

21. **DIRECTORS' REPORT**

(Prepared for inclusion in this Prospectus)



**CYL CORPORATION BERHAD**

(Company No. 516143-V)  
(Incorporated in Malaysia under the Companies Act, 1965)

**Registered Office:**

Level 14, Uptown 1  
No. 1 Jalan SS21/58  
Damansara Uptown  
47400 Petaling Jaya

25 February 2003

The Shareholders  
CYL Corporation Berhad

Dear Sirs

On behalf of the Directors of CYL Corporation Berhad ("CYL"), I report after due enquiry that during the period from 31 August 2002 (being the date to which the last audited accounts of CYL and its subsidiary ("Group") have been made up) to 14 February 2003 (being a date not earlier than fourteen (14) days before the issue of this Prospectus):

- (a) the business of the Group has, in the opinion of the Directors, been satisfactorily maintained;
- (b) in the opinion of the Directors, no circumstances have arisen which have adversely affected the trading or the values of the assets of the Group;
- (c) the current assets of the Group appear in the books at values which are believed to be realisable in the ordinary course of business;
- (d) there are no contingent liabilities by reason of any guarantees or indemnities given by the Group; and
- (e) save as disclosed in this Prospectus, there have been no changes in the published reserves nor any unusual factors affecting the profit of the Group.

Yours faithfully  
for and on behalf of the Board of Directors  
**CYL Corporation Berhad**

A handwritten signature in black ink, appearing to read 'Chen Yat Lee'.

Chen Yat Lee  
Managing Director

## 22. INDEPENDENT INDUSTRY ASSESSMENT REPORT

(Prepared for inclusion in this Prospectus)



**VITAL FACTOR CONSULTING**  
Creating Winning Business Solutions

**Vital Factor Consulting Sdn. Bhd.**  
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Tel (603) 7728 0248  
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20<sup>th</sup> February 2003

The Board of Directors  
CYL Corporation Berhad  
Level 14, Uptown 1  
1, Jalan SS21/58  
Damansara Uptown  
47400 Petaling Jaya  
Selangor Darul Ehsan

Dear Sir/Madam

### **Plastic Blow and Injection Moulding Industry**

The following is an Independent Assessment of the Plastic Blow and Injection Moulding Industry in Malaysia prepared by Vital Factor Consulting Sdn Bhd for inclusion in the Prospectus of CYL Corporation Berhad and its subsidiary Perusahaan Jaya Plastik (M) Sdn Bhd (herein refer to as CYL Group) in relation to its listing on the Second Board of the Kuala Lumpur Stock Exchange.

#### **1. BACKGROUND**

- CYL Group is principally involved in the manufacturing of Plastic Blow and Injection Moulded products. Products manufactured are mainly Plastic containers and caps. Some examples include containers for toiletries, household care products, lubricants, food and beverages, and pharmaceutical products.
- This report will focus on the manufacture of Plastic containers and caps for consumer and industrial products through the processes of Blow and Injection Moulding.

#### **2. INDUSTRY OVERVIEW AND STRUCTURE**

##### **2.1 Overall Plastics Industry**

- According to the Malaysian Industrial Development Authority, the Manufacture of Plastic Blow and Injection Moulded products are categorised under the umbrella of the Plastics Industry.
- The overall Plastics Industry in Malaysia is large based on the following observations for 2001:

- Turnover	:	RM8.5 billion
- Export	:	RM 3.8 billion
- Aggregate Investments	:	RM 4 billion

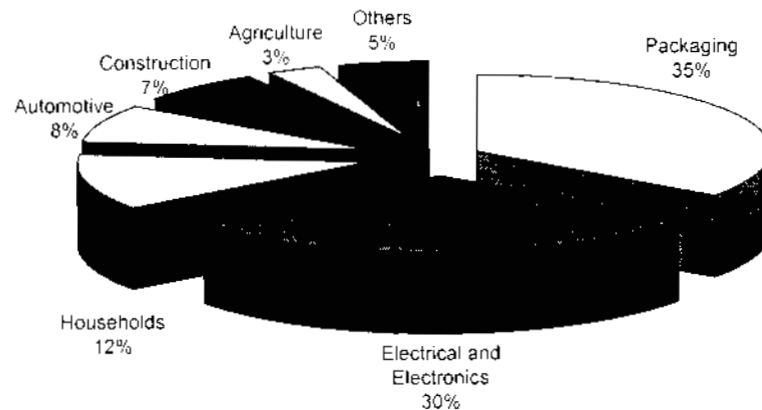
(Source: Malaysian Plastics Manufacturers Association)

