 34,867 | 36,305 |
| Philippines | 13,536 | 11,031 | 12,192 | 13,790 |
| Singapore | 47,318 | 34,870 | 36,069 | 38,335 |
| Thailand | 19,207 | 14,350 | 16,477 | 18,743 |
| Vietnam | 1,682 | 1,936 | 2,315 | 2,772 |
| Total | 136,023 | 108,434 | 110,694 | 119,168 |

^a 2000 and 2001 are current figures at current exchange rates. 2002 and 2003 are forecasts at 2001 constant values and exchange rates (i.e. inflation is not included).

Source: Yearbook of World Electronics Data 2003, Reed Electronic Research

Finally, figures for EU exports of electrical and electronic products show the importance of integrated circuits and micro-assemblies (about 40% of total EU exports in the sector), followed by computers and related equipment and parts, and telecommunication equipment.

As for the mechanical engineering sector, statistics for export from the EU to the whole ASEAN market are summarised with two Tables based on 4-digit custom classification, one giving the 20 largest export products (based on 2002 values) and the second one the 20 fastest growing exports (1998-2002).

Table 2.33. EU Exports of Electrical / Electronic Products to ASEAN (20 largest exports in 2002)

| EU export to ASEAN (EUR 1000 / HS4) - ELEC | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|------------------|------------------|-------------------|-------------------|-------------------|
| P8542 Electronic integrated circuits and micro-assemblies | 2 885 758 | 3 831 619 | 5 750 486 | 5 870 185 | 4 619 596 |
| P8473 Parts and accessories for data processing mach. | 420 605 | 693 652 | 871 306 | 1 041 249 | 1 025 450 |
| P8517 Electrical apparatus for line telephony or line telegraphy | 761 531 | 685 239 | 1 133 396 | 1 357 308 | 966 678 |
| P8525 Transmission apparatus for radio-telephony, radio-telegraphy, broadcasting | 415 272 | 499 542 | 859 507 | 1 195 921 | 766 379 |
| P8541 Diodes, transistors and similar semiconductor devices | 512 655 | 558 920 | 694 535 | 593 567 | 512 927 |
| P8471 Automatic data-processing machines and units thereof | 501 612 | 473 899 | 500 864 | 515 747 | 451 809 |
| P8529 Parts suitable for use solely or principally with transmission equipment | 240 219 | 274 810 | 439 762 | 471 904 | 436 362 |
| P8536 Electrical apparatus for switching or protecting electrical circuits | 296 806 | 316 029 | 382 120 | 405 578 | 350 187 |
| P8504 Electrical transformers, static converters and inductors | 503 136 | 261 045 | 362 863 | 380 079 | 331 676 |
| P8534 Printed circuits | 121 869 | 178 844 | 300 840 | 283 118 | 306 721 |
| P8544 Insulated wire, cable (including coaxial cable) | 234 423 | 173 901 | 194 015 | 251 053 | 251 668 |
| P8538 Parts suitable for use solely or principally with switching and boards / panels | 164 132 | 113 365 | 162 053 | 178 980 | 138 158 |
| P8543 Electrical machines and apparatus not specified elsewhere | 83 707 | 106 989 | 170 129 | 169 744 | 124 907 |
| P8535 Electrical apparatus for switching or protecting electrical circuits | 157 467 | 97 780 | 78 531 | 92 929 | 116 407 |
| P8501 Electric motors and generators (excluding generating sets) | 121 516 | 103 455 | 124 243 | 137 135 | 113 391 |
| P8537 Boards, panels, consoles, desks, cabinets and other bases | 175 950 | 158 107 | 132 062 | 138 315 | 111 872 |
| P8523 Prepared unrecorded media for sound recording | 154 269 | 189 425 | 89 388 | 64 732 | 111 274 |
| P8524 Records, tapes and other recorded media for sound | 55 637 | 96 179 | 102 890 | 106 025 | 91 705 |
| P8502 Electric generating sets and rotary converters | 109 208 | 63 944 | 76 896 | 140 213 | 91 192 |
| P8507 Electric accumulators, including separators | 67 637 | 79 294 | 119 195 | 97 764 | 78 339 |
| Total, including data processing equipment and parts | 9 007 082 | 9 805 421 | 13 668 411 | 14 447 994 | 12 046 358 |

Source: Eurostat

Table 2.34. EU Exports of Electrical / Electronic Products to ASEAN (20 fastest growing over 1998 - 2002)

| EU Export to ASEAN (EUR 1000 / HS4) - ELEC | | 1998 | 2002 | % growth 1998-2002 |
|--|--|-----------|-----------|--------------------|
| P8519 | Turtables (record-decks), record-players, cassette-players and other sound reproducing apparatus | 2 573 | 6 585 | 156% |
| P8539 | Electric filament or discharge lamps, including sealed-beam lamp units and ultraviolet or infrared | 22 712 | 57 639 | 154% |
| P8534 | Printed circuits | 121 869 | 306 721 | 152% |
| P8473 | Parts and accessories for data processing equipment | 420 605 | 1 025 450 | 144% |
| P8506 | Primary cells and primary batteries | 3 566 | 8 646 | 142% |
| P8547 | Insulating fittings for electrical machines, appliances or equipment | 8 495 | 16 221 | 91% |
| P8525 | Transmission apparatus for radio-telephony, radio-telegraphy, broadcasting | 415 272 | 766 379 | 85% |
| P8529 | Parts suitable for use solely or principally with transmission equipment | 240 219 | 436 362 | 82% |
| P8512 | Electrical lighting or signalling equipment | 17 751 | 31 942 | 80% |
| P8470 | Calculating machines and pocket-size data-recording, reproducing and displaying machines | 4 050 | 7 048 | 74% |
| P8518 | Microphones; loudspeakers, whether or not mounted in their enclosures; headphone | 27 187 | 46 207 | 70% |
| P8540 | Thermionic, cold cathode or photocathode valves and tubes | 15 919 | 26 535 | 67% |
| P8524 | Records, tapes and other recorded media for sound or other similarly recorded phenomena | 55 637 | 91 705 | 65% |
| P8510 | Shavers, hair clippers and hair-removing appliances, with self-contained electric motor | 2 494 | 4 005 | 61% |
| P8542 | Electronic integrated circuits and micro-assemblies | 2 885 758 | 4 619 596 | 60% |
| P8472 | Other office machines (for example, hectograph or stencil duplicating machines, addressing machines, | 41 470 | 64 412 | 55% |
| P8511 | Electrical ignition or starting equipment of a kind used for spark-ignition or compression-ignition | 15 929 | 24 109 | 51% |
| P8543 | Electrical machines and apparatus not specified elsewhere | 83 707 | 124 907 | 49% |
| P8516 | Electric instantaneous or storage water heaters and immersion heaters | 36 969 | 52 480 | 42% |

Source: Eurostat

Indonesia

Total electronic exports and imports in 2001 and 2002 (including EDP machinery and parts) were:

Table 2.35. Indonesian Electrical & Electronics Imports & Exports for 2002

(values in USD million)

| HS Heading | 2001 | | 2002 | |
|--|--------------|--------------|--------------|--------------|
| | Import | Export | Import | Export |
| 85 Electrical and Electronic Machinery | 1,385 | 5,914 | 1,545 | 6,062 |
| 8471/72 EDP Machinery & Parts | 226 | 2,041 | 232 | 2,184 |
| Total | 1,611 | 7,955 | 1,777 | 8,246 |

Source: Central Board of Statistics, Indonesia

Malaysia

Total output of the sector in 2002 was estimated at USD 36 billion by the Department of Statistics, accounting for 44% of the manufacturing sector output and 65% of manufactured exports of Malaysia. Output grew at an average of 17.3% p.a. during 1992-2002 despite negative growth in 2001 and 2002. The breakdown of output in 2002 was:

- Electronic components 43.8 %
- Consumer electronics 11.2 %
- Industrial electronics 45.0 %

The trade statistics below use the SITC classification system but the headings are fairly compatible. The 2001 and 2002 figures are as follows:

Table 2.36. Malaysian Electrical & Electronics Imports & Exports for 2002

(values in USD million)

| SITC Heading | 2001 | | 2002 | |
|--|---------------|---------------|---------------|---------------|
| | Import | Export | Import | Export |
| 75 EDP and Office Equipment and Parts | 4,742 | 16,766 | 5,578 | 17,244 |
| 76 Telecoms. and Sound Recording Equipment | 3,360 | 12,175 | 3,774 | 10,547 |
| 77 Electrical Machinery and Parts n.e.s. | 26,697 | 20,924 | 29,977 | 24,291 |
| Total | 34,799 | 49,865 | 39,329 | 52,082 |

Source: Department of Statistics

A breakdown has been made of the exports of the electronics sector only in 2002 by the Department of Statistics, which comprised USD 36.5 billion of imports and USD 49.6 billion of exports. The exports comprised:

- Components USD 21.7 billion
- Consumer Electronics USD 5.6 billion
- Industrial Electronics USD 22.3 billion

Philippines

The export of the electronics sector by product is shown in Table 2.37 for 2001 and 2002.

Singapore

The major electrical and electronics products exported and imported into Singapore in 2001 and 2002 were as shown in Table 2.38.

Table 2.37. Electronics Sector – Exports by Major Product in USD billion

| Product | 2002 | 2001 | % Change |
|----------------------------|--------------|--------------|-------------|
| Semiconductors | 16.18 | 14.91 | 12.7 |
| Electronic Data Processing | 5.87 | 5.07 | 15.8 |
| Office Equipment | 0.13 | 0.18 | -27.8 |
| Communication and Radar | 0.38 | 0.39 | -2.6 |
| Telecommunications | 0.20 | 0.22 | -9.1 |
| Automotive Electronics | 0.32 | 0.37 | -13.5 |
| Consumer Electronics | 0.49 | 0.47 | -4.3 |
| Total Electronics | 24.20 | 21.61 | 12.0 |

Source: Bureau of Export and Trade Promotions (BETP)

Table 2.38. Major Electrical and Electronics Products Exported and Imported into Singapore in 2001 and 2002

(values in USD million)

| Heading | 2001 | | 2002 | |
|--------------------------------|---------------|---------------|---------------|---------------|
| | Import | Export | Import | Export |
| Electronic Valves ^a | 23,068 | 27,362 | 24,171 | 29,465 |
| Parts for Office & DP Machines | 8,704 | 10,351 | 9,111 | 9,878 |
| Data Processing Machines | 5,401 | 16,589 | 4,430 | 15,607 |
| Communication Equipment | 4,947 | 5,213 | 5,003 | 5,954 |
| Electrical Machinery | 2,559 | 2,873 | 2,400 | 2,422 |
| Electrical Circuit Apparatus | 2,787 | 2,784 | 2,783 | 2,887 |
| Total | 47,466 | 64,172 | 47,898 | 66,213 |

^a Includes integrated circuits (ICs), Semiconductors, CTV picture tubes, CR tubes for computer monitors, TV camera tubes, microwave tubes and parts for these products

Source: International Enterprise, Singapore

Thailand

Production of major electrical and electronic products in 2001 was:

Table 2.39. 2001 Electrical And Electronics Products Production in Thailand

| Product | Production Value (USD Million) | Number of Manufacturers | Import Values (USD Million) |
|------------------|--------------------------------|-------------------------|-----------------------------|
| HDDs | 2,900 | 2 | 3,000 |
| HDD Parts | 2,000 | 26 | |
| PCBs | 360 | 15 | 360 |
| PCBAs | 1,300 | 50 | |
| Ics | 3,800 | 18 | 2,500 |
| Capacitors | 250 | 17 | 370 |
| Air-Conditioners | 1,100 | 16 | |
| Refrigerators | 390 | 11 | |
| Compressors | 440 | 7 | |

Source: Board of Investments

The total value of production of the electrical and electronics sector in 2001 was estimated at USD 17 billion (THB 754 billion) by the Federation of Thai Industries Elec-

trical and Electronics and Allied Industries Club. This was produced by 2,400 factories and 390,000 employees.

Vietnam

Production is estimated at USD 1.0 billion for 2002, with exports of electronics products worth USD 500 million or 68% of all manufactured exports. The value of output in the main sub-sectors of the electrical and electronics sector, together with the share taken by foreign invested companies (in brackets), is shown in the following Table.

Table 2.40. Growth in the Value of Output in the Electrical and Electronics Sector (VND billion)^a

| Sub-Sector | 1999 | 2000 | 2001 | 2002 (Est.) |
|---|----------------------|----------------------|-----------------------|-----------------------|
| Office, Accounting and Computer Machinery | 1,703 (1,677) | 1,295 (1,272) | 977 (945) | 782 (739) |
| Radio and Communication Equipment | 3,993 (3,249) | 4,395 (3,573) | 5,407 (3,936) | 6,424 (4,401) |
| Electrical Machinery and Apparatus | 2,944 (995) | 3,622 (1,280) | 5,172 (2,265) | 7,595 (4,039) |
| Total | 8,640 (5,921) | 9,312 (6,125) | 11,556 (7,146) | 14,801 (9,179) |

^a At constant 1994 prices

Source: Statistical Yearbook of Vietnam

2.2.6.b. Structure of the sector

The latest comparable data available are shown in Table 2.42. Apart from in Vietnam, the major employment sub-sector is heading 3210, which is dominated by semi-conductor manufacturing.

Indonesia

The electronics industry structure by number of companies and employment is as follows:

Table 2.41. Electronics Industry Structure by Number of Companies and Employment

| Number of Electronic Companies | 2000 | 2001 (estimate) |
|--|----------------|-----------------|
| Office, Accounting and Computing Machinery | 8 | 10 |
| Radio, TV, Communications and Components | 227 | 291 |
| Electrical Machinery & apparatus n.e.s. | 259 | 287 |
| Total | 494 | 588 |
| Employment | 2000 | 2001 (estimate) |
| Office, Accounting and Computing Machinery | 609 | 696 |
| Radio, TV, Communications and Components | 155,879 | 179,775 |
| Electrical Machinery & apparatus n.e.s. | 73,128 | 74,988 |
| Total | 229,616 | 255,459 |

Source: Central Board of Statistics, Indonesia
Size of establishments covered: 20+ employees

Table 2.42. Electrical and Electronic Sector – Number of Establishments and Employment*(Employment in 000s)*

| ISIC | Industry | Indonesia | | Malaysia ^a | | Philippines ^a | | Singapore | | Thailand | | Vietnam | |
|--------------|---|------------|--------------|-----------------------|--------------------|--------------------------|--------------|------------|--------------|------------|--------------|------------|-------------|
| | | Estab | Empl | Estab | Empl | Estab | Empl | Estab | Empl | Estab | Empl | Estab | Empl |
| 3000 | Office, accounting & computing machinery | 8 | 0.6 | 37 | 25.2 | 29 | 36.4 | 30 | 34.9 | 35 | 60.7 | 4 | 3.1 |
| 3110 | Electric motors, generators & transformers | 44 | 12.6 | 393 ^b | 48.3 ^b | 28 | 11.8 | 28 | 2.5 | 450 | 93.0 | 24 | 12.0 |
| 3120 | Electricity distribution & control apparatus | 67 | 8.5 | | | 32 | 4.6 | 42 | 1.6 | | | 23 | 2.3 |
| 3130 | Insulation fibre & cable | 66 | 22.1 | | | 39 | 9.3 | 50 | 5.0 | | | 49 | 12.0 |
| 3140 | Accumulators, primary cells & batteries | 35 | 11.5 | | | 13 | 2.4 | 7 | 0.9 | | | 16 | 3.6 |
| 3150 | Lighting equipment & electric Lamps | 30 | 9.6 | | | 39 | 6.0 | 13 | 0.3 | | | 13 | 3.7 |
| 3190 | Other electrical equipment not els're Classified | 17 | 8.8 | 33 | 15.7 | 9 | 0.4 | 41 | 3.9 | | | | |
| 3210 | Electronic valves, tubes, tec. | 131 | 77.2 | 596 ^c | 383.0 ^c | 132 | 96.1 | 140 | 57.3 | 241 | 153.4 | 27 | 5.0 |
| 3220 | TV/Radio transmitters, line comm. Apparatus | 15 | 17.4 | | | 21 | 13.7 | 14 | 4.6 | | | 33 | 6.1 |
| 3230 | TV & radio receivers & associated goods | 81 | 61.3 | | | 52 | 16.3 | 13 | 5.7 | | | 24 | 4.3 |
| Total | | 494 | 229.6 | 1 026 | 456.5 | 418 | 212.1 | 346 | 113.1 | 726 | 307.1 | 254 | 56.0 |

Notes: ^a 1999 figures^b ISIC Revision 2 headings 3831 and 3839^c ISIC Revision 2 headings 3832

Size of establishments covered:

Indonesia 20 + Employees

Malaysia 30 + Employees and estimate of those under 30

Philippines 20 + Employees

Singapore 10 + Employees

Thailand 10 + Employees

Vietnam 5 + Employees

Source: UNIDO Industrial statistics 2003, National Sources

Malaysia:

The electronics industry is the leading manufacturing sector in Malaysia and is the largest contributor to manufacturing output, employment and exports. In 2002, 930 companies employed 345,500 and 348,000 in 2003. Malaysia is one of the leading exporters of electronics products in the world. Malaysian-made electronic products fall into 3 categories, electronic components, consumer electronics, and industrial electronics.

The largest export item is semiconductor devices (USD 19 billion in 2002). Semiconductor devices produced include linear and digital integrated circuits, memories and microprocessors, optoelectronics, discrete devices, hybrids, arrays and high reliability military products.

The distribution of projects approved and capital investment in the three sub-sectors for the period 1992 to July 2003 was:

Table 2.43. Distribution of Projects Approved and Capital Investment in the Three Sub-Sectors for the Period 1992 to July 2003

| Electronic Components | | Consumer Electronics | | Industrial Electronics | | Total | |
|-----------------------|--------------------|----------------------|--------------------|------------------------|--------------------|-------|--------------------|
| No. | Capital Investment | No. | Capital Investment | No. | Capital Investment | No. | Capital Investment |
| 965 | USD 12.7 billion | 350 | USD 1.1 billion | 506 | USD 3.5 billion | 1,821 | USD 17.3 billion |

A sophisticated range of electrical appliances are also manufactured including air conditioners, refrigerators, washing machines, vacuum cleaners, electric fans, instant water heaters, rice cookers, blenders and microwave ovens, switchgear, transformers and electric motors. Among the consumer and industrial electronic equipment manufactured are colour TV receivers, audio products, video CD players, paging systems, telephone sets, public phone exchanges, digital transmission equipment, satellite receivers, personal computers, disk drives, monitors, CD-Rom drivers, keyboards, printers and cameras.

Malaysia, an established OEM manufacturer, is enhancing its production range to include higher value-added items incorporating indigenous design elements, R&D and product development. Higher value-added industrial electronics are also being produced such as flat and high definition displays (TFT-LCD, LED, Plasma), parts such as base station digital switching equipment, multi-players PCBs, parts for automatic data processing machines, and computers and peripherals.

The electronics industry is moving towards higher value-added foundry activities, with a focus on growing silicon

ingots, cutting and polishing of silicon wafers, chip design and wafer fabrication.

Outsourcing in the electronics industry has been in existence for many years. There are now more than 50 companies operating as contracting manufacturing services (CMS) or electronic manufacturing services (EMS).

Philippines

SEIPI estimates that there were 575 electronics companies in 2002, of which 195 were component manufacturers and a further 69 in semi-conductors. The sector employed 371,000 directly and 618,000 in total. DTI figures give 715 companies, of which 72% are foreign owned as follows:

- Japan 30 %
- Korea 10 %
- US 9 %
- EU 7 %
- Other 16 %

Singapore

For economic development purposes, the electronics sector is grouped with precision engineering (see Mechanical Engineering profile) to form the Electronic and Precision Engineering (EPE) cluster. This is the most important cluster promoted by the Economic Development Board (EDB).

The cluster is estimated to employ around 88,000 people. Foreign investments make up about 80% of total manufacturing. In 2002 the EPE cluster created 11,600 new jobs and attracted S\$ 5.6 billions of fixed assets investment (two thirds of the total in manufacturing).

In 2002 new investments were secured in advanced displays semiconductors and photonics. In 2003 Singapore was planning to attract more companies to use it as a base for the manufacturing of advanced production equipment and systems. Singapore will continue to identify and develop new growth engines in the electronics sector which will include semiconductor IC Design; advanced displays by extending its focus to other technologies such as plasma display pools (PDP) and organic light emitting devices (OLED); domestic appliances – high added value activities and regional head quarters hubs; network storage. Efforts will be directed at developing Singapore's strengths in photonics including a multidisciplinary network of research centres in order to develop Singapore into a premier photonics hub.

The electronics industry is looking to the automotive market to help it recover after the 2001 down turn. The growing amount of electronics in each car from information systems to anti-lock brakes and airbags makes the automotive sector even more attractive for semiconductor and passive component makers.

