#### INTRODUCTION

The Group commenced its operations with the establishment of Eco-Tek, a whollyowned subsidiary of the Company, in October 1999. Eco-Tek was founded by Dr. Chiang with an objective to capture the business opportunities perceived to arise from the public's growing concern about environmental problems. It is the mission of the Group to become one of the leading providers of environmental protection related products and services in Hong Kong and other overseas markets.

The Group is principally engaged in the development, commercialisation and sale of environmental protection related products and ancillary services. Leveraging on the experience of Dr. Chiang in industrial engineering and commercialisation of industrial products, the Group strives to develop and provide environmental protection related products and services. The common characteristics among the Group's marketed products and new products under development are (i) the adoption of mechanical process as the core working principles of these products; and (ii) usage of similar raw materials for manufacturing and application of similar manufacturing process.

The Group's commercialised environmental protection related products include *Eco-Trap* and two of the three kinds of hydraulic filters of the Group, suction filter and return line filter.

*Eco-Trap* is developed by the Group in collaboration with PolyU and is designed for the use by diesel light vehicles of up to four tonnes to reduce the emission of diesel particulate, which is considered to be one of the major causes of air pollution in Hong Kong. Dr. Chiang participated in the development of the former model of *Eco-Trap*, i.e. the Filter, since June 1998. For the details of the process of development of the Filter into Eco-Trap, please refer to the paragraphs headed "Initial business development up to 26 October 1999" and "Development and Commercialisation of Eco-Trap" in this section. As one of the measures to address the growing concern of deteriorating air quality, the EPD launched the Voluntary Installation and Subsidy Program in August 2000 to provide grants to about 42,000 diesel light vehicle owners to install particulate reduction devices on their pre-Euro standard diesel vehicles. The Group was one of the two contractors appointed by the EPD to supply and install devices to reduce particulate from the exhaust of diesel light vehicles under the Voluntary Installation and Subsidy Program for a period of 14 months which expired in October 2001. As at the Latest Practicable Date, the Group continued to supply and install *Eco-Trap* for those diesel light vehicle owners who registered with the Group for such installation before the expiry date of the Voluntary Installation and Subsidy Program on 17 October 2001 and for certain diesel light vehicle owners possessing re-issue notice of the EPD and who had registered with the Group before 31 October 2001. The Directors expect that the installation of Eco-Trap under the Voluntary Installation and Subsidy Program will be completed by the end of December 2001. As at the Latest Practicable Date, a total of 16,735 pieces of Eco-Trap were supplied and installed in Hong Kong.

In October 1999, the Group commenced the development of various types of hydraulic filters, which are designed principally for hydraulic systems installed in industrial machinery. Hydraulic oil used in hydraulic systems, when contaminated, has to be disposed of and replaced so as to prevent any damage to the hydraulic systems and the industrial machinery to which

the hydraulic systems form parts. Generally, improper disposal of contaminated hydraulic oil causes environmental problems such as water pollution and soil contamination. The hydraulic filters currently launched by the Group include suction filter and return line filter. Pressure line filter is another kind of hydraulic filter which is under development by the Group. In May 2001, the Group launched the suction filter and return line filter to Taiwan and the PRC. In view of the wide application of these hydraulic filters in industrial machinery, the Directors believe that there is great market potential for these products.

In addition to *Eco-Trap* and hydraulic filters, the Group is also committed to the research and development of other environmental protection related products to combat other pollution problems. As at the Latest Practicable Date, products under development by the Group included soundproof barriers, diesel oxidation catalyst and pressure line filter.

As part of its development plans based on its experience in the development and commercialisation of *Eco-Trap*, the Group also commenced the research and development of diesel oxidation catalyst in May 2000. The diesel oxidation catalyst of the Group will be designed to reduce the exhaust pollutants emitted by diesel heavy vehicles by converting several pollutants such as CO, gas phase HC and SOF through oxidation into harmless substances such as  $CO_2$  and water vapour. The Directors believe that with the experience gained from the commercialisation and installation of *Eco-Trap* in Hong Kong, the Group has a competitive edge over other potential competitors for the provision and installation of diesel oxidation catalyst for diesel heavy vehicles under another subsidy program which is expected to be launched by the EPD in the near future.

In December 2000, the Group commenced the development of another environmental protection related product, the soundproof barrier which adopts ASE technology to reduce noise pollution generated by road traffic. The major deficiency of conventional noise proof barriers currently used in Hong Kong is that they use high barriers to isolate noise instead of extinguishing it. To overcome this deficiency, the soundproof barrier proposed to be developed by the Group is designed to extinguish noise rather than isolate noise. The height of the panel on which the Group's soundproof barrier is installed will be adjusted in accordance with the environment in the vicinity and the targeted level of noise control. At present, the Group's soundproof barrier is designed for installation on top of barrier panels with a height as low as two metres only.