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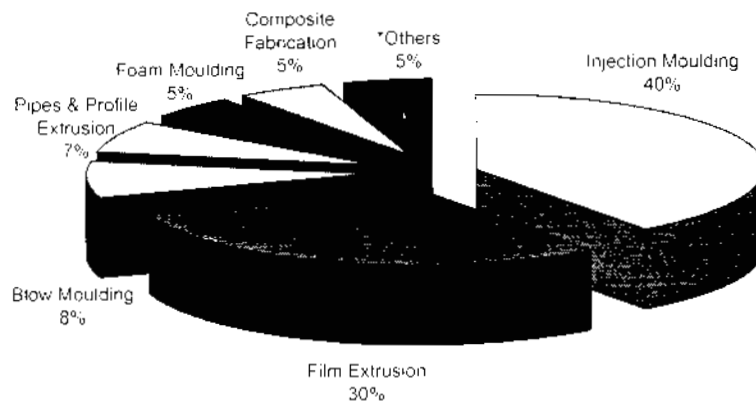
- User industries for Plastic products are segmented as follows:



Source: Malaysian Plastics Manufacturers Association

**Figure 1 End-User Industries of Plastic Products in Malaysia - 2001**

- Generally, the Plastics Industry can be segmented by the different types of processes as depicted below:



\*Others include lamination, calendaring, yarn extrusion, rotational moulding and sheet extrusion. Source: Malaysian Plastics Manufacturers Association

**Figure 2 Plastics Industry Segmentation by Processes based on Production Output - 2001**

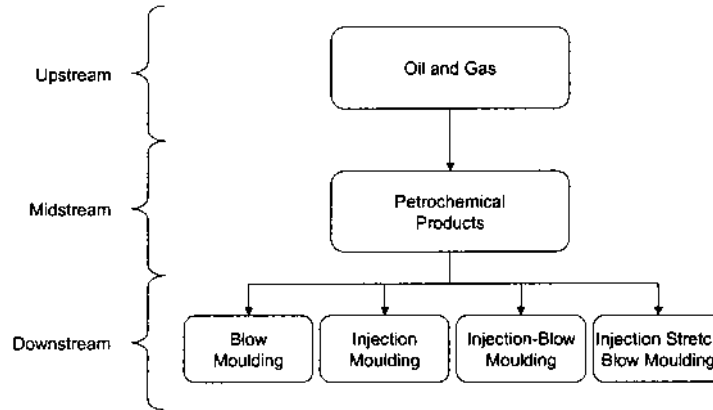
- In 2001, Plastic Injection and Blow Moulding accounted for approximately 40% and 8% respectively of all Plastic products manufactured (Source: Malaysian Plastics Manufacturers Association).
- The process of Plastic Blow and Injection Moulding also includes a hybrid process of Blow-Injection Moulding, particularly used for making Polyethylene Terephthalate (PET) containers, for example used in carbonated drinks. (In this document, reference to Blow and Injection Moulding would also include Blow-Injection Moulding)



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### 2.2 Vertical Structure



**Figure 3 Vertical Structure of the Plastic Blow and Injection Moulding Industry**

- The Plastic Blow and Injection Moulding Industry can be segmented in the following manner:
  - Upstream;
  - Midstream;
  - Downstream.
- The business of CYL Group is within the downstream activities, encompassing:
  - Manufacture of Plastic Blow Moulded products;
  - Manufacture of Plastic Injection Moulded products;
  - Manufacture of Plastic Blow-Injection Moulded products.

#### Upstream

- Upstream activities primarily involve the exploration and production of crude oil and gas.
- As at 1<sup>st</sup> of January 2001, Malaysia has about 3.4 billion barrels of crude oil reserves and about 84.4 trillion standard cubic feet of gas reserves, placing the country at 27<sup>th</sup> and 12<sup>th</sup> places respectively in terms of world ranking (Source: *Petroleum Nasional Berhad*).

#### Midstream

- Midstream activities comprise the refining of petrochemicals including Plastic resins, methanol, acetic acid, acrylic acid, oxo-alcohols, aromatics, purified terephthalic acid, fatty acids and fatty alcohols.
- At the end of 2000, the proposed investment in Malaysia's petrochemical sector alone totalled RM34.25 billion (Source: *Malaysian Industrial Development Authority*).

#### Downstream

- Plastic Blow Moulding, Injection Moulding and Injection-Blow Moulding are part of the downstream activities that converts the mid-stream raw materials to final Plastic containers and caps for the packaging industry.

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**3. GOVERNMENT LEGISLATION, POLICIES AND INCENTIVES****3.1 Government Regulations**

- Apart from the normal manufacturing licence, there are no material government laws, regulations and policies that may impede on the performance and growth of operators within a free enterprise environment.
- A manufacturing licence under the Industrial Coordination Act, 1975 is mandatory for companies with shareholders' funds of RM2.5 million or above or engaging 75 or more full-time employees (*Source: Malaysian Industrial Development Authority*).

**3.2 Government Incentives**

- Reinvestment Allowance is part of the Malaysian Government's incentives to promote the manufacturing industry. The CYL Group is currently enjoying the benefits of Reinvestment Allowance.
- Generally, eligible manufacturers of Reinvestment Allowance must have been in operation for at least 12 months and the capital expenditure must be incurred for the expansion of production capacity, modernisation and upgrade of production facilities, diversification into related products, and automation of production facilities (*Source: Malaysian Industrial Development Authority*).

**3.3 Environmental Regulations**

- The disposal of wastes and sludge resulting from the manufacture of Plastic Blow and Injection Moulding will fall under the Environmental Quality (Scheduled Wastes) Regulations 1989 (*Source: Environmental Quality Act and Regulations*).

