

**11. INDEPENDENT ASSESSMENT OF THE MACHINERY AND EQUIPMENT INDUSTRY
FOCUSING ON PRECISION CLEANING MACHINES**
(Prepared for inclusion in the Prospectus)



VITAL FACTOR CONSULTING
Creating Winning Business Solutions

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21 OCT 2005

The Board of Directors
Flonic Hi-Tec Bhd
Lot 6, Solok Sultan Hishamuddin 6
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42000 Port Klang
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Dear Sirs/Madam

**Independent Assessment of the Machinery and Equipment Industry Focusing on
Precision Cleaning Machines**

The following is a summary of the Independent Assessment of the Machinery and Equipment Industry in Malaysia prepared by Vital Factor Consulting Sdn Bhd for inclusion in the Prospectus of Flonic Hi-Tec Bhd (herein together with all its subsidiaries will be referred to as Flonic Group) in relation to its listing on the MESDAQ market.

1. Background

- Flonic Group is a Designer and Manufacturer of Precision Cleaning Systems, including Precision Ultrasonic Cleaning Systems and other Precision Cleaning Systems. Other supporting activities provided by Flonic Group include technical support and maintenance services and contract precision cleaning services of products.
- For the financial year ended 31 January 2005, the revenue of Flonic Group amounted to RM9.3 million.

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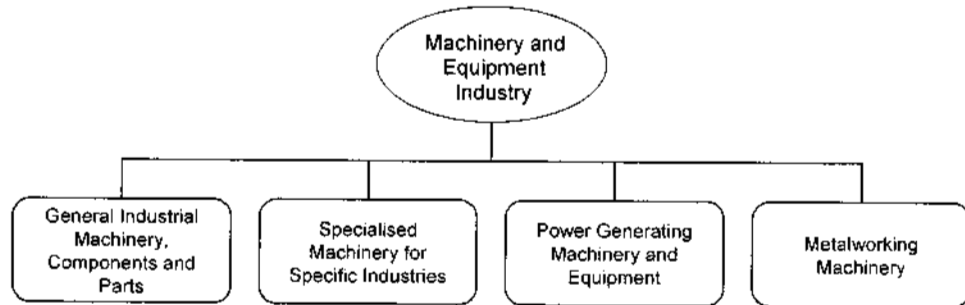


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2. Structure of the Machinery and Equipment Industry

- According to the Malaysian Industrial Development Authority, the Machinery and Equipment Industry can be classified into four broad categories as follows:



(Source: Malaysian Industrial Development Authority)

Figure 1. Structure of the Machinery and Equipment Industry General Industrial Machinery and Equipment

- The General Industrial Machinery and Equipment sector caters to the general needs of a broad range of industries. Precision Cleaning Machines, of which Ultrasonic Cleaning Machines is one of the product categories, fall under the overall umbrella of General Industrial Machinery and Equipment. The machinery and equipment under this category generally perform one task that has varied applications in a number of different industries. For example, Ultrasonic Cleaning Machines may be used to clean items as diverse as stainless-steel bottles, machined parts, printed circuit boards, integrated circuits, sophisticated electronic sensors and many others.
- Flonic Group falls within the General Industrial Machinery and Equipment sector of the overall Machinery and Equipment Industry.
- Some of the Machinery and Equipment in the General Industrial Machinery and Equipment sector include:
 - Precision Cleaning Machines including Precision Ultrasonic Cleaning Machines;
 - Industrial air conditioning plant and equipment;
 - Elevators;
 - Cranes;
 - Pressure vessels;
 - Heat exchangers.
- In 2004, a total of 34 projects were approved in the General Industrial Machinery and Equipment sector which involved an investment of RM166.6 million (Source: Malaysian Industrial Development Authority).

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- Domestic investments in 2004 amounted to RM125.3 million, or 75.2% of total investment. Foreign investment totalled RM41.3 million, or 24.8% of total investment during the same period (*Source: Malaysian Industrial Development Authority*).
- As the Flonic Group is primarily involved in the manufacture of Precision Cleaning Systems, which fall under the broader umbrella of General Industrial Machinery and Equipment, this report will focus on the overall Machinery and Equipment Industry in general, and the General Industrial Machinery and Equipment sector in particular and focusing on Precision Cleaning Machines.

Specialised Machinery and Specific Industries

- The Specialised Machinery for Specific Industries sector caters to the needs of specific manufacturing industries and thus most of the machine and equipment are custom-made.
- In 2004, there were about 20 companies involved in the manufacturing of rubber and palm oil processing machinery and equipment. In addition, there are about 30 companies involved in the manufacturing of automation machinery and equipment catering to the Electrical and Electronics Industry. (*Source: Malaysian Industrial Development Authority*)

Power Generation Machinery and Equipment

- Within the Power Generation Machinery and Equipment sector, the main machinery and equipment produced were industrial broilers for general industrial applications.
- In 2004, there were approximately 10 active manufacturers of industrial broilers in Malaysia (*Source: Malaysian Industrial Development Authority*)

Metalworking Machinery

- In 2004, there were 6 companies undertaking the manufacture of metalworking machinery for the automotive, electrical and electronic, and engineering supporting industries in Malaysia (*Source: Malaysian Industrial Development Authority*).
- For the Metalworking Machinery sector, a total of RM14.2 million in investments were approved in 2004. Domestic investment accounted for 66.2% whilst foreign investment constituted the remainder 33.8% (*Source: Malaysian Industrial Development Authority*).

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3. Vertical Structure of Machinery and Equipment Industry

- The manufacturing of Machinery and Equipment can also be vertically extended to include upstream and downstream activities as follows:

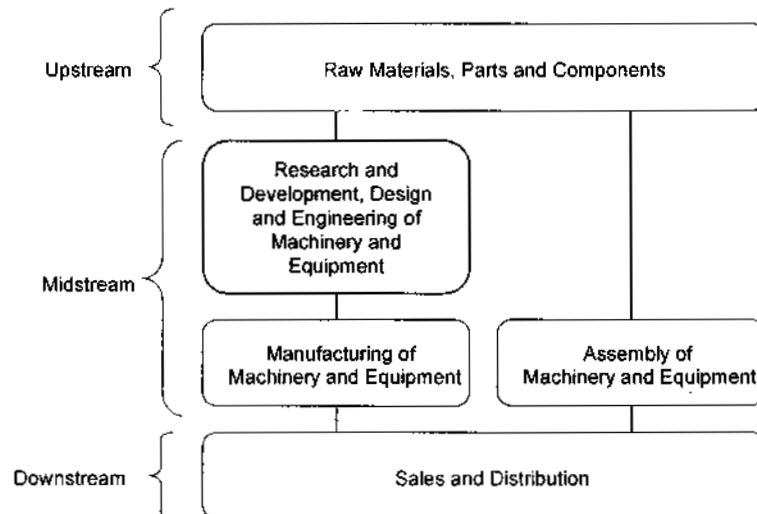


Figure 2 Vertical Structure of the Machinery and Equipment Industry

Upstream

- Upstream activities primarily involve the supply of raw materials such as iron and steel products, other metal products, and parts and components.
- Locally, the Basic Metal Products Industry produces the following:
 - ferrous metal products, i.e. iron and steel;
 - non-ferrous metal products, e.g. aluminium, tin, copper, zinc and lead.
- In 2004, 32 projects were approved for the manufacture of basic metal products, with a total investment of RM1.9 billion (Source: Malaysian Industrial Development Authority).

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Midstream

- Mid-stream activities include the following:
 - Design of Machinery and Equipment;
 - Fabrication of Precision Parts, Jigs and Fixture;
 - Manufacturing of Machinery and Equipment.
- Within the manufacturing of Machinery and Equipment, most of Malaysia's machinery and equipment operators manufacture General Industrial Machinery and Equipment, Specialised Machinery for Specific Industries, Power Generating Machinery, Metalworking Machinery, and as well as Components and Parts.
- Flonic's business activities are primarily focused on midstream activities, specifically in the design and manufacture of Precision Cleaning Systems, including Ultrasonic Cleaning Systems.
- The Engineering Supporting Industry that is of relevance to Flonic Group's Precision Cleaning Systems includes metal stamping and machining.
- Flonic Group undertakes all of the metal bending and machining activities in-house. However it is common for operators in the Machinery and Equipment Industry to outsource some of these activities to external operators.

Downstream

- Downstream activities involve the provision of related services, including sales, distribution and export.

4. Government Legislation, Policies and Incentives

- Apart from the normal manufacturing licence, there are no material government laws, regulations and policies that may impede on operators' performance and growth within a free enterprise environment.
- Application of 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*).
- There are no restrictions on foreign equity participation in the Machinery and Equipment Industry. In addition, local and foreign investors can now hold 100% equity irrespective of the level of exports.

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Government Incentives

- As part of the Malaysian Government's intention to nurture the growth and development of the Machinery and Equipment Industry, there are incentives provided for companies in the manufacture of machinery and machinery components under the Promotion of Investments Act 1986. These include:
 - Pioneer Status;
 - Investment Tax Allowance;
 - Reinvestment Allowance.

(Source: Malaysian Industrial Development Authority)

- The promoted activities and products classified under the manufacture of machinery and machinery components include, among others, Ultrasonic Cleaners.
- Flonic Group, through Flonic Sdn Bhd and Ultraflonic Sdn Bhd, have obtained Pioneer Status. Details of the Group's Pioneer Status include:
 - Flonic Sdn Bhd was granted Pioneer Status by the Ministry of International Trade and Industry Malaysia with respect to its Ultrasonic Cleaning business on 22 November 2000. Pioneer Status was valid for a period of five years, from 1 April 1999 to 31 March 2004;
 - Ultraflonic Sdn Bhd was granted 70% Pioneer Status by the Malaysian Industrial Development Authority to manufacture "Ultrasonic Cleaning Machines" on 2 June 2003. As Ultraflonic Sdn Bhd commenced operations in 2004, this Pioneer Status is expected to expire in 2009.