The Group also provides ancillary services to support the use of its environmental protection related products. Since April 2001, the Group has been providing cleaning services of the filter cartridges of *Eco-Trap* in its head office in Kwun Tong. In addition, the Group has commenced *Eco-Trap* installation service in its head office in Kwun Tong since May 2001.

Since September 2001, the Group has also engaged in the research and development of a regenerative diesel oxidation catalyst which is designed to provide both physical trapping function and oxidation effect to reduce vehicles emission and pollutants.

## THE STRENGTHS OF THE GROUP

The Directors consider that the principal strengths of the Group are as follows:

- the Group's dedicated management team which has extensive experience and technical expertise in the development and commercialisation of industrial products;
- the Group's alliance and collaboration with PolyU which strengthen the Group's research and development capability in environmental protection related products and services;
- an effective communication channel built up between the management team of the Group and the relevant authorities of the Hong Kong government; and
- a low-cost strategy in the development and supply of environmental protection related products and services.

### **GROUP STRUCTURE**

Set out below is the Group's corporate structure immediately following completion of the Placing and the Capitalisation Issue (assuming that the ANT-Option, the Over-allotment Option and the Pre-IPO Share Options are not exercised) and a brief description of the principal activities of the members of the Group:



Notes:

- 1. Team Drive is wholly-owned by Peace City, a company the entire issued share capital of which is beneficially owned by Dr. Chiang.
- 2. The entire issue share capital of Advance New Technology is beneficially owned by PolyU.

- 3. The aggregate of 1.65% of the entire issued Shares will be held by Ms. Yip Yuk Chun and Ms. Chow Yuk Ngor, the employees of the Group, in the respective proportions of 1.6% and 0.05%.
- 4. As at the Latest Practicable Date, the Company had granted options under the Pre-IPO Share Option Scheme which entitles the grantees thereof to subscribe for Shares representing, in aggregate, about 17.5% of the entire issued share capital of the Company immediately following completion of the Placing and the Capitalisation Issue (but before enlargement by the exercise of the ANT-Option the Pre-IPO Share Options and the Over-allotment Option), details of which are set out in the paragraph headed "Share Option Schemes – Pre-IPO Share Option Scheme" under the section headed "Statutory and general information" in Appendix IV to this prospectus.
- 5. The percentage shareholdings shown in the above chart do not take into account any Shares which may be allotted and issued upon the exercise of the ANT-Option, the Over-allotment Option and the Pre-IPO Share Options. Assuming that the Over-allotment Option is exercised in full but prior to the exercise of the ANT-Option and any Pre-IPO Share Option, the percentage shareholdings of Team Drive in the Company will become approximately 52.19%.

#### HISTORY AND DEVELOPMENT

#### Initial business development up to 26 October 1999

The founder of the Group is Dr. Chiang who has extensive experience in industrial engineering and commercialisation of industrial products. Dr. Chiang is the chairlady of the Industry and Technology Committee of the Hong Kong General Chamber of Commerce. In June 1998, Dr. Chiang was invited to act as one of the industrial advisers by PolyU to participate in the development of the Filter based on the preliminary conceptual framework designed by PolyU.

Based on the said preliminary conceptual framework of the Filter, further studies and researches were conducted by PolyU and Dr. Chiang since July 1998 with the objective of developing the Filter into a marketable product with improved function and practicality that would meet the market demand. Studies and researches were also conducted to develop an associated cleaning method or system for the contaminated cartridge of the Filter. Meetings were held between Dr. Chiang and the representatives of PolyU. During the meetings, practical suggestions on the refinement of and the production specifications of the Filter were contributed by Dr. Chiang.

In September 1999, Dr. Chiang and PolyU agreed to a co-operative arrangement for the joint development and commercialisation of the Filter. Dr. Chiang was responsible for the commercialisation of the Filter which includes the improvement on its practicability, the use of suitable materials, the design of casing, the design of vibration resistance and waste water treatment technology while PolyU was mainly responsible for the testing of the modified Filter.

On 30 September 1999, PolyU obtained from the Patents Registry of Hong Kong the Hong Kong Patent for the design of the Filter, which was subsequently modified into *Eco-Trap*.

Since the initial business development and up to 26 October 1999, the Group has been financing its operations by advances from the Directors and has not had any bank borrowings.

# Business development since 27 October 1999 up to 31 October 2000

The Group was founded by Dr. Chiang when Eco-Tek was incorporated on 27 October 1999 as a vehicle to carry on the business of the development and commercialisation of the Filter and to capture future business opportunities arising from the increasing awareness in environmental protection by developing and providing an array of environmental protection related products and ancillary services. As at 31 October 2000, there were 10 staff in the Group.