Thailand

It is estimated that there are 620 Board of Investment approved companies in the sector employing over 300,000 people in 2002. Around 50% of projects involve Japanese companies. The Thai electrical and electronics industry will have to improve its competitiveness and promote supporting industries so that it can increase local content and value-added of the industry. An Electrical and Electronics Institute was established in 1998 to study and propose policy to the government concerning the development of the Thai electrical and electronics industry. The Electrical, Electronics and IT Industry Development Master Plan was drawn up to develop the potential of the Thai industry to be competitive in world markets and to prepare for the impact of worldwide tariff cuts. The industry identified the need to promote supporting industries in order to increase local content and value added to remain competitive.

Vietnam

Domestic computers, built by firms including CMS, GPC, Mekong Green, VINACom and T&H currently make up 80% of the total number in the country. Vietnam now makes only a few hardware products, which include monitors, cases, keyboards, mice, CD-Roms and floppy discs, which together can account for only 24% of a finished computer. Co-operation with foreign partners is considered a solution. Foreign companies have been invited to build factories to produce products that have yet to be produced domestically including CPUs, hard discs and memory.

Consumer electronics firms in Vietnam are as follows:

Table 2.44. Consumer Electronics Firms in Vietnam

| Ownership | Names | Counterparts | Products |
|-----------------------|--|--|---|
| JV with Japanese firm | Sony Vietnam Matsushita Electronic Vietnam Toshiba Vietnam JVC Vietnam Sanyo Home Appliance | Vietronics Tan Binh Vietronics Tan Binh Vietronics Tan Binh Vietronics Tan Binh Sunitomo Trading Company | Col TV, Audio Col TV, VCD Col TV Col TV, Audio Wash., Refrig. |
| JV with Korean firms | Daewoo-Henel Electronics LG SEL Electronics Vietnam | Hanoi Electronics | Col TV, Audio |
| Subcontracting | Sharp | Giang Vo Electric Vietronics Bien Hoa Vietronics Bien Hoa | Wash., Refr. Col. TV etc |
| Vietnam | REETECH Morning Star Electronic Corp. | State Owned State Owned | Wash, Refr, Air C. Colour TV |

Overall in the ASEAN region, foreign companies are heavily represented in the electrical / electronic industries. The foreign invested sector is dominated by the Japanese, followed by the USA and then the EU. Some of the major players in the region are shown in Table 2.45.

NTBs and problems serving the ASEAN market

NTB's do not seem to create major problems in this sector. One of the reasons is that the sector is dominated by foreign

companies so there is little local industry to protect and trade is often intra-company.

There was some mention of standards and technical regulations causing problems, but more in terms of delaying a products entry into the market than being difficult to meet. In the case of EU standards, these are higher than say those in Thailand where most delays were reported. The newly introduced Mutual Recognition Arrangement (MRA) on electrical and electronic products should help remove any in-

ternal ASEAN problems. This industry MRA will allow products tested and certified in one ASEAN country to be sold in another without repeating the testing and certification procedure. Harmonisation of standards is being carried out for 20 priority product groups. National standards will be aligned with relevant international standards.

Table 2.45. Major Players in the Sector

| EU | Other | |
|-----------------------|-------------------|-----------------|
| Thomson Multimedia | Intel | Matsushita |
| ST Microelectronics | Texas Instruments | Panasonic |
| Temic Telefunken | Motorola | Sharp |
| Thales | IBM | Fujitsu |
| Infineon | Amkor | Hitachi |
| Nokia | Rohm | UMC |
| Schneider | Distar Electric | Sony |
| Philips | Acer | Samsung |
| Alcatel | Aiwa | LG |
| Siemens | Toshiba | Sanyo |
| TPC | Seagate | Western Digital |
| | Nidec | Celestica |
| | SCI Systems | Pemstar |
| | Mektec | HP |
| | NEC | AMD |
| | MEMC | SEH |

With a vast number of components often required to make the final electronic product, the country of origin can become a difficult issue even to the extent of not knowing where some components originated. This has made for problems of acceptance by customers under Form D.

2.2.6.c. Opportunities

Electronics is the sector where ASEAN “networking” has advanced the most. There is a large intra-ASEAN trade in electronics products even though the final product is usually destined for extra-ASEAN markets. Although SMEs are involved in this trade, it is largely controlled by the multinationals who export the final product out of ASEAN.

There is already a substantial “division of labour” in the activities undertaken in different countries to produce the finished product, which can be roughly summarised as follows:

| | |
|-----------------------|---------------------------------------|
| Malaysia, Singapore | Design, R&D and high value production |
| Philippines, Thailand | Component production |
| Vietnam, Indonesia | Assembly |

Japanese companies are still felt to have the edge in this sector because of their long established presence, but EU companies already have a substantial presence and access to widespread future opportunities.

Due to the size and scope of the sector, information supplied by ASEAN organisations was mostly of a general nature. Specific opportunities mentioned were:

- Scope for collaboration with EU companies (including SMEs) in the support industry for computers (particularly Thailand). Other areas of opportunity in Thailand are:
 - HDD and HDD parts
 - PCBs and PCBAs
 - Electronic components and parts
 - Air conditioning and refrigeration
- Need for IC design companies to support semiconductor companies (particularly Malaysia). Other areas of opportunity in Malaysia are:
 - Nanotechnology (carbon nanotube, fullerene, biosensor, solar cell and high capacity memory chips)
 - Advanced semiconductor packages such as wafer level package (WLP) system-on-chip (SOC), silicon-inpackage (SIP), flip-chip.
 - IC design
 - Consumer electronics including multimedia products, digital cameras
 - Computers and peripherals
 - Industrial electronics including photonics, digital telecommunication equipment, global positioning systems, mechatronics, robotics, biometrics.
 - Electronics manufacturing services (EMS)
- Development of the photonics sub-sector in Singapore and Malaysia.
- Other areas in which Singapore is keen to attract companies are:
 - Semi-conductors
 - Electronic manufacturing services (EMS), storage and peripherals
 - Precision modules and components
- Automotive electronics (Malaysia, Singapore, Thailand)
- Audio visual components
- Sensors

Box 2.4. Quant’s Corner: Opportunities in the Electrical / Electronic Industry

The following selection of products, defined at a 6-digit level of customs classification, is derived from an extensive screening of trade flows, between the EU and ASEAN as well as intra-ASEAN. The selection is defined as: products having a minimum export flow from EU to ASEAN of EUR 1 million, having the fastest growth since 1998, with EU exports spread over at least three ASEAN countries, already significant intra-ASEAN trade, and the largest difference between MFN and AFTA tariff rates.

The 15 products identified in the electrical / electronic industry are:

- Transmit-receive apparatus for radio, TV
- Co-axial cable and other co-axial electric conductors
- Data/graphic display tubes
- Parts for radio/tv transmit/receive equipment
- Electronic printed circuits
- Aerials and aerial reflectors
- Electric motors of an output < 37.5 watts
- Parts of cathode-ray tubes
- Loudspeakers
- Radio receivers, external power, sound reproduce/record
- Telephonic or telegraphic switching apparatus
- Recorded laser discs
- Electrical circuit protectors n.e.s. for < 1,000 volts
- Electric capacitors, fixed, tantalum
- Ignition/other wiring sets for vehicles/aircraft/ship

3. How to Invest in ASEAN

Summary:

Investing in any promising sector to develop in ASEAN and benefit from the regional integration would require, as for any investment in a developing country, a very thorough approach and investigation. Obstacles can be significant, and useful hints can be derived from the experience of EU investors operating in the region, notably how best to adapt to the regulatory and business environment.

The definition of the optimal way of investing or benefiting from the positive economic and trade developments has first to include the examination of the specific regulations and incentives in different countries, as well as the cost levels and competitiveness, and the overall quality of the business environment.

Starting from here, a preliminary ‘Toolkit’ for decision-making can be used to help define the best strategic options for the EU investor.

- **Cultural** factors are key elements in any successful process leading to investing in ASEAN. The region is made up of very different nations, with a wide range of religious, psychological and philosophical beliefs or backgrounds. Simultaneously, almost all the ASEAN countries have encountered, historically, the same broad waves of foreign influence (Chinese, Indian, European), and there is a definite ‘South East Asian’ blend with its specific characteristics across the entire region. Some of the basic tenets of this South East Asian cultural blend include a forward-looking / trans-generational behaviour (hence high savings, and the importance of family ties), a willingness to operate by consensus when possible, a conviction that any human activity takes place in a broader context where causality plays a major role (hence the political difficulties when it comes to human rights / human duties). Minor misunderstandings, including during negotiations with partners or regulators, can have very negative consequences: e.g. the so-called issue of ‘face’ when dealing with Asian negotiators, where it is considered as very improper to have one’s counterpart obliged to feel cornered or, worse, humiliated; similarly, the inability (and great difficulty) in rapidly identifying who is the ‘right’ counterpart in a group of people can lead to adverse consequences. The simple conclusion is that a proper understanding and appreciation of both the ‘common’ South East Asian ‘values’ and the differences between individual countries is very important, and that it has to take some time. Hurried investigations and decisions are probably not optimal in ASEAN.

3.1. Major Pitfalls and Obstacles

As for any decision to invest in, or co-operate with, a developing country, the definition of the best way to tap the benefits of the ASEAN integration process is difficult. Anecdotal evidence of impressive successes by European investors can be matched with symmetric stories of failure and disappointed investors. It is therefore essential to have a clear awareness of the major potential pitfalls and difficulties facing any small or medium size enterprise deciding to ‘take the bold step’ and start a project in ASEAN.

Academic literature, case studies, and perception by investors on the ground, converge roughly to define two large categories of difficulties with investing in ASEAN in order to target the ASEAN market: one is a mix of cultural, political, regulatory and economic uncertainty that can derail any well-thought project; the other is more precisely related to the specific obstacles met when targeting the ASEAN regional market as a whole.

3.1.1. Broad Factors able to Derail Potential Projects

These broad factors are usually the most difficult to overcome, because they are related to the inherent complexity of dealing in a vastly different cultural, political and economic environment than the one familiar to EU based companies. Under these three headings, the following comments can be made:

- **Political** obstacles can also bring unpleasant surprises in any investment project. Mirroring the cultural diversity, to which quite different recent historical patterns have to be added, the political landscape of ASEAN is complex. The political regimes vary greatly between individual countries, and hence the degree of freedom on the one hand (freedom of speech, of press, political control on opposition groups), and, on the other hand, the ability to have the rule of law implemented and enforced, especially for a foreign company. Indicators of the administrative / bureaucratic difficulties, as well as measures of the ‘political-business environment’ are provided elsewhere in the Report (see sections II.2.2. and III.2.2.), and they should clearly be integrated into any investment decision. However, it is also quite important to properly understand the political regimes, and especially the fact that the governments in ASEAN are all engaged in a ‘catch-up’ process for their country’s economic development, and that their primary objectives are not to create an environment conducive (only, or mostly) for foreign businesses but for their own companies. Most ASEAN governments recognise that foreign direct investment is a useful ‘means’ to accelerate this catch-up process. Defending their respective ‘national champions’ is also a basic foundation of almost all governments (and political parties), and adjusting the rules to ensure that the objectives are met is a common and ‘domestically accepted’ political and

regulatory practice. Symmetrically, this is why the instability of the rules is always considered as a major factor of uncertainty by foreign investors in ASEAN (but also in other investment destinations like China, Latin America or India).

- **Economic** difficulties or problems are probably too numerous to describe: they are inherent to any investment decision in a group of ten different countries: regulations are different, cost competitiveness varies greatly (by country, but also according to the industry), and should by no means be expected to remain stable for the next few years, incentives are both complex and unstable. All these differences can be magnified when focusing on a niche industry or product. In terms of choice of location, as well as the selection of partners (be they associated to the investment, or only marketing / technical / sub-contracting partners) have to take into account both a large number of economic and financial variables that are widely different from one country to another, and the fact that many partnerships rely on personal relationships and mutual trust that cannot be encapsulated in such variables. Here again, the simple conclusion is that no investment process should be rushed through without having the time to integrate this economic complexity in the formulation of an adequate strategy.

3.1.2. Obstacles when Targeting the ASEAN Regional Market

The analysis of the major obstacles faced by a EU company operating from one of the ASEAN countries can be derived from the survey conducted with more than 120 EU-invested companies in the region (see major results in section 1.4.).

The questionnaire listed 12 different obstacles, grouped in three categories: obstacles related to trade regulations or policies (import quotas, import licensing, product standards and certification, customs nomenclature and procedures, tariff issues), those related to other regulatory aspects (national preferences, environmental standards, differences in investment regimes, regional IPR protection), and those which are more ‘macroeconomic’ in nature (fragmentation of markets, transportation, exchange rate uncertainties).

Chart 3.1 overleaf provides the results of the survey, with answers defined at three levels: the obstacle can be considered as ‘No Problem’, or ‘Some Problem’, or a ‘Major Problem’.

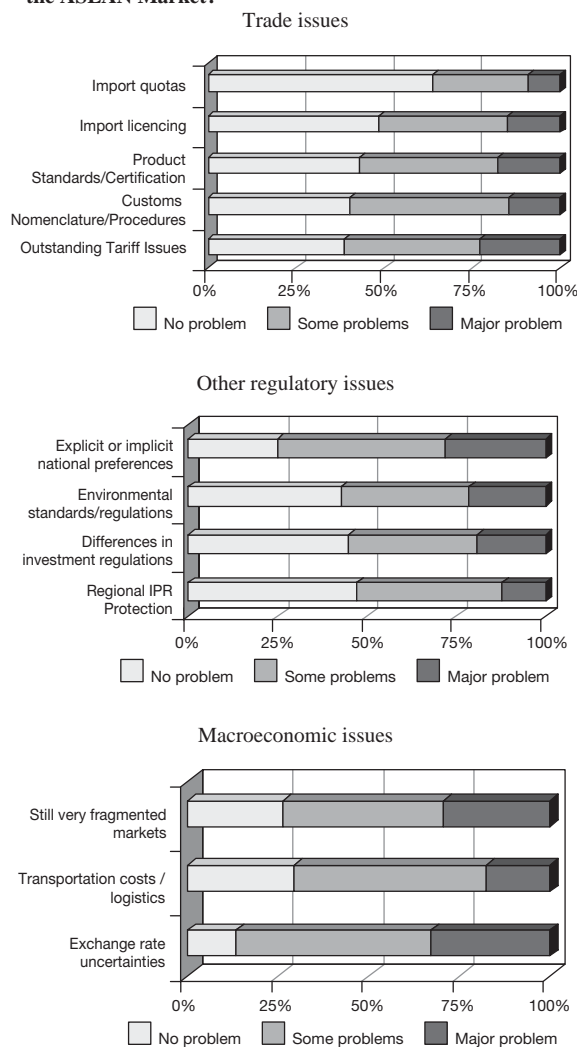
These results warrant the following comments:

- From a broad perspective, all the issues listed still appear as being obstacles when targeting the ASEAN market as a whole: the average on the 12 questions reveals 39% as being ‘No Problem’, against 61% being either ‘Some Problems’ or ‘Major Problem’. However, only 20% of

issues are rated as a ‘Major Problem’, and the ratio of ‘No Problem’ to ‘Major Problem’ is a comfortable 1.93¹.

- Observation of the three general categories of issues raised about obstacles, when targeting the ASEAN market, shows a clear hierarchy, the ‘macroeconomic’ obstacles being far more significant and difficult than the trade issues, and the other regulatory obstacles are in-between (see table at bottom of page).

Chart 3.1. What Obstacles are you Facing when Targeting the ASEAN Market?



Source: TAC/METRA Survey Oct-2003

¹ The ratio expresses that there are almost twice as many respondents, on average for the 12 questions, saying that there are ‘No Problem’ as those saying there are ‘Major Problems’.

| Average for the relevant questions in each category | No Problem (NP) | Some Problems | Major Problem (MP) | Ratio of NP/MP |
|---|-----------------|---------------|--------------------|----------------|
| Trade obstacles | 46.8% | 37.3% | 15.9% | 2.95 |
| Other regulatory obstacles | 40.0% | 39.8% | 20.1% | 1.99 |
| Macroeconomic obstacles | 23.1% | 50.3% | 26.6% | 0.87 |

Source: TAC/METRA Survey – Oct 2003

- Among **macroeconomic obstacles**, the most important is the uncertainty regarding exchange rates. Indeed, as testified by the European experience, the issue of potential swing in foreign exchange rates between the various ASEAN currencies is due to become more important as the degree of trade integration progresses further. ASEAN countries have very different exchange rate policies, from a fixed rate against the US dollar (Malaysia) to free or managed float (Indonesia, Thailand, the Philippines), going through flexible but controlled rates (Vietnam). In the medium-term, this clearly points towards a challenge for ASEAN policy makers, but in the short-run, it highlights the need to take into account the possibility of significant changes in bilateral exchange rates within the ten ASEAN members in any investment planning exercise.

The other macro-issue to be faced when targeting the ASEAN region is the persistence of fragmented markets in the region. Indeed, the combination of strong cultural differences, varying political regimes, and widely spread levels of economic and income development, automatically creates markets that are still far from being fully integrated in terms of consumption patterns and investment processes. However, qualitative interviews on the subject suggest some nuances: when dealing with intermediate goods, markets are fully homogenised and the goods are not differentiated between countries. The ‘market intensity’¹ for any given product may be very different, but the product itself would be exactly the same on all markets; to a slightly lesser extent, the same could be said for equipment goods; and lastly, the homogenisation process is far more advanced for the upper-income segment of the population, with, in particular, the consumption behaviour of Asian urban professionals converging towards a similar pattern across the whole region. These three areas would be the most important products or markets targeted by European companies.

Finally, the incredibly wide span of territory covered by ASEAN, its specific geography (large archipelagos, mountainous ranges), and the difficulties so far in engaging in full-fledged regional co-operation projects in the field of infrastructure, explain that transportation costs and logistic issues are still considered by 70% of respondents as presenting problems when targeting the regional market, of which only 18% however consider it a ‘Major Problem’. Some of the geographic difficulties will obviously remain, but the need for more ambitious regional infrastructure projects for transportation is now recognised. Some initiatives have already been taken, be it between Thailand, Laos and Vietnam, or between Malaysia, Indonesia and the Philippines. Simultaneously, many ASEAN members have the policy objective of favouring one or more specific domestic areas to become regional transportation hubs (Malaysia, Singapore, the Philippines).

- The ‘**Other Regulatory**’ issues also offer some interesting observations: the most significant obstacle is the existence of explicit or implicit national preferences,

¹ A ‘market intensity’ for a product measures the share of the domestic demand for this product as a percentage of total GDP; it is similar to the more standard elasticity of a given product demand to total economic activity, but based on levels of demand and GDP and not on growth rates..

which will always tilt the odds in favour of a domestic company in competition with a foreign-invested one. This was very forcefully put forward by one EU businessman explaining that, in one of the ASEAN countries, “*the only reason for getting into a joint venture with a local partner is to get a regulatory and judiciary insurance against the discrimination against foreign companies*”. For reasons mentioned briefly before, it is very unlikely that any significant change will be seen on this issue in the near future, and therefore, the question of competition against well-entrenched local producers has to be analysed in depth.

Conversely, and somewhat paradoxically, the fact of not having ASEAN-wide intellectual property rights protection is considered to be a major obstacle by only 12% of respondents, against 47% declaring that it is no problem. This runs counter to the usual perception, and anecdotal evidence, that IPR is a major problem when doing business in Asia. The simple explanation is that most EU companies consider that the issue is not a regional problem in terms of adopting a new / common IPR regulation, but a problem of implementing and enforcing existing national rules. Most observers would agree that most IPR laws are adequate, but that the effective ability of a foreign company to have its rights ensured and properly respected remains very weak. In this respect, the progressive upward move in value added by the ASEAN producers themselves, and the growing risks of extensive IPR violations between ASEAN companies themselves, added to international pressure and the inclusion of the issue in the WTO framework, suggest that this obstacle should progressively decrease.

- As an unsurprising result of the advances in trade integration, few respondents consider that trade obstacles are still significant problems when dealing with the whole ASEAN market. Quantitative restrictions in intra-ASEAN trade (quotas, licensing) are a major problem for respectively only 9% and 16% of respondents, and present no problem for respectively 64% and 49%. Customs nomenclature and procedures are still somewhat problematic (60% of respondents), as are outstanding tariff issues (61%): interviews with EU-invested companies in ASEAN suggest that the two issues are partly mixed, with decisions to classify imported goods in a given classification /nomenclature at customs still very uncertain, therefore raising issues as to which tariff rate to apply. Current efforts by the ASEAN Secretariat to improve customs procedures and nomenclatures, as well as the initiatives in the field of standards and certification, indicate that the issues are recognised and are being progressively dealt with.

3.2. Country Specific Regulations and Competitiveness

It is not within the scope of this document to provide detailed analyses of the specific investment regulations and various operating conditions for a foreign investor in each ASEAN country. However, it is certainly useful to provide a summary of key elements of investment regulations, cost levels and overall ‘business environment’ conditions in the major countries within ASEAN.