**4. BARRIERS TO ENTRY****4.1 Capital and Set-up Costs**

- The barriers to entry based on capital requirements excluding land and building are relatively low.
- This is predicated by the fact that in 2001, there were approximately 100 and 500 operators in the Plastic Blow and Injection Moulding Industry respectively (*Source: Malaysian Plastics Manufacturers Association*).
- On average, the capital cost of setting-up a small-sized manufacturing plant would be approximately RM700,000 (excluding land and building) broken down as follows:

	Set-up Cost (RM)
3 Production Lines	400,000
Supporting Machinery and Facilities	200,000
Working Capital	100,000
<b>TOTAL</b>	<b>700,000</b>

(*Source: CYL Group*)**Figure 4 Set-up Costs for a Small Manufacturing Plant**

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- At this entry level, production would be semi-automated and dependent on labour for manual processing. Production of this small sized manufacturing plant would also be limited and would probably generate turnover of approximately RM1 million per year.
- At this level, the operation would not be cost competitive, as it has not reached a large enough size to obtain economies of scale.
- An operation of such small size would not be able to meet the stringent demands of multinational corporations to be able to meet their needs for capacity, facilities, quality, prompt delivery and total solutions incorporating colour printing for retail.

**4.2 Mould and Die Design and Fabrication**

- The level of technical skills required in the design and fabrication of mould and die would form some barriers to entry into the Plastic Blow and Injection Moulding Industry. Although this process can be sub-contracted to external suppliers, it is important to have this technical expertise in-house.
- One of the qualities of the output from Plastic Blow and Injection Moulding is dependent on the actual mould and die. From that perspective, it is critical to ensure that key dependencies such as design and fabrication processes are undertaken in-house.
- The design of the mould and die will also have an effect on minimising wastage. Thus, a precise and high quality mould and die will enhance and increase the productivity and efficiency of output.
- Mould and die play a critical supporting role to the Plastic Blow and Injection Moulding Industry and operators with their own mould and die facilities will be able to add value to the customer by providing the front-end of the mould and die design and fabrication component.

**4.3 Skills and Experience**

- There is a certain level of technical expertise and experience within the manufacturing of Plastic Blow and Injection Moulded products. This would form some barriers to entry for new entrants.
- Some of the areas that require technical skills and experience include:
  - mixture of different types of resins, additives and pigmentation to achieve the desired properties, durability, resistance to corrosion, colour and strengths of containers;
  - technical knowledge of processes such as utilising the latest and advance technology to produce high value products;
  - processing techniques to achieve the desired surface effects such as gloss, matt, shiny and other types of appearances;
  - increase efficiency and volume of production while maintaining quality by continually improving on processes;
  - the ability to meet the needs of globally reputable multinational corporations customers by producing the Plastic Blow and Injection Moulded products that adhere to the specifications of these customers.

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**4.4 Proven Track Record**

- Track record is one of the critical success factors for operators within the industry. A new entrant without any track record would find it very difficult to win customers. This would pose some barriers to entry for new entrants.
- Most customers would prefer to deal with operators that have a proven track record. More importantly, other customers in similar end-user industries would also serve as a critical reference site to win new customers.
- It is also common for a new supplier to undergo a gestation period before regular firm orders are given by customers. This is a particularly common practice among multinational corporations where suppliers go through a qualifying process that can take from six months to a year before the first order is given. Thus, new entrant must have sufficient financial resources to sustain the business until such time sufficient volume of work is available.

**5. BARRIERS TO EXIT**

- Barriers to exit for the manufacturing of Plastic Blow and Injection Moulding Industry are **low**. This is because the equipment and machinery can be sold to other operators within the same industry. Within the industry of Plastic Blow and Injection Moulding, there are approximately 100 and 500 operators respectively.

**6. SUPPLY AND SUPPLY DEPENDENCIES**

- The main raw materials used in the production of Plastic Blow and Injection Moulding is plastic resin. Some of the types of resin used include:
  - High Density Polyethylene (HDPE);
  - Low Density Polyethylene (LDPE);
  - Low Linear Density Polyethylene (LLDPE);
  - Polyvinyl Chloride (PVC);
  - Polypropylene (PP);
  - Polystyrene (PS);
  - Acrylic Styrene (AS);
  - Acrylonitrile Butadiene Styrene (ABS);
  - Polyethylene Terephthalate (PET).
- The bulk of the raw materials used for Plastic Blow and Injection Moulding are HDPE, LDPE, LLDPE, PS, PP and PVC while those for Injection Stretch Moulding is PET.
- In 2001, annual production capacity for all types of Plastic resin is more than 2 million tonnes.