When Eco-Tek was incorporated on 27 October 1999, one share was allotted and issued to each of Dr. Chiang and Peace City for cash at par value of HK\$1.00 per share. On 25 May 2000, 99,998 shares in Eco-Tek were allotted and issued, credited as fully paid, to Team Drive for cash at par value. On 1 December 2000, Team Drive acquired one share of Eco-Tek from each of Dr. Chiang and Peace City. During the period from 27 October 1999 to 31 October 2000, the Group financed its operations by advances from the Directors and did not have any bank borrowings.

Details of the business activities of the Group in relation to each of its environmental protection related products and the ancillary services during the period from 27 October 1999 up to 31 October 2000 are separately discussed in the following sub-paragraphs.

# Development and commercialisation of Eco-Trap

Since the establishment of Eco-Tek in October 1999, the Group has continued to participate actively in the development of the Filter, which was initially designed by PolyU, and the subsequent commercialisation of the modified version of the Filter (i.e. *Eco-Trap*).

In order to seize the business opportunity for commercialisation of the modified version of the Filter under the Voluntary Installation and Subsidy Program which was expected to be launched by the EPD shortly, Eco-Tek and PolyU entered into a memorandum of intent on 10 February 2000 ('First Memorandum of Intent') for the grant of an exclusive licence to Eco-Tek to manufacture, distribute, sell and install the modified version of the Filter in Hong Kong and the PRC in order to facilitate Eco-Tek to tender for the supply and installation of devices to reduce particulate emission from diesel light vehicles (the "Tender") under the Voluntary Installation and Subsidy Program. As the First Memorandum of Intent lapsed in the mid of April 2000, a second memorandum of intent was entered into between Eco-Tek and PolyU to extend the date of signing of a formal licence agreement which was subsequently signed by the parties in August 2000.

Upon signing of the said memoranda of intent with PolyU, the Group conducted the following preparatory work to facilitate the commercialisation of the modified version of the Filter:

- the Group commenced the search for suitable contractors in the PRC to undertake mass production of the modified model of the Filter. The Directors considered that it was commercially more viable, in terms of costs, to outsource the production of the modified version of the Filter at the initial stage of the business development; and
  - the Group conducted initial marketing to introduce the modified version of the Filter to the Hong Kong market by organising discussion sessions with various parties such as the representatives of the Motor Traders Association of Hong Kong.

In February 2000, PolyU obtained the PRC Patent for the Filter from 中華人民共和國 國家知識產權局 (State Intellectual Property Office of the PRC). In addition, from February 2000, the Group commenced preparation for tender for the installation of diesel particulate reduction devices under the Voluntary Installation and Subsidy Program and procurement of the distribution and installation of *Eco-Trap* by Caltex gas stations.

In response to the invitation for the Tender publicated by the EPD on 2 June 2000, the Group submitted the Tender to the EPD in late June 2000.

In July 2000, by an assignment entered into between PolyU and PTeC, a company wholly owned by PolyU, the Patents together with the Patent Applications were assigned by PolyU to PTeC.

In support of the Tender and pursuant to the two memoranda of intent entered into between Eco-Tek and PolyU in February and April 2000 respectively, the Group and PTeC entered into a royalty-based licence agreement in August 2000, pursuant to which the Group was granted an exclusive licence to manufacture, distribute, sell and install the modified version of the Filter in Hong Kong and the PRC.

In August 2000, the EPD awarded the Tender to the Group. The Group was one of the two contractors appointed by the EPD to provide vehicle particulate reduction devices for diesel light vehicles under the Voluntary Installation and Subsidy Program. The Group signed the first manufacturing contract with a contractor in the PRC, an independent third party, immediately after the grant of the Tender to manufacture the modified version of the Filter according to the specifications provided by the Group.

In September 2000, all modification works on the modified version of the Filter were substantially completed and it was named "*Eco-Trap*".

The major modification works on the Filter carried out by the Group include:

- reviewed the design of the body of *Eco-Trap* by Dr. Chiang and assisted by Dr.
  Pau in December 1999
- reviewed the design of filter elements by Dr. Chiang and assisted by Dr. Pau in February 2000
- analysed the connector by Dr. Chiang and assisted by Dr. Pau in March 2000
- reinforced the connector by adding conical support by Dr. Chiang and assisted by Dr. Pau in April 2000
- combined the two-pieces-casing into one piece by Dr. Chiang and assisted by Dr.
  Pau in May 2000
- analysed the design of the filter element by Dr. Chiang and assisted by Dr. Pau in June 2000
- net was added to pack the filter media, and bending plate was moved from filter element to the body by Dr. Chiang and assisted by Dr. Pau in July 2000
- redesigned the mounting of the mechanism and modified the dimension for mass production by Dr. Chiang and assisted by Dr. Pau in August 2000
- redesigned the casing by reducing the thickness and adding the reinforce grooves by Dr. Chiang and assisted by Dr. Pau in September 2000
- designed the packaging and studied the safety valve by Dr. Chiang and assisted by Dr. Pau in September 2000
- isolation plate was added to avoid infiltration of exhaust gas by Dr. Pau in October 2000
- safety valve was added onto the *Eco-Trap* designed for diesel vehicles of 3,000
  c.c. or above in November 2000 by Dr. Pau
- two pins were added to fix the wipe by Dr. Pau in December 2000