3.2.1. Major Features of Investment Regulations in ASEAN Countries

ASEAN countries have individually taken steps to liberalise their investment regimes and to provide competitive and attractive investment environments, particularly in order to counter the effects of the Asian economic crisis. Table 3.1 indicates the broad regulatory framework for foreign investors in each of the ASEAN countries. By itself, these differences in regulations certainly show a need for further harmonisation in order to allow foreign investors to consider the region as a more integrated area.

To try to meet the need to have more harmonised rules for foreign investors and enhance the region's attractiveness, the ASEAN countries have started to promote ASEAN as one investment region. This regional co-operation will facilitate more cost-effective industrial and production activities

in ASEAN. The aim of the ASEAN Investment Area Agreement (AIA) is to enhance the competitiveness of the region for attracting higher and sustainable levels of direct investment flows into and within ASEAN. This is to be achieved through actively promoting ASEAN as a competitive region for FDI with greater investment liberalisation, enhanced investment facilitation and promotion arrangements. Another key feature of AIA involves the granting of national treatment and to jointly promote ASEAN as a competitive destination for FDI. All investment issues are being implemented to achieve the regional investment agreement by the agreed timeframe, originally agreed at 2010 for ASEAN investors and 2020 for all investors. The timeframe was considerably shortened at subsequent AIA Council meetings from 2010 to 2003 for the manufacturing sector for ASEAN investors and from 2020 to 2010 for all investors. The newer member countries will shorten the timeframe from 2020 to 2015 for all investors.

Table 3.1. Investment Regulations

| | Investment Incentives and Promotions | Taxation | National Treatment | Administrative Procedures | Special Investment Areas |
|-----------|--|--|---|----------------------------------|--|
| BRUNEI | * Companies awarded pioneer status are exempt from corporate tax, tax on the import of raw materials capital and goods up to eight years * An approved expanding company can be given tax exemption up to 5 years | * No restriction of capital repatriation * Corporate tax: 30% * exemption of import duties for basic foodstuffs and goods for industrial use | * Foreign land ownership is not allowed * 100% foreign equity can be considered for export-oriented industries | * 2 to 3 months | NA |
| CAMBODIA | * Corporate tax exemption: 3 to 6 years * 100% import duty exemption on construction materials, means of production, equipment, intermediate goods, raw materials and spare parts * 100% exemption of export tax | * Standard rate of tax on profit: 20% | * Foreign land ownership is not allowed * Investors can set up 100% foreign-owned investment projects | * 28 working days | no |
| INDONESIA | * Import duty exemption for capital goods * Import duty exemption for raw materials for 2 years of production | * Progressive Income taxation (10-30%) | | * 10 to 20 working days | yes (bonded zones) = fiscal incentives |
| LAO PDR | * Exemption or reduction of taxes On profits and import duties * Import duty exemption for raw materials and intermediate components required in the production of exports | * Corporate profit tax: 20% | | * 60 days | NA |
| MALAYSIA | * Investment Tax Allowance (ITA) of 100% for 5 years for a company engaged in a project of natural and strategic importance, of 60% for 5 years for a high tech company or engaged in promoted activities/ products * Pioneer Status: 5 year partial exemption from the payment of income tax * Many specific incentives in several sectors (manufacturing, agriculture, tourism, IT...) | * Corporate income tax: 28% * Petroleum Income tax: 38% | * 100% foreign ownership allowed for high technology and extraction or mining and processing of mineral ores | * 8 weeks | YES (LABUAN, international offshore financial centre, for offshore banking, insurance, trust and fund management, investment holding and licensing and FREE ZONES, categorized into free Industrial Zones and free commercial zones) |

(Continued on the next page)

Table 3.1 (Continued)

| | | | | | |
|-------------|--|-----------------------------|--|-------------------|--|
| MYANMAR | <ul style="list-style-type: none"> * A three-year corporate income tax exemption to foreign investors * Exemption from import duties for machinery, equipment, machinery component... during the construction, exploration and development period * Exemption from import duties for imported raw materials for the first three years of commercial operation | * Corporate income tax: 30% | * 12 “strategic” sectors (banking and insurance, exploration and extraction of metals...) are reserved for the State sector | * 60 days | NA |
| PHILIPPINES | <ul style="list-style-type: none"> * Newly registered pioneer projects are fully exempt from income tax for 6 years from the start of commercial operations as well as for projects located in less developed areas * Simplification of customs procedures for the importation of equipment, spare parts, raw materials and supplies and exports of processed products | * Corporate income tax: 32% | * Foreign equity of only up to 40% in the telecoms, transport, agriculture on public land and real estate sectors | * 20 working days | YES (ECOZONES) = fiscal incentives |
| SINGAPORE | <ul style="list-style-type: none"> * Pioneer status: exemption from corporate tax for up to 10 years | * Corporate income tax: 26% | <ul style="list-style-type: none"> * Foreigners are free to acquire land and buildings zoned for industrial or commercial purposes * Foreign investors are allowed to maintain 100% foreign equity * Free-trade zones for seaborne cargo and air cargo exist * No restrictions are placed on foreign projects except for national security | * 20 working days | <ul style="list-style-type: none"> * Free trade zones for seaborne cargo and air cargo exist: within these zones, a wide range of facilities and services are provided for the storage and re-export of dutiable and controlled goods |
| THAILAND | <ul style="list-style-type: none"> * Major tax incentives include tax holidays, exemption or reduction of import duties on machinery and exemption of raw materials | * Corporate income tax: 30% | | * 60 to 90 days | YES (Investment Promotion Zones) = special incentives |
| VIETNAM | <ul style="list-style-type: none"> * Depending on the investment sector and region, investors enjoy tax holiday (up to 8 years) and 50% tax reduction (up to 4 years) * Exemption of import duties on equipment, machinery and specialized means of transport imported, and spare parts | * Corporate income tax: 25% | * Generally, 100% foreign equity ownership is allowed, except some sectors | * 60 days | YES (Industrial zones and Export Processing Zones) = more preferential treatment |

3.2.2. Operating Costs in ASEAN Countries

When examining operating conditions, different types of costs have to be analysed and compared: real estate, human resources (local and foreign / expatriates), other operating costs (transport, telecommunications), taxation, etc.

The following Table, derived from the annual survey by the Japanese Institute for Foreign Trade (JETRO) with Japanese companies operating in Asia, gives some con-

crete information on the various components of operating costs in the major Asian cities. Two cities in India and in China have been added to serve as a useful benchmark.

Singapore has a very singular position within the ASEAN countries, offering a very high level of development and top quality infrastructure; as a result, real estate costs as well as wages are much higher than in other ASEAN countries. To counterbalance these negative aspects, Singapore offers an attractive taxation system, specific incentives for regional headquarters and favourable local financing facilities, on top of its ‘assets’ in the form of

Table 3.2. Comparison of Costs Across Asian Cities

| | Operating Conditions | | | | | | | | | |
|--|----------------------|--------------------|----------------------------|---|---------------------------------|-------------------------------------|--------------------------------------|---|--|---------------------------------------|
| | WAGES | | | Office rent by month (\$/m ²) | TELECOMMUNICATIONS | | | Electricity charge for business use (\$/ kWh) | Water charge for business use (\$/m ³) | Price of regular gasoline (\$/ liter) |
| | Workers (\$/mth) | Engineers (\$/mth) | Middleman agement (\$/mth) | | Telephone installation fee (\$) | Basic monthly telephone charge (\$) | International telephone charges (\$) | | | |
| Bangkok/Thailand | 183 | 465 | 757 | 13.21 | 175.3 | 4 2.7 | 3.24 | 0.03 | 0.32 | 0.28 |
| Kuala Lumpur/Malaysia | 301 | 556 | 1373 | 17 | 131.58 | 9.21 | 2.61 | 0.05 | 0.29 | 0.29 |
| Jakarta/Indonesia | 57 | 168 | 644 | 19 | 55.35 | 4.4 | 2.31 | 0.02 | 0.33 | 0.12 |
| Manila/Philippines | 252.5 | 342.5 | 715.5 | 27.58 | 103.6 | 34.82 | 3.75 | 0.09 | 0.26 | 0.33 |
| Ho Chi Minh/Vietnam | 104 | 220 | 470.5 | 19 | 129.38 | 20 | 9.4 | 0.75 | 0.45 | 0.3 |
| Yangon/Myanmar | 29.5 | 94.5 | 247 | 19 | 1.55 | 7.5 | 15.81 | 0.09 | 0.88 | 0.34 |
| Singapore | 455 | 1275 | 2103 | 37.8 | 46.32 | 7.24 | 2.17 | 0.05 | 1.18 | 0.68 |
| <i>arithmetic average for the 7 ASEAN cities</i> | <i>197.43</i> | <i>445.86</i> | <i>901.43</i> | <i>21.80</i> | <i>91.87</i> | <i>12.27</i> | <i>5.61</i> | <i>0.15</i> | <i>0.53</i> | <i>0.33</i> |
| Shanghai/China | 248 | 446 | 452 | 30 | 152 | 5.8 | 4.3 | 0.02 | 0.13 | 0.28 |
| Beijing/China | 120 | 203 | 453 | 14.4 | 120.5 | 2.6 | 1.45 | 0.06 | 0.16 | 0.25 |
| Delhi/India | 239.5 | 244.5 | 870.5 | 32.88 | 69.8 | 5.82 | 3.35 | 0.07 | 0.05 | 0.56 |
| Mumbai/India | 114 | 266.5 | 669.5 | 13.5 | 69.8 | 11.63 | 3.4 | 0.09 | 0.18 | 0.61 |

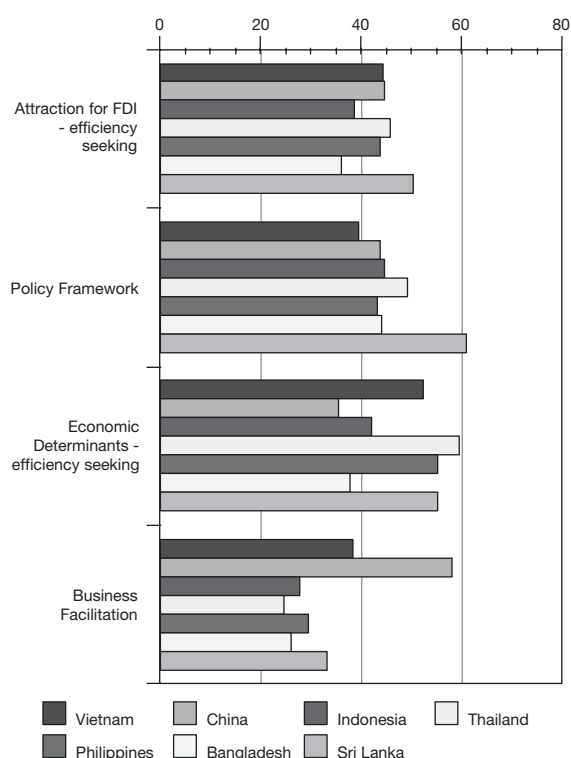
Source: JETRO 1999/2000

quality of the workforce and trade openness. This strategy of moving up in the value added chain to compensate for higher labour costs is also adopted by Malaysia and Thailand. Conversely, the newcomers in ASEAN (Myanmar and Vietnam) have very significant labour cost advantages, partly compensated by lower productivity, lower availability of skilled labour and poorer infrastructure.

A more global indication of the operating conditions can be derived from research undertaken for the European Commission in the context of a programme to support Vietnam's accession to the WTO. In this study, the 'attractiveness' for FDI was measured in three different types of foreign investment: those targeting the domestic market of the host country, the second for investment seeking an access to natural resources, and the third one for export-oriented (or efficiency-seeking) investors. The comparison includes four ASEAN members (Indonesia, Thailand, the Philippines and Vietnam), as well as China, Bangladesh and Sri Lanka.

It is useful to concentrate mostly on the efficiency-seeking measures, as they capture the most important aspects of competitiveness and operating conditions. The overall result ('FDI Attraction – efficiency seeking') indicates a very favourable position for Vietnam, Thailand and the Philippines (certainly at par with China), and a lower performance for Indonesia. The decomposition of this aggregate measure in three components, namely policy framework, economic determinants, and business facilitation suggests that the economic determinants (including different wages, other operating costs, fiscal incentives, access to cheap imports, privileged access to export markets) are the most important factors in supporting the overall competitiveness of Thailand, the Philippines and Vietnam, while policy framework and facilitation aspects are poorer, except in Indonesia where policy initiatives have tried to compensate for the poorer performances elsewhere (see Chart 3.2.).

Chart 3.2. Attraction for FDI / Efficiency seeking: broad variables



Source: FACTOM Model, Multilateral Trade Assistance Programme for Vietnam, European Commission
All indicators are normalised from 0 (the worst possible performance) to 100 (the best performance)

3.2.3. Broad Measures of the Business Environment in ASEAN Countries

Beyond the regulatory environment and the level of operating costs, the attraction of any country to foreign investors is de-

pendent on a broader set of elements characterising the ‘business environment’. It is very difficult to fully capture the reality behind such a vague concept, but it is widely accepted that issues of regulatory burden, transparency, rule of law and accountability are key elements in this overall business environment. All these issues still present visible difficulties in ASEAN, even though not significantly different from other major investment destination in the developing world. The

World Bank has established a number of benchmark quantitative measures for the broad domain of government efficiency: ASEAN members’ performances vary widely, both across indicators (*voice and accountability* being the worst almost everywhere, but with a ratio of 1 to 8 between the best performer: Singapore, and the worst one: Myanmar) and across countries (Singapore being the best on all measures, and Myanmar, Laos and Indonesia being weak on all or most measures):

Table 3.3. Comparison of Governance and Administrative Efficiency

| | Voice and accountability 2002 | Political stability 2002 | Government Effectiveness 2002 | Rule of law 2002 | average |
|----------------------|-------------------------------|--------------------------|-------------------------------|------------------|---------|
| Brunei | 3.4 | 7.5 | 7.2 | 6.5 | 6.2 |
| Cambodia | 4.0 | 4.6 | 4.0 | 3.3 | 4.0 |
| Indonesia | 4.1 | 2.2 | 4.0 | 3.5 | 3.4 |
| Laos | 1.5 | 4.9 | 3.5 | 2.9 | 3.2 |
| Malaysia | 4.6 | 6.2 | 7.1 | 6.4 | 6.1 |
| Myanmar | 0.8 | 2.2 | 2.4 | 1.7 | 1.8 |
| Philippines | 5.5 | 4.1 | 5.0 | 4.1 | 4.7 |
| Singapore | 6.3 | 7.9 | 10.0 | 8.9 | 8.3 |
| Thailand | 5.6 | 6.3 | 5.8 | 5.8 | 5.9 |
| Vietnam | 2.3 | 6.2 | 4.6 | 4.3 | 4.3 |
| <i>ASEAN average</i> | 3.8 | 5.2 | 5.4 | 4.7 | |
| China | 2.2 | 5.6 | 5.6 | 4.7 | 4.5 |
| India | 5.9 | 3.4 | 4.9 | 5.3 | 4.9 |

Source: World Bank, compilation by TAC
Normalised indicators are ranked from 0 (worst rating) to 10 (best rating)

Another broad measure of the overall regulatory environment for foreign investors can be derived from the annual IMD World Competitiveness Yearbook, where a survey of large corporations is made on the legal framework and its implication for foreign businesses and the country’s competitiveness. Answers are normalised across countries, and scaled between 0 (worst performance) and 10 (best performance). The analysis is made on 49 countries, including the five largest members of ASEAN (Indonesia, Malaysia, the Philippines, Thailand and Singapore), as well as 22 fully developed OECD members. The results for the 5 ASEAN members, presented in the Table below, highlight the very significant differences in companies’ perception about their regulatory and legal environment.

| | Score (from 0 = worst to 10 = best) | Rank (out of 49 countries) |
|-------------|-------------------------------------|----------------------------|
| Singapore | 8.50 | 1 |
| Malaysia | 6.56 | 16 |
| China | 5.60 | 25 |
| Thailand | 5.01 | 27 |
| India | 4.52 | 31 |
| Philippines | 3.30 | 45 |
| Indonesia | 2.44 | 47 |

Source: IMD World Competitiveness Yearbook, 2002

3.3. Toolkit for Preliminary Identification

As indicated in the Section II of this Report on precise market / production opportunities, no ‘top-down’ approach from gen-

eral and industry considerations can alone be sufficient to trigger any investment decision by a small or medium size enterprise. Detailed ‘in-the-field’ examination and appreciation of such opportunities is an absolute requirement. Likewise, concrete means to select the optimal way to realise any investment cannot be determined by a similar ‘top-down’ process. However, a general approach can help in ‘organising’ the information needed to take the proper decision, and can point towards the relevant questions or issues to be addressed before making such a decision.

This is precisely the objective of this section of the Report. Such a simplified ‘toolkit’ for preliminary identification has to be constructed while respecting three key principles:

- It should aim at simplifying the complexity that characterises the various parameters needed to improve investment decision-making, especially for SMEs. It should therefore focus on a limited and simplified number of key assumptions and questions, providing a ‘roadmap’ for possible answers.
- Conversely, it should remain general enough to avoid giving an illusory perception of mechanistic reasoning to be applied indiscriminately to projects and backgrounds that are, by nature, too specific to each company and operation. In this sense, it has to be recognised that peculiar circumstances, exceptional products, privileged relationships, intuitive perception by entrepreneurs, can all easily destroy the preliminary indications provided by the ‘roadmap’. The latter is therefore designed more to raise issues and relevant questions than to deliver exact answers.
- Finally, such a ‘toolkit’ should stay open to any challenge brought to the reasoning by a simpler and

stronger arbitrage to be made by entrepreneurs, namely the risk / return preferences. Even a risky project may be acceptable and taken forward, even with uncertain or 'sub-optimal' conditions, if the expected return is commensurate, and if the risk / return balance fits into the overall strategy of the company.

The first crucial step in defining an investment in the ASEAN region is to look at **how close is the company's strategy to one among three major 'archetype' alternatives:**

- **Insert into a network of sourcing units to benefit from local advantages and a competitive intra-zone trade regime.**

In this alternative, the European company locates its production unit(s) in ASEAN to have access to more competitive inputs for its overall supply chain. The idea is to identify the best areas for production efficiency of one or many required inputs, set up an operation (with or without capital injection) in this (these) area(s), and be able to obtain an efficient and tariff-free flow of goods within the region.

A typical example would be a medium-size EU electronics company seeking to improve its competitiveness globally, and which would source its various required inputs from different locations in the area (components, integrated circuits, dashes and boards, buttons, switches, ...), then move these inputs to an assembly location and ship it from there to any targeted market, in or more likely outside the ASEAN region.

In this kind of strategy and objectives, the key elements for decision-making will include the cost competitiveness of each option (labour cost and other operating expenses), the level of logistic capabilities and transportation facilities, the actual and effective trade facilitation procedures, and to a lesser extent the risk of IPR violations, and the level of quality of local inputs.

- **Produce goods for the higher end of the local market (most likely consumer goods, but also applicable to some equipment goods) with economies of scale and local marketing.**

In this alternative, the European company targets the local demand, and would therefore probably position itself at the more expensive / sophisticated end of the market. The idea is to concentrate the production in one given location of the region to maximise economies of scale while benefiting from low or nil tariff rates when selling to the other ASEAN markets, complemented by local / specific packaging, marketing and distribution features.

This would be the case, for example, of a food company deciding to sell high value added products to the higher-income segment of urban consumers in the whole ASEAN region. ASEAN trade integration would then suggest having one production facility able to meet the whole region's expected demand, so that economies of scale are largest, while benefiting from the competitive advantage (against non-ASEAN products) given by the AFTA preferential rates, and adapting to local characteristics through dedicated sale forces, locally tuned marketing campaigns and specific packaging.

In this type of strategy, the key factors are more the ability to obtain economies of scale (including through

specific incentives when related to the invested amount), the possibility of devising the institutional / operational mechanisms for distribution, and risks associated with IPR protection. Though to a slightly lesser extent, the possibility to find high quality inputs and skilled labour is also important.

- **Supply quality inputs to the emerging large local corporations and locally operating multinational companies.**

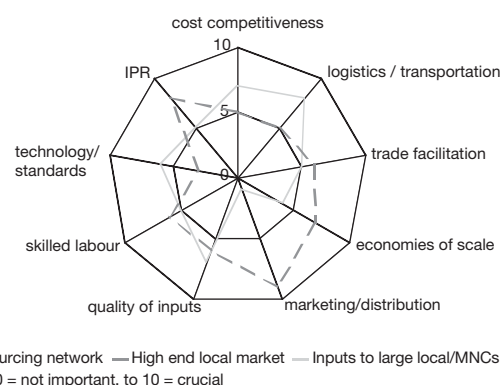
In this third kind of strategy, the European company "follows" its main customers, when such large local companies or locally operating MNCs have large production facilities and want to reduce the cost of inputs (through the low tariff trade within ASEAN) while maintaining the quality of components and materials. The objective is to be able to produce the same type of inputs as manufactured in Europe to supply the same customers from a closer location and with reduced trade costs (including tariffs).