5. Environmental Regulations

- In the process of manufacturing Precision Cleaning Systems, the main waste material produced by the Flonic Group is scrap metal. There are also other minor waste materials such as solvents and detergents, however these are used in small quantities for testing purposes only.
- The scrap metal is generated as part of the manufacturing process when metal tubes, sheets and other metal raw materials are machined and otherwise worked to form Precision Ultrasonic Cleaning System and Precision Cleaning System components. Scrap stainless steel is the most common type of scrap metal generated by Flonic Group.
- The scrap metal is collected and stored, and ultimately sold to scrap metal dealers for reuse or recycling.

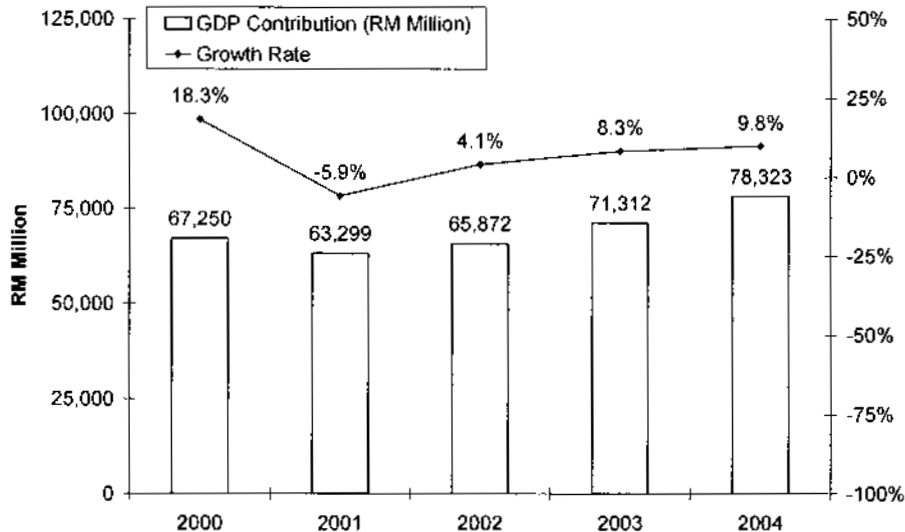
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6. Overview and Performance of the Manufacturing Sector



(Source: Bank Negara Malaysia)

Figure 3. GDP Performance of Manufacturing Industry at Constant Prices

- Between 2000 and 2004, the Manufacturing Industry grew at an average annual growth rate of 3.9%.
- Growth of the Manufacturing Industry continued to accelerate in 2004, with a real growth rate of 9.8% recorded, compared to real growth rate of 8.3% recorded in 2003.
- The diversified base of the manufacturing industry provided the support to moderate the impact of the slowdown in the electronics equipment sector. Gross Domestic Product of the Manufacturing Industry at 1987 prices was RM78.3 billion, or RM140.8 billion when measured at current prices.

(Source: Bank Negara Malaysia)

7. Supply and Supply Dependencies

Supply

- In 2002, the value of gross output of the Manufacture of Other General Purpose Machinery not elsewhere classified (including Precision Cleaning Systems) was RM125.7 million (Source: Department of Statistics).

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- The import value of General Industrial Machinery and Equipment, and Machine Parts increased at an average annual rate of 4.1% between 2000 and 2004. The import value of General Industrial Machinery and Equipment, and Machine Parts was RM11.6 billion in 2004 (*Source: Department of Statistics*).
- The import value of Other Dish Washing Machines (including Ultrasonic Aqueous Machines) declined at an average annual rate of 9.3% between 2000 and 2004. The import value of Other Dish Washing Machines (including Ultrasonic Aqueous Machines) was RM12.9 million in 2004 (*Source: Department of Statistics*).
- Between 2000 and 2004, the import value of Washing, Bleaching or Dyeing Machines (including Single Tank Washing Machines) contracted at an average annual rate of 35.2%. In 2004, the import value of Washing, Bleaching or Dyeing Machines (including Single Tank Washing Machines) was RM14.9 million (*Source: Department of Statistics*).
- Between 2000 and 2004, the import value of Other Cleaning Machinery (including Ultrasonic Cleaning System consisting of Degreaser for NPB and Filter re-circulation and Spray Wand) declined by an average annual rate of 18.8%. In 2004, the import value of Other Cleaning Machinery (including Ultrasonic Cleaning System consisting of Degreaser for NPB and Filter re-circulation and Spray Wand) was RM21.0 million (*Source: Department of Statistics*).
- Between 2000 and 2004, the import value of Other Machinery and Apparatus, Having Individual Functions (including FPD Cassette Cleaners) increased at an average annual rate of 3.9%. In 2004, the import value Other Machinery and Apparatus, Having Individual Functions (including FPD Cassette Cleaners) was RM157.1 million (*Source: Department of Statistics*).

Supply Dependencies

- Generally, there are many different types of raw materials required for the manufacturing of Machinery and Equipment.
- However, some of the major raw materials required for the manufacturing of Machinery and Equipment focusing on General Industrial Machinery and Equipment include:
 - Other Fabricated Metal Products, not elsewhere classified;
 - Vacuum pumps;
 - Parts for pumps or compressors;
 - Other machines and mechanical appliances having individual functions, not elsewhere specified.

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- The manufacture of Other Fabricated Metal Products, not elsewhere classified includes general purpose parts for machinery and specialised parts of machinery and equipment.
- Malaysia is a producer of Other Fabricated Metal Products. In 2004, the sales value manufacture of Other Fabricated Metal Products, not elsewhere classified, amounted to RM4.2 billion, a growth of 17.9% over the previous year. Between 2000 and 2004, sales value increased at an average annual rate of 8.7% (Source: Department of Statistics).
- Malaysia has an engineering supporting industry, which encompasses moulds, tools and dies, machining, metal stamping, metal surface treatment/finishing, heat treatment and metal casting. This is supported by the following number of companies in the engineering supporting industry in Malaysia in 2004:
 - there are approximately 300 mould, tool and die companies in operation;
 - there are approximately 150 machining companies in operation;
 - there are approximately 300 metal stamping companies;
 - there are approximately 35 metal surface treatment/finishing companies in operation;
 - there are approximately 70 foundry companies in operation;
 - there are approximately 60 die-casting companies in operation;
 - there are 3 investment casting companies in operation;
 - there are 3 powder metallurgy companies in operation;
 - there are approximately 20 heat treatment companies in operation.

(Source: Malaysian Industrial Development Authority)

8. Demand and Demand Dependencies

Demand

- Demand for Machinery and Equipment is dependent on the following markets:
 - Local market demand;
 - Overseas in terms of export market demand.

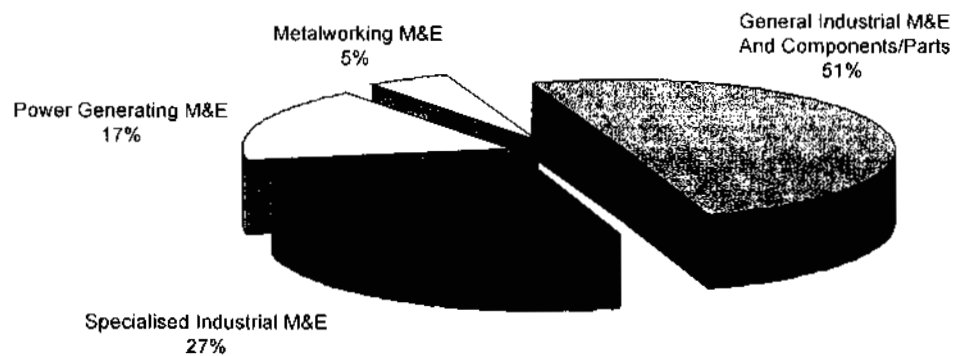
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- Local market demand for Machinery and Equipment specifically Precision Cleaning Systems will come primarily from the Electrical and Electronics Industry. Following are some of performance indicators of the Electrical and Electronics industry in Malaysia as an end-user industry:
 - Between 2000 and 2004, the production index of the Electrical and Electronics Products grew at an average annual rate of 4.1%. In 2004, the production index recorded growth of 17.7% (Source: Bank Negara Malaysia);
 - Between 2000 and 2004, the sales value of Semiconductors and Other Electronic Components and Communication Equipment and Apparatus declined at an average annual rate of 0.9%. In 2004, the sales value increased by 8.6% to RM110.0 billion (Source: Department of Statistics).
- As for export market demand, the export value of Machinery and Equipment amounted to RM15.6 billion in 2004 as compared to RM12.4 billion in the previous year.
- The following is a breakdown of export revenue by sub-sectors in 2004:



Note: M&E = Machinery and Equipment
(Source: Malaysian Industrial Development Authority)

Figure 4. Export Revenue of Machinery and Equipment Segmented by Sub-Sector, 2004

- Between 2000 and 2004, the export value of General Industrial Machinery and Equipment, and Machine Parts increased at an average annual rate of 12.7%, amounting to RM7.8 billion in 2004 (Source: Department of Statistics).

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- Between 2000 and 2004, the export value of Other Cleaning Machinery (including Ultrasonic Cleaning Systems consisting of Degreaser for NPB and Filter re-circulation and Spray Wand), grew at an average annual rate of 7.6%, amounting to RM9.5 million in 2004.
- Between 2000 and 2004, the export value of Other Machinery and Apparatus, Having Individual Functions (including FPD Cassette Cleaners) increased at an average annual rate of 38.5%, amounting to RM487.6 million in 2004.

(Source: Department of Statistics)

Demand Dependencies

- The demand for Precision Cleaning Systems will be dependent upon the performance of the user-industries. Some of the user industries of Precision Cleaning Machines and Ultrasonic Cleaning Machines, are as follows:
 - Electrical and Electronics Industry for example the cleaning of hard disk drive, semi-conductors, electronic components, motors and others;
 - Automotive Industry for example the cleaning of automotive components, condensers, electric motors;
 - Jewellery Industry for the cleaning of finished products;
 - Plastics Industry for example the cleaning of tools and small parts and components;
 - Power Industry for the cleaning of electrical apparatus;
 - Aeronautical Industry for the cleaning of avionics and other moving parts and components;
 - Consumer products including cleaning of finished products for example pewter ware.