As the Directors consider that the core mechanical technologies of *Eco-Trap* have not been changed from that of the Filter, no patent has been applied for the modified Filter, i.e. *Eco-Trap*. The Directors believe that the Patents and other applications for patent (if granted) have provided and will provide sufficient legal protection on the design of the core mechanical technologies of *Eco-Trap*. In September 2000, the Group entered into a memorandum of understanding with Caltex pursuant to which installation services of *Eco-Trap* would be

provided in 15 Caltex service stations, waste water disposal facilities would be provided at 30 Caltex service stations and retailing services of the filter cartridges of *Eco-Trap* would be available at 50 Caltex service stations. In addition, 3 garages were engaged to provide installation services of *Eco-Trap* and retailing services of the filter cartridges.

*Eco-Trap* was launched to the Hong Kong market in September 2000. From September 2000 to 31 October 2000, a total of 1,247 units of *Eco-Trap* was sold.

Pursuant to their initial understanding since May 1999, the Group and PolyU, through PolyU's wholly-owned company PTeC, implemented an appropriate legal structure to regulate their respective rights, benefits and obligations in relation to the development and commercialisation of *Eco-Trap* by entering into a deed of assignment between the Group and PTeC on 9 December 2000 ("Deed of Assignment"), the Patents and the Patent Applications together with the related intellectual property rights of *Eco-Trap* were assigned to the Group. In consideration for such transfer, Eco-Tek (BVI) agreed to allot and issue shares representing about 20.625% of the then issued share capital of Eco-Tek (BVI) and the ultimate shareholding of Advance New Technology in the Company of not less than 16.5% to Advance New Technology, a nominee of PTeC and a company wholly and beneficially owned by PolyU. On 5 June 2001, Eco-Tek Technology and PTeC entered into a supplemental deed ("First Supplemental Deed") whereby the parties agreed to amend the percentage of shares in Eco-Tek (BVI) to be allotted and issued to Advance New Technology under the deed to 21.27% and adjust the then percentage of shareholding of Advance New Technology in Eco-Tek Technology and the ultimate shareholding of Advance New Technology in the Company upon listing to about 16.1%. On 21 November 2001, Eco-Tek Technology and PTeC entered into a second supplemental deed ("Second Supplemental Deed") whereby the percentage of share in Eco-Tek (BVI) to be allotted and issued to Advance New Technology was further adjusted to 21.47% for the purpose of maintaining the percentage shareholding of Advance New Technology upon listing at about 16.1%. Following the assignment of the Patents, the royalty-based licence agreement entered into between the Group and PTeC in August 2000 was terminated. No licencing fee or royalty fee had been paid to PTeC pursuant to the licence agreement.

#### Development of hydraulic filters

Dr. Chiang, the Chairman of the Company and a member of both the Group's research and development committee and research and development team, has extensive experience in hydraulic system components area, which includes hydraulic filters due to her participation in the design of plastic injection moulding machines. With the market knowledge of Dr. Chiang and Dr. Pau in this area, since October 1999 the Group had undertaken a development project of hydraulic filters designed mainly for industrial machinery including a suction filter, return line filter and pressure line filter, as part of its business plan. The Group's return line filter has a relatively high pressure sustainability as compared with most of the return line filter currently available in the market. The Directors believe that return line filters with high-pressure sustainability can prevent leakage of hydraulic oil resulting from deformation of the filter caused by high-pressure operating environment.

In order to establish the competitive edge for its hydraulic filters, the Group has adopted a low-cost strategy by taking advantage of the low production costs in the PRC for the manufacture of its hydraulic filters as the Directors believe that the low production cost will enable the Group to offer its hydraulic filters at prices lower than its overseas competitors. The Directors believe that there is great market potential for competitively priced hydraulic filters.

It is the intention of the Group to develop and manufacture return line filter with relatively high-pressure sustainability as compared with most of the return line filters currently available in the market. The Directors believe that return line filters with high-pressure sustainability can prevent leakage of hydraulic oil resulting from the deformation of the filters caused by high-pressure operating environment.

The Group therefore initiated the development project for hydraulic filters by carrying out the design work of the suction filter and the return line filter and the production of their prototype during the period from October 1999 to January 2001. In September 2000, the prototype of the suction filter was tested by a nominee of the distributor of the Group's hydraulic filters based in Taiwan. Based on the related test results of the prototype and recommendation from the distributor, the original design of the suction filter was modified by the Group to improve its practicability.