This would be the case, for example, of an automotive component company observing that many large car manufacturers are using ASEAN countries as regional platforms, and choosing to fully benefit from the growing production by its traditional customers. The components must then be within the same quality range as those requested world-wide by the large car manufacturers, but should be able to be shipped more rapidly ('Just-In-Time' supply chains) and with lower trade costs.

In this option, the key decision-making factors are the logistic issues, the quality of locally-sourced primary inputs, the regulatory environment for technical standards and certification, and the cost competitiveness elements. The availability of skilled labour, and effective trade facilitation procedures are also important.

The Chart below gives a summary representation of the respective importance of these key 'decision-making issues' in each of the three broad categories of strategies¹.

Chart 3.3. Major criteria involved by strategy selection



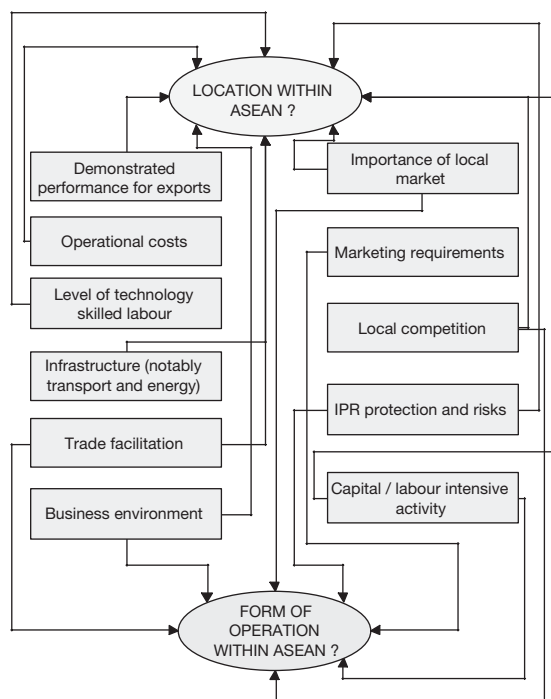
Source: TAC

¹ The nine factors listed for this exercise have been rated (arbitrarily, from the experts' knowledge and after extensive discussions with corporate leaders on the ground) from 0 (not important issue) to 10 (crucial issue). The objective of the Chart is solely to highlight the key differences between the three broad options.

The second ‘leg’ of the toolkit is based on the major (simplified) decisions to be taken when deciding to invest in ASEAN, namely the location of the investment within the 10 countries, and the form of the local operation, from 100% foreign owned to simple marketing or technical agreements.

When related to the different factors enumerated above, these two ‘decision points’ (location form) would include the following ‘decision items’:

Chart 3.4. Major Items for Decision-Making in Terms of Location and Form of Investment

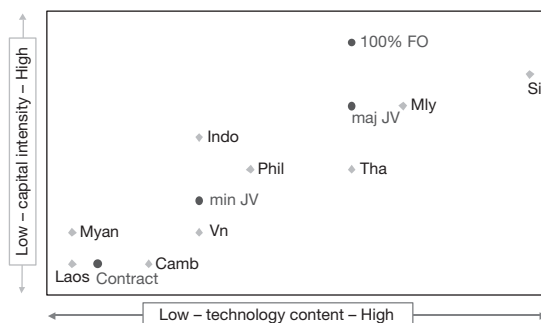


Obviously, the ‘answers’ or the ‘parameters’ for each of the items having an influence on the location and the form of investment are entirely determined by the specific characteristics of each project and each company.

To move a little further with the toolkit, these different arguments for selection of the optimal location and best suited form of investment can be roughly summarised around four major criteria, allowing afterwards a graphic representation of the countries and types of investment. The first ‘axis’ of the analysis, or broad criteria, tries to capture the technological content of the project: this would cover, as a proxy variable, the items like skilled labour and high importance of proper IPR protection. A second axis, to be coupled with the first one, would cover the capital intensity of the project, and include items like economies of scale and infrastructure. A third axis deals with the final market of destination, and covers issues like local competition, business environment and marketing requirement. It would be coupled with the fourth axis, capturing the type of production processes, from mass/single source production to a full cluster of independent production units related between themselves through a network of supply lines; these criteria would cover elements of decision like operational costs and trade facilitation.

Based on this simplified representation, the two following Charts give a couple of preliminary “food for thought” in the investment decision process. The countries plotted in the Charts should still be taken more as an illustration than as a result of an (illusory) strategic analysis, the latter being only possible with the detailed characteristics of each individual project. The same caution is warranted for the ‘answers’ in terms of form of investment.

Chart 3.5. Toolkit for Selecting Location and Form of Investment, 1 — Technology and capital intensity of projects: location and form of investment



Source: TAC

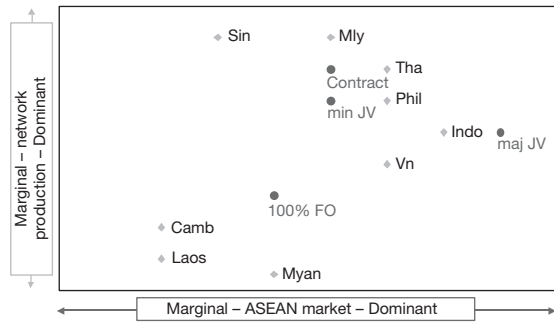
The following abbreviations have been adopted for the two Charts:

- Camb: Cambodia Indo: Indonesia Mly: Malaysia Myan: Myanmar
- Phil: Philippines Sin: Singapore Tha: Thailand Vn: Vietnam
- Contract: loose form of contractual agreement technical, commercial...)
- 100%FO: 100% foreign owned
- maj JV: majority owned Joint Venture
- min JV: minority owned Joint Venture

How to read the Chart? The toolkit suggests that an investor thinking about an investment with high technology content (horizontal axis, moving towards the right hand side of the Chart) coupled with high capital intensity (vertical axis, moving upwards), would initially consider the options for a 100% foreign owned operation, and would certainly assess the opportunity of investing in the region “technology hub”, Singapore or possibly Malaysia. Conversely, if the investment is characterised by low technology content and low capital intensity, the initial options should include either a trade / production subcontracting arrangement or a minimum joint-venture, located for instance in Vietnam.

This second Chart is constructed along the same principles as the previous one, but deals with two different criteria: the importance of the region (ASEAN) as a market for the investment considered (horizontal axis) and the degree of integration into a “close” network of production units. For instance, if the ASEAN market is dominant in the project, the initial preference should be for a majority owned joint-venture. Moreover, if the network production plays a key role, the initial locations should include Singapore or Malaysia.

Chart 3.6. Toolkit for Selecting Location and Form of Investment, 2 — Dominant market and production process of projects: location and form of investment



Source: TAC

From these preliminary inputs in any investment decision process, any serious investor should carefully assess the particulars of his own project, consider at least a couple of fact finding missions in the region, possibly using the list of useful contacts and addresses provided in this Report as well as the facilities provided by intermediary organisations and the European Commission through its Asia-Invest Programme.

4. Country Briefs

The following pages include a very short country brief for each of the ASEAN ten member countries. Each brief includes a short economic table, summary comments, and a list of major trade goods and high-growth manufacturing sectors.

Countries are presented in alphabetical order:

Brunei Darussalam
Cambodia
Indonesia
Lao PDR
Malaysia
Myanmar
Philippines
Singapore
Thailand
Vietnam

Brunei

**Brunei: Selected Economic Indicators, 1998-2003F**

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003F |
|-----------------------------------|-------|-------|-------|-------|-------|-------|
| GDP Growth (% Change) | -4.0 | 2.6 | 2.8 | 3.0 | 3.2 | 5.1 |
| Exports (USD million) | 1 891 | 2 539 | 3 904 | 3 643 | 3 708 | .. |
| Imports (USD million) | 1 314 | 1 250 | 1 047 | 1 125 | 1 480 | .. |
| Trade Balance (USD million) | 577 | 1 289 | 2 857 | 2 518 | 2 228 | .. |
| Exports to EU (USD million) | 285 | 53 | 114 | 50 | 64 | .. |
| Imports from EU (USD million) | 905 | 149 | 225 | 166 | 176 | .. |
| Inflation, CPI average (% change) | -0.4 | -0.1 | 1.2 | 0.6 | -2.0 | 1.0 |
| M2 growth (% change) eop | -1.4 | 3.1 | 25.9 | -7.1 | -1.4 | .. |
| Exchange rate (KHR/USD) | 1.7 | 1.7 | 1.7 | 1.8 | 1.8 | .. |

Sources: Asean; Institute of Southeast Asian Studies; DREE; APEC

The country, which has been independent since 1984, joined ASEAN at the same date. It has a population of 355 000 and has one of the highest GDP per capita in ASEAN due to its important petroleum and gas reserves. Despite efforts to diversify the economy (promoting tourism, developing an off-shore financial centre), the oil and gas sector, highly supervised by the State, still represented in 2002, 37% of the country's GDP, 89% of total exports and 87% of fiscal revenues.

The country macroeconomic situation suffered a lot during the Asian crisis but even more after the bankruptcy of the Amadeo conglomerate in 1998, coinciding with lower oil prices. As a result the economy contracted by 4%, but started growing again as soon as 1999. Growth in 2002 reached 3% of GDP and forecasts for 2003 are between 2% and 3%, slightly higher for 2004. However, lower oil prices in 2003 or 2004 would push the Sultanate to operate a difficult arbitrage

between lower structural public spending and renewed financing through the Brunei Investment Agency (BIA). Moreover, the country is dependent on exports to 4 main destinations: Japan (44%), ASEAN (23%), South Korea (11%) and the US (8%). Hence if the situation in these countries deteriorates, Brunei's economy suffers as well.

Challenges and Prospects: The Sultanate should foster investments in the private sector to try and diversify the economy away from oil and diminish the public involvement in the economy. An improving global environment in 2003 and more likely in 2004 should spur higher growth. Domestic factors could also play a positive role: stable business and political environment; streamlining of regulations governing foreign direct investment processes; creation of two industrial centres (harbour infrastructures and aluminium production).

| Top ten major suppliers | |
|--------------------------------|----------------|
| 1 - Singapore | 6 - USA |
| 2 - Japan | 7 - Thailand |
| 3 - Malaysia | 8 - Germany |
| 4 - UK | 9 - Indonesia |
| 5 - Hong Kong | 10 - Australia |

| Ten fastest growing manufacturing sectors (imports from EU) | |
|--|---|
| 1 - man-made filaments | 6 - albuminous substances; modified starches; glues; enzymes |
| 2 - other base metals; cermet; articles thereof | 7 - rubber and articles thereof |
| 3 - fish and crustaceans, molluscs and other aquatic invertebrates | 8 - ships, boats and floating structures |
| 4 - products of the milling industry; malt; starches; inulin; wheat gluten | 9 - special woven fabrics; tufted textile products; lace; tapestries; trimmings; embroidery |
| 5 - musical instruments; parts and accessories for such articles | 10 - salt; sulphur; earth and stone; plastering material, lime and cement |

Cambodia

**Cambodia: Selected Economic Indicators, 1998-2004F**

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003F | 2004F |
|---|------|------|------|------|------|-------|-------|
| GDP Growth (% Change) | 5.1 | 5.0 | 5.8 | 5.5 | 4.0 | 5.0 | 6.2 |
| Industry sector growth (% change) | 7.7 | 12.0 | 29.0 | 12.0 | 10.9 | 12.6 | 8.4 |
| Services sector growth (% change) | -0.6 | 5.8 | 3.1 | 1.9 | 1.8 | 2.5 | 7.3 |
| Agriculture sector growth (% change) | 2.4 | 4.8 | -2.7 | 5.0 | 3.0 | 5.4 | 4.1 |
| Exports (USD million) | 913 | 1323 | 1358 | 1603 | 1750 | 1900 | 2000 |
| Imports (USD million) | 1073 | 1241 | 1418 | 2183 | 2500 | 2750 | 2900 |
| Trade Balance (USD million) | -160 | 82 | -60 | -580 | -210 | -350 | -900 |
| Exports to EU (USD million) | 131 | 146 | 231 | 322 | 415 | .. | .. |
| Imports from EU (USD million) | 152 | 92 | 94 | 27 | 124 | .. | .. |
| Inflation, CPI average (% change) | 12.6 | 0.0 | 0.5 | 0.0 | 2.0 | 3.0 | 3.5 |
| External debt (USD billion) | 2039 | 2083 | 2100 | 1158 | .. | .. | .. |
| Foreign exchange reserves (USD million) | 324 | 393 | 502 | 587 | 776 | .. | .. |
| M2 growth (% change) | 15.7 | 17.3 | 26.9 | 18.0 | 16.0 | 14.0 | .. |
| Exchange rate (KHR/USD) | 3756 | 3803 | 3854 | 3900 | 3960 | 4000 | 4100 |

Sources: *Regional Outlook, Southeast Asia 2003-2004*, Institute of Southeast Asian Studies; IMF-DOTS; IMF-IFS

Since political stability was restored in 1998, the Kingdom has experienced relatively strong growth in a non-inflationary background. This economic growth remains highly dependent on exports and international support (the country joined the ASEAN in April 1999). Fiscal deficit (about 20% of GDP) is absorbed through current spending for 60% and since revenues are not enough to cover investment spending, the country remains dependent on international aid for its projects. While the economy remains mainly based on agriculture (80% of employment, 40% of GDP), growth in the last three years has been driven by booming exports (garment industry especially) and a surge in tourism. However,

this did not produce a decrease in the current account deficit because of strong imports and higher oil prices.

Favourable factors for growth are however numerous: a strong industrial sector, growing at 12% (based on rapid expansion of the garment industry), improved infrastructure and a strong export sector. Relatively high growth in 2001 can also be explained by growing tourism and external financial assistance. On the other hand, agriculture suffered from severe flooding at the end of the year, and droughts in some parts of the country but grew 5% while the service sector showed the lowest growth at 2%, despite the tourism

boom. Growth in 2002 was less strong (around 4%) because of persistent flooding. However, exports performed well and drove growth this year again. Economic development is further promoted by price and exchange rate stability, while renewed and improved political stability also acts in favour of the country.

Challenges and Prospects: the country is struggling to attract new FDI despite its 1994 actions to attract investment and this situation threatens the balance of payments. Poten-

tial investment could be diverted to China (entry in WTO) and to Vietnam (Bilateral trade agreement with the USA). Further, macroeconomic management problems and poverty persist and should be addressed to make Cambodia more competitive. The country may receive significant help from Overseas Developing Agencies (ODAs) in the next three years for legal and administrative reforms. Tourism may strengthen further especially if improvement in roads and airports are made. GDP growth forecasts for 2003 and 2004 are thus favourable, above 5%.

| Top ten major suppliers | |
|-------------------------|---------------|
| 1 - Thailand | 6 - Vietnam |
| 2 - Singapore | 7 - Japan |
| 3 - China | 8 - Indonesia |
| 4 - Hong Kong | 9 - France |
| 5 - Korea | 10 - Malaysia |

| Ten fastest growing manufacturing sectors (imports from EU) | |
|--|---|
| 1 - man-made filaments | 6 - articles of leather; travel goods |
| 2 - soaps, organic surface-active agents, washing preparations, and similar products | 7 - wood and articles of wood; wood charcoal |
| 3 - cotton | 8 - man-made staple fibres |
| 4 - footwear | 9 - natural or cultured pearls, precious or semi-precious stones, precious metals |
| 5 - musical instruments, incl. parts and accessories | 10 - impregnated, coated, covered or laminated textile fabrics |

Indonesia

**Indonesia: Selected Economic Indicators, 1998-2004F**

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003F | 2004F |
|---|-------|-------|-------|-------|-------|-------|-------|
| GDP Growth (% Change) | -14.2 | 0.8 | 4.8 | 3.3 | 3.8 | 4.4 | 5.0 |
| Industry sector growth (% change) | -11.4 | 3.8 | 6.2 | 4.3 | 4.4 | 5.2 | 5.9 |
| Services sector growth (% change) | -10.7 | -0.7 | 5.5 | 3.5 | 4.5 | 4.7 | 4.9 |
| Agriculture sector growth (% change) | -1.3 | 2.7 | 1.7 | 0.6 | 2.1 | 2.3 | 2.6 |
| Exports (USD million) | 50371 | 51241 | 65408 | 57363 | 60231 | 65050 | 72205 |
| Imports (USD million) | 31942 | 30600 | 40366 | 35669 | 35016 | 37817 | 41220 |
| Trade Balance (USD million) | 18429 | 20641 | 25042 | 22694 | 25215 | 27233 | 30985 |
| Exports to EU (USD million) | 7774 | 7096 | 8681 | 7773 | 7924 | .. | .. |
| Imports from EU (USD million) | 5866 | 3801 | 4166 | 4049 | 3872 | .. | .. |
| Inflation, CPI average (% change) | 77.8 | 20.8 | 3.8 | 12.6 | 9.8 | 8.5 | 7.6 |
| Gross External debt (% of GDP) | 112.2 | 104.1 | 91.5 | 95.0 | 75.0 | 65.0 | 60.0 |
| Foreign exchange reserves (USD billion) | 23.8 | 24.4 | 29.4 | 28.1 | 29.3 | 30.1 | 31.8 |
| One month SBI rate (% per annum) | 38.4 | 23.1 | 12.6 | 17.2 | 14.5 | 13.3 | 13.0 |
| M2 growth (% change) | 28.2 | 11.9 | 15.6 | 11.8 | 12.4 | 14.0 | 14.0 |
| Exchange rate average (IDR/USD) | 9829 | 7804 | 8330 | 10200 | 9500 | 9200 | 9200 |

Sources: *Regional Outlook, Southeast Asia 2003-2004*, Institute of Southeast Asian Studies; IMF-DOTS

Mixed performances from the Government, though partly associated with the depressed international environment. Positive move in economic development in 2002 can be noted: economic growth at 3.7%, lower inflation, growing current account surplus, and a relatively stable exchange rate, with a stronger Rupiah. The main contributors to this stronger growth at the beginning of 2002 were the private sector and government consumption. While consumption has been thriving over the past two years, investment has not followed the same momentum (gross fixed investment declined by 0.2% in 2002) because of lower foreign invest-

ments. Exports as well as the manufacturing sector have been hurt by the decline in American demand and sluggish growth in the US, however, the expected trend is a growing one. However, public institutions are still lacking credibility and political uncertainty still prevails. Moreover high costs of doing business prevent foreign companies from investing in the country. Despite progress and accelerating growth in 2002, Indonesia's GDP remains below its pre-crisis level and growth remains insufficient to tackle the poverty issue, which had worsened following the 1997 crisis.

Prospects: growth in 2003 and 2004 will still be driven by private consumption. Forecasts of GDP growth for these two years are respectively 4.4% and 5.0%. However, this

consumption-driven growth is not sustainable in the long-run if structural reforms and investments do not take over as growth engines.

| Top ten major suppliers | |
|--------------------------------|-------------------|
| 1 - Japan | 6 - Australia |
| 2 - Singapore | 7 - Germany |
| 3 - USA | 8 - Thailand |
| 4 - China | 9 - Nigeria |
| 5 - Korea | 10 - Saudi Arabia |

| Ten fastest growing manufacturing sectors (imports from EU) | |
|--|---|
| 1 - cereals | 6 - edible fruit and nuts; peel of citrus fruits or melons |
| 2 - umbrellas, sun umbrellas, walking-sticks, seat-sticks, whips, riding-crops and parts thereof | 7 - vegetable plaiting materials; vegetable products not elsewhere specified or included |
| 3 - cocoa and cocoa preparations | 8 - preparations of vegetables, fruit, nuts or other parts of plants |
| 4 - carpets and other textile floor coverings | 9 - live animals |
| 5 - fertilizers | 10 - live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage |

Laos



Laos: Selected Economic Indicators, 1998-2003F

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003F |
|---|-------|-------|-------|-------|-------|-------|
| GDP Growth (% Change) | 4.0 | 7.3 | 5.9 | 5.6 | 5.8 | 6.1 |
| Industry sector growth (% change) | 9.2 | 7.9 | 7.5 | 8.5 | .. | .. |
| Services sector growth (% change) | 5.5 | 6.9 | 6.2 | 6.0 | .. | .. |
| Agriculture sector growth (% change) | 3.1 | 8.2 | 5.1 | 3.9 | .. | .. |
| Exports (USD million) | 337 | 363 | 393 | 425 | 461 | 501 |
| Imports (USD million) | 553 | 554 | 591 | 653 | 725 | 805 |
| Trade Balance (USD million) | -216 | -191 | -198 | -228 | -264 | -304 |
| Balance of payments (% of GDP) | -10.1 | -6.3 | -5.8 | -7.2 | -8.0 | -8.0 |
| Exports to EU (USD million) | 91.9 | 99.5 | 99.2 | 108.2 | 113.4 | .. |
| Imports from EU (USD million) | 31.3 | 36.4 | 44.5 | 31.2 | 43.2 | .. |
| Inflation, CPI average (% change) | 87.4 | 134.0 | 27.0 | 7.8 | 6.5 | 6.0 |
| M2 growth (% change) | 113.3 | 78.3 | 45.8 | 20.0 | 18.0 | 16.0 |
| Three month interest rate (% per annum) | 31-34 | 22-30 | 16-24 | | | |
| Gross External debt (USD million) | 2561 | 2617 | 2558 | 2662 | .. | .. |
| Debt service ratio | 11.1 | 11.4 | 10.1 | 10.5 | 9.8 | 9.2 |
| Budget Deficit (% of GDP) | 3.2 | 8.8 | 7.9 | 8.0 | .. | .. |
| Exchange rate average (LAK/USD) | 2135 | 4274 | 7600 | 8140 | 10000 | 11000 |

Sources: *Regional Outlook, Southeast Asia 2003-2004*, Institute of Southeast Asian Studies; IMF-DOTS

During 2000 and 2001, the relatively high economic growth was associated with positive macroeconomic results in terms of inflation and exchange rate stability. However in 2002, despite a high growth (5.8% for GDP), unaffected by the international slow down, these same economic indicators started deteriorating again with the Kip depreciating against the USD and the Thai Bath and inflation soaring again. Despite a booming service sector taking advantage of growing tourism revenues, the current

account remains in structural deficit because of a high trade balance deficit. To make up for insufficient public revenues, the government thus counts on customs revenues. This highlights the need for structural modernisation in the fiscal system. Because of its least developed country status, Laos receives important amounts of development aid (13.6% of GDP in 2001), which helps bring the fiscal deficit down, but stresses its dependency on foreign funds.