9. Competitive Nature and Intensity

- Operators in the Machinery and Equipment Industry face **normal competition** conditions.
- Competition exists in two areas:
 - Local market;
 - Global market.

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- At the local level, manufacturers within the Machinery and Equipment Industry compete with Machinery and Equipment manufactured in Malaysia as well as with imports.
- At the global level, Malaysian manufacturers of Machinery and Equipment compete against foreign manufacturers as well as other Malaysian export-oriented manufacturers.
- The nature of competition in the global arena is also segmented based on market perception:
 - Countries commonly associated with producing high quality, complex and robust machinery and equipment are Germany and Japan. Machinery and equipment from these countries are usually more expensive.
 - Countries commonly associated with producing less robust and lower quality machinery and equipment are Taiwan and China. Machinery and equipment from these countries are usually priced significantly lower.
- Competition among operators in the Machinery and Equipment Industry focusing on the manufacturing of Ultrasonic Cleaning Systems is **low to moderate**.

Factors that Moderate Competitive Intensity

- There are an estimated ten companies including Flonic Group involved in the Ultrasonic Cleaning Systems sector operating in Malaysia (*Source: Primary market research conducted by Vital Factor Consulting Sdn Bhd*).
- Ultrasonic Cleaning Systems are typically highly customised systems, particularly in the higher end of the market where systems are required to clean fragile, small, high-specification, difficult to clean objects to a high degree of cleanliness. As a result, manufacturers are in a competitive position if they possess the following:
 - the experience and skill to meet the requirements and specifications of customers;
 - the capability to undertake in-house research and development, engineering design and testing in order to customise and modify machinery and equipment based on varying end-users' requirement;
 - the ability to integrate different precision cleaning processes into one system;

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- the technical know-how to innovate and seek out new cleaning technologies to meet ever-increasing cleanliness specifications.
- In addition, manufacturers that are able to differentiate themselves through specialised skills and offerings would face less competition. These skills include the following:
 - the ability to manufacture machinery and equipment that is suitable for installation and use under controlled environments , such as Clean Room and Clean Zone environments;
 - the ability to customise Ultrasonic Cleaning applications, and if necessary integrate this technology with other precision cleaning processes to meet challenging customer specifications;
 - the skill to incorporate material handling and automation systems with an Ultrasonic Cleaning System, without the additional systems themselves becoming a source of contamination.
- Thus, with different degrees of specialisation and capabilities, competition is moderated as not all manufacturers have the same skill sets and capabilities.

Factors that Increase Competitive Intensity

- As Malaysia is still a net importer, in value terms, of machinery and equipment, Malaysia faces significant competition from imported machinery and equipment particularly from Japan, Taiwan, Germany and China. Overseas competition increases the competitive intensity for operators in the industry.
- In 2004, the import value of machinery and equipment amounted to RM32.9 billion whilst export value was RM15.6 billion (*Source: Malaysian Industrial Development Authority*).
- Although Ultrasonic Cleaning System requirements in most industrial applications are stringent, there are "back-yarders" not registered with the Malaysian Industrial Development Authority who are none the less able to meet some of these requirements. Most of these will be to meet less demanding requirements and consequently require systems with relatively simpler operations and functions. Their relatively lower cost would place competitive pressure on other manufacturers, especially on manufacturers who are focussed on meeting lower-end requirements.
- Flonic Group is focused on designing and manufacturing precision cleaning systems that are capable of meeting the most stringent cleanliness requirements, and is therefore not adversely affected by competition from back-yarders.

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10. Competitors

- There are an estimated ten companies involved in the Ultrasonic Cleaning Systems sector that are currently operating in Malaysia. They are as follows:

Manufacturers

- Flonic Hi-Tec Bhd
- Challenger Avenue (M) Sdn Bhd
- Crest Ultrasonics (M) Sdn Bhd
- Delichem Sdn Bhd
- Enhanced Quality Sdn Bhd
- JKS Engineering (M) Sdn Bhd

Importers Only

- Pomac Machinery & Engineering
- Branson Ultrasonics Sdn. Bhd
- Alex Technology Sdn Bhd
- Scienscope Sdn Bhd

- Manufacturers that also import Ultrasonic Cleaning Systems are as follows:

- Challenger Avenue (M) Sdn Bhd
- JKS Engineering (M) Sdn Bhd

(Source: Primary market research conducted by Vital Factor Consulting Sdn Bhd)

11. Barriers to Entry

- Generally, barriers to entry into the General Industrial Machinery and Equipment Industry and Precision Cleaning Machines sub-sector are **moderate to high**. This is mainly substantiated by the following:

- Within the General Industrial Machinery and Equipment sector, in 2004 there were 7 manufacturers of industrial air conditioning plant and equipment, 5 companies producing elevators, 85 companies producing pressure vessels and heat exchangers, and 6 companies producing tower cranes, port cranes, overhead travelling cranes and other lifting equipment

- In 2004 there were approximately 395 establishments engaged in manufacturing general-purpose Machinery and Equipment, and approximately 680 establishments manufacturing special purpose Machinery and Equipment *(Source: Malaysian Industrial Development Authority)*

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- Within the Precision Cleaning Machines sector, there are an estimated ten companies involved in the Ultrasonic Cleaning Systems sector that are currently operating in Malaysia (*Source: Primary market research conducted by Vital Factor Consulting Sdn. Bhd.*).

Capital and Set-up Costs

- The barriers to entry based on capital requirements (excluding land and building) are **low**.
- The capital investment required to start up a small sized facility to manufacture Precision Cleaning Machines including Ultrasonic Cleaning Machines (excluding land, building and working capital) would cost approximately RM500,000.
- However, revenue would depend significantly on the ability to win sales, as the other production constraints are related to personnel, and more workers can be hired if there is a business case to do so. With the capital set-up cost described above, it is possible for the small sized manufacturing set-up to generate revenue of RM0.3 million to RM0.5 million per year (*Source: Flonic Hi-Tec Bhd*).
- Although Precision Cleaning System orders typically consist of small, customised batches, larger operators can still enjoy economies of scale as the larger operators can design and manufacture Precision Cleaning Systems based on a few standard platforms to meet the requirements of a range end-user industry and export markets.

Technical Skills

- Generally, the skill level of labour used in the Machinery and Equipment Industry is **high**. Some of the key personnel required include the following:
 - Professional engineers and technical personnel with an engineering background, experience in mechanical and electrical engineering, and expertise in computer software programming, development and technology.
 - A large-pool of skilled and semi-skilled factory floor operators, usually recruited from vocational schools. At this level of skill, workers will have undergone extensive training and have experience in welding and metalwork.

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- Skilled and competent professional engineers and technical personnel are critical to the production process, as they are responsible for the design of a Precision Cleaning System that meets the client's specifications. Without these personnel, it is virtually impossible to win or complete all but the simplest, lowest margin projects.
- Experienced and trained personnel are also required for quality assurance to conduct Ultrasonic Cleaning Machine testing and optimisation.
- Thus, having access to the right technical skills and technologies as well as to a pool of skilled and experienced manufacturing personnel is a barrier to entry faced by new entrants.

Track Record

- The Precision Cleaning process is often a critical intermediate step in the production of finished goods, particularly in high technology manufacturing industries such as those found in the electrical and electronic sector. Manufacturers have to be absolutely certain that the Precision Cleaning Machines that they utilise will consistently produce results that meet their stringent specifications, and as such are only likely to purchase Ultrasonic Cleaning Equipment from operators with an established track record.

12. Industry Outlook and Growth Forecast

- The outlook for the General Industrial Machinery and Equipment Industry in Malaysia is **favourable**.
- The General Industrial Machinery and Equipment Industry is forecasted to grow at approximately **5% to 8%** per annum for the next five years.
- This is mainly substantiated by the following analysis and observations:

Local Production

- In 2002, the value of gross output of the Manufacture of Other General Purpose Machinery not elsewhere classified was RM125.7 million (*Source: Department of Statistics*).

Exports

- The export value of General Industrial Machinery and Equipment, and Machine Parts increased at an average annual rate of 12.7% between 2000 and 2004. The export value of General Industrial Machinery and Equipment, and Machine Parts increased by 37.4% to reach RM7.8 billion in 2004.

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- Between 2000 and 2004, the export value of Other Dish Washing Machines (including Ultrasonic Aqueous System, and Vapour Cleaning Systems), declined at an average annual rate of 11.9%. In 2004, the export value declined by 63.8% to RM1.2 million.
- Between 2000 and 2004, the export value of Washing, Bleaching or Drying Machines (including Single Tank Washing Machines), fell at an average annual rate of 18.1%. In 2004, export value increased by 36.9% to RM1.3 million.
- Between 2000 and 2004, the export value of Other Cleaning Machinery (including Ultrasonic Cleaning Systems consisting of Degreaser for Norma Proply Bromite and Filter re-circulation and Spray Wand), grew at an average annual rate of 7.6%. In 2004, export value of Other Cleaning Machinery increased by 34.7% to RM9.5 million.
- Between 2000 and 2004, the export value of Other Machinery and Apparatus, Having Individual Functions (including Flat Panel Display Cassette Cleaners) increased at an average annual rate of 38.5%. In 2004, export value increased by 218.4% to a value of RM487.6 million.

(Source: Department of Statistics)

Imports

- Malaysia is still a net importer, in value terms, of Machinery and Equipment. In 2004, the import value of Machinery and Equipment was to RM32.9 billion (Source: Malaysian Industrial Development Authority).
- Between 2000 and 2004, the import value of Other Dish Washing Machines (including Ultrasonic Aqueous System, and Vapour Cleaning Systems), declined by an average annual rate of 9.3%. In 2004, import value increased by 5.9% to RM12.9 million.
- Between 2000 and 2004, the import value of Washing, Bleaching or Drying Machines (including Single Tank Washing Machines), fell at an average annual rate of 35.2%. In 2004, import value increased by 36.3% to RM14.9 million.
- Between 2000 and 2004, the import value of Other Cleaning Machinery (including Ultrasonic Cleaning Systems consisting of Degreaser for Norma Proply Bromite and Filter re-circulation and Spray Wand), contracted at an average annual rate of 18.8%. In 2004, import value of Other Cleaning Machinery grew by 8.6% to RM21.0 million.