The commercial production of suction filter and return line filter commenced in June 2001 and September 2001. The commercial production of suction filters and return line filters are currently undertaken by the Group's contractor in Shunde, Guangdong Province, the PRC, an independent third party. Furthermore, the Group will continue the development of the pressure line filter and it is expected that the commercial production of the pressure line filter will commence in early 2002.

#### Development of diesel oxidation catalysts

The EPD announced that it would launch a program to encourage diesel heavy vehicle owners in Hong Kong to install diesel oxidation catalysts for their vehicles in 2001. Based on the Group's technical expertise and the market knowledge gained from the development of *Eco-Trap*, the Directors believe that the Group is well-positioned to capitalise on the business opportunity in this area. The Group conducted market research from January to April 2000 to assess the market potential of diesel oxidation catalyst in Hong Kong and the PRC.

Based on the results of its market research, the Group initiated the development of its diesel oxidation catalyst in May 2000. Design work of the housing of the diesel oxidation catalyst and the mounting interface for the diesel oxidation catalyst in regular model were conducted by the Group in May and June 2000 respectively. The Group has identified a suitable supplier for the catalyst as well as independent manufacturers for the housing for the diesel oxidation catalyst in regular model in the PRC. The Group will test the functionality and practicability of the composed diesel oxidation catalyst in regular model before marketing. The development of the diesel oxidation catalyst in regular model is pending the release of the final specification of the diesel oxidation catalyst from the EPD. After the Group received the

confirmed specification, the Directors believe that the development can be resumed and completed within 40 to 45 days. The Directors expect that the diesel oxidation catalyst in regular model will be launched to the market in Hong Kong in mid 2002.

The Directors believe that with the experience gained from the commercialisation and installation of *Eco-Trap* in Hong Kong, the Group has the competitive edge over other potential competitors for the provision and installation of diesel oxidation catalyst in regular model for diesel heavy vehicles under the abovementioned program which is expected to be launched by the EPD in the near future.

In addition, the Group introduced the use of its diesel oxidation catalyst for diesel heavy vehicles in Hong Kong to the EPD during the period concerned.

### Proposed development of soundproof barrier

The Group committed to develop soundproof barrier, adopting ASE technology for the reduction of noise pollution generated by road traffic. Since 21 October 2000, the Group has established working relationship with a Japanese Company, JAI Company Limited ("JAI"), which employed ASE technology in developing its noise proof barriers in 1998 in Japan. Dr. Pau, who had participated in the development of the ASE noise proof barrier in Japan initiated by JAI during the period from 1998 to 1999, has substantial knowledge in ANC technology which was adopted in the development of the ASE technology by JAI.

The Directors believe that with the assistance of JAI as well as the experience and expertise of the Group's research and development team in industrial design and development, the Group is well positioned to undertake the proposed development of its soundproof barrier.

During the period concerned, preliminary studies and research have been carried out by the Group to prepare for the development of the Group's soundproof barrier.

### Business development since 1 November 2000 up to the Latest Practicable Date

During the period from 1 November 2000 to the Latest Practicable Date, the Group financed its operations by advances from the Directors and did not have any bank borrowings. As at the Latest Practicable Date, the Group had 17 staff.

In December 2000, the Group appointed a distributor to handle the distribution of the Group's hydraulic filters in Hong Kong, the PRC and Taiwan.

In December 2000, the Group established its research and development committee comprising 3 representatives of the Group, Dr. Chiang, Dr. Pau and Mr. Yung Chi Kay, and 8 representatives of PolyU. At the same time, the Group also formed its research and development team initially comprising 3 representatives of the Group in the research and development committee. The committee and the team worked together to improve the existing products of the Group and initiate new product development projects.

On 2 October 2000, Eco-Tek (BVI) was incorporated in the British Virgin Islands for the purpose of acting as the intermediate holding company of the Group. On 7 December 2000 and 21 November 2001, Eco-Tek (BVI) acquired the entire issue share capital of Eco-Tek Technology and Eco-Tek from Team Drive at the consideration of the issue and allotment of 100 and 21,559 shares in Eco-Tek (BVI) to Team Drive respectively.

On 10 January 2001, the Group entered into a new agreement with Caltex. Pursuant to the agreement, the number of Caltex service stations providing installation services of *Eco-Trap* has been increased from 15 to 18, waste water disposal facilities have been increased from 30 to 31 and retailing services of the filter cartridges of *Eco-Trap* will continue to be provided at all Caltex service stations in Hong Kong. The term of the agreement commenced from 10 January 2001 and will expire on 30 September 2003 and is terminable by either party serving 3 months' written notice on the other party.