Challenges: two structural reforms are urgently needed to promote further economic development. The first one concerns state enterprises which need to be restructured (about two thirds of the non-performing loans, (NPL)s, come from these companies). The second one deals with the banking sector which cannot play its intermediation and financing roles. The legal and financial security environment need to be reinforced and the NPLs issue tackled.

Prospects: Pressure on the Kip should remain downward oriented in 2003 in this strongly dollar-related economy,

owing to persistent trade and current account deficits as well as increasing convertible public debt and inflationary pressures (according to the IMF, inflation could however decrease below 10% by the end of 2003). The agricultural sector which still represents about half of GDP and 80% of employment is not expected to grow much faster than in 2002 (i.e. around 4%). On the contrary, the industry and service sectors, each accounting for about a quarter of GDP, are forecast to grow between 7% and 9% in 2003 (official figures).

| Top ten major suppliers | |
|-------------------------|----------------|
| 1 - Thailand | 6 - Australia |
| 2 - Vietnam | 7 - Sweden |
| 3 - China | 8 - France |
| 4 - Singapore | 9 - Germany |
| 5 - Japan | 10 - Hong Kong |

| Ten fastest growing manufacturing sectors (imports from EU) | |
|---|---|
| 1 - mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes | 6 - aircraft, spacecraft, and parts thereof |
| 2 - man-made staple fibres | 7 - arms and ammunition; parts and accessories thereof |
| 3 - natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin | 8 - fertilizers |
| 4 - miscellaneous articles of base metal | 9 - rubber and articles thereof |
| 5 - knitted or crocheted fabrics | 10 - tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal |

Malaysia



Malaysia: Selected Economic Indicators, 1998-2004F

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003F | 2004F |
|---|-------|-------|-------|-------|-------|--------|--------|
| GDP Growth (% Change) | -7.4 | 6.1 | 8.3 | 0.4 | 4.2 | 5.0 | 6.1 |
| Industry sector growth (% change) | -10.7 | 11.7 | 19.1 | -6.2 | 4.9 | 6.1 | 9.4 |
| Services sector growth (% change) | -5.0 | 4.5 | 5.7 | 5.7 | 5.0 | 5.2 | 7.0 |
| Agriculture sector growth (% change) | -2.8 | 0.5 | 2.0 | 1.8 | 1.1 | 1.5 | 2.4 |
| Exports (USD million) | 75411 | 84621 | 98229 | 88005 | 92845 | 100737 | 112322 |
| Imports (USD million) | 60033 | 65389 | 81963 | 73866 | 75343 | 81446 | 91301 |
| Trade Balance (USD million) | 15378 | 19232 | 16266 | 14139 | 17502 | 19291 | 21021 |
| Exports to EU (USD million) | 11885 | 13301 | 13435 | 11983 | 12083 | .. | .. |
| Imports from EU (USD million) | 6904 | 7624 | 8870 | 9495 | 9000 | .. | .. |
| Inflation, CPI average (% change) | 5.2 | 2.8 | 1.6 | 1.4 | 2.1 | 2.2 | 2.5 |
| Gross External debt (% of GDP) | 58.8 | 52.9 | 46.4 | 50.7 | 51.7 | 48.0 | 45.5 |
| Foreign exchange reserves (USD billion) | 26.2 | 30.9 | 29.9 | 30.8 | 35.0 | 40.0 | 45.0 |
| Three month interest rate (% per annum) | 9.4 | 4.1 | 3.2 | 3.1 | 3.2 | 3.3 | 3.5 |
| M2 growth (% change) | 1.5 | 13.7 | 5.2 | 2.2 | 6.0 | 7.8 | 8.5 |
| Exchange rate at year-end (MYR/USD) | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 |

Sources: *Regional Outlook, Southeast Asia 2003-2004*, Institute of Southeast Asian Studies; IMF-DOTS

In 2001 Malaysia faced an economic slowdown triggered by the reversal in the electronics sector, lower growth in the US and increased competition from other regional currencies. Conversely, 2002 was marked by renewed growth (4.1% for GDP) supported by a strong domestic demand (explained partly by growing public spending, subdued inflation and moderate unemployment) and good export performance (electronic and electrical products in particular as well as services and mining sectors). Private investment on the other hand has not recovered and decreased again (-6.1% in 2002 after -19.7% in 2001), while FDI remains

sluggish. However, this may be partly explained by the transition period from an investment-led to an innovation-led economy. To do so, productivity has to increase through better education, technological transfer via international trade, modernised companies... Progress has been made in reforming the financial and corporate sectors: the banking sector has been restructured and focus is now on the quality and efficiency of the financial services provided; the corporate governance framework and practices have also been improved to follow OECD principles. As regards social development, poverty reduction is well on

track while progress towards achieving the Millennium Development Goals has been steady although some regional disparity still prevails.

Challenges and Prospects: Owing to the current international background, growth forecasts for 2003 and 2004 range between 4% and 5% driven by a still strong private

consumption and growing exports while public spending should lessen somewhat, with the private sector expected to take over the role as an engine of growth. Thus despite the change in leadership in November 2003 (Dr. Mahatir retiring after 22 years in power), the new Prime Minister Abdullah Ahmad Badawi should promote continuity and economic stability.

| Top ten major suppliers | |
|-------------------------|-----------------|
| 1 - Japan | 6 - Thailand |
| 2 - Singapore | 7 - Germany |
| 3 - USA | 8 - Philippines |
| 4 - China | 9 - Indonesia |
| 5 - Korea | 10 - Hong Kong |

| Ten fastest growing manufacturing sectors (imports from EU) | |
|--|--|
| 1 - silk | 6 - preparations of meat, fish or crustaceans, molluscs or other aquatic invertebrates |
| 2 - headgear and parts thereof | 7 - vehicles other than railway or tramway rolling-stock, and parts and accessories thereof |
| 3 - pulp of wood or of other fibrous cellulosic material; waste and scrap of paper or paperboard | 8 - wood and articles of wood; wood charcoal |
| 4 - iron and steel | 9 - other made up textile articles; sets; worn clothing and worn textile articles; rags |
| 5 - nickel and articles thereof | 10 - furniture; medical and surgical furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified; prefabricate |

Myanmar



Myanmar: Selected Economic Indicators, 1998-2004F

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003F | 2004F |
|---|-------|-------|------|-------|------|-------|-------|
| GDP Growth (% Change) | 5.1 | 5.0 | 5.8 | 5.5 | 5.0 | 5.6 | 6.2 |
| Industry sector growth (% change) | 8.9 | 6.6 | 13.7 | 20.6 | 14.7 | 14.7 | 14.7 |
| Services sector growth (% change) | 6.6 | 7.9 | 8.8 | 13.2 | 9.0 | 9.0 | 9.0 |
| Agriculture sector growth (% change) | 3.7 | 3.5 | 10.5 | 9.5 | 3.4 | 3.5 | 4.2 |
| Exports (USD million) | 975 | 1199 | 1371 | 1884 | 2817 | 2950 | 3100 |
| Imports (USD million) | 2107 | 2375 | 2115 | 2473 | 2809 | 2200 | 2500 |
| Trade Balance (USD million) | -1132 | -1176 | -744 | -1589 | 8 | -750 | -600 |
| Exports to EU (USD million) | 159 | 209 | 326 | 400 | 362 | .. | .. |
| Imports from EU (USD million) | 137 | 134 | 115 | 81 | 93 | .. | .. |
| Inflation, CPI average (% change) | 33.9 | 30.1 | 15.7 | -1.7 | 34.5 | 34.2 | 15.3 |
| External debt (USD billion) | 5.1 | 5.6 | 6.0 | 6.0 | 5.5 | 5.7 | 5.4 |
| Foreign exchange reserves (USD million) | 250 | 315 | 266 | 223 | 411 | .. | .. |
| M2 growth (% change) | 29.6 | 28.5 | 27.2 | 42.4 | 43.9 | .. | .. |
| Exchange rate (MMK/USD: Official) | 6.2 | 6.2 | 6.3 | 6.7 | 6.9 | 6.9 | 6.9 |
| Exchange rate (MMK/USD: Market) | 241 | 334 | 420 | 630 | 710 | 900 | 1300 |

Sources: *Regional Outlook, Southeast Asia 2003-2004*, Institute of Southeast Asian Studies; IMF-DOTS

The economic situation in Myanmar is difficult to assess due to the size of the informal economy (which according to some could be larger than the formal one) and to the large discrepancy between official and other analysts' statistics. The economy remains highly dependent on agriculture (53% of GDP, 5% to 6% of growth contribution) which performed poorly in 2002 (due to a shortage of inputs like fertilisers) except for the rice sub-sector. The industry sector also suffered from a shortage of imported inputs as well as power cuts and low domestic and external demand. In parallel, FDI fell sharply as well as revenues

from tourism. The mining and energy sectors were almost the only ones that performed well over 2002, especially gas production. At the same time inflation has soared, running at 35.5% according to official figures and about 50% for many observers. Since the military junta currently in power does not seem willing to implement much needed economic and structural reforms, economic woes (persistent inflation, thriving informal economy, dwindling foreign reserves, energy shortages, red tape...) are bound to remain the same while social development is seen as highly critical by international organisations.

Challenges and Prospects: Infrastructure (roads, bridges and dams) have improved in recent years and the industrial sector (mainly mining and energy) should grow, all the more as greater reserves are expected to be found in the Bay of Bengal. However other sectors of the economy (agriculture, construction...) will remain constrained by red tape,

shortage of inputs and declining domestic demand. In parallel, skyrocketing inflation fuelled by a growth in money supply and a budget deficit should continue. Overall the outlook for the country remains bleak and uncertain, with dire consequences in terms of poverty and social development.

| Top ten major suppliers | |
|-------------------------|----------------|
| 1 - China | 6 - Japan |
| 2 - Singapore | 7 - Russia |
| 3 - Thailand | 8 - Hong Kong |
| 4 - Malaysia | 9 - India |
| 5 - Korea | 10 - Indonesia |

| Ten fastest growing manufacturing sectors (imports from EU) | |
|--|--|
| 1 - natural or cultured pearls, precious or semi-precious stones, precious metals, and articles thereof; imitation jewellery; coin | 6 - fur skins and artificial fur; articles thereof |
| 2 - aircraft, spacecraft, and parts thereof | 7 - other base metals; cermets; articles thereof |
| 3 - wadding, felt and non woven; special yarns; twine, cordage, rope and cable and articles thereof | 8 - miscellaneous chemical products |
| 4 - articles of apparel and clothing accessories, not knitted or crocheted | 9 - wood and articles of wood; wood charcoal |
| 5 - albuminous substances; modified starches; glues; enzymes | 10 - iron and steel |

Philippines



Philippines: Selected Economic Indicators, 1998-2004F

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003F | 2004F |
|---|-------|-------|-------|-------|-------|-------|-------|
| GDP Growth (% Change) | -0.6 | 3.4 | 4.4 | 3.2 | 4.1 | 4.3 | 5.0 |
| Industry sector growth (% change) | -2.1 | 0.9 | 4.9 | 1.3 | 2.9 | 4.7 | 4.8 |
| Services sector growth (% change) | 3.5 | 4.0 | 4.4 | 4.5 | 5.7 | 6.0 | 6.5 |
| Agriculture sector growth (% change) | -6.4 | 6.6 | 3.4 | 3.7 | 3.9 | 4.0 | 4.9 |
| Exports (USD million) | 28726 | 34210 | 37295 | 31243 | 32520 | 34694 | 38611 |
| Imports (USD million) | 28082 | 29252 | 30380 | 28496 | 29618 | 32560 | 33232 |
| Trade Balance (USD million) | 644 | 4958 | 6915 | 2747 | 2902 | 2134 | 5379 |
| Exports to EU (USD million) | 5995 | 6778 | 6826 | 6199 | 6143 | .. | .. |
| Imports from EU (USD million) | 2667 | 2787 | 2979 | 2753 | 3386 | .. | .. |
| Inflation, CPI average (% change) | 8.9 | 6.3 | 3.8 | 5.9 | 3.8 | 5.6 | 6.5 |
| External debt (% of GDP) | 69.7 | 70.7 | 78.7 | 73.9 | 74.4 | 75.0 | 74.5 |
| Foreign exchange reserves (USD billion) | 10.8 | 15.0 | 15.0 | 15.6 | 16.5 | 16.9 | 17.0 |
| 91-day T-bill interest rate (% per annum) | 15.3 | 10.2 | 9.9 | 9.7 | 6.4 | 8.1 | 8.0 |
| M3 growth (% change) | 7.4 | 19.3 | 4.6 | 6.8 | 6.9 | 7.1 | 6.5 |
| Exchange rate at year-end (PHP/USD) | 39.06 | 40.31 | 50.00 | 51.40 | 52.80 | 53.00 | 52.00 |

Sources: *Regional Outlook, Southeast Asia 2003-2004*, Institute of Southeast Asian Studies; IMF-DOTS

Like many other Asian countries, where growth depends on the export sector, the Philippines suffered from the global slowdown in 2001 (GDP growth rate reached 3.2%). Although the economy recovered somewhat in 2002, the 4.6% GDP growth rate reflects the slower than expected recovery of the world economy (the electronics sector having been hurt by the end of the Information Technology (IT) boom in the US). Economic cycles are however lessened by strong private consumption (70% of GDP) and remittances from workers abroad (11% of GDP). In 2002, growth was driven by renewed export growth, with services contributing the

most to growth followed by industry and agriculture. This situation explains why unemployment remains high and inflation low. Public debt as well as the fiscal deficit have been soaring in the recent years, thus leading the peso to depreciate against the dollar and sovereign risks to be downgraded.

Challenges: three policy issues have to be tackled by the Philippines if the recovery is to be sustainable. It first needs to strengthen the financial system by dealing with non-performing loans and assets in the banking system. The second

task is to meet the deficit target and to promote efficient tax collection in order to reduce the high public sector debt (74.4% of GDP in 2002). Finally, the structural deterioration of investment has to be reversed as under-investment puts at risk the medium-term growth of the economy.

Prospects: the outlook for 2003 and 2004 remains dependent on the situation in the world economy and especially on the pace of the US recovery. Growth in services

should be steady (buoyant telecommunications, trade and financial services), industrial output should increase as well driven by the electronics and export sectors but dampened by capacity constraints and sluggish construction sector. Conversely, weak agriculture at the beginning of 2003, because of El Nino, further puts a brake to growth momentum. The 2004 elections cast doubts on the ability of the government to cut spending further to consolidate its fiscal position and to implement structural economic reforms.

| Top ten major suppliers | |
|-------------------------|------------------|
| 1 - Japan | 6 - Hong Kong |
| 2 - USA | 7 - Thailand |
| 3 - Singapore | 8 - Malaysia |
| 4 - Korea | 9 - Saudi Arabia |
| 5 - China | 10 - Germany |

| Ten fastest growing manufacturing sectors (imports from EU) | |
|---|---|
| 1 - cereals | 6 - preparations of vegetables, fruit, nuts or other parts of plants |
| 2 - musical instruments; parts and accessories for such articles | 7 - live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage |
| 3 - fish and crustaceans, molluscs and other aquatic invertebrates | 8 - tin and articles thereof |
| 4 - mineral fuels, mineral oils and products of their distillation; | 9 - photographic or cinematographic products |
| 5 - live animals | 10 - railway or tramway locomotives, rolling-stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; |

Singapore



Singapore: Selected Economic Indicators, 1998-2003F

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003F |
|---|---------|---------|---------|-------|-------|-------|
| GDP Growth (% Change) | -0.1 | 6.9 | 10.3 | -2.0 | 2.2 | 4.0 |
| Private consumption (% change) | -3.8 | 6.4 | 9.9 | 0.5 | 1.1 | 4.1 |
| Non-oil domestic exports (% change) | 0.9 | 9.5 | 11.8 | -14.5 | 2.0 | 4.0 |
| Manufacturing (% change) | -0.6 | 13.6 | 15.3 | -11.5 | 7.4 | 9.5 |
| Financial Services (% change) | -7.4 | 5.1 | 4.6 | 2.2 | -1.8 | 1.9 |
| Construction (% change) | 2.8 | -8.8 | -1.7 | -2.1 | -5.5 | 2.2 |
| Wholesale and Retail trade (% change) | -4.1 | 7.1 | 15.2 | -2.6 | 2.3 | 3.0 |
| Exports (USD billion) | 110.8 | 115.6 | 138.9 | 122.5 | 128.3 | 140.1 |
| Imports (USD billion) | 96.0 | 104.4 | 127.5 | 109.6 | 118.1 | 131.0 |
| Current account balance (USD billion) | 17.9 | 20.4 | 21.8 | 23.4 | 20.7 | 18.0 |
| Exports to EU (USD million) | 17404.3 | 17416.5 | 18243.7 | 16278 | 15676 | .. |
| Imports from EU (USD million) | 14097.5 | 14132.6 | 15247.6 | 13686 | 13791 | .. |
| Inflation, CPI average (% change) | -0.3 | 0.0 | 1.3 | 1.0 | 0.0 | 1.5 |
| Unemployment rate | 3 | 4 | 3 | 3 | 4.5 | 3.7 |
| Official reserves (USD billion) | 74.9 | 76.8 | 80.1 | 75.4 | 80.9 | 82.3 |
| Official reserves (months of goods imports) | 9.4 | 8.8 | 7.5 | 8.3 | 8.2 | 6.9 |
| Prime lending rate (% per annum) | 5.9 | 5.8 | 5.8 | 5.4 | 5.4 | 5.1 |
| M2 growth (% change) | 30.2 | 8.5 | -2.0 | 5.9 | 6.0 | 7.0 |
| Exchange rate average (SGD/USD) | 1.67 | 1.70 | 1.72 | 1.79 | 1.79 | 1.82 |

Sources: *Regional Outlook, Southeast Asia 2003-2004*, Institute of Southeast Asian Studies; IMF-DOTS

Owing to its small size and domestic market, Singapore relies heavily on external markets and international trade for growth. As a result the country has to keep improving its business competitiveness (the country was ranked second most competitive economy in the world for five years in a row until 2002, when it fell to fifth position). While 2001 saw the worst recession since independence, the economy recovered in 2002 (GDP growth up 2.2%) although at much lower levels than in 1999

and 2000. This growth was export-driven with demand concentrating on speciality chemicals, pharmaceuticals, petrochemicals and electronics (which used to represent two thirds of Singapore's exports but contracted by 20% in 2001).