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- In 2001, production capacity for some of the Plastic resins were as follows:

PLASTIC RESINS	CAPACITY
Polypropylene	410,000 tonnes
Polyethylene	1,000,000 tonnes
Polystyrene	220,500 tonnes
Polyvinylchloride	230,000 tonnes
Acrylonitrile Butadiene Styrene	170,000 tonnes
Polyethylene Terephthalate (PET)	120,000 tonnes

*Source: Malaysian Plastics Manufacturers Association and Malaysian Industrial Development Authority*

**Figure 5 Manufacturing Capacity of Plastic Resins in Malaysia**

- In 2001, the sales value of Synthetic Resins, Plastic Materials and Man-made Fibre except glass declined by 7.1% to RM5.3 billion. Between 1997 and 2001, sales value of Synthetic Resins, Plastic Materials and Man-made Fibre except glass grew at an average annual rate of 15.0% (*Source: Monthly Manufacturing Statistics, July 2002, Department of Statistics*).
- In 2001, the production quantity of Polystyrene declined by 8.9% to reach 145,783 tonnes. Production quantity of Polystyrene grew at an average annual rate of 1.1% between 1997 and 2001 (*Source: Department of Statistics*).
- In 2001, the import value of Polymer of Styrene in primary forms dropped by 33.3%. However overall, import value of Polymer of Styrene in primary forms grew at an average annual rate of 6.1% between 1997 and 2001 (*Source: Monthly External Statistics December 1998, 1999, 2000 and 2001, Department of Statistics Malaysia*).
- In 2001, the production quantity of Polyethylene grew by 46.9% to reach 846,724 tonnes. Production quantity of Polyethylene grew at an average annual rate of 14.2% between 1999 and 2001 (*Source: Department of Statistics*).
- In 2001, the import value of Polymer of Ethylene in primary forms dropped marginally by 1.7%. The import value of Polymer of Ethylene in primary forms grew at an average annual rate of approximately 3% between 1997 and 2001 (*Source: Monthly External Statistics December 1998, 1999, 2000 and 2001, Department of Statistics Malaysia*).
- In 2001, the import value of HDPE resin declined by 1.0% to RM299.5 million. Import value of HDPE resin grew at an average annual rate of 1.7% between 1997 and 2001 (*Source: Department of Statistics*).
- Import value of LDPE resin increased by 4.7% to RM299.3 million in 2001. Between 1997 and 2001, the import value of LDPE resin declined at an average annual rate of 2.1% (*Source: Department of Statistics*).



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**7. INDUSTRY'S RELIANCE ON AND VULNERABILITY TO IMPORTS**

- The Plastic Blow and Injection Moulding Industry is somewhat reliant on imports of raw materials as indicated by the substantial amount of imports of various raw materials.
- However, the Plastic Blow and Injection Moulding Industry is not vulnerable to imports because of the following factors:
  - many of the raw materials imported are also available locally;
  - the raw materials are commodity items and many manufacturers source raw materials globally for reasons of obtaining the lowest possible cost, not for reasons of dependency on any one or small group of suppliers;
  - globally there are many suppliers of the raw materials, thus local manufacturers are not vulnerable to any one or small group of suppliers.

**8. DEMAND AND DEMAND DEPENDENCIES**

- The applications of Plastic Blow and Injection Moulded products for containers and caps are extensive and diverse. Some of the major end-user industries include consumer and industrial products in liquid, cream, granules and solid form:
  - **Toiletries and household care** products like hair cream, shampoos, bath foams, liquid soap, dishwashing detergents, floor and window cleaning products, and laundry detergents and softeners;
  - **Petroleum based** products such as lubricating oils and grease;
  - **Food and beverages** such as milk and milk based drinks, carbonated drinks, fruit juices, margarine, cooking oil and coffee (covers);
  - **Pharmaceutical** products such as drugs and medicines for topical and intravenous applications, and consumption;
  - **Industrial applications** for many types of chemicals and other liquids, creams, granules and solids.
- The diversity in end-user industries especially within the consumer-based sectors will ensure continuing demand and opportunities for Plastic Blow and Injection Moulding operators.
- The growing population base, increasing demand for consumer goods and increased manufacturing and export activities in end-user industries will provide sustainability and growth to the Plastic Blow and Injection Moulding Industry:
  - Between 1995 and 2001, the population of Malaysia grew by an average annual rate of **2.5%** to reach 24.0 million in 2001 (*Source: Economic Report 2002/2003, Ministry of Finance*);
  - Between 1993/94 and 1998/99, the average household expenditure of toiletries and personal care goods in Peninsular Malaysia grew by an average annual rate of **24.2% and 20.0%** respectively (*Source: Report on Household Expenditure Survey 1993/94 and 1998/99, Department of Statistics*);

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- Gross Domestic Product of the Wholesale and Retail, Hotels and Restaurant Sector grew from RM41.5 billion in 1997 to RM47.9 billion in 2001, representing an average annual growth rate of 3.6% between 1997 and 2001 (*Source: Monthly Statistical Bulletin July 2002, Bank Negara Malaysia*);
- Gross Domestic Product of the Manufacturing Sector grew from RM80.0 billion in 1997 to RM102.2 billion in 2001, representing an average annual growth rate of 6.3% between 1997 and 2001 (*Source: Monthly Statistical Bulletin July 2002, Bank Negara Malaysia*);
- Gross Exports of Food grew from RM3.7 billion in 1997 to RM4.6 billion in 2001, representing an average annual growth rate of 5.7% between 1997 and 2001 (*Source: Monthly Statistical Bulletin July 2002, Bank Negara Malaysia*).