In April 2001, the Group launched the cleaning services of the filter cartridges of *Eco-Trap*. The cleaning services include the delivery and collection services of contaminated filter cartridges from Caltex services stations for cleaning in the head office of the Company in Kwun Tong.

In May 2001, the Group commenced the *Eco-Trap* installation service in its head office in Kwun Tong.

In July 2001, Eco-Tek was granted the Silver Award of New SME Award in The 3rd Hong Kong SME Award organised by the Hong Kong Productivity Council and the Hong Kong General Chamber of Commerce.

For the period from 1 November 2000 up to the Latest Practicable Date, a total of 15,583 units of *Eco-Trap*, 7,200 units of suction filters and 700 units of return line filters were sold. As at the Latest Practicable Date, 12,861 units of *Eco-Traps* had been cleaned by the Group in its head office in Kwun Tong.

Since September 2001, the Group has also been engaging in the research and development of regenerative diesel oxidation catalyst.

To recognise the contribution of Dr. Pau, Ms. Yip Yuk Chun, Mr. Shah Tahir Hussain, and Ms. Chow Yuk Ngor, employees of the Group, to its growth and as incentive to retain their services, Eco-Tek (BVI) allotted and issued 1,200 shares to Dr. Pau, 640 shares to Ms. Yip Yuk Chun, 40 shares to Mr. Shah Tahir Hussain and 20 shares to Ms. Chow Yuk Ngor for cash at par value of US\$1.00 per share on 21 November 2001.

Eco-Tek Technology entered into the Deed of Assignment, the First Supplemental Deed and the Second Supplemental Deed with PTeC on 9 December 2000, 5 June 2001 and 21 November 2001 respectively, pursuant to which the Patents and the Patent Applications together with the related intellectual property rights of *Eco-Trap* were assigned to the Group and 6,440 shares representing about 21.47% of the then issued share capital of Eco-Tek (BVI) were allotted to Advance New Technology on 21 November 2001. Advance New Technology is the nominee of PTeC and is wholly owned by PolyU.

On 21 November 2001, the Group entered into the ANT-Option Agreement with Advance New Technology, pursuant to which an option was granted to Advance New Technology to subscribe for such number of Shares that shall represent 2.5% of the issued share capital of the Company immediately after completion of the Placing and the Capitalisation Issue (without taking into account any Shares which may be issued pursuant to the exercise of the Overallotment Option and the ANT-Option) at an exercise price equals to 90% of the Issue Price, which may be exercised at any time between the first and third anniversary of the Listing Date. The ANT-Option is granted to Advance New Technology as a reward to PolyU's continuing support and collaboration with the Group and for the purpose of enhancing future cooperative relationship between PolyU and the Group. A summary of the principal terms of the ANT-Option is set out in the paragraph headed "ANT-Option Agreement" in Appendix IV to this prospectus.

By a written resolution of all the shareholders of the Company dated 21 November 2001, the Company adopted the Pre-IPO Share Option Scheme for the benefit of the employees and the directors of the Group to recognise their contribution to its growth. As at the Latest Practicable Date, the Company has granted Pre-IPO Share Options to 3 executive Directors to subscribe for a total of 96,740,000 Shares at an exercise price of HK\$0.01, representing, in aggregate, 17.5% of the issued share capital of the Company immediately following completion of the Placing and the Capitalisation Issue (assuming the Over-allotment Option and the ANT-Option are not exercised and without taking into account any Shares to be issued upon exercise of any options granted or to be granted under the Share Option Schemes). All of these Pre-IPO Share Options may be exercised within three years from the expiry of 12 months from the Listing Date. Details of the options granted under the Pre-IPO Share Option Scheme are set out in the paragraph headed "Share Option Schemes – Pre-IPO Share Option Scheme" under the section headed "Statutory and general information" in Appendix IV to this prospectus. No further options will be granted under the Pre-IPO Share Option Scheme after the listing of the Shares on GEM.

The Group underwent reorganisation on 21 November 2001 whereby the Company acquired the entire issued share capital of Eco-Tek (BVI) from its shareholders by way of share swap with the result that the Company became the holding company of Eco-Tek (BVI). Details of the corporate reorganisation of the Group are set out in the paragraph headed "Corporate reorganisation" in Appendix IV to this prospectus.

#### STATEMENT OF ACTIVE BUSINESS PURSUITS

#### Overview

The following is the statement of active business pursuits of the Group since its establishment in October 1999:

#### From 27 October 1999 to 31 October 2000

#### Strategy

The Group focused on the development and commercialisation of *Eco-Trap* since its establishment in October 1999. It also planned to diversify its product lines by developing the diesel oxidation catalyst and hydraulic filters.