Challenges and Prospects: Since Singapore is an outward-oriented economy, it is highly vulnerable to any exogenous shock to the international economy. In order to smooth the

effects of these external shocks, the country has signed several bilateral Free Trade Agreements (FTAs) to allow for greater trade as well as human capital and knowledge exchanges. In the long run, Singapore will also diversify its economy away from electronic products towards biomedical sciences, chemicals and engineering. The outlook for 2003 has been revised downwards following the SARS outbreak at the beginning of the year, which impacted on the whole region. Moreover, the war in Iraq and the uncertain-

ties as regards the recovery in the world economy have lowered provisions for 2003. Conversely, growth forecasts for 2004 remain good (4.7% for GDP) supported by a recovery in private consumption after two years of quasi stagnation. Manufacturing production should grow (4.5% in 2003 and 8.6% in 2004) as well as non-oil domestic exports, while services should increase only moderately owing to the Bali bombing and the SARS outbreak which will slow down tourism and foreign investment in the region.

| Top ten major suppliers | |
|-------------------------|------------------|
| 1 - Malaysia | 6 - Korea |
| 2 - USA | 7 - Germany |
| 3 - Japan | 8 - Saudi Arabia |
| 4 - China | 9 - Hong Kong |
| 5 - Thailand | 10 - Philippines |

| Ten fastest growing manufacturing sectors (imports from EU) | |
|--|--|
| 1 - railway or tramway locomotives, rolling-stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; | 6 - mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes |
| 2 - live animals | 7 - ores, slag and ash |
| 3 - other products | 8 - live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage |
| 4 - fish and crustaceans, molluscs and other aquatic invertebrates | 9 - fertilizers |
| 5 - other vegetable textile fibres; paper yarn and woven fabrics of paper yarn | 10 - prepared feathers and down and articles made of feathers or of down; artificial flowers; articles of human hair |

Thailand

**Thailand: Selected Economic Indicators, 1998-2004F**

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003F | 2004F |
|---|---------|----------|----------|-------|--------|-----------|--------|
| GDP Growth (% Change) | -10.5 | 4.4 | 4.6 | 1.8 | 4.1 | 3.8 | 3.9 |
| Industry sector growth (% change) | -13.3 | 9.9 | 5.2 | 1.3 | 4.8 | 4.7 | 4.6 |
| Services sector growth (% change) | -10.0 | 0.4 | 4.0 | 2.3 | 3.6 | 3.3 | 3.4 |
| Agriculture sector growth (% change) | -1.5 | 2.0 | 4.9 | 1.6 | 3.4 | 3.0 | 3.2 |
| Exports (USD million) | 52878 | 56801 | 67889 | 63190 | 64391 | 66322 | 69837 |
| Imports (USD million) | 40643 | 47529 | 62423 | 60665 | 61878 | 63735 | 67240 |
| Trade Balance (USD million) | 12235 | 9272 | 5466 | 2525 | 2512 | 2588 | 2597 |
| Exports to EU (USD million) | 9674 | 9845 | 10877 | 10505 | 10207 | .. | .. |
| Imports from EU (USD million) | 5336 | 5906 | 6300 | 7598 | 7109 | .. | .. |
| Headline inflation (% change) | 8.1 | 0.3 | 1.6 | 1.6 | 0.5 | 0.9 | 1.2 |
| Gross External debt (% of GDP) | 105.1 | 95.1 | 79.7 | 67.5 | 65.1 | 63.1 | 58.0 |
| Foreign exchange reserves (USD billion) | 29.5 | 34.8 | 32.7 | 33.0 | 37.8 | 37.6 | 37.0 |
| Prime lending rate (% per annum) | 11.5-12 | 8.25-8.5 | 7.5-8.25 | 7-7.5 | 7-7.25 | 6.75-7.25 | 7-7.25 |
| M2 growth (% change) | 9.5 | 2.1 | 3.7 | 4.2 | 5.5 | 4.5 | 3.8 |
| Exchange rate average (THB/USD) | 41.37 | 37.84 | 40.16 | 44.48 | 42.60 | 41.50 | 41.50 |

Sources: *Regional Outlook, Southeast Asia 2003-2004*, Institute of Southeast Asian Studies; IMF-DOTS

After a transition year of sluggish growth in 2001, explained by depressed external trade, growth picked up again in 2002, driven by high private consumption, exports and private investment. Indeed, Prime Minister Thaksin Shinawatra, elected in January 2001, implemented an expansionary economic policy (support to the poorest especially in rural areas, aid to SMEs, growing public investment) while limiting the reliance on international organisations. On the supply side, agriculture experienced strong growth in 2002 while the non-agricultural sector is becoming more diversified with the government trying to promote five industries

with good prospects: food, fashion, automotive, software and tourism. However, despite this commitment, growth keeps benefiting a small number of sectors only (construction, automotive). Moreover, industry remains highly indebted and SMEs have a hard time finding new bank loans. The financial sector remains weakened by the 1997 crisis, and non performing loans still impair banks' balance sheets. Exports have started to recover on the back of strong growth in the region, while imports increased as well due to higher oil prices, sustained consumption demand and a high import content of exports. To improve its trade balance the country

is thus entering into several free trade agreements. The service sector has taken advantage of tourism (6% of GDP) although the SARS outbreak deeply affected this industry at the beginning of 2003.

Challenges and Prospects: Thailand has to face greater competition from countries whose labour is cheaper (Vietnam, China). To do so, its economy should move towards higher value-added production, which is not occurring as yet. The growth outlook for 2003 and 2004 remains well oriented, in spite of the SARS outbreak which deeply affected

the tourism industry. Although private consumption has started to slow down in 2003Q1, it should remain relatively strong in the medium run, while inflation will slightly increase due to higher oil prices, but should remain within the [2%-2.5%] target range in 2003 and 2004. As regards fiscal policy, the budget deficit is expected to decrease and total expenditures should be reduced also (an answer to international concerns over possible fiscal deterioration). However, if high corporate and public debts are not restructured, this may threaten economic growth in the medium run through depressed private investment and bank lending.

| Top ten major suppliers | |
|-------------------------|---------------|
| 1 - Japan | 6 - Korea |
| 2 - USA | 7 - Germany |
| 3 - China | 8 - Indonesia |
| 4 - Malaysia | 9 - Australia |
| 5 - Singapore | 10 - UAE |

| Ten fastest growing manufacturing sectors (imports from EU) | |
|--|--|
| 1 - meat and edible meat offal | 6 - preparations of vegetables, fruit, nuts or other parts of plants |
| 2 - carpets and other textile floor coverings | 7 - books, newspapers, pictures and other products of the printing industry; |
| 3 - fur skins and artificial fur; articles thereof | 8 - musical instruments; parts and accessories for such articles |
| 4 - vegetable plaiting materials; vegetable products not elsewhere specified or included | 9 - live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage |
| 5 - umbrellas, sun umbrellas, walking-sticks, seat-sticks, whips, riding-crops and parts thereof | 10 - coffee, tea, mate and spices |

Vietnam



Vietnam: Selected Economic Indicators, 1998-2004F

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003F | 2004F |
|---|-------|-------|-------|-------|-------|-------|-------|
| GDP Growth (% Change) | 4.4 | 4.7 | 6.8 | 5.8 | 6.2 | 6.8 | 6.5 |
| Industry sector growth (% change) | 7.3 | 7.6 | 9.7 | 9.7 | 10.0 | 10.2 | 9.8 |
| Services sector growth (% change) | 3.0 | 2.1 | 4.4 | 4.4 | 5.0 | 6.0 | 5.5 |
| Agriculture sector growth (% change) | 2.8 | 5.2 | 3.6 | 2.3 | 2.1 | 2.4 | 2.5 |
| Exports (USD million) | 9360 | 11540 | 14455 | 15027 | 16440 | 18400 | 21400 |
| Imports (USD million) | 11500 | 11622 | 15639 | 16162 | 18350 | 21100 | 24240 |
| Trade Balance (USD million) | -2140 | -82 | -1184 | -1135 | -1919 | -2700 | -2840 |
| Exports to EU (USD million) | 2079 | 2515 | 2848 | 3004 | 3794 | .. | .. |
| Imports from EU (USD million) | 1241 | 1095 | 1317 | 1506 | 1884 | .. | .. |
| Inflation, CPI average (% change) | 9.2 | 4.1 | -0.6 | 0.9 | 4.5 | 4.0 | 5.0 |
| M2 growth (% change) | 25.6 | 39.3 | 39.0 | 25.5 | 25.0 | 27.0 | 28.0 |
| Gross External debt (% of GDP) | 75.6 | 71.6 | 39.1 | 38.6 | 38.7 | 38.1 | 36.0 |
| Foreign exchange reserves (USD billion) | NA | NA | 3512 | 3755 | 4144 | 4173 | 4409 |
| Budget deficit (% of GDP) | 2.6 | 2.8 | 4.2 | 4.9 | 4.9 | 5.2 | 6.2 |
| Government debt (% of GDP) | NA | NA | 36.7 | 38.8 | 40.8 | 43.2 | 45.4 |
| Exchange rate at year-end (VND/USD) | 13344 | 13922 | 14505 | 15071 | 15350 | 15750 | 15950 |

Sources: *Regional Outlook, Southeast Asia 2003-2004*, Institute of Southeast Asian Studies; IMF-DOTS

At the Ninth Vietnam Communist Party Congress in April 2001, the policy of gradual economic reforms (Doi Moi, renewal) which has been followed since 1986, was confirmed. The Congress also set up fairly ambitious targets for the 2001-10 period including a doubling of GDP. In 2001 and to a lesser extent in 2002, Vietnamese economic activity was hurt by the global slowdown, in particular in Japan, Vietnam's first trade and financial partner. In spite of this, growth shows relatively good figures, especially when compared to other ASEAN countries. Activity has been driven

by dynamic domestic demand (private consumption and gross fixed investment supported by an expansionist fiscal policy) as well as buoyant industry and construction sectors. Conversely, the agriculture sector (22.5% of GDP, two thirds of the population) grew at a lower rate. In this context, decreasing food prices since 1999 had put a cap on inflation until 2002, when inflation reached 4%. Exports are relatively diversified, but did not grow as fast as in 2000. This can be partly explained by a sharp decrease in oil export value in 2002 (one fifth of total exports). On the contrary im-

ports are thriving due to strong domestic consumption and investment.

Challenges and Prospects: Several reforms remain to be implemented or deepened: further state enterprise reform (30% of GDP, their debts represent about 48% of GDP, of which a large part is non performing), private sector development

(as an alternative source of employment), banking reform, trade and business liberalisation. If Vietnam manages to implement economic measures that ought to come along with its belonging to ASEAN and to the US bilateral trade agreement, then the country outlook is a fairly positive one, with GDP growth above 6% for 2003 and 2004 and a growing involvement in international trade.

| Top ten major suppliers | |
|-------------------------|----------------|
| 1 - Korea | 6 - Hong Kong |
| 2 - China | 7 - Malaysia |
| 3 - Japan | 8 - USA |
| 4 - Singapore | 9 - Germany |
| 5 - Thailand | 10 - Indonesia |

| Ten fastest growing manufacturing sectors (imports from EU) | |
|--|--|
| 1 - railway or tramway locomotives, rolling-stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; | 6 - other base metals; cermets; articles thereof |
| 2 - headgear and parts thereof | 7 - mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes |
| 3 - fish and crustaceans, molluscs and other aquatic invertebrates | 8 - wood and articles of wood; wood charcoal |
| 4 - ships, boats and floating structures | 9 - iron and steel |
| 5 - products of animal origin not elsewhere specified or included | 10 - zinc and articles thereof |

Annex A: List of Organisations Contacted in Europe and in ASEAN

EUROPEAN COUNTRIES

Belgium

- AEBILLION
- ASEAN-EU BUSINESS NETWORK (AEBILLION)
- EURATEX
- European Institute for Asia Studies (EIAS)
- Union of Industrial and Employers Confederation of Europe (UNICE)

France

- The Assembly of French Chambers of Commerce and Industry (ACFCI)
- Chamber of Commerce and Industry of Paris (CCIP)
- MEDEF International

Germany

- BDI (Federation of German Industries)

Italy

- CONFINDUSTRIA
- FIAT AUTO
- Italian Confederation of Small and Medium Enterprises (CONFAPI)

The Netherlands

- Amsterdam Chamber of Commerce
- Asia HOUSE
- EVD (Netherlands Foreign Trade Agency)
- VNO-NCW

United Kingdom

- CBI (Confederation of British Industry)
- Trade Partners

ASEAN COUNTRIES

Indonesia

- APCO Indonesia
- Association of German Chambers of Commerce and Industry (DIHK)
- Association of Southeast Asian Nations (ASEAN)
- BILLIONP PARIBAS
- British Chamber of Commerce in Indonesia
- British Embassy Jakarta
- CBC Indonesia
- Delegation of the European Commission
- DIHK Partnership Programme

- EC-ASEAN Standards & Quality Co-operation Programme
- Embassy of Austria
- Embassy of Finland
- Embassy of Italy
- Embassy of the Republic of Poland
- Embassy of Sweden
- Ernst & Young
- GEMALA Group
- Indonesian Automotive Parts & Components Industries Association
- Indonesian Chamber of Commerce and Industry (KADIN)
- Indonesian Food & Beverages Association
- Indonesian French Chamber of Commerce and Industry
- Indonesian German Chamber of Commerce and Industry (EKONID)
- Indonesian Mining Finance and Services company
- Indonesian Netherlands Association
- Italian Business Association in Indonesia
- The Jardine Matheson Group
- LAFARGE
- L'OREAL
- National Economic Recovery Committee
- Panorama Leisure
- PIRELLI
- PT Apco Indonesia
- PT Connell Bersaudara Chemindo
- PT Gudang Garam Tbk
- PT Intersys
- PT KALIPORA
- PT Siemens Indonesia
- PT Townland International
- Royal Netherlands Embassy
- SIEMENS
- THYSSENKRUPP
- Townland Consultants LTD

Malaysia

- Alam Samudera Corporation
- British High Commission Kuala Lumpur
- British Malaysian Chamber of Commerce
- DANCO
- Delegation of the European Commission in Malaysia
- Embassy of Belgium
- Embassy of Sweden
- EU-Malaysia Chamber of Commerce and Industry
- FAGOR
- Federation of Malaysian Manufacturers
- George Kent (Malaysia)
- Industrial Concrete Products Berhad
- InventAgri
- Italian Malaysian Business Association (IMBA)
- Jebsen & Jessen Industrial
- KNM Process Systems Sdn BHD
- Malaysian Automotive Component Parts Manufacturers
- Malaysian Dutch Business Council (MDBC)

- Malaysian Industrial Development Authority (MIDA)
- Ministry of International Trade and Industry
- Rieckermann (Malaysia)
- Royal Netherlands Embassy
- Toyota Suppliers Club
- Victor Buyck Steel Construction
- World Council of Peoples for the United Nations, Asia Operations HQ

Philippines

- Arms Corporation of the Philippines (ARMSCOR)
- Asian Development Bank
- Bernabe Construction & Industrial Corp. of Asia
- Board of Investments
- Delegation of the European Commission for the Philippines
- DTSI
- Embassy of the Federal Republic of Germany
- Embassy of Switzerland
- European Chamber of Commerce of the Philippines
- Federation of Philippines Industries
- French Business Association of the Philippines
- GTZ
- NESTLE
- New World Renaissance Hotel
- Philippe Exporters Confederation
- PHILEXPORT
- Philippine Chamber of Commerce and Industry
- Philippine Economic Zone Authority
- San Miguel Pure Foods
- RFM Corporation
- RI Chemical Corporation
- Royal Netherlands Embassy
- San Miguel Pure Foods
- TNT

Singapore

- Advance Automobile Ltd
- Ahlers Asia
- Alcatel
- Allson Hotel
- Austrian Embassy
- Belgium-Luxembourg Business Group Singapore
- British Chamber of Commerce
- British High Commission Singapore
- Concept East
- Credit Industriel et Commercial
- Danish Business Association
- Delegation of the European Commission
- Economic Development Board (EDB)
- Embassy of Austria
- Embassy of Belgium
- Embassy of the Czech Republic
- Embassy of the Federal Republic of Germany
- Embassy of Finland
- Embassy of Ireland
- Embassy of Poland
- Embassy of the Republic of Hungary
- Embassy of Spain
- Embassy of Sweden
- European Chamber of Commerce
- France Embassy in Singapore, DREE
- French Embassy

- Institute of Southeast Asian studies (ISEAS)
- International enterprise Singapore
- IntesaBci S.p.A.
- Italian Chamber of Commerce
- Italian Embassy
- Millward Brown
- Neue Zuercher Zeitung
- Norelco Centreline
- Rolls Royce International Ltd
- Royal Netherlands Embassy
- Shanker Iyer & Co, Shanker Iyer
- Singapore Business Federation
- Singapore Hotel Association
- Singapore precision Engineering and Tooling Association
- Swiss Business Association
- YTC Group

Thailand

- ABB Ltd
- Asia It+C Programme
- Beumer Maschinenfabrik
- BMW Group
- British Chamber of Commerce Thailand
- DaimlerChrysler (Thailand) Limited
- Delegation of the European Commission
- DIAGEO
- East West Seed International Ltd.
- ECAP II Programme
- Embassy of the Republic of Poland
- Embassy of Spain
- The Federation of Thai Industries
- French Embassy
- German-Thai Chamber of Commerce
- Government House
- Grampian Foods Siam Limited
- Heritage Travel
- L'OREAL (Thailand) Ltd
- Michelin Siam Group
- Ministry of Commerce, Department of Trade Negotiations
- MPO Asia Co. Ltd
- Netherlands-Thai Chamber of Commerce
- Office of the Board of Investment
- PHILIPS Group
- RMP International Ltd
- Royal Netherlands Embassy
- SCT Co Ltd
- Software Park Thailand
- Thai-Finnish Chamber of Commerce
- Thai-Italian Chamber of Commerce
- Thai-Swedish Chamber of Commerce
- Thailand Board of Investment
- Vovan & Associés
- ZUELLIG Industrial

Vietnam

- Air France
- APAVE Vietnam & Asie du sud-est
- Apollo Education & Training
- Aqua Service Vietnam
- Belgian Chamber of Commerce
- British Business Group

- British Embassy
- Chambre de Commerce et d'Industrie Française au Vietnam
- Consulate General of Sweden
- Consulate General of the Federal Republic of Germany
- Consulate General of the Netherlands
- DANIDA
- Delegation of the European Commission
- Dutch Business Association
- EFACEC Group
- ELCA Information Technology
- Embassy of France
- Embassy of Italy
- Embassy of the Czech Republic
- Embassy of the Republic of Hungary
- EUROCHAM (European Chamber of Commerce in Vietnam)
- German Embassy
- GOL Company Ltd
- GO Vietnam
- Group Openasia
- Ing. BHF Bank
- Investconsult Group
- K.D. Feddersen & Co
- Mekong Project Development Facility
- Ministry of Agriculture and Rural Development

Annex B: Useful Addresses and Sources of Information by Country

Indonesia

| Organisation | Tel No. | Fax No. | e-mail | Web | Address | City | Country |
|--|-----------------|-----------------|---------------------------------|-----------------------|---|---------------|-----------|
| Delegation of the European Commission | 62 21 570 6076 | 62 21 570 6075 | delegation-indonesia@cec.eu.int | www.delidh.cec.eu.int | Wisma Dharmala Sakti 16 th Floor, Jl. Jend Sudirman 32 PO Box 6454 | Jakarta 10220 | INDONESIA |
| Bi-lateral Chambers of Commerce/Organisations | | | | | | | |
| Austrian Business Ass'n | 62 21 390 6929 | 62 21 390 5006 | ullmerjo@vatech.co.id | | C/o VA TECH Asia Jl. Talang 3 | Jakarta 10320 | INDONESIA |
| Belgian Business Club | 62 21 720 2605 | 62 21 720 2606 | coomans.b@grant-thornton.co.id | | C/o Moores Rowland Jl. Sisingamangaraja 3C | Jakarta 12120 | INDONESIA |
| British CC | 62 21 522 9453 | 62 21 527 9135 | busservmgr@britcham.or.id | | 8 th Floor, World Trade Centre Jl. Jend. Sudirman, Kav 31 | Jakarta 12920 | INDONESIA |
| Danish Business Ass'n | 62 21 797 0550 | 62 21 797 0661 | mcarstensen@dfctransport.co.id | | Jl. Buncit Raya No 6, 4 th Floor | Jakarta 12740 | INDONESIA |
| German-Indonesian CCI (EKONID) | 62 21 315 4685 | 62 21 230 3104 | info@ekonid.or.id | www.io.com/ekonid | Jl. Agus Salim 115 | Jakarta Pusat | INDONESIA |
| Indonesia-French CCI (IFCCI) | 62 21 520 8261 | 62 21 520 8271 | ifcci@prima.net.id | | Chase Plaza, 14 th Floor Jl. Jend Sudirman Kav 21 | Jakarta 12910 | INDONESIA |
| Indonesian-Finland Business Council (IFBC) | 62 21 849 90248 | 62 21 849 90242 | mbbmpt@rad.net.id | | C/o PT Marga Buana Bumi Mulia Gedung Cellmark, 1 st Floor Jl. Raya Jatwaringin No. 54 Pondok Gede | Bekasi 17411 | INDONESIA |
| Indonesian-Greek Ass'n (IGA) | 62 21 384 3656 | 62 21 384 3885 | polyba@rad.net.id | www.ina.or.id | Jl. Kebon Sirih 16 | Jakarta 10110 | INDONESIA |
| Indonesian-Netherlands Ass'n (INA) | 62 21 520 0702 | 62 21 520 0969 | ina@ina.or.id | | Jl. Gatot Subroto, Citra Graha 7 th Floor, Suite 703, Kav 35-36 | Jakarta 12950 | INDONESIA |
| Italian Business Ass'n in Indonesia | 62 21 571 3540 | 62 21 571 9013 | | | C/o Italian Trade Commission Gedung BRI II - 19 th Floor Suite 1901 Jl. Jend. Sudirman No 44-46 | Jakarta 10210 | INDONESIA |
| Spanish Business Ass'n in Indonesia (SBAD) | 62 21 573 5006 | 62 21 573 5009 | bbvtrade@cbn.net.id | | C/o Banco Bilbao-Vizcaya Gedung BRI II, Suite 1704 Jl. Jend. Sudirman No 44-46 | Jakarta 10210 | INDONESIA |
| Swedish Business Ass'n | 62 21 532 6163 | 62 21 352 6164 | per.brandt@perstorp.com | | C/o PT Perstorp Bumi Raya Wisma Bisnis Indonesia Jl. Let Jen S. Parman Kav 12, 15 th Floor | Jakarta 11480 | INDONESIA |
| National Business Organisations | | | | | | | |
| Indonesian Chamber of Commerce & Industry (KADIN) | 62 21 527 4484 | 62 21 527 4486 | inquiry@kadinnet.com | www.kadinnet.com | Menara Kadin Indonesia 29 th Fl. Jl. H. R. Rasuna Said, Kav. 2-3 Block X-5 | Jakarta 12950 | INDONESIA |