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- Between 2000 and 2004, the import value of Other Machinery and Apparatus, Having Individual Functions (including Flat Panel Display Cassette Cleaners) increased at an average annual rate of 3.9%. In 2004, import value decreased by 10.7% to RM157.1 million.

(Source: Department of Statistics)

End-User Industry Sectors

The performances of some of the end-user industries for Machinery and Equipment are as follows:

- Between 2000 and 2004, the production index of the Electrical and Electronics Products grew at an average annual rate of 4.1%. In 2004, the production index recorded growth of 17.7% *(Source: Bank Negara Malaysia)*;
- Between 2000 and 2004, the sales value of Semiconductors and Other Electronic Components and Communication Equipment and Apparatus declined at an average annual rate of 0.9%. In 2004, the sales value increased by 8.6% to RM110.0 billion *(Source: Department of Statistics)*.

13. Threats and Risk Analysis

Areas of threats and risks for operators within the Machinery and Equipment Industry in general and the General Industrial Machinery and Equipment Industry in particular are as follows:

- **Lack of Engineering Supporting and Ancillary Activities**

Engineering supporting and ancillary activities including foundries, forging, heavy and precise machining, heat treatment, electroplating as well as moulds and dies making are critical in supporting the growth of the Machinery and Equipment Industry.

The Engineering Supporting and Ancillary Industry are weak and fragmented. Such a situation has the potential of shrinking existing market and deterring any development of the Machinery and Equipment Industry.

Mitigating Factors

Recognising the current situation of the Engineering Supporting and Ancillary Industry, some major developments of the industry have taken place. These include:

**11. INDEPENDENT ASSESSMENT OF THE MACHINERY AND EQUIPMENT INDUSTRY
FOCUSING ON PRECISION CLEANING MACHINES (Cont'd)**



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- The establishment of the Rasah Machinery and Equipment Technology Centre (RAMET) under SIRIM Berhad has been earmarked not only for developing human resources within the engineering sector but more so on providing standards testing facilities and promoting cluster development through the grouping of small, medium and big foundry, operators of machining, forging, heat treatment, tool, die making and welding. RAMET was established in 2003.
- The Mould and Die Design Centre approved under the Eighth Malaysia Plan is in its first phase of implementation and is providing Computer-Aided-Design (CAD) system services to 16 Small Medium Enterprises. The centre is in the progress of renovation. Upon completion in 2005, the centre will promote the usage of the CAD systems by SME.

These developments are in tandem with the thrust of the Government and aimed towards strengthening the foundation of local Engineering Supporting and Ancillary Industry in support of further growth within the Machinery and Equipment Industry.

- **Competitive Pressure from Overseas Players**

Malaysia is still a net importer, in value terms, of Machinery and Equipment. In 2004, the imports of machinery and equipment amounted to RM32.9 billion whilst export value was only RM15.6 billion (Source: Malaysian Industrial Development Authority).

Mitigating Factors

Despite Malaysia's current position as a net importer of Machinery and Equipment, the Government has identified the Machinery and Equipment Industry, a high value-added and high technology product sector, as one of the key areas for growth and development.

In recognition of the growth opportunities, various incentives have been introduced to high technology companies including:

- Pioneer Status
- Investment Tax Allowance
- Tax-related incentives within the Machinery and Equipment Industry based on the level of value-added input.

In addition to the Government incentives, operators that are able to provide high value-adding, undertake research and development, customise engineering design and services, would be in a better position to sustain business and minimise competitive threats.

**11. INDEPENDENT ASSESSMENT OF THE MACHINERY AND EQUIPMENT INDUSTRY
FOCUSING ON PRECISION CLEANING MACHINES (Cont'd)**



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- **Availability of Skilled Manpower**

There is a shortage of skilled technical workers within the Machinery and Equipment Industry in Malaysia (*Source: Malaysian Industrial Development Authority*). The shortage of technical professionals is a concern to the operations of the Machinery and Equipment Industry. The shortage of skilled and experienced labour may hamper the growth of the industry in general.

Mitigating Factors

In ensuring long-term and sufficient supply of skilled technical professionals, technical institutions and centres namely the RAMET and the Mould and Die Design Centre are in a position to provide technical training and assistance to fortify the engineering base in the country.

In addition, it is estimated that 64,516 students will be enrolled in Engineering course, representing 98.9% of overall technical courses enrolment in local public higher education institutions (*Source: Mid-Term Review of the Eighth Malaysia Plan 2001 – 2005, Economic Planning Unit, Prime Minister Department*).

With the high and preferred Engineering courses enrolment and graduation as well as the Government support in developing the technical skill base in Malaysia, the industry is anticipated to have a pool of skilled resources to sustain growth.

14. Areas of Growth and Opportunities

Areas of growth and opportunities for operators within the Machinery and Equipment Industry in general and the General Industrial Machinery and Equipment Industry in particular are as follows:

- **Export Markets**

Export markets represent significant growth opportunities to operators within the Machinery and Equipment Industry. This is particularly pertinent for the export of General Industrial Machinery and Equipment, and Machine Parts, which increased at an average annual rate of 12.7% between 2000 and 2004. Furthermore, the export value of General Industrial Machinery and Equipment, and Machine Parts, increased by 37.4% to reach RM7.8 billion in 2004 (*Source: Department of Statistics*).

There are opportunities for Malaysian operators to export Machinery and Equipment to developing countries, as the Machinery and Equipment are crucial in the development of the manufacturing sector of these nations.

**11. INDEPENDENT ASSESSMENT OF THE MACHINERY AND EQUIPMENT INDUSTRY
FOCUSING ON PRECISION CLEANING MACHINES (Cont'd)**



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- **Precision Cleaning Applications**

Maintaining a specified level of Object cleanliness is important in most manufacturing process, and it is particularly critical in Electrical, Electronic and Semiconductor manufacturing. Cleanliness requirements are also becoming increasingly stringent, particularly in the Electrical, Electronic and Semiconductor sectors.

This development will continue to drive demand for Precision Cleaning Systems in general, and for Precision Ultrasonic Cleaning Systems and other capable Cleaning Systems in particular. It will also lead to the need to use more capable and sophisticated cleaning systems for the manufacture of more advanced electrical and electronic products and components. As electronic components and parts continue to decrease in size, there is a corresponding need to remove contaminants of even decreasing size.

There is therefore significant potential for manufacturers that are able to design and manufacture Precision Cleaning Systems that utilise appropriate and innovative technologies that are able to meet the most stringent cleanliness requirements.

- **Import Replacement**

With high imports amounting to RM32.9 billion for machinery and equipment in 2004, local operators have many opportunities to replace imports. *(Source: Malaysian Industrial Development Authority).*

By leveraging on local support, prompt delivery and cost effectiveness, local operators could be in a good position to replace some of the imports. However, the functionality and quality of the products would continue to be paramount and local operators must ensure they are able to deliver what the customer wants.

- **Clean Room Applications**

There are significant opportunities for Precision Cleaning Systems manufacturers that are able design and manufacture Precision Cleaning Systems that are able to meet Clean Room Standards and operate in Class 10 or Class 1 environments. These are very stringent requirements and barriers to entry are significantly higher than compared to other Cleaning applications. As the Electronic Industry is large amounting to RM110.0 billion in 2004 for the manufacture of Semiconductors and Other Electronic Components and Communication Equipment and Apparatus, there is a potentially large customer base for Clean Room standard Precision Cleaning Systems.

(Source: Department of Statistics)

**11. INDEPENDENT ASSESSMENT OF THE MACHINERY AND EQUIPMENT INDUSTRY
FOCUSING ON PRECISION CLEANING MACHINES (Cont'd)**



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15. Market Ranking

- Based on the latest available financial data on revenue derived from Ultrasonic Cleaning Systems, Flonic Hi-Tec Bhd ranked **first** among Malaysian companies operating in the Ultrasonic Cleaning Systems sector, and ranked **second** among domestic and foreign-backed companies (Source: Primary market research conducted by Vital Factor Consulting Sdn. Bhd.).

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 readers of this document. This report should not be taken as a recommendation to buy or not to buy the shares of any company.

Yours sincerely

Wooi Tan
Managing Director
Vital Factor Consulting Sdn Bhd

12. FIVE-YEAR BUSINESS DEVELOPMENT PLAN OF FLONIC HI-TEC BHD
(Prepared for inclusion in the Prospectus)



VITAL FACTOR CONSULTING
Creating Winning Business Solutions

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21 OCT 2005

The Board of Directors
Flonic Hi-Tec Bhd
Lot 6, Solok Hishamuddin 6
North Port Straits Industrial Estate
42000 Port Klang
Selangor Darul Ehsan

Dear Sirs/Madam

Five-Year Business Development Plan of Flonic Hi-Tec Bhd

The following is a summary of the Five-year Business Development Plan of Flonic Hi-Tec Bhd (herein, together with its subsidiaries will be referred to as Flonic Group) prepared by Vital Factor Consulting Sdn Bhd for inclusion in the Prospectus for its listing on the MESDAQ market.

1 BUSINESS INTENT

1.1 Business Vision

- Flonic Group's business vision is:

“To be a Leader in the Design and Manufacture of Innovative Precision Cleaning Systems”

1.2 Business Mission

- To achieve its vision, its business mission is as follows:
 - To be a total solutions provider for Precision Cleaning Systems;
 - To constantly improve its products, processes and services to ensure cost competitiveness, product quality and customer satisfaction;
 - To continuously develop in-house technical expertise and research and development capabilities, and to consistently improve the performance of its Precision Cleaning Systems in line with its customers' increasingly stringent requirements;
 - To incorporate new Precision Cleaning technologies;
 - To design and manufacture environmentally friendly Precision Cleaning Systems;
 - To actively pursue business opportunities in Malaysia and overseas.