**9. COMPETITIVE NATURE AND INTENSITY OF THE INDUSTRY**

- Operators in the Plastic Blow and Injection Moulded Industry face **normal** competitive conditions.
- As with most free enterprise environments, competition is based on a number of factors, including:
  - Quality products and services;
  - Cost competitiveness;
  - Prompt delivery schedules;
  - Manufacturing capabilities and capacities;
  - Customer convenience.
- Generally, competition among operators in the Plastic Blow and Injection Moulding Industry within Malaysia is **intense**. This is based on the following observations:
  - In 2001, there were approximately 100 and 500 manufacturers of Plastic Blow and Injection Moulding products respectively;
  - In 2001, there were approximately 1,300 manufacturers within the total Plastics Industry, which due to their involvement in the Plastics Industry could pose as potential competitors within the Plastic Blow and Injection Moulding sector.  
(*Source: Malaysian Plastics Manufacturers Association*)
- Thus, the sheer number of operators in the market contributes to the intensity of competition.
- However intensity of competition is also dependent on the product categories as there is a wide proliferation of Plastic Blow and Injection Moulded products for a diverse range of industries including, among many others:
  - packaging (containers and caps);
  - electrical and electronics;
  - telecommunications;
  - office automation;
  - personal computers;
  - medical and test instruments;
  - automotive;
  - toys;

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- home appliances;
- kitchenware.
- Operators that are able to provide total solutions by having integrated manufacturing capabilities would significantly differentiate themselves from other operators. As an example in the Plastic container manufacturing sector, total solutions would incorporate the following capabilities, processes and facilities:
  - mould and die design and fabrication;
  - blow moulding;
  - injection moulding;
  - blow-injection moulding;
  - manufacturing of caps;
  - labelling;
  - colour printing for retail.
- In addition, size of operation would also be a significant differentiation as larger manufacturers have the following:
  - economies of scale to be cost competitive;
  - larger capacity to meet large quantity demand especially from multinational corporations;
  - larger range of products to meet diverse requirements of customers to provide a one-stop-shop for all containers and caps;
  - increased flexibility to cater to peaks and troughs in production to meet customers' seasonal demand cycles.

**Mitigating Factors**

- Although generally competition is intense, the large local and export market sizes combined with various areas of specialisations and each individual operator's competitive advantages, would all help to somewhat mitigate the full impact of the intense competition.

**10. KEY PLAYERS IN THE INDUSTRY**

- There are many operators in the Plastic Blow and Injection Moulding Industry in Malaysia. Some of the major operators within the industry are as follows (non-exhaustive and not in any order):
  - Perusahaan Jaya Plastik (M) Sdn Bhd;
  - Yong Kam Fook Plastic Industries Bhd;
  - Plasticentric (M) Sdn Bhd;
  - Lam Seng Plastic Industries Sdn Bhd;
  - Lee Huat Plastic Industries Sdn Bhd;
  - Takaso Rubber Products Sdn Bhd;
  - Southtech (M) Sdn Bhd;
  - Raya Plastik Industries Sdn Bhd;
  - Ralco Corporation Berhad;
  - Polyrak Industries Sdn Bhd;
  - Likom Plastic Industries Sdn Bhd;
  - Musa & Rahman Plastic Industries Sdn Bhd;
  - Multi-Pet Sdn Bhd;
  - Rex Plastics (Malaysia) Sdn Bhd.
- The above companies are involved in both Plastic Blow and Injection Moulding processes.

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**11. INDUSTRY OUTLOOK AND GROWTH FORECAST****11.1 Industry Prognosis**

- The outlook for the Plastic Blow and Injection Moulding Industry is **favourable**.
- The Plastic Blow and Injection Moulding Industry is forecasted to grow at approximately **6% to 8%** per annum for the next five years.

**11.2 Supporting Factors for Positive Growth**

- Overall the Plastic Blow and Injection Moulding Industry experienced growth over the last five years. This trend includes 2001 figures, where Malaysia and many global economies experienced a slowdown.
- However, in line with this decline in 2001, performances of the Plastic Blow and Injection Moulding Industry and some of its end-user industries were less robust as compared to the previous year:
  - In terms of the manufacture of Blow and Injection Moulded containers, generally performance in 2001 continued to see positive growth, albeit lower growth;
  - Some of the consumer-based end-user industries experienced decline in 2001.
- The following factors and observations in local production, exports and end-user industry performances provide support for the industry prognosis and growth forecast:

**Local Production of Blow and Injection Moulded Products**

- Between 1997 and 2001, the average annual growth rate of Sales Value of the Manufacture of Plastic products not elsewhere classified was 14.4% (*Note: This is the section that incorporates, among others, Blow and Injection Moulded products*).