MALAYSIA

| Organisation | Tel No. | Fax No. | e-mail | Web | Address | City | Country |
|--|--------------------------|-----------------|--------------------------------|----------------------|--|-----------------------|----------|
| Delegation of the European Commission | 603 2723 7373 | 603 2723 7337 | delegation-malaysia@cec.eu.int | www.delms.cec.eu.int | Menara Tan & Tan, 207 JI. Tun Razak, Suite 10.01 | 50400 Kuala Lumpur | MALAYSIA |
| EU-Malaysia Chamber of Commerce & Industry | 603 2162 6298 | 603 2162 6198 | eumcci@tm.net.my | | Suite 47.01 Level 47, Bangunan AmFinance JI Yap Kwan Seng | 50450 Kuala Lumpur | MALAYSIA |
| Bi-lateral Chambers of Commerce/Organisations | | | | | | | |
| British Malaysian Chamber of Commerce | 603 2163 1784 | 603 2163 1781 | britcham@bmcc.org.my | www.bmcc.org.my | c/o British High Commission 185 JI. Ampang | 50450 Kuala Lumpur | MALAYSIA |
| Malaysian-Finnish Business Council | 603 4521 1386 | 603 4251 1534 | | www.mfbc.org.my | JEKS Engineering Sdn Bhd C11-4F JI. Ampang Utama 1/1, Ampang | 68000 Ampang Selangor | MALAYSIA |
| Italian Malaysian Business Ass'n | 603 2169 6196 | 603 2196 6168 | fabio.delisi@synergy-tours.com | | Level 36, Menara Citibank 165 Ampang | 50450 Kuala Lumpur | MALAYSIA |
| Malaysia-Belgium Business Council | 603 261 1166 | 603 2072 1198 | | | Level Bangunan AMFinance 8 JI. Yap Kwan Seng | 50450 Kuala Lumpur | MALAYSIA |
| Malaysia-Dutch Business Council | 603 7492 1077 | 603 7492 5166 | info@mdbc.com.my | www.mdbc.com.my | c/o Royal Netherlands Embassy The AmpWalk 7 th Fl, South Block 218 JI. Ampang | 50450 Kuala Lumpur | MALAYSIA |
| Malaysian-Dutch Business Council | 603 298 1014 | 603 294 5976 | | | No. 7 JI. 22/6 Off. JI. Kent 3 | 54000 Kuala Lumpur | MALAYSIA |
| Malaysian French Chamber of Commerce & Industry | 603 2718 9888 | 603 2718 9889 | | | Fl. 16 Menara Kib.com JI. Yap Kwan Seng | 50450 Kuala Lumpur | MALAYSIA |
| Malaysian-Danish Chamber of Commerce & Industry | 603 202 2001 | 603 202 2012 | | | c/o The Royal Danish Embassy 22 nd Floor Wisma Denmark 86 JI. Ampang | 50450 Kuala Lumpur | MALAYSIA |
| Malaysian-French Business Organisation | 603 2718 9888 | 603 2718 9889 | mfbo@ppp.nasionet.net | | Level 16 Menara KUB.com JI. Yap Kwan Seng | 50450 Kuala Lumpur | MALAYSIA |
| Malaysian-German Chamber of Commerce & Industry | 603 238 3561 | 603 232 1198 | mgcc@po.jaring.my | www.mgcc.com.my | Suite 47.01, Level 47 Bangunan AM Finance 8 JI. Yap Kwan Seng | 50450 Kuala Lumpur | MALAYSIA |
| Malaysian-Swedish Business Ass'n | 603 2143 4101 | 603 2143 4889 | swebiz@tm.net.my | www.masba.org | c/o Swedish Embassy Wisma Angkasa Raya 123 JI. Ampang | 54050 Kuala Lumpur | MALAYSIA |
| National Business Organisations | | | | | | | |
| National Chamber of Commerce & Industry of Malaysia | 603 241 9600 | 603 241 3775 | info@nccim.org.my | www.nccim.org.my | 37 JI. Kia Peng | 50450 Kuala Lumpur | MALAYSIA |
| Federation of Malaysian Manufacturers | 603 6276 1211 | 603 6277 6714-5 | slee@fmm.org.my | www.fmm.org.my | Wisma FMM No. 3, Persiaran Dangang, PIU9 Bandar Sri Damansara | 5220 Kuala Lumpur | MALAYSIA |
| Government (Trade & Investment) | | | | | | | |
| National AFTA Unit-ASEAN Economic Cooperation Ministry of International Trade & Industry | 603 6203 4782, 6203 3022 | 603 6201 9799 | | | 3rd Fl., Block 10, Jalan Duta | 50622 Kuala Lumpur | MALAYSIA |
| MATRADER | 603 2694 7259 | 603 2694 7363 | info@hq.matrade.gov.my | | Wisma Sime Darby JI. Raja Laut | 50350 Kuala Lumpur | MALAYSIA |
| Malaysian Industrial Development Authority (MIDA) | 603 2267 3633 | 603 2274 7970 | promotion@mida.gov.my | www.mida.gov.my | Plaza Sentral JI. Stesen Sentral 5 Kuala Lumpur Sentral | 50470 Kuala Lumpur | MALAYSIA |

PHILIPPINES

| Organisation | Tel No. | Fax No. | e-mail | Web | Address | City | Country |
|--|------------------------------|------------------------------|-----------------------------------|-------------------------------|---|------------------|-------------|
| Delegation of the European Commission | 632 812-6421 | 632 812-6686 | delegation-philippines@cec.eu.int | | 7/F Salustiana D. Ty Tower 104 Paseo de Roxas Legaspi Village | MAKATI CITY | PHILIPPINES |
| Asian Development Bank (ADB) | 632 632-6545 | | jpverbicst@adb.org | http://www.adb.org | 6 ADB Avenue, Mandaluyong City, 1401 MM PO Box 789 | MANILA | PHILIPPINES |
| European Chamber of Commerce of the Philippines (ECCP) | 632 845-1324 632 759-6680 | 632 845-1395 632 759-6690 | schumacher@eccp.com | http://www.eccp.com | 19/F Philippine Axa Life Centre Sen. Gil Puyat Avenue cor. Tindalo St. | MAKATI CITY | PHILIPPINES |
| Bi-lateral Chambers of Commerce/Organisations | | | | | | | |
| French Business Association of the Philippines | 632 810-0068 | 632 892-6114 | leclub@globenet.com.ph | | Unit 1503, Medical Plaza Makati Building Amorsolo corner Dela Rosa Streets Legaspi Village | MAKATI CITY | PHILIPPINES |
| National Business Organisations | | | | | | | |
| Philippine Chamber of Commerce & Industry | 632 844-5713 632 843-4128 | 632 843-4102 | esuelto@philcham.com | http://www.philcham.com | PCCI Secretariat Office 19 th Floor Salcedo Towers 169 H. V. dela Costa St. Salcedo Village | MAKATI CITY | PHILIPPINES |
| Philippine Exporters Confederation, Inc. (Philexport) | 632 833-2531 to 34 | 632 831-0231 632 831-3707 | esd@philexport.net.ph | http://www.philexport.ph | ITC Complex Roxas Boulevard Corner Sen Gil Puyat Ave. | PASAY CITY | PHILIPPINES |
| Federation of Philippine Industries, Inc. | 632 844-0324 632 817-0581 | 632 844-7264 | fpi@philonline.com | http://www.philonline.com~fpi | 2/F Concepcion Industries Building 308 Senator Gil Puyat Avenue | MAKATI CITY | PHILIPPINES |
| Government (Trade & Investment) | | | | | | | |
| Board of Investments Department of Trade & Industry | 632 897-6682 | 632 895-8322 | dmiralles@boi.gov.ph | http://www.boi.gov.ph | Industry & Investments Building 385 Sen. Gil J. Puyat Avenue | 1200 MAKATI CITY | PHILIPPINES |
| Bureau of Export Trade Promotion | 632 890-4655 | 632 896-3250 | betpmtch@dti.gov.ph | http://www.dti.gov.ph | 5 th Floor, New Solid Building 357 Sen. Gil J. Puyat Avenue | MAKATI CITY 1200 | PHILIPPINES |
| Bureau of International Trade Relations | 632 897-8292 632 890-4882 | 632 890-4812 | Bitr_lom@dti.dti.gov.ph | | 3 rd Floor, Trade and Industry Building 361 Sen. Gil J. Puyat Avenue | MAKATI CITY 1200 | PHILIPPINES |
| Philippine Economic Zone Authority (PEZA) | 632 891-6381 | 632 551-3436 | info@peza.gov.ph | http://www.peza.gov.ph | 6 th Floor, PEZA Building Roxas Boulevard, cor. San Luis st. | PASAY CITY | PHILIPPINES |

SINGAPORE

| Organisation | Tel No. | Fax No. | e-mail | Web | Address | City | Country |
|--|--------------|----------------------------|---------------------------------|------------------------|---|--------|-----------|
| Delegation of the European Commission | 65 6336 7919 | 65 6336 3394 | delegation-singapore@cec.eu.int | | 250 North Bridge Road 38-03/04 Raffles City Tower | 179101 | SINGAPORE |
| European Chamber of Commerce & Industry | 65 6532 5746 | 65 6532 7680 | gmrosta@intessabci.com.sg | www.eurocham.org.sg | 9 Battery Road, #04-01 Straits Trading Building | 049910 | SINGAPORE |
| Bi-lateral Chambers of Commerce/Organisations | | | | | | | |
| Ass'n of Dutch Businessmen | 65 9750 5261 | 65 6467 2639 | adb@pacific.net.sg | www.adb.org.sg | 22 Camden Park | 299814 | SINGAPORE |
| Austrian Business Ass'n | 65 6294 0393 | 65 6294 3263 | oskar.sig@geoconsult.com.sg | www.austriamba.com | | | SINGAPORE |
| Belgium-Luxembourg Business Group Singapore | 65 6324 4271 | 65 6324 6360 | blbg@blas.org.sg | www.blas.org.sg | c/o Ahlers 2 Mistri Road HMC Building #10-00 | 079624 | SINGAPORE |
| British Chamber of Commerce | 65 6222 3552 | 65 6222 3556 | info@britcham.org.sg | www.britcham.org.sg | 138 Cecil St 11-01 Cecil Court | 069538 | SINGAPORE |
| Danish Business Ass'n | 65 6250 3383 | 65 6253 3764 | lone@dabs-singapore.com | www.dabs-singapore.com | Orchard Post Office PO Box 216 | 912308 | SINGAPORE |
| Finnish Business Council | 65 6322 2451 | 65 6225 5469 | kirsi@singnet.com.sg | www.finemb.org.sg | c/o Finnish Embassy 101 Thomson Road #21-03 United Square | 307591 | SINGAPORE |
| French Business Ass'n | 65 6832 8000 | 65 6720 0678 | info@fbasingapore.com | www.fbasingapore.com | 350 Orchard Road #21-01/03 Shaw House | 238868 | SINGAPORE |
| German Business Ass'n | 65 6353 6841 | 65 6353 6962 | gbasg@gba.org.sg | www.gba.org.sg | 39A, JI. Pemimpin #05-00 TAL Building | 577183 | SINGAPORE |
| Irish Business Ass'n | 65 6534 5100 | 65 6536 2019 | craticsquad@mcraic.com | www.ireland.org.sg | 541 Orchard Road #08-00 Liat Towers | 238881 | SINGAPORE |
| Italian Chamber of Commerce | 65 6536 0880 | 65 6536 0770 | president@eurocham.org.sg | www.italchamber.org.sg | 9 Raffles Place #51-01/02 Republic Plaza | 048619 | SINGAPORE |
| Portugal Business Ass'n | 65 6334 1231 | 65 6533 4943 | asp@pacific.net.sg | | Consulate of the Republic of Portugal 55 Waterloo Street #09-03A | 187954 | SINGAPORE |
| Spanish Business Ass'n | 65 6224 2707 | 65 6221 9423 | asp@pacific.net.sg | | c/o Banco del Sabadel 133 Cecil Street #09-01 Keck Seng Tower | 069535 | SINGAPORE |
| Swedish Business Ass'n | 65 6734 5009 | 65 6734 1883 | swedbiz@singnet.com.sg | www.sbas.org.sg | 111 Somerset Road #05-01 | 238164 | SINGAPORE |
| National Business Organisations | | | | | | | |
| International Enterprise Singapore | 65 6337 6628 | 65 6337 6898 | dsschin@iesingapore.gov.sg | www.iesingapore.com | 230 Victoria Street #09-00 Bugis Junction Office Tower | 188024 | SINGAPORE |
| Singapore Business Federation | 65 6827 6828 | 65 6827 6807 | pmplim@sbf.org.sg | www.sbf.org.sg | 19 Tanglin Road, 07-01 Tanglin Shopping centre | 247909 | SINGAPORE |
| Government (Trade & Investment) | | | | | | | |
| Economic Development Board (EDB) | 65 6336 2288 | 65 6338 8265 | edbi@edb.gov.sg | www.edbi.com | 250 North Bridge Road 24-00 Raffles City Tower | 179101 | SINGAPORE |
| National AFTA Unit/Trade Policy (Southeast Asia) Trade Development Board | 65 6433 4860 | 65 6337 6898/ 6337 6838 | | | 230 Victoria St. #09-00 Bugis Junction Office Tower | 188024 | SINGAPORE |

THAILAND

| Organisation | Tel No. | Fax No. | e-mail | Web | Address | City | Country |
|---|------------------|----------------------------|--------------------------------|------------------------|---|---------------|----------|
| Delegation of the European Commission | 66 2 255 9100 | 66 2 255 9113 | delegation-thailand@cec.eu.int | www.deltha.cec.eu.int | Kian Gwan House 11 19 th Floor, 140/1 Wireless Road | Bangkok 10330 | THAILAND |
| Bi-lateral Chambers of Commerce/Organisations | | | | | | | |
| British Chamber of Commerce | 66 2 651 5350 | 66 2 651 5534 | greg@bccthai.com | www.bccthai.com | 7 th Floor, 208 Wireless Road | Bangkok 10330 | THAILAND |
| Danish-Thai Chamber of commerce | 66 2 661 7761 | 66 2 661 7764 | contact@dancham.or.th | www.dancham.or.th | 1402/2 14 th Floor, Glas Haus 1 Sukhumvit Soi 25 | Bangkok 10110 | THAILAND |
| German-Thai chamber of Commerce | 66 2 670 0600 | 66 2 670 0601 | info@gtcc.org | www.gtcc.org | 25 th Floor, Empire Tower 3 195 South Sathorn Road Yanawa, Sathorn | Bangkok 10120 | THAILAND |
| Netherlands-Thai Chamber of Commerce | 66 2 260 7501 | 66 2 260 7502 | ntccbkk@ntccthailand.or.th | www.ntccthailand.or.th | B.B. Building, 19th Floor, Room 1909 54 Asoke Road, Sukhumvit 21 Klongtoey Nue, Wattana | Bangkok 10110 | THAILAND |
| Thai-Finnish Chamber of Commerce | 66 2 255 3251 | 66 2 253 7910 | tfcc@thaiin.or.th | www.thaiin.or.th | Ruen Rudee Condominium 4/F, Apt. 19/27, Sukhumvit Soi 1 | Bangkok 10110 | THAILAND |
| Thai-Italian Chamber of Commerce | 66 2 253 9909 | 66 2 253 9896 | ticc@loxinfo.co.th | www.thaitch.org | 12 th Fl. Vanit Building, Room 1208 1126/1 New Petchburi Road | Bangkok 10400 | THAILAND |
| Thailand Board of Investment | 66 2 537 8111 | 66 2 537 8413 | head@boi.go.th | www.boi.go.th | 555 Vibhavadi Rangsit Road Chatuchak | Bangkok 10900 | THAILAND |
| Thai-Swedish Chamber of Commerce | 66 2 661 7761-3 | 66 2 661 7764-5 | contact@swecham.or.th | www.swecham.or.th | 1402/02 14 th Floor, Glas Haus 1 Sukhumvit 25 | Bangkok | THAILAND |
| National Business Organisations | | | | | | | |
| Federation of Thai Industries | 66 2 2229 4255 | 66 2 229 4941 | f-dept@off.fti.or.th | www.fti.or.th | 4 th Floor, Zone C, Queen Sirikit National Convention Center, 60 New Rachadapisek RD. Klongtoey | Bangkok 10110 | THAILAND |
| Government (Trade & Investment) | | | | | | | |
| Thailand Board of Investment | 66 2 537 8111-55 | 66 2 537 8177 | head@boi.go.th | www.boi.go.th | 555 Vibhavadi Rangsit Road Chatuchak | Bangkok 10900 | THAILAND |
| Department of Export Promotion | 66 2 511 5066-77 | 66 2 512 2670 | itcdep@depthai.go.th | www.thaitrade.com | 22/77 Rachadapisek Rd Chatuchak | Bangkok 10900 | THAILAND |
| Thai Chamber of Commerce | 66 2 622 1860 | 66 2 225 3372 | tcc@tcc.or.th | www.thatechamber.com | 150 Rajbopit Road | Bangkok 10200 | THAILAND |
| National AFTA Unit/Fiscal Policy Office Ministry of Finance | 66 2 273 9020 | 66 2 273 9168/ 273 9059 | | | Rama VI Road | Bangkok 10400 | THAILAND |

VIETNAM

| Organisation | Tel No. | Fax No. | e-mail | Web | Address | City | Country |
|---|---------------------------|---------------------------|-------------------------------|-----------------------|---|------------------|---------|
| Delegation of the European Commission | 844 934 1300 | 844 934 1361 | delegation-vietnam@cec.eu.int | www.delvnm.cec.eu.int | The Metropole Centre 56 Ly Thai To Street | Hanoi | VIETNAM |
| EuroCham | 848 845 5528 | 848 845 5527 | eurocham@hcm.vnn.vn | www.eurochamvn.org | Eurovilla, 257 Hoang Van Thu Ward 2 Tan Binh Dist. | Ho Chi Minh City | VIETNAM |
| Bi-lateral Chambers of Commerce/Organisations | | | | | | | |
| Belgian Chamber of Commerce | 848 822 2460 | 848 822 2460 | info@belchamvn.org | | 3 HQ Ton Duc Thang St District 1 | Ho Chi Minh City | VIETNAM |
| British Business Group | 848 829 8430 | 848 822 5172 | bbgvhcmc@hcm.fpt.vn | | G/F 25 Le Duan, Dist 1 | Ho Chi Minh City | VIETNAM |
| Dutch Business Association Vietnam | 848 823 5932 | 848 823 5934 | dbavn@hcm.vnn.vn | www.dbav.org | Consulate General of the Netherlands Saigon Tower 29 Le Duan Boulevard, D.J. | Ho Chi Minh City | VIETNAM |
| French Chamber of Commerce in Vietnam | 848 910 0308 | 848 910 0309 | ccfv.hcm@fmail.vnn.vn | www.ccfv.com | Saigon Trade Centre 37 Ton Duc Thang, Dist. 1 | Ho Chi Minh City | VIETNAM |
| German Business Ass'n | 848 846 1208 | 848 846 1208 | gba@hcm.fpt.vn | www.gba-vn.org | 130/B90 Pham Van Hai Tan Binh District | Ho Chi Minh City | VIETNAM |
| Italian Business Ass'n | 848 896 7095 | 848 896 7094 | perfetti@hcm.vnn.vn | | 70/1 Highway No 1 Linh Xuan, Thu Duc Dist | Ho Chi Minh City | VIETNAM |
| Nordic Business Ass'n | 848 823 6800 | 848 823 6817 | swedcenter@hcm.fpt.vn | | 8A/11 D1 Thai Van Lung Street Dist 1 | Ho Chi Minh City | VIETNAM |
| National Business Organisations | | | | | | | |
| Vietnam Chamber of Commerce & Industry | 844 574 2022 | 844 574 2020 | vcci@fmail.vnn.vn | www.vcci.com.vn | 9 Dao Duy Anh St | Hanoi | VIETNAM |
| Government (Trade & Investment) | | | | | | | |
| Ministry of Planning & Investment | 844 825 3094/ 823 5606 | 844 823 5606 | | www.mpi.gov.vn | 56 Quoc Tu Giam Str | Hanoi | VIETNAM |
| National AFTA Unit General Department of Taxation Ministry of Finance | 844 933 0106 | 844 933 0106/ 826 2266 | | | 8 Phan Huy Chu Street | Hanoi | VIETNAM |