12. FIVE-YEAR BUSINESS DEVELOPMENT PLAN OF FLONIC HI-TEC BHD (Cont'd)



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1.3 Overview of Business Intentions

- Flonic Group's business intention is to be a Designer and Manufacturer of Innovative Precision Cleaning Systems as shown in the figure below:

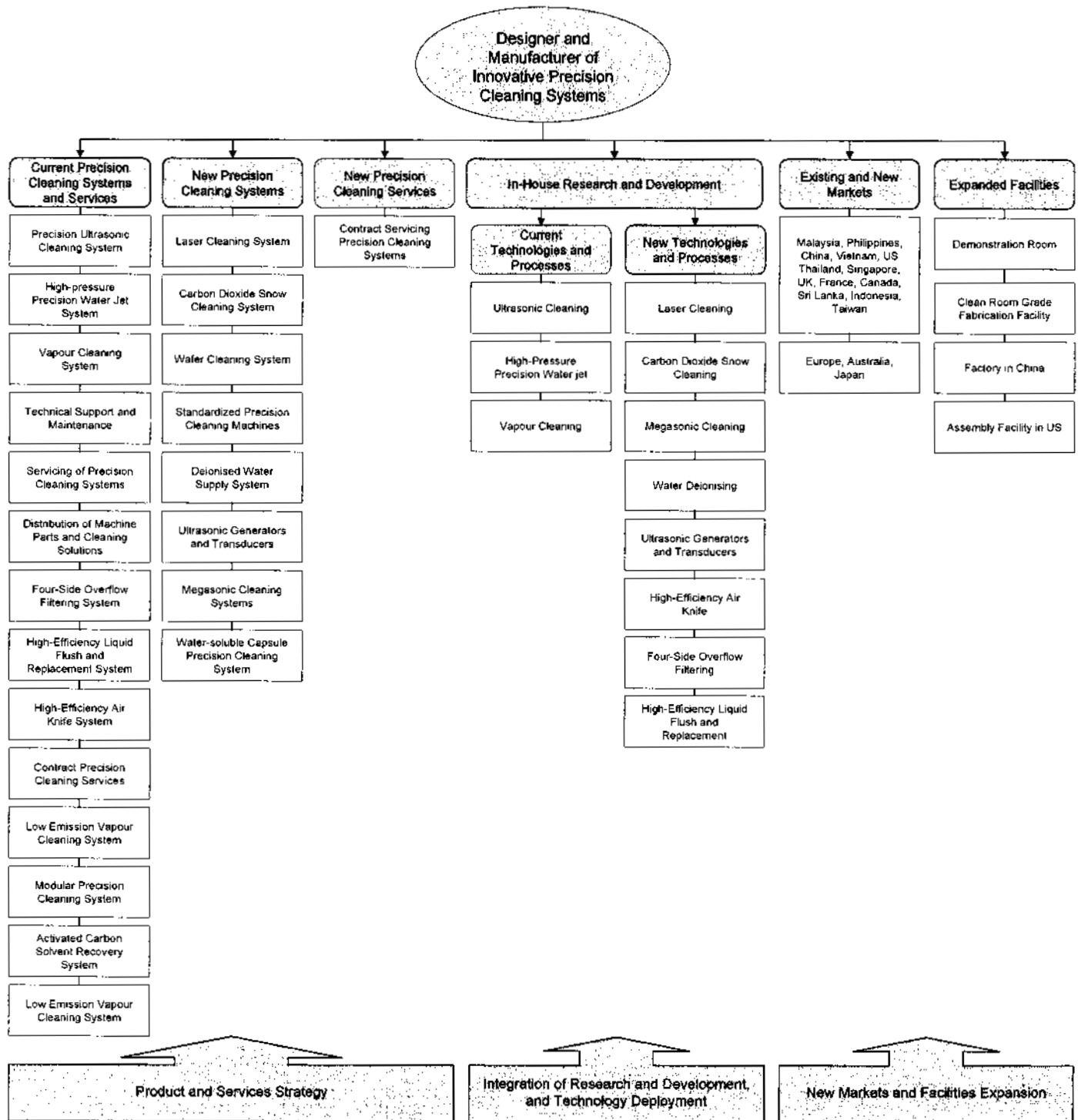


Figure 1 Flonic Group's Overall Business Intention



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1.4 New Products

Flonic Group plans to develop the following new products between 2005 and 2009.

- **Ultrasonic Generators and Transducers**

Ultrasonic Generators and Transducers are the key components in Ultrasonic Cleaning Systems that create ultrasonic waves. Flonic Group plans to diversify upstream into the manufacture of Ultrasonic Generators and Transducers to capture new revenue sources, and to reduce dependencies of some key component on outside suppliers.

- **Laser Cleaning Systems**

Laser Cleaning Systems utilise laser energy to perform precision cleaning tasks.

- **Carbon Dioxide Snow Cleaning Systems**

A Carbon Dioxide Snow Cleaning System generally functions by blowing an object surface with a high-velocity stream of air charged with solid Carbon Dioxide. This precision cleaning technology is relatively new.

- **Megasonic Cleaning Systems**

Megasonic Cleaning technology is similar to Ultrasonic Cleaning technology currently used by the Group, except that the sound waves employed are of a much higher frequency. This will create smaller bubbles that will enable it to clean microscopic areas that are normally not reachable by Ultrasonic Cleaning technology.

- **Deionised Water Supply System**

Flonic Group plans to design and install Deionised Water Supply Systems to generate and supply pure de-ionised water (DI water) for use primarily with Precision Cleaning Systems.

- **Wafer Cleaning Systems**

Wafer Cleaning System will be developed to clean silicon wafers that are used in the manufacture of microchips. The system utilises ultrasonic cleaning technology but represents significant improvement incorporating several refinements over conventional systems, including the use of particle-free components and sub-systems, and the use of ultra-pure deionised water.

- **Standardised Precision Cleaning Systems**

Flonic Group intends to develop and manufacture standardised Precision Cleaning Machines for lower specification requirements. Flonic Group plans to target at users who do not need to achieve very high cleanliness specifications. It envisaged a large number of such potential users.



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- **Water-Soluble Capsule Precision Cleaning Systems**

Flonic Group plans to develop a Water-Soluble Capsule Precision Cleaning System initially targeted at enabling precision cleaning of pharmaceutical capsules.

- **Contract Servicing of Precision Cleaning Systems**

Flonic Group plans to offer Contract Servicing of Precision Cleaning Systems, whereby Flonic Group will provide periodic system servicing. This service may potentially widen the Group's customer base and should also create a steady revenue stream.

1.5 Business Expansion

- **Expansion of Facilities**

Flonic Group plans to expand its production facilities in Malaysia by establishing a demonstration room, and a clean room-grade fabrication facility. Part of its plans also includes establishing a factory in China and an assembly facility in the United States.

- **Export Market Expansion**

Flonic Group plans to establish marketing offices in several markets that it has identified to be important, or which have good growth potential. These markets are the United States, Belgium (to serve the European market), China, Australia, Philippines and Thailand.

12. FIVE-YEAR BUSINESS DEVELOPMENT PLAN OF FLONIC HI-TEC BHD (Cont'd)



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2. PRODUCTS AND SERVICES OFFERED DURING FIRST YEAR ON MESDAQ MARKET

- Flonic Group's product portfolio during its first year after admission to the MESDAQ market would comprise existing and new products and services as follows:

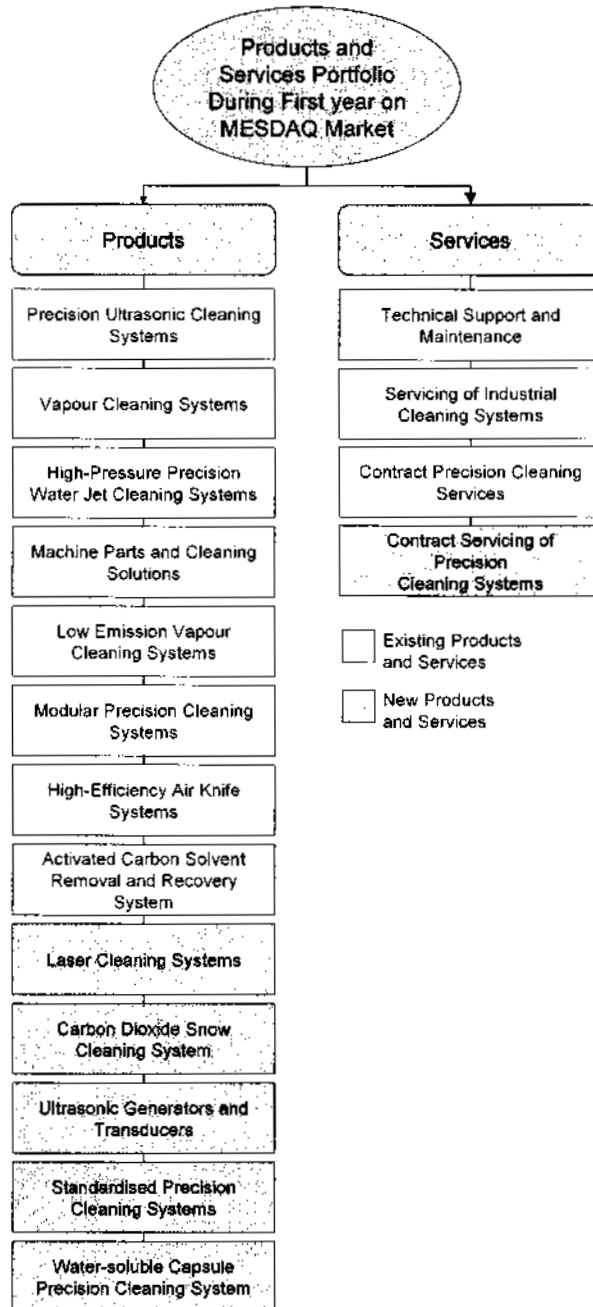


Figure 2 Flonic Group's Products and Services During First Year of Admission to MESDAQ Market