# **Research and development**

## Eco-Trap

- meetings were held between Dr. Chiang and the representatives of PolyU discussing the modifications of the Filter.
- modification works on *Eco-Trap* carried out by the Group are as follows:
  - reviewed the design of the body of *Eco-Trap* by Dr. Chiang and assisted by Dr. Pau in December 1999
  - reviewed the design of filter elements by Dr. Chiang and assisted by Dr.
    Pau in February 2000
  - analysed the modification of the connectors by Dr. Chiang and assisted by Dr. Pau in March 2000
  - reinforced the connector by adding conical support by Dr. Chiang and assisted by Dr. Pau in April 2000
  - combined the two-pieces-casing into one piece by Dr. Chiang and assisted by Dr. Pau in May 2000
  - analysed the design of the filter element by Dr. Chiang and assisted by Dr.
    Pau in June 2000
  - net was added to pack the filter media, and bending plate was moved from filter element to the body by Dr. Chiang and assisted by Dr. Pau in July 2000
  - redesigned the mounting of the mechanism and modified the dimension for mass production by Dr. Chiang and assisted by Dr. Pau in August 2000
  - redesigned the casing by reducing the thickness and adding the reinforce grooves by Dr. Chiang and assisted by Dr. Pau in September 2000
  - designed the packaging and studied the safety valve by Dr. Chiang and assisted by Dr. Pau in September 2000
  - isolation plate was added to avoid infiltration of exhaust gas by Dr. Pau in October 2000

# Hydraulic filters

- preliminary market research on the hydraulic filter industry initiated by Dr. Chiang was commenced in October 1999.
- the design suction filter by using wire mesh by Dr. Chiang was commenced in February 2000.
- the design return line filter was commenced in April 2000 by Dr. Chiang.
- testing on suction filter by perspective user in Taiwan in July 2000 and modifying suction filter in accordance with the test results was arranged in September 2000 by Dr. Chiang.
- the design of return line filter was completed in October 2000 by Dr. Chiang.
- the design of pressure line filter was commenced in November 2000 by Dr. Chiang.

## Diesel oxidation catalyst

- market information of diesel oxidation catalyst was collated in January 2000 by Dr. Chiang.
- researches on the varieties of heavy diesel vehicles in Hong Kong for the design of casing of diesel oxidation catalyst were commenced in March 2000 by Dr. Chiang.
- the design of the housing of diesel oxidation catalyst for different heavy diesel vehicles was commenced in May 2000 by Dr. Chiang.
- suitable supplier of the catalyst filter was contacted in August 2000 by Dr. Chiang.
- the representative of the Group attended discussion with the EPD on the specifications of the diesel oxidation catalyst to be adopted under a subsidy program to be launched by the Hong Kong government by Dr. Chiang.

### Waste plastic recycling process

- Professor Georg Menges was invited by Dr. Chiang to act as the technical adviser of the Group in December 2000.
- preliminary research on the waste plastic recycling process initiated by Dr. Chiang was commenced in December 2000.

# **Business development**

- the Group established close working relationship with PolyU in the joint development and commercialisation of *Eco-Trap*. The parties agreed that when appropriate, they would collaborate to carry out other development projects relating to new environmental protection related products and services through consultancy services or joint development.
- the Group and PolyU agreed on a cooperative agreement for the joint development and commercialisation of *Eco-Trap* and the related techniques and processes required for production, operation, cleaning and refilling of filter cartridge of *Eco-Trap*.
- the Group established the network for retail sales and installation of *Eco-Trap* through its collaboration with Caltex. At the initial stage, installation work of *Eco-Trap* was carried out at 15 selected Caltex service stations and filter cartridges of *Eco-Trap* could be purchased at all 50 Caltex service stations. In addition, waste water disposal facilities were installed at 30 Caltex service stations collecting the polluted water used to clean the filter cartridges of *Eco-Traps*.

## Sales and Marketing

- submitted application for tender to the EPD for the installation of diesel particulate reduction device under the Voluntary Installation and Subsidy Program in June 2000.
- tender in relation to the Voluntary Installation and Subsidy Program was awarded by the EPD to the Group to supply and install *Eco-Trap* in August 2000.
- 3 garages were engaged to provide installation services of *Eco-Trap* and retailing services of filter cartridges since September 2000.
- *Eco-Trap* was first launched in Hong Kong on 25 September 2000. 1,247 pieces of *Eco-Trap* were sold up to 31 October 2000 with the turnover of HK\$1,621,000, the latest financial year end of the Company.
- promotion activities of *Eco-Trap* through advertisements on newspapers and distribution of brochure were commenced in October 2000.

## **Production activities**

- prototype of suction filter was commenced to be produced by a contractor in the PRC in March 2000 and was completed in June 2000.
- prototype of the modified version of the Filter was produced by a contractor appointed by the Group in the PRC in June 2000.
- mass production of *Eco-Traps* by a contractor in the PRC was commenced in August 2000.
- prototype of return line filter was commenced to be produced by a contractor in the PRC in October 2000 and was completed in January 2001.
- the production of the prototype of diesel oxidation catalyst was commenced by a contractor in the PRC in December 2000 and was completed in February 2001.