Food Processing

Indonesia

The Indonesian Food & Beverages Association

Duta Mas Fatmawati
Blok D-I no. 30
Jakarta 12150
Tel: 62 – 21 720 9181
Fax: 62 – 21 723 0090
e-mail: gapmmi@indosat.net.id

Malaysia

Malaysian Frozen Seafood Processing Association

60-B 2nd Floor
Jalan Perai Jaya 4
Bandar Perai Jaya
13600 Perai Penang
Tel: 604 – 390 4737
Fax: 604 – 390 4736
Website: www.mffpa.org.my

Malaysian Food Canners Association

POB 51
46700 Petaling Jaya
Tel: 603 – 238 2433
Fax: 603 – 238 3228

Malaysian Cocoa Board

Tel: 6088 – 252572
Fax: 6088 – 239575
Website: www.koko.gov.my

Malaysian Pepper Board

Tel: 6082 – 331811
Fax: 6082 – 336877
Website: agrolink.moa.my/npb/pepper.html

Malaysian Pineapple Industry Board

Tel: 607 – 236 1211
Fax: 607 – 236 5694
e-mail: mpib@tm.net.my
Website: www.mpib.gov.my

Malaysian Edible Oil Manufacturers Association

Tel: 603 – 2274 7421
Fax: 603 – 2273 6698
e-mail: meoma@tm.net.my

Malaysian Palm Oil Board

Tel: 603 – 8925 9155
Fax: 603 – 8925 9446
e-mail: nagen@mpob.gov.my
Website: www.mpob.gov.my

Malaysian Palm Oil Promotion Council (MPOPC)

Tel: 603 – 7806 4097
Fax: 603 – 7806 2272
e-mail: wbmaster@mpopc.org.my
Website: www.mpopc.org.my

Palm Oil Refiners Association of Malaysia (PORAM)

Tel: 603 – 7492 0006
Fax: 603 – 7492 0128
e-mail: poram@po.jaring.my

Federal Agricultural Marketing Authority (FAMA)

Tel: 603 – 6138 9622
Fax: 603 – 6138 3650
e-mail: fama@pop.moa.my
Website: agrolink.moa.my/fama

Philippines

Integrated Food Man. Assoc. of the Philippines

62, 19th St.,
New Manila,
Quezon City
Tel: 63 - 721 1653
Fax: 63 - 721 9518

Phil. Food Processors and Exporters

Rm 305, Bagat ng Alumillioni
RM Magsaysay Ave
Diliman
Quezon City
Tel: 63 – 925 3519
Fax: 63 – 925 3518

Seaweed Industry Assoc. Of the Philippines

C/o Shemberg Marketing
Corner Lapu-Lapu St.,
Cebu City
Fax: (63 32) 346 0863

Mango Products Exporters Confederation, Inc (MPEC)

Pacific Building, Quintin Paredes Street, Binondo
Manilla
Tel: (632) 241 - 2994
Fax: (632) 241 – 2997

United Coconut Association of the Phils., Inc (UCAP)

2F PCRDF Bldg., Pearl Drive cor. Lourdes St.,
Ortigas Complex, Pasig City
Tel: (632) 633 – 8029 / 633 – 9286 to 87
Fax: (632) 633 - 8030

Singapore

Food and Beverages Industry Group

Singapore Manufacturers' Federation
The Enterprise #02-02
No. 1 Science Centre Road
Singapore 609077
Tel: 65 – 6826 3031
Fax: 65 – 6822 8323
Website: www.smafederation.org.sg

Seafood Industries Association Singapore

68 Larong 16 Geylang
Association Building #03-01
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Fax: 65 – 6846 4929
e-mail: webster@singfood.com

Singapore Food Manufacturers Association

7 Teo Hong Road
Singapore 088324
Tel: 65 – 6221 2438
Fax: 65 – 6223 7235
E-mail: sfma@pacific.net.sg

Thailand

Thai Food Processors Association

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Klongtoey
Bangkok 10110
Tel: 662 – 261 2684-6
Fax: 662 – 261 2996-7
e-mail: thaifood@thaifood.org

National Food Institute of Thailand

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Soi 40 Bangyeekhan
Bangphlad
Bangkok 10700
Tel: 662 – 886 8088
Fax: 662 – 886 8106
Website: www.nfi.or.th

Thai Broiler Processing Exporters Association

313 C.P. Tower 22nd Floor
Silom Bangrak
Bangkok 10500
Tel: 662 – 638 2199
Fax: 662 – 638 2536
e-mail: packer97@asianet.co.th

Thai Fruits & Vegetables Exporters Ass'n

3 Soi Archara,
Suthisarn Road
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Tel: 662 – 274 2791-2
Fax: 662 – 274 7831

Food Processing Industry Club

C/o Federation of Thai Industries
Queen Sirikit National Convention Center
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60 Rachadipesek Road
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Fax: 66 - 229 4941

Thai Frozen Foods Association

92/6 6th floor, Sathornthani Building 2
North Sathorn Road, Silom, Bangrak
Bangkok 10500
Tel: (622) 235-5622-4
Tel: (622) 636-9001-6
Fax: (622) 235-5625
URL: www.thai-frozen.or.th
E-mail: thai.frozen@thai-frozen.or.th

Vietnam

Vietnam Food Association (VETFOOD)

Tel: 84 – 8 932 0614
Fax: 84 – 8 932 0704
e-mail: vietfood@hcm.vnn.vn

Vietnam Association of Seafood Exporters & Producers

10-12 Nguyen Cong Hoan,
Ba Dinh
Hanoi
Tel: 84 – 8 316994 - 7715055
Fax: 84 – 8 317003 - 7715084
Website: www.vasep.com.vn
e-mail: seaqipd@netnam.org.vn

Automotive Components

Indonesia

Indonesian Automotive Parts & Components Industries Association

Taman Palembang Lestari Ruko Blok D.1
No 19 Jl Lingkar Luar Barat
Jakarta 11730
Tel: 6221 – 556 0763/6221 – 556 0765
Fax: 6221 – 556 0763
e-mail: giamm@cbillion.net.id

Malaysia

Malaysian Automotive Component Parts Manufacturers (MACPMA)

c/o Federation of Malaysian Manufacturers
Wisma FMM, No 3 Persiaran Dagang
PJU9, Bandar Sri Damansara
52200 Kuala Lumpur
Tel: 603 – 636 1211
Fax: 603 – 637 6714

Malaysian Automotive Parts Alliance Group (MAPAG)

c/o Federation of Malaysian Manufacturers
Wisma FMM, No 3 Persiaran Dagang
PJU9, Bandar Sri Damansara
52200 Kuala Lumpur
Tel: 603 – 636 1211
Fax: 603 – 637 6714
Website: www.mapag.org.my

Malaysian Automotive Association (MAA)

No 17-4 (3rd Floor), Jalan 14/22
46 100 Petaling Jaya, Selangor
Darul Ehsan
Tel: 603 – 7955 0954
Fax: 603 – 7955 0954
Website: www.maa.org.my

Malaysian Automotive Tyre Manufacturers Industry Group

c/o Federation of Malaysian Manufacturers
Wisma FMM, No 3 Persiaran Dagang
PJU9, Bandar Sri Damansara
52200 Kuala Lumpur
Tel: 603 – 6276 1211
Fax: 603 – 6274 1266
Website: www.fmm.org.my

Philippines

Chamber of Automotive Manufacturers of the Philippines (CAMPI)

Suite 1206, 12/F Jollibee Center
San Miguel Ave
Ortigas Center
Pasig City
Tel: 63 - 632 9733
Fax: 63 - 633 9941
e-mail: campi@pacific.net.ph

Association of Consolidated Auto Parts Producers (ACAPP)

2/F Guieb Building
961 President Quirino Ave
Malate, Manila
Tel: 63 - 890 4214
Fax: 63 - 890 4213

Philippine Automotive Federation, Inc.

Suite 1206, 12th floor
Jollibee Center,
San Miguel Avenue
Pasig City
Tel: 63 - 632 9733
Fax: 63 - 632 9941

Singapore

Singapore Precision Engineering and Tooling Association (SPETA)

114 Balestier Road
Singapore 329679
Tel: 65 – 6291 6430
Fax: 65 – 6292 4517
e-mail: speta3d@singnet.com.sg
Website: www.speta.org

Thailand

Thai Auto-Parts Manufacturers Association (TAPMA)

32-33 Moo 17, Banga-Trad Road, km. 11
Bangphliyai, Bangphli
Samutprakan 10540
Tel: 662 – 316 880-7, 316 8173 ext. 206
Fax: 662 - 316 5629
e-mail: tapma@ksc.th.com
Website: www.thaiautoparts.or.th

Thai Automotive Industry Association (TAIA)

C/o Federation of Thai Industries
Queen Sirikit National Convention Center
Zone C, 4th Floor
60 Rachadipesek Road
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Tel: 66 - 229 4255
Fax: 66 - 229 4941

Autoparts Industry Club of the Federation of Thai Industries

C/o Federation of Thai Industries
Queen Sirikit National Convention Center
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60 Rachadipesek Road
Bangkok 10110
Tel: 66 - 229 4255
Fax: 66 - 229 4941

Thailand Automotive Institute

655 soi 1, Bang Poo Industrial Estate
Moo 2, Sukhumvit Road Km 34
Muang, Samutprakam 10280
Tel: 66 – 232 40710
Fax: 66 – 232 39598
Website: www.thaiauto.or.th

Automotive Industry Club of the Federation of Thai Industries

C/o Federation of Thai Industries
Queen Sirikit National Convention Center
Zone C, 4th Floor
60 Rachadipesek Road
Bangkok 10110
Tel: 66 - 229 4255
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Vietnam

Vietnam Motors Association

231 Ton Duc Thang
Hanoi
Fax: 84 - 48 517 617

IT / Software

Indonesia

Indonesia Computer Business Association (APKOMINDO)

e-mail: sekretariat@apkomindo.or.id

Indonesia Infocom Society (MASTEL)

Jl. Sungai Sambas VIII No 19
Kebayoran Baru
Jakarta 12130
Tel: 62 – 21 722 7345
Fax: 62 – 21 739 3995
e-mail: mastel@mastel.or.id
Website: www.mastel.or.id

Malaysia

Persatuan Industri Komputer Dan Multimedia Malaysia (PIKOM)

Association of the Computer and Multimedia Industry
Malaysia
1107, Block B Phileo Damansara II
No 15, Jalan 16.11
46350 Petaling Jaya
Selangor Darul Ehsan Malaysia
Tel: 603 – 7955 2922
Fax: 603 – 7955 2933
e-mail: info@pikom.org.my

Multimedia Development Corp

Website: www.mdc.com.my

Philippines

Philippine Computer Society

Unit 263 Dela Rosa Condominium
Dela Rosa St, Makati City
Fax: (63 2) 894-4325
E-mail: secretariat@pcs-it.org
Website: www.pcs-it.org

Information Technology Association of the Philippines

22/F, PCI Equitable Tower
ADB Avenue, cor. Poveda St
Ortigas Center, Pasig City
Tel: (63 2) 635-3737
Fax: (63 2)635-3738
Website: www.itaphil.org

Philippine Software Industry Association, Inc

C/o 15th floor, Export Bank Plaza, sen. Gil Puyat
Cor. Chino Roces Avenue, Makati City
Tel: (63 2) 886-1888
Fax: (63 2) 886-1898

Philippine Association of Data Entry Corporations (PADEC)

C/o JITSE Phil Foundation
Penthouse, Prince Building
117 Rada St. Legaspi Village, Makati City
Tel: (63 2) 813-6398/817-8668
Fax: (63 2) 813-6397
E-mail: petef@mailstation.net

Singapore

Singapore Infocomm Technology Federation (SITF)

SITF House
55/55A Neil Road
Singapore 088892
Tel: 65 – 6325 9700
Fax: 65 – 6325 4993
e-mail: info@sitf.org.sg
Website: www.sitf.org.sg

Infocomm Development Authority of Singapore

8 Temasek Boulevard
#14-00 Suntec Tower 3
Singapore 038988
Tel: 65 – 6211 0888
Fax: 65 – 6211 2222
e-mail: info@ida.gov.sg
Website: www.ida.gov.sg

Thailand

The Association of Thai Software Industry

Tel: 66 - 2583 9992, 2962 2900
Website: www.atsi.or.th

Association of Thai Computer Industry

6th Floor, Phayathai Plaza
128 Phayathai Road
Bangkok 10400
Tel: 66 – 2 216 5862
Fax: 66 – 2 216 5867
Website: www.atci.or.th

Vietnam

Vietnam Association of Information Processing (VAIP)

1 Han Thuyen
Hanoi
Tel: 84 – 4 8211 725
Fax: 84 – 4 8211 708
Website: www.vaip.org

Vietnam Software Association (VINASA)

Room 303, Hanoi Software Technology Center
2 Chua Boc St
Hanoi
Tel: 84 – 4 572 9745
Fax: 84 – 4 572 9747
Website: www.vinasa.org

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156 A. Quan Thanh St

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Tel: 84 – 4 716 4855

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Mechanical Engineering

Indonesia

Association of Metalwork and Machinery

Jalan Rawa Buaya 6
 Jakarta 11740
 Tel: 62 – 21 5401188
 Fax: 62 – 21 6191739
 e-mail: aspepg@indosat.net.id

Association of Indonesian Machine Tool Industries

Sentra Mulia Building
 9th Floor, Suite 901
 Jalan H.R. Rasuna Said
 Kav. X-6 No. 8
 Jakarta 12940
 Tel: 62 – 21 5229390
 Fax: 62 – 21 2525069
 E-mail: asimp@hotmail.com

Malaysia

Federation of Malaysian Foundry & Engineering Industries Associations (FOMFEIA)

8 Jalan 1 – 77B
 55100 Kuala Lumpur
 Tel: 60 – 2141 8843
 Fax: 60 – 2142 1384
 E-mail: webmaster@fomfeia.org.my
 Website: www.fomfeia.org.my

Malaysian Mould & Die Association (MMADA)

e-mail: mmada@tm.net.my
 Website: www.mmada.org

Singapore

Metal, Machinery & Engineering (MME) Industry Group

Singapore Manufacturers Federation
 The Enterprise # 02-02
 No 1 Science Centre Road
 Singapore 609077
 Tel: 65 – 6826 3039
 Fax: 65 – 6822 8323
 Website: www.smafederation.org.sg

Automation Technology Industry Group

Singapore Manufacturers Federation
 The Enterprise # 02-02
 No 1 Science Centre Road
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 Tel: 65 – 6826 3032
 Fax: 65 – 6822 8323
 Website: www.smafederation.org.sg

Singapore Industrial Automation Association (SIAA)

71 Ubi Crescent # 06-06 Excalibur Centre
 408571 Singapore
 e-mail: secretariat@siaa.org
 Website: www.eSIAA.com

Singapore Precision Engineering and Tooling Association (SPETA)

114 Balestier Road
 Singapore 329679
 Tel: 65 – 6291 6430
 Fax: 65 – 6292 4517
 e-mail: speta3d@singnet.com.sg
 Website: www.speta.org

Thailand

Agricultural Machinery Manufacturers Industry Club

C/o Federation of Thai Industries
 Queen Sirikit National Convention Center
 Zone C, 4th Floor
 60 Rachadipesek Road
 Bangkok 10110
 Tel: 66 - 229 4255
 Fax: 66 - 229 4941
 Website: www.fti.or.th/nfti/group/thai/g01/agriculture-index.html

The Air Conditioning and Refrigeration Industry Club

C/o Federation of Thai Industries

The Industrial Machinery Industry Club

C/o Federation of Thai Industries

The Machinery & Metal Work Industry Club

C/o Federation of Thai Industries

Tourism

Indonesia

Indonesian Hotel and Restaurant Association (IHRA)

Jl. R.P. Soeroso No 27 GHI
Jakarta Pusat 10350
Tel: 62 – 21 310 2922
Fax: 62 – 21 3190 7407
e-mail: phri-bpp@ihra.co.id
Website: www.ihra.co.id

Indonesian Tourist Promotion Office

Tel: 2 – 25 37 7620
Fax: 2 – 25 37 7621

Malaysia

Malaysia Association of Tours and Travel Agents

11 Jalan 1/76 Desa Pandan
55100 Kuala Lumpur
Tel: 603 – 9287 6881
Fax: 603 – 9287 6880
e-mail: admin@matta.org.my
Website: www.matta.org.my

Malaysian Association of Convention & Exhibition

Organisers & Suppliers (MACEOS)
C/0 78 Jalan SS22/21
Damansara Jaya
47400 Petaling Jaya Selangor
Tel: 603 – 7727 2616
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Malaysian Association of Hotel Owners

21st Menara Tun Razak
Jalan Raja Laut
50350 Kuala Lumpur
Tel: 603 – 2691 4644
Fax: 603 – 2691 2918
e-mail: maho@po.jaring.my

Malaysian Association of Hotels

C5-3 Wisma MAH Jalan Ampang Utama 1/1
One Ampang Avenue
68000 Ampang Kuala Lumpur
Tel: 603 – 4251 8477
Fax: 603 – 4252 8477
e-mail: mahotel@po.jaring.my
Website: www.hotels.org.my

Malaysian Tourism Promotion Board

17th Floor, Menara Dato'Onn
Putra World Trade Center
45 Jalan Tun Islamail
50 480 Kuala Lumpur
Tel: 603 – 2693 5188
Fax: 603 – 2693 5884
Website: www.tourism.gov.my

Philippines

Department of Tourism

DOT Building, T.M. Kalaw Street
Agrifina Circle, Rizal Park
Manila 10004
Tel: 632 – 523 8411
Fax: 632 – 521 7374
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Philippine Travel Agencies Association

Secretariat Building PICC, CCP Cplx
Roxas Boulevard, Pasay City
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Philippine Tourism Authority

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Tel: 632 – 524 7141
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Website: www.philtourism.com

Singapore

Singapore Tourism Board:

Tourism Court
1 Orchard Spring Lane
Singapore 247729
Tel: 65 – 6736 6622
Fax: 65 – 6736 9423
Website: www.stb.com.sg

Singapore Hotel Association

21 Bukit Batok Street 22
Singapore 659589
Tel: 65 – 641 53588
e-mail: secretarial@sha.org.sg
Website: www.sha.org.sg

National Association of Travel Agents of Singapore (NATAS)

133 New Bridge Road # 24-08
Chinatown Point
Singapore 059413
Tel: 65 – 6534 0187
Fax: 65 – 6534 4726
Website: www.natas.com.sg

Thailand

Tourism Authority of Thailand (TAT)

1600 New Phetburi Road

Makkasan

Rajatevee

Bangkok 10310

Tel: 66 – 2250 5500

Fax: 66 – 2250 5511

e-mail: center@tat.or.th

Website: www.tourismthailand.org

Vietnam

Vietnam Association of Tourism

7 Dao Duy Anh

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Vietnam National Administration of Tourism (VNAT)

80 Quan Su St.

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Hanoi

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Fax: 84 – 4 942 4115

e-mail: vnata@vietnam-tourism.com

Website: www.vietnamtourism.com

Electrical / Electronics

Indonesia

Association of Indonesia Electric Industries (APPI)

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Jakarta 10310
Tel: 62-21-336070
Fax: 62-21-3142090

Association of Electronic & Electrical Home Appliances Industries of Indonesia

Sasana Kriya Building (Teratai Room) 2nd Floor,
Talan Griya Agung No 77,
Jakarta 14350
Tel: 62-21-6404253
Fax: 62-21-6404253

Indonesian Electric Cable Manufacturers Association (ADKABEL)

Ketapang Indah, Blok B2/32, Jalan K.H. Zainul Arifin,
Jakarta 11140
Tel: 62-21-6341113 / 6341036
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Indonesian Telecommunication Association

Graha Citra Caraka, Gedung PT. Telkom
Jalan Jenderal Gatot Subroto, Kav. 52,
Jakarta Selatan
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Malaysia

Malaysian Electrical and Electronics Industry Group C/o Federation of Malaysian Manufacturers

Wisma FMM
No. 3 Persiaran Dagang, PJU, Bandar Sri Damansara
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Association of Computer & Multimedia Industry Malaysia (PIKOM)

1107, Block B Phileo Damansara II,
No. 15 Jalan 16/11
46350 Petaling Jaya
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Email: info@pikom.org.my
Website: www.pikom.org.my

The Electrical & Electronic Association of Malaysia

Tel: 9221 2091
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Email: teeam@po.jaring.my
Website: www.teeam.com

The Malaysian Electric Cable & Wires Association (MECWA)

Tel: 5634 0294
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Malaysian National Computer Confederation

Damansara Intan
1 Jalan SS20/27
47400 Petaling Jaya
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Email: info@mnc.com.my
Website: www.mnc.com.my

Malaysian Electrical Appliances Industry Group (MEAIG)

C/o Federation of Malaysian Manufacturers (FMM)
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Philippine Association of Electrical Industries

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Philippine Electrical Electronics & Allied Industries Federation

3rd Floor
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Thailand**The Electrical and Electronics Industry Club**

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