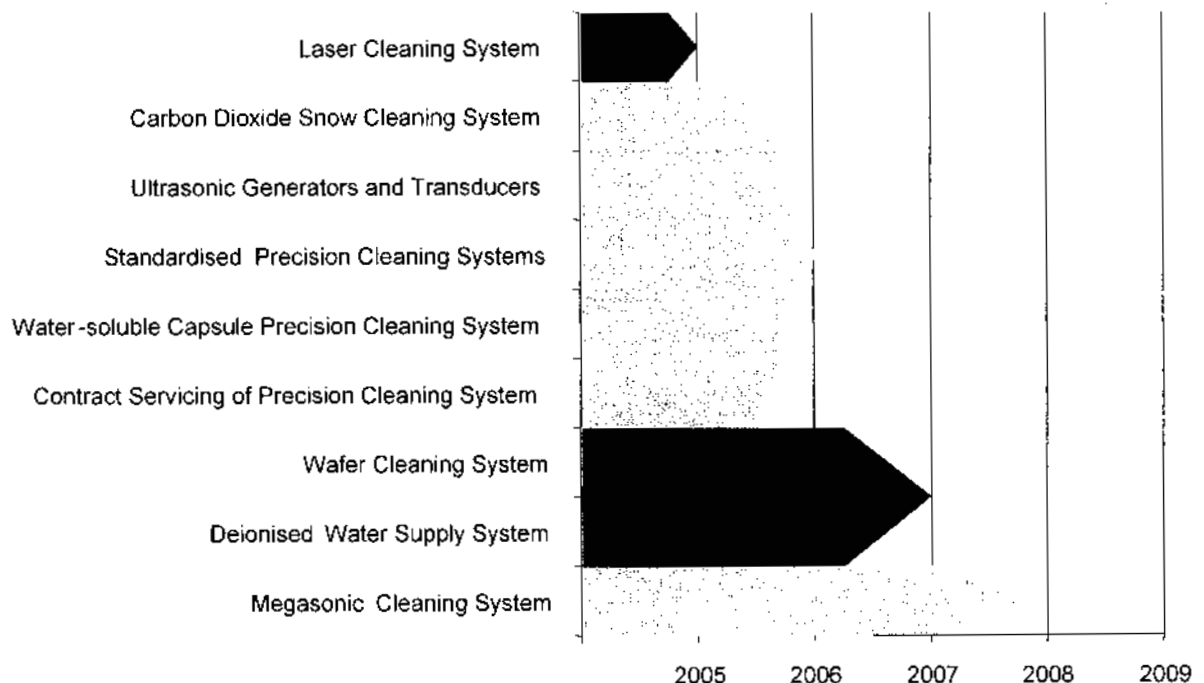
12. FIVE-YEAR BUSINESS DEVELOPMENT PLAN OF FLONIC HI-TEC BHD (Cont'd)**VITAL FACTOR CONSULTING**

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- During the first year of admission to the MESDAQ market, Flonic Group's portfolio of products are focussed in two areas:
 - Continue to market and support all existing products and services;
 - Market and support new products and services.
- Flonic Group's portfolio of products and services during its first year of admission to the MESDAQ market is based on strengthening its established products and services, and to use them as the platform for developing and commercialising new products and services to address business opportunities. This will ensure business sustainability and growth.

3. PRODUCT AND SERVICE DEVELOPMENT PLAN

- Flonic Group's product and service development plan is focused on the following:
 - Laser Cleaning System;
 - Carbon Dioxide Snow Cleaning System;
 - Ultrasonic Generator and Transducers;
 - Standardised Precision Cleaning System;
 - Water-Soluble Capsule Precision Cleaning System;
 - Contract Servicing of Precision Cleaning Systems;
 - Wafer Cleaning System;
 - Deionised Water Supply System;
 - Megasonic Cleaning System.

**Figure 3 Overview of Flonic Group's Products and Services Development Plan**



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4. TECHNOLOGY USED

- The following represents the major technologies that Flonic Group is either currently using, or will use as part of the Group's future plans:
 - Precision Ultrasonic Cleaning
 - Vapour Cleaning
 - Low Emission Vapour Cleaning
 - High-Pressure Precision Water Jet Cleaning
 - Laser Cleaning
 - Carbon Dioxide Snow Cleaning
 - Deionised Water Generation
 - Megasonic Cleaning
 - High-Efficiency Air Knife Cleaning
 - High-Efficiency Liquid Flush and Replacement
 - Four-Side Overflow Filtering
 - Precision Vacuum Cleaning and Rinsing
 - Low Temperature Vacuum Drying
 - Rigid and Stable Robotic Arm
 - Double Stage Safety Protection Arm System.

Precision Ultrasonic Cleaning

- Precision Ultrasonic Cleaning technology is used to remove contaminants from an Object placed in a liquid medium. The cleaning process is primarily based on inducing cavitation in the liquid medium through the generation of ultrasonic waves that are subsequently transmitted through the liquid medium.
- The Precision Ultrasonic Cleaning process may be employed to remove most types of physical contaminants from the object to be cleaned including grease, lubricants and other oil-based contaminants, unwanted metal particles, loose fibres, and other particles.
- Ultrasonic waves are sound waves whose frequency is beyond the upper range of human hearing, or greater than 20 kHz.
- The high-frequency waves employed in Precision Ultrasonic Cleaning Systems are generated by two pieces of equipment working together, i.e. the ultrasonic generator and the ultrasonic transducer.

Vapour Cleaning

- Vapour Cleaning removes residual oil, grease, lubricant, other organic and inorganic compounds on an Object surface through the application of a vapour. An organic solvent vapour is usually used, as water vapour is not an effective solvent or cleaning agent.
- The vapour is created by applying heat to a vessel containing the cleaning liquid. As the vapour comes into contact with the relatively colder object, the vapour will condense on the Object surface.
- Contaminants that are soluble in the liquid will dissolve, and will be carried away from the Object as the liquid is removed from the Object surface.
- Insoluble contaminants may be carried away from the Object as the liquid is removed from the Object surface.



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Low Emission Vapour Cleaning

- Low Emission Vapour Cleaning technology is a material improvement over Vapour Cleaning technology. Low Emission Vapour Cleaning technology incorporates technology designed to minimise or prevent liquid vapour loss.
- This may be achieved by:
 - creating and maintaining a layer of cool air to act as a solvent trap at the highest portion of the vessel;
 - incorporating an Activated Carbon Solvent Removal System;
 - enclosing the liquid and liquid vapour so as to isolate it from the environment.

High-Pressure Precision Water Jet Cleaning

- High-Pressure Precision Water Jet Cleaning utilise precisely directed, high-pressure water spray to remove contaminants from Object surfaces.
- Contaminants that can be removed include the following:
 - substances that are soluble in the medium employed;
 - unwanted metal particles;
 - residual oil, lubricant, grease or other organic compounds;
 - loose fibres;
 - other particles.
- The liquid spraying medium used is usually deionised water, although other liquids such as detergents or organic solvents may also be used.

Laser Cleaning

- Lasers are characterised by the emission of narrow, well-defined beams of light, which can be very intense.
- A Laser System generally consists of three important components:
 - an energy source (usually referred to as the "pump" or "pump source";
 - a "gain medium" or "laser medium". The gain medium is the major determining factor of the wavelength of operation, and other properties, of the laser;
 - a mirror, or system of mirrors, forming an "optical resonator.
- As it is possible to exercise a high degree of control over laser pulse rate and energy output, and since the relative absorptive of Object and contaminants can be determined, it is possible to fine-tune the parameters applied to achieve the least disruptive cleaning mechanism.
- Flonic Group is developing Laser Cleaning Systems for applications that involve one or more specifications of the following:
 - very low contamination levels, of 1 micron or lower for cleaning sensitive electronic objects;
 - fragile Objects that may be damaged by cavitation in liquid Ultrasonic Cleaning;
 - Objects that are susceptible to corrosion, soluble in water or other liquids, or otherwise require a dry cleaning environment.



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Carbon Dioxide Snow Cleaning

- A Carbon Dioxide (CO₂) Snow Cleaning System generally functions by blowing an Object surface with a high-velocity stream of air charged with solid CO₂. This precision cleaning technology is relatively new.
- Contaminants removed by CO₂ Snow Cleaning are generally carried away from the Object on a cushion of CO₂ gas. As the CO₂ gas harmlessly dissipates, these contaminants generally constitute the only waste generated by this cleaning process.

Deionised Water Generation

- Deionised Water is defined as water that has been treated so as to remove dissolved ionic impurities.
- Deionised Water is generated through an ion exchange process. Water is passed through two columns, the first of which is packed with positive ion-exchange resin beads (the cation exchange resin) and the second packed with negative ion-exchange resin beads (the anion exchange resin).
- As positively charged dissolved ions come into contact with ion exchange sites located on the cation resin surface, it drives off a positive hydrogen ion and bonds to the resin, and in this way, is removed from the water.
- Similarly, when negatively charged dissolved ions come into contact with the ion exchange sites located on the anion resin surface, they drive off a negative hydroxide ion and bonds to the resin, and in this way, is removed from the water.
- Ion-exchange resins will steadily lose their effectiveness as the H⁺ or OH⁻ ions on the ion exchange sites are driven off. The ion-exchange resins need to be periodically restored by chemical means to maintain their effectiveness.
- Flonic Group plans to develop the capability to design and install Deionised Water Supply Systems to generate and supply pure, de-ionised water (DI water) for use primarily with Precision Cleaning Systems.

Megasonic Cleaning

- Megasonic Cleaning technology is essentially the same as Ultrasonic Cleaning technology, in that cavitation is induced by transmitting high frequency sound waves through a liquid medium, except that the sound waves employed are of a much higher frequency, that is, in the Megasonic range.
- Megasonic Cleaning utilises sound waves in the 700 kHz and 1.2 megahertz (mHz) range. Ultrasonic generators and piezoelectric transducers are used, as magneto restrictive transducers are not able to vibrate at such high frequencies.
- Flonic Group plans to develop Megasonic Cleaning technology initially targeted at performing precision cleaning of Semiconductor Wafers. Flonic Group also plans to develop Megasonic Cleaning technology for use in biotechnology applications.