**Plastic Bottles**

- Between 1997 and 2001, the average annual growth rate of **Production Quantity** of Plastic Bottles was 11.5%. In 2001, Production Quantity of Plastic Bottles grew by 11.6% amounting to 74,897 tonnes;
- Between 1997 and 2001, the average annual growth rate of **Sales Quantity** of Plastic Bottles was 19.3%. In 2001, Sales Quantity of Plastic Bottles fell by 4.8% amounting to 74,520 tonnes;
- Between 1997 and 2001, the average annual growth rate of **Sales Value** of Plastic Bottles was 1.6%. In 2001, Sales Value of Plastic Bottles increased by 12.9% amounting to RM201.6 million.

**Household Plastic Containers**

- Between 1997 and 2001, the average annual growth rate of **Production Quantity** of Household Plastic Containers was 11.5%. In 2001, Production Quantity of Household Plastic Containers grew by 11.6% amounting to 12,352 tonnes;

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- Between 1997 and 2001, the average annual growth rate of **Sales Quantity** of Household Plastic Containers was 46.0%. In 2001, Sales Quantity of Household Plastic Containers fell by 5.7% amounting to 13,104 tonnes;
- Between 1997 and 2001, the average annual growth rate of **Sales Value** of Household Plastic Containers was 32.0%. In 2001, Sales Value of Household Plastic Containers increased by 3.8% amounting to RM68.0 million.

**Industrial Plastic Containers**

- Between 1997 and 2001, the average annual growth rate of **Production Quantity** of Industrial Plastic Containers was 48.1%. In 2001, Production Quantity of Industrial Plastic Containers grew by 72.0% amounting to 27,594 tonnes;
- Between 1997 and 2001, the average annual growth rate of **Sales Quantity** of Industrial Plastic Containers was 65.9%. In 2001, Sales Quantity of Industrial Plastic Containers grew by 37.4% amounting to 26,279 tonnes;
- Between 1997 and 2001, the average annual growth rate of **Sales Value** of Industrial Plastic Containers was 44.6%. In 2001, Sales Value of Industrial Plastic Containers increased by 52.3% amounting to RM143.0 million.

**Other Plastic containers except bags, bottles and household wares**

- In 2001, **Production Quantity** of Other Plastic containers except bags, bottles and household wares increased by 1.0% amounting to 343,490 tonnes;
- In 2001, **Sales Quantity** of Other Plastic containers except bags, bottles and household wares increased by 6.4% amounting to 325,906 tonnes;
- In 2001, **Sales Value** of Other Plastic containers except bags, bottles and household wares increased by 4.9% amounting to RM78.9 million.

*(Source: Department of Statistics)*

**11.3 Performance of End-user Industries**

- As a large part of the growth of the Plastic Blow and Injection Moulding Industry is also dependent on the performance of its end-user industries, the following is an analysis of performances for some of these sectors:

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**Local Production**

	<b>Average Annual Growth Rate Between 1997 and 2001 (%)</b>	<b>Growth Rate in 2001 (%)</b>	<b>Amount in 2001 (tonnes/litres/RM)</b>
<b>Liquid Soap for Domestic Use</b>			
Production Quantity	9.1	3.4	26,200 tonnes
Sales Quantity	13.5	26.8	33,317 tonnes
Sales Value	23.8	28.0	RM139.0 million
<b>Body Shampoo</b>			
Production Quantity	33.2	-1.8	11,523 tonnes
Sales Quantity	39.3	-2.7	6,203 tonnes
Sales Value	12.6	-0.9	RM34.4 million
<b>Shampoo</b>			
Production Quantity	5.0	-26.9	8,740 tonnes
Sales Quantity	9.7	-9.0	9,126 tonnes
Sales Value	-7.1	-17.6	RM47.1 million
<b>Soap and Cleaning Preparations</b>			
Sales Value	5.5	3.1	RM1.3 billion
<b>Dish Washing Liquid</b>			
Production Quantity	6.3	-8.8	12,635,000 litres
Sales Quantity	18.8	53.6	21,151,000 litre
Sales Value	27.2	72.3	RM67.9 million
<b>Fabric Softener</b>			
Production Quantity	9.9	9.9	16,502,000 litres
Sales Quantity	24.1	26.9	23,868,00 litres
Sales Value	30.9	28.1	RM57.1 million
<b>Multipurpose Cleaner (floor, toilet, etc)</b>			
Production Quantity	*20.0	-3.2	13,428,000 litres
Sales Quantity	8.7	-3.4	11,201,000 litres
Sales Value	12.6	-0.9	RM34.4 million
<b>Blended Lubricating Oil</b>			
Production Quantity	8.8	-11.6	132,295 tonnes
Sales Quantity	6.2	-14.5	126,711 tonnes
Sales Value	5.0	-7.5	RM425.8 million

\*Average Annual Growth Rate between 1998 and 2001  
(Source: Department of Statistics)

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- Between 1997 and 2001, the manufacture of miscellaneous products of petroleum and coal grew at an average annual rate of 6.5%. In 2001, the manufacture of miscellaneous products of petroleum and coal increased by 4.4% which amounted to RM696.6 million (*Source: Monthly Manufacturing Statistics July 2002, Department of Statistics*)
- Between 1997 and 2001, the sales of food grew at an average annual rate of 1.3%, which amounted to RM9.5 billion in 2001 (*Source: Economic Report 2001/2002 and 2002/2003, Ministry of Finance*);
- Between 1997 and 2001, the sales value of manufacture of other dairy products grew at an average annual rate of 1.7% to reach RM1.9 billion in 2001;
- Between 1997 and 2001, the production quantity of Milk increased at an average annual rate of 1.5% to reach 81,953 tonnes in 2001;
- Between 1997 and 2001, the sales value of manufacture of drugs and medicines increased at an average annual rate of 4.7% to reach RM414.1 million in 2001.