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High-Efficiency Air Knife

- Conventional air knife systems are limited in that airflow velocity measured at different distances from the point of air flow origin is not constant, with airflow velocity showing significant variation from the desired range. This decreases system efficiency.
- Through its internal R&D efforts, Flonic Group has developed a High-efficiency Air Knife System, with greatly improved airflow velocity characteristics
- Flonic Group believes that this technology has many potential applications in Precision Cleaning and other industrial applications, and intends to submit an application to patent this technology.

High-Efficiency Liquid Flush and Replacement

- Conventional liquid flush and replacement systems may be inefficient for the following reasons:
 - If the liquid is drained completely, particles or other contaminants may be deposition on the vessel walls and other surfaces as surface tension causes residual liquid to adhere to the vessel wall. The use of surfactants will reduce contaminant deposition. However, their use may not be compatible with the cleaning of certain Objects;
 - If a liquid is flushed out of a vessel, eddies or blind spots that may be formed as the liquid is streamed into the vessel may trap particles and other contaminants, causing contaminant concentrations in the vessel to steadily increase as the flush cycle is repeated. Suspended particles will also tend to settle at the bottom of the tank. Ultimately, the liquid vessel will have to be drained completely.
- In contrast, High-Efficiency Liquid Flush and Replacement utilises a controlled stream of liquid directed in the tank to create liquid flow and turbulence that eliminates the formation of contaminant-trapping eddies and blind spots. Suspended particles and other contaminants are distributed evenly throughout the tank, and are thus more effectively removed.
- Coupled with a high-efficiency and high-capacity pump, and high efficiency filters, contaminant levels in the liquid can be kept below specified levels, and reduces the need to frequently replace the liquid. This lowers operating costs and reduces system down-time.
- Flonic Group plans to patent this new technology. Flonic Group has also submitted applications to trademark the circulation system under the "JET BLAST™" name, and to trademark the liquid flow system under the "EVEN-FLOW™" name.

Four-Side Overflow Filtering

- Four-Side Overflow Filtering refers to a contaminant removal method that is designed to efficiently remove contaminants that float on a liquid surface.
- Floating contaminants will be removed from a liquid vessel as a controlled stream of liquid is pumped into the vessel, causing the vessel to overflow.

12. FIVE-YEAR BUSINESS DEVELOPMENT PLAN OF FLONIC HI-TEC BHD (Cont'd)**VITAL FACTOR CONSULTING**

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- While this contaminant removal method is simple in principle, there is difficulty in applying this method to liquids with high surface tension, such as water and deionised water. Surface tension will hinder liquid overflow, reducing the efficiency of the filtering system.
- A surfactant may be added to reduce the surface tension of the liquid, but the use of surfactants may not be compatible with certain cleaning applications.
- To solve this problem, a specially designed device is used to physically break the surface tension of the liquid, facilitating overflow and subsequent floating contaminant removal.

Precision Vacuum Cleaning and Rinsing

- Precision vacuum cleaning and rinsing involves the cleaning and rinsing of Objects in a vacuum environment. Precision vacuum cleaning and rinsing is used to increase the effectiveness of ultrasonic cleaning of Objects that have small blind holes, small diameter tubes, complicated shapes and/or overlapping surfaces.
- The vacuum environment ensures that no air is trapped by the Object's small blind holes, small-diameter tubes, complicated shapes and/or overlapping surfaces. The presence of air in these spaces will act as an 'air shield' and exclude liquid penetration, and as a result cavitation, and therefore cleaning, cannot take place in these spaces.
- Flonic Group has submitted an application to trademark its precision vacuum cleaning system under the "VACLEAN™" name.

Low Temperature Vacuum Drying

- Low temperature vacuum drying is used to dry Objects that require a high degree of dryness, but cannot be exposed to high temperatures.
- Placing a wet Object in a vacuum environment will accelerate drying by increasing the liquid's evaporation rate by lowering its boiling point.
- However, rapid evaporation of liquid may lead to freezing of residual liquid on the Object surface, as energy is needed for liquid evaporation. Thus, it is necessary to supply some heat to the Object to prevent this from occurring.
- Heat is supplied to the vacuum chamber by an infra-red heater, and an external strip heater.
- Flonic Group has submitted an application to trademark its low temperature vacuum drying system under the "VACDRY™" name.

Rigid and Stable Robotic Arm Material Handling System

- A Rigid and Stable Robotic Arm Material Handling System is a material handling system that is superior to current designs in terms of rigidity and stability.
- The rigidity and stability of the new design reduces friction and consequently particle formation, which reduces the rate at which a precision cleaning system's liquid cleaning or rinsing agent is contaminated.

12. FIVE-YEAR BUSINESS DEVELOPMENT PLAN OF FLONIC HI-TEC BHD (Cont'd)**VITAL FACTOR CONSULTING**

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- The increased stability of the robotic arm also reduce vibration and knocking, dropping or crashing of the Object, which will in turn reduce product reject rates.
- Flonic Group has submitted an application to trademark its rigid and stable robotic arm material handling system under the "FLOBOTIC™" name.

Double Stage Safety Protection Arm System

- The Double Stage Safety Protection Arm System incorporates a system that passes a very low voltage current through the robotic arm. The system is able to detect if the robotic arm is in contact with a particular object based on differences in electrical conductivity.
- However, this system does not work if the robotic arm comes into contact with an insulated object, as no circuit is completed. An additional sensor system is necessary to overcome this problem.
- The Double Stage Safety Protection Arm System will stop robotic arm movement in the event that the arm comes into contact with an object that it is not programmed to touch, and will alert an operator to take the necessary corrective measures.
- This system can prevent damage resulting from improper robotic arm movement, and reduce downtime and maintenance costs.
- Flonic Group has submitted an application to trademark its double stage protection arm system under the "SAFEPRODE™" name.

5 RESEARCH AND DEVELOPMENT**5.1 Research and Development Facilities and Personnel**

- Flonic Group has a formal R&D department. In addition, key employees are actively involved in the R&D process. They include the three Directors, and all of the Group's technical professionals and engineers.
- Flonic Group has an in-house Class 10 Clean Room equipped with a DI Water Supply System in which to carry out R&D activities.
- As Flonic Group Directors and senior staff are active contributors to the Group's R&D activities, the threat of R&D disruption due to shortage of people with the necessary skills is reduced, as these Directors and senior staff are likely to remain with the Group for the long-term.
- As many of these skills are commonly available, there is a low threat in obtaining skilled resources for its R&D work.
- In addition, the number of R&D personnel can easily be expanded if required.
- Flonic Group's R&D team's skills will also be upgraded thorough various training courses, seminars or workshops.



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5.2 Future Research and Development

- Flonic Group plans to continue R&D into precision cleaning technologies that it does not currently have the capability to utilise, focusing initially on the following:
 - Laser Cleaning;
 - CO₂ Snow Cleaning;
 - Deionised water generation;
 - Wafer Cleaning Systems;
 - Improvement of Low-emission Vapour Cleaning Systems;
 - Megasonic Cleaning.

6 PRODUCT DEVELOPMENT PHILOSOPHY

- Flonic Group's product and service development is guided by the following three philosophies:
 - Using existing strengths and core competencies to create and commercialise new Precision Cleaning products and services;
 - Creating sustainable competitive advantages through the development and commercialisation of value-added products and services in Precision Ultrasonic Cleaning and Other Precision Cleaning Systems;
 - Continually improving existing products and processes to ensure relevance and meeting customers' changing preferences and needs.
- The implications of these three guiding philosophies are as follows:

Strengthening Core Competencies in Precision Cleaning and Precision Ultrasonic Cleaning

Flonic Group is mindful of the need to create and sustain a strong market reputation and track record as a provider of Precision Cleaning Systems including Precision Ultrasonic Cleaning Systems. As such, Flonic Group's future business development effort will be focused on this area.

This product and service development philosophy would ensure that the Group continues to leverage from its existing strengths and will continue to grow the business in the area of its core competencies.

Commercialisation of Value-Added Precision Cleaning Products and Services

Flonic Group will focus on developing and commercialising value-added Precision Cleaning products and services.

New technologies and products that the Group plans to develop include Laser Cleaning, CO₂ Snow Cleaning, Low-Emission Vapour Cleaning System, Wafer Cleaning Systems, Megasonic Cleaning Systems, Deionised Water Supply Systems, Contract Precision Cleaning Services, and the Servicing of Precision Cleaning Systems.

These new products and services will complement and expand Flonic Group's existing range of precision cleaning products and services. The new business development will create a platform with which to achieve strong growth in the Group's businesses over the next five years.

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Creating Product and Service Differentiation

Flonic Group's product and service development philosophies are based on the need to continually create and sustain competitive advantages to provide sustainability and growth for the business. The Group differentiates itself in three ways:

- Product quality, whereby the Group is focused on designing and manufacturing Precision Cleaning Systems including Precision Ultrasonic Cleaning Systems that consistently meet customer requirements by utilising different, new and emerging technologies and carrying out research and development. The Group is able to meet the requirements of both local and overseas customers.
- Innovation, whereby the Group continuously carries out R&D and evaluates new and emerging technologies with the aim of integrating suitable new technology into the Precision Cleaning Systems designed and manufactured by the Group, enabling the Group to evolve along with changing customer specifications;
- Service quality, whereby the Group aims to provide excellent customer service, prompt delivery and fast turnaround time.

7 VALUE OF PRODUCTS AND SERVICES

- The value of the activities of Flonic Group are high and is contributed largely through the following activities:
 - Knowledge and Technology-based Products and Services;
 - Sales and Marketing;
 - Research and Development.

Knowledge and Technology Based Products and Services

- The value of Flonic Group's activities is high as it involves converting basic materials, such as:
 - stainless steel
 - other metals
 - plastic parts
 - cables and wires

combined with complex components and services, such as:

 - electronic parts
 - ultrasonic transducers and generators
 - integrated circuit chips
 - motors
 - developing software

to create Precision Cleaning Systems, including Precision Ultrasonic Cleaning Systems.
- The high value of Flonic Group's activities is primarily derived from using technologies, innovations and knowledge-based skills to deliver solutions.