(*Source: Monthly Manufacturing Statistics July 2002, Department of Statistics*)

**Export Performance**

- Between 1997 and 2001, the export value of soap, cleansing and polishing preparations increased by an average annual rate of 10.0% which amounted to RM658.4 million in 2001;
- Between 1997 and 2001, the export value of petroleum products increased at an average annual rate of 28.1%, which amounted to RM7.6 billion in 2001;
- Between 1997 and 2001, the export value of residual petroleum products, not elsewhere classified and related materials increased at an average annual rate of approximately 6.0%, which amounted to RM145.4 million in 2001;
- Between 1997 and 2001, the export value of medicinal and pharmaceutical products grew at an average annual rate of 10.1% to reach RM298.2 million in 2001.

(*Source: Monthly External Trade Statistics December 1998 and 2001, Department of Statistics*)

**12. AREAS OF GROWTH AND OPPORTUNITIES****12.1 New Usage and Applications**

- New technologies, machineries and raw materials can help create new usage and applications for Plastic Blow and Injection Moulders. This will help to retain and increase usage of Plastic Blow and Injection Moulded products.
- One of the most successful examples is the use of Polyethylene Terephthalate (PET) where this material is used to manufacture bottles using a new process of Blow-Injection Moulding. This has found increased applications, especially within the beverages sector.

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22. **INDEPENDENT INDUSTRY ASSESSMENT REPORT (Cont'd)**

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- As such, continuous research and development in materials and technologies will provide opportunities for operators within the Plastic Blow and Injection Moulding Industry.

**12.2 Replacement for other Materials**

- Plastic containers have already replaced many containers made from glass, metal and paper. However, these types of packaging, especially within the retail sectors for consumer items continue to be in abundance.
- As such, growth opportunities exist to further convert containers and packaging made from metal, glass and paper to those of Plastic Blow and Injection Moulded containers.

**12.3 Trade Liberalisations and Implementation of Asean Free Trade Area (AFTA)**

- General trade liberalisation, especially the implementation of the AFTA could provide opportunities for operators within the Plastic Blow and Injection Moulding Industry.
- Although it is not economical to export empty Plastic containers, trade liberalisation could have the effect of enlarging the market size for the end-user industries.
- As an example, some multinational corporations and local companies could undertake manufacturing in Malaysia to service Asean countries for consumer products.
- This will increase the usage of Plastic Blow and Injection Moulded containers to benefit operators within the industry.

**13. THREATS AND RISKS ANALYSIS**

**13.1 Global Economic Slowdown**

- In 2001, the global economic slowdown, aggravated by the 11<sup>th</sup> September 2001 terrorist attacks on the United States (US) had adversely affected many local manufacturers that are dependent on export markets, particularly to the US.
- A prolonged slowdown in the global economy will have a negative impact on manufacturers within the Plastic Blow and Injection Moulding Industry as consumers cut down on their spending and thus reducing demand for consumer goods.

**Mitigating Factors**

- The Malaysian government and some of its trading partners have responded to the slowdown in the United States economy by adopting aggressive monetary and fiscal measures to stimulate their respective domestic demand. This will mitigate some of the impact of the economic slowdown until such time economic conditions improve.
- Manufacturers that are strong financially and have extensive and established distribution network, combined with a wide and diverse range of products would be better able to survive the impact of a global slowdown.



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22. **INDEPENDENT INDUSTRY ASSESSMENT REPORT (Cont'd)**

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**13.2 Use of Alternative Materials**

- There are substitute materials to Plastics, for example paper, glass and metal.
- As an example, many of the containers for non-carbonated drinks such as milk and juices, are paper-based.

**Mitigating Factors**

- The probability of other materials replacing Plastics is highly unlikely because of the low cost of Plastic resins, low cost of mass production, and versatility of Plastics.
- In reality, Plastic Blow and Injection Moulded containers have replaced many other types of materials like glass, metal and paper.
- Some examples include the increasing use of Plastic containers to replace paper-based containers for milk and juices.
- The current high reliance on Plastic containers would make it difficult to change to alternative materials.

**13.3 Global Environmental Concerns on Plastic Containers**

- Environmental concerns stemming from the non-biodegradability of Plastic containers have created increasing pressure on limiting such usage. As a result, this may impact on the demand for Plastic containers.
- While recycling and reusing continue to grow in popularity, most of the used polymer-based containers are disposed through landfills. There is a general assumption (rightly or wrongly) that wastes inside a landfill biodegrades, thus degradation of container wastes creates harmful liquid and gaseous by-products that could contaminate groundwater supplies and air, and threaten the ecological system.

**Mitigating Factors**

- There are not many viable alternatives to Plastic containers that can provide similar advantages in flexibility, strength, durability and cost competitiveness. As such, reduction in the use of Plastic containers in favour of other more environmentally friendly materials is not likely to be significant in the short to medium term.
- The environmental issue and concerns about Plastic containers are not new and have been around for a long time. This indicates that there is no immediate threat of a material drop in the use of Plastic containers.

**13.4 End-User Industries Moving to Low Cost Producing Countries**

- Many Malaysian companies as well as multinational corporations are relocating to lower cost producing countries, especially to China since its accession to the World Trade Organisation (WTO).
- This would have the impact of reducing demand for Plastic containers as the user industry base in Malaysia shrinks.

## 22. INDEPENDENT INDUSTRY ASSESSMENT REPORT (Cont'd)

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**Mitigating Factors**

- Operators within the Plastic Blow and Injection Moulding Industry can increase their value adding to encourage end-user industries to stay in Malaysia.
- As an example, operators can provide total solution, which includes sourcing contents, filling up the containers and shipping end-products to final destination countries. This way, manufacturers in Malaysia can be positioned as a total manufacturing and logistic hub for the region or globally.
- The Government has realised the importance of increasing value adding, and as such, has encouraged value adding in various forms including:
  - research and development;
  - original design manufacturing;
  - original brand manufacturing;
  - international procurement centre;
  - marketing and distribution.

*(Source: Second Industrial Master Plan 1996 – 2005, Ministry of International Trade and Industry)*

**13.5 Implementation of Asean Free Trade Area**

- The reduction of import duties to between 0% and 5% with the implementation of AFTA through Common Effective Preferential Tariff (CEPT) would make imports very competitive against locally manufactured products.
- CEPT is the mechanism by which tariffs on goods traded within the Asean region, which meet a 40% Asean content requirement, will be subjected to a reduction of the above-mentioned range of tariff by 2003 (2006 for Vietnam, 2008 for Laos and Myanmar).

**Mitigating Factors**

- It is not cost effective for empty Plastic containers to be imported into Malaysia because of logistic costs. As such, imports of Plastic containers are unlikely to be a major threat to local manufacturers.
- In addition, end-users would prefer to source their requirements from manufacturers that are in close proximity for convenience especially those with just-in-time requirements in manufacturing.
- Currently some of the plastic resins are subjected to 15% duty *(Source: Royal Customs and Excise)*. With the implementation of the AFTA and the subsequent reduction or removal of duties, it would compel local producers to be more cost competitive and imports will be cheaper. From this perspective, the implementation of AFTA would benefit local manufacturers within the Plastic Blow and Injection Moulding Industry.

**13.6 Fluctuations in Prices of Raw Materials**

- As Plastic resins are commodities, the cost of these commodities is subjected to fluctuations in world prices. In some situations, increases in the price of raw materials are not easily passed onto users. This could impact on margins or alternatively, if the increase in cost is passed onto users, the manufacturer may not be price competitive.

22. INDEPENDENT INDUSTRY ASSESSMENT REPORT (Cont'd)



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**Mitigating Factors**

- Manufacturers with strong financial strengths are able to hold stocks of these raw materials to cushion against fluctuations in prices.
- As these raw materials are commodities and therefore subjected to world prices, all manufacturers that use these materials are equally affected.

**14. MARKET SIZE**

- In 2001, the market size for the manufacture of all types of Blow Moulded products (not restricted to Plastic containers only) in Malaysia was estimated at **RM680 million** based on production .
- In 2001, the market size for the manufacture of all types of Injection Moulded products (not restricted to Plastic containers only) in Malaysia was estimated at **RM3.4 billion** based on production.  
(Source: Malaysian Plastics Manufacturers Association).

**15. MARKET POSITION AND SHARE**

- As there are many manufacturers in a relatively large market size for Plastic Blow and Injection Moulding Industry, the market share of CYL Group would be used to indicate its position within the industry.
- Based on CYL Group's revenue from Plastic Blow Moulded products amounting to RM31.5 million for the financial year ended 31 January 2002, the market share of the CYL Group is estimated at **5%** of the market size for all types of Plastic Blow Moulded products in Malaysia based on production.
- Based on CYL Group's revenue from Plastic Injection Moulded products amounting to RM12.8 million for the financial year ended 31 January 2002, the market share of the CYL Group is estimated at **0.4%** of the market size for all types of Plastic Injection Moulded products in Malaysia based on production.

Vital Factor Consulting Sdn Bhd has prepared this report in an independent and objective manner and has taken all reasonable consideration and care to ensure the accuracy and completeness of the report. It is our opinion that the report represents a true and fair assessment of the industry within the limitations of, among others, secondary statistics and information, and primary market research. Our assessment is for the overall industry and may not necessarily reflect the individual performance of any company. We do not take any responsibilities for the decisions or actions of the reader(s) of this document. This report should not be taken as a recommendation to buy or not to buy the shares of any company or companies.

Yours sincerely

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