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Sales and Marketing

- Flonic Group undertakes a significant amount of sales and marketing of its products and services.
- This value adding is further enhanced by Flonic Group actively undertaking direct sales and marketing activities of its products and services.
- This contrasts with the sales and marketing activities carried out by a contract manufacturer, whose sales and marketing requirements are comparatively lower.
- By utilising direct sales channels, Flonic Group is able to retain a higher proportion of the profit margin and exercise more control over brand development.
- In particular, creating brand equity for its brand names and products increase significantly the value of its business activities.

Research and Development

- Research and development in the creation of new products and services, and the constant upgrading and improvement of existing products and services are the activities undertaken by Flonic Group that add the highest amount of value. This entails using relevant technologies to ensure that products and services are up to date and continue to meet customers' requirements.
- New products created through research and development will provide Flonic Group with the basis for continuing business growth and success.
- The Group's R&D efforts have resulted in the development of a High-Efficiency Liquid Flush and Replacement System that the Group plans to patent. The Group has also submitted applications to trademark the circulation system under the "JET BLAST™" name, and to trademark the liquid flow system under the "EVEN-FLOW™" name.
- In addition, the Group has submitted trademark applications for the following products and technologies that it has developed:
 - "JET BLAST™" and "EVEN-FLOW™", a high-efficiency liquid flush and replacement system
 - "FLOBOTIC™", a rigid and stable robotic arm material handling system;
 - "SAFEPRODE™", a double-stage safety protection arm system;
 - "VACLEAN™", a precision vacuum cleaning system;
 - "VACDRY™", a low temperature vacuum drying system.
- All the products currently sold by Flonic Group are a result of its own research and development. As such, there is no need to pay royalties or franchise fees to any principals with the exception of sub-components, which are procured directly.
- Future products will also be created through in-house research and development, without the need to licence any technologies or intellectual properties.



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8 GOVERNMENT INCENTIVES

- As part of the Malaysian Government's intention to nurture the growth and development of the Machinery and Equipment Industry, there are incentives provided for companies in the manufacture of machinery and machinery components under the Promotion of Investments Act 1986. The incentives include Pioneer Status.
- The promoted activities and products classified under the manufacture of machinery and machinery components include, among others, Ultrasonic Cleaners (*Source: Malaysian Industrial Development Authority*).
- Flonic Group falls under the industrial machinery and equipment category of promoted activities.
- Flonic Group, through Flonic Sdn Bhd and Ultraflonic Sdn Bhd, have obtained Pioneer Status. Details of the Group's Pioneer Status include:
 - Flonic Sdn Bhd was granted Pioneer Status by the Ministry of International Trade and Industry Malaysia with respect to its Ultrasonic Cleaning business on 22 November 2000. Pioneer Status was valid for a period of five years, from 1 April 1999 to 31 March 2004;
 - Ultraflonic Sdn Bhd was granted 70% Pioneer Status by the Malaysian Industrial Development Authority to manufacture "Ultrasonic Cleaning Machines" on 2 June 2003. As Ultraflonic Sdn Bhd commenced operations in 2004, this Pioneer Status is expected to expire in 2009.

12. FIVE-YEAR BUSINESS DEVELOPMENT PLAN OF FLONIC HI-TEC BHD (Cont'd)

9 ORGANISATION CHART

- The organisational structure of Flonic Group upon listing will be as follows:

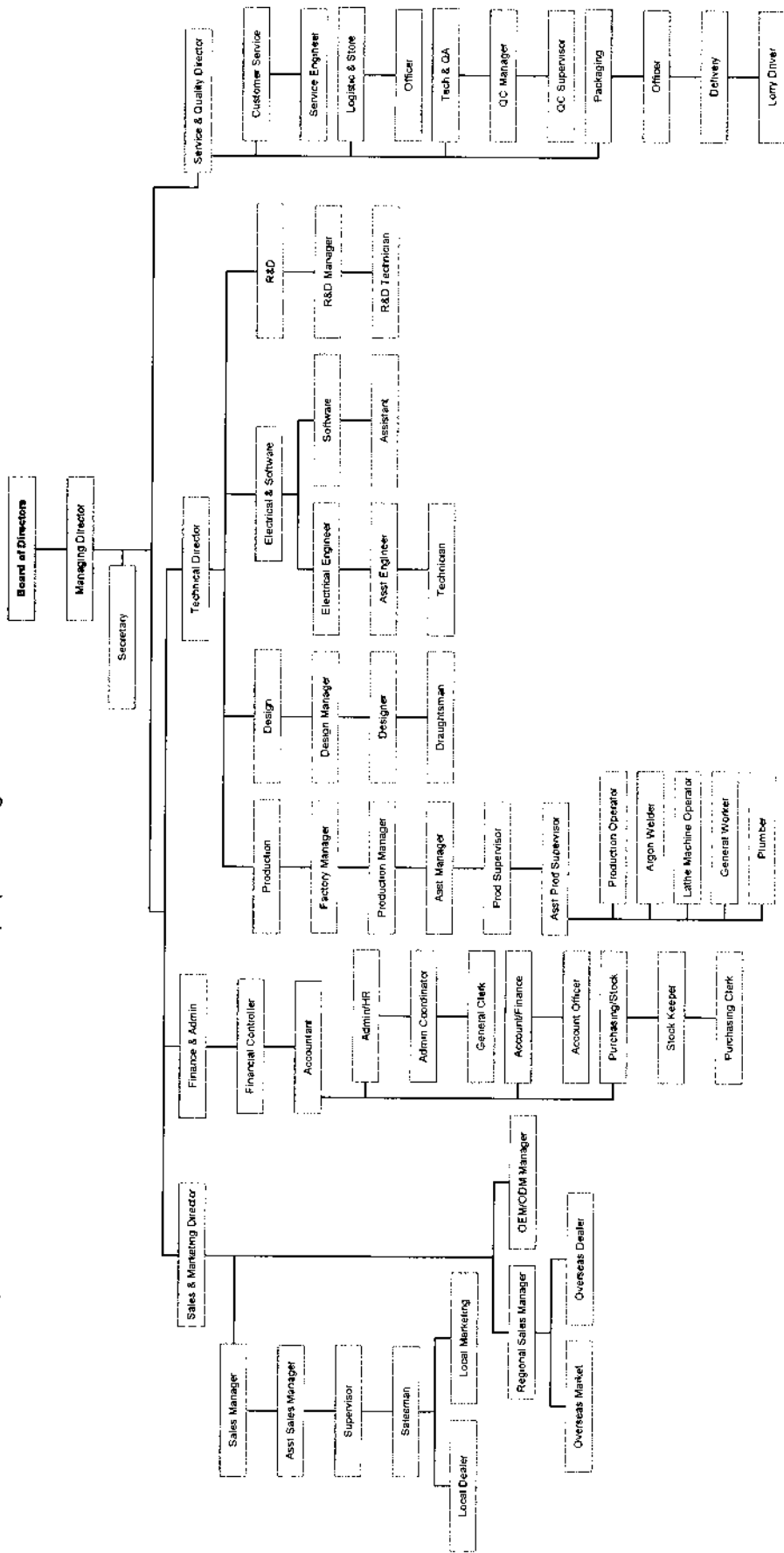


Figure 4 Proposed Organisation Chart of Flonic Group



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10 REPORT QUALIFICATIONS

- In preparing this report, Vital Factor Consulting Sdn Bhd relied primarily on information furnished by the Directors and key Management of Flonic Group. No representations, expressed or implied are made of such information. Nevertheless, Vital Factor Consulting Sdn Bhd had obtained confirmation from the Directors and Management that all relevant material facts and information critical to the assessment have been disclosed to Vital Factor Consulting Sdn Bhd. The Directors and Management had also accepted responsibility for the accuracy and truth of the information provided and confirmed that after making all reasonable enquiries and to the best of their knowledge and belief, there are no facts or omission of which would render any information furnished to Vital Factor Consulting Sdn Bhd misleading. Wherever reasonable, Vital Factor Consulting Sdn Bhd had independently and objectively assessed the business and had undertaken due care and consideration to ensure that all information provided in this report are accurate and true and that there were no deliberate material omission of facts or information.

Yours sincerely

Wooi Tan
Managing Director
Vital Factor Consulting Sdn Bhd

13. DIRECTORS' REPORT

(Prepared for inclusion in the Prospectus)



FLONIC HI-TEC BHD.

(655665-T)

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North Klang Straits Industrial Estate,
42000 Port Klang,
Selangor Darul Ehsan, Malaysia.

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Fax : 603- 31769193
Email : sales@flonic.com
Homepage : www.flonic.com

Date: **21 OCT 2005**

The Shareholders of
FLONIC HI-TEC BHD ("FLONIC" OR "COMPANY")
Lot 6, Solok Sultan Hishamuddin 6,
North Port Straits Industrial Estate,
42000 Port Klang

Dear Sir/Madam,

On behalf of the Board of Directors, I wish to report after due enquiry that between the period from 31 August 2005 (being the date to which the last audited accounts of the Company and its subsidiaries ("the Group") has been made) up to date hereof (being a date not earlier than 14 days before the issuance of this Prospectus), that: -

- (a) the business of the Group has, in opinion of the Directors, been satisfactorily maintained;
- (b) in opinion of the Directors, no circumstances have arisen since to the last audited accounts of the Group which have adversely affected the trading or the value 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) no contingent liabilities have arisen by reason of any guarantees or indemnities given by the Company or any of its subsidiaries;
- (e) in the opinion of the Directors, they are not aware of since the last audited accounts of the Group where, any default or any known event that could give rise to a default situation, in respect of payments of either interest and/or principal sums in relation to any borrowings; and
- (f) save as disclosed in the Proforma Consolidated Balance Sheets in Section 9.7 and the Accountants' Report in Section 10 of this Prospectus, there have been no material changes in the published reserves or any unusual factors affecting the profits of the Group since the last audited accounts of the Group.

Yours faithfully,
For and on behalf of the Board of Directors
FLONIC HI-TEC BHD

Yen Yoon Fah
Executive Chairman