### Staff

- as at 31st October 1999, the number of employees of the Group was two.
- as at 31st October 2000, the number of employees was increased to 10.

### **Fund arrangement**

• as at 31 October 2000, HK\$1,033,000, HK\$140,000 and HK\$300,000 were advanced by Dr. Chiang, Mr. Shah Tahir Hussain and a related company.

### From 1 November 2000 to the Latest Practicable Date

### Strategy

The Group continued to focus on the commercialisation of *Eco-Trap* and the proposed launching of the cleaning services of *Eco-Trap*. Further, research and development works of the Group's diesel oxidation catalyst and hydraulic filters were also continued. The Group also continued the studies of the development of soundproof barrier adopting ASE technology.

# **Research and development**

# Eco-Trap

- safety valve was added onto the *Eco-Trap* designed for diesel vehicles of 3,000 c.c. or above in November 2000
- two pins were added to fix the wipe by Dr. Pau in December 2000

# Hydraulic filters

- the design of suction filter was completed in February 2001.
- return line filter was modified in May 2001.
- the design of return line filter was completed in July 2001.
- the design of pressure line filter was continued.

# Diesel oxidation catalyst

- the design of the casing of diesel oxidation catalyst for different heavy diesel vehicles was continued by Dr. Pau.
- the research and development of regenerative diesel oxidation catalyst was commenced in September 2001.

# Soundproof barrier

- negotiation between JAI and Dr. Pau to prepare the development of the Group's soundproof barrier in Hong Kong which will employ JAI's ASE technology in December 2000.
- trial installation of the soundproof barrier was liaised between Dr. Chiang, Dr. Pau and the Highways Department in January 2001.
- Dr. Pau visited Japan to discuss the design of the Group's soundproof barrier in January and March 2001.
- the design of the Group's soundproof barrier for the use in Hong Kong by Dr. Pau was commenced in March 2001.
- Dr. Pau visited Japan with the representative of the Highways Department of Hong Kong to verify the ASE in Japan in May 2001.

- Dr. Chiang and Dr. Pau discussed with the Highways Department and the EPD to compromise a testing standard of decibel level since June 2001.
- the Group appointed an independent third party to assist the Group in developing testing method of decibel level in July 2001.

# Waste plastic recycling process

• preliminary research on the waste plastic recycling process was continued.

## **Business development**

- the Patents, the Patent Applications and their related intellectual property rights were assigned to the Group by PTeC according to a deed of assignment entered into between the Group and PolyU in December 2000.
- the Group entered into an agreement with JAI pursuant to which JAI agreed to assist the Group to develop a soundproof barrier adopting ASE technology in Hong Kong for five years from 1 December 2000 and designated the intellectual property rights of ASE technology between the Group and JAI.
- the Group appointed Professor Georg Menges, a specialist in the area of plastic recycling and a professor in the Institute for Plastics Processing, Technical University of Aachen, Germany, to act as the Group's technical consultant for the proposed development of the waste plastic recycling process in Hong Kong in December 2000.
- the Group leased a premises in Kwun Tong as its head office in Hong Kong in January 2001 and established the cleaning facilities for the filter cartridges of *Eco-Trap* at the Company's head office in Kwun Tong in April 2001.
- a new co-operation agreement was entered into between the Group and Caltex pursuant to which the number of Caltex service stations being selected to provide installation service of *Eco-Trap* and waste water disposal facilities was increased to 18 and 32 respectively in March 2001.
- the number of garages engaged for the provision of installation services of *Eco-Trap* was increased to 5 in March 2001.
- initial negotiation in respect of the adoption of soundproof barrier of the Group with relevant government authority in Hong Kong commenced in March 2001. Technical presentation of the function of the soundproof barrier of the Group was conducted to the representative of the relevant government authority and trial installation of the Group's soundproof barrier in Hong Kong was liaised.

- Eco-Tek was granted with the Silver Award of New SME Award in The 3rd Hong Kong SME Award organised by the Hong Kong Productivity Council and the Hong Kong General Chamber of Commerce.
- the Group launched the cleaning services of the filter cartridges of *Eco-Trap* in April 2001. The cleaning services include the delivery and collection services of contaminated filter cartridges from Caltex service stations for cleaning in the head office of the Company in Kwun Tong.
- the Group commenced to install *Eco-Trap* in its head office in Kwun Tong in May 2001.
- the Group prepared to apply for Environmental Conservation Fund from the EPD to fund the research and development of waste plastic recycling process in October 2001.

# Sales and Marketing

- *Eco-Trap* was promoted in a dinner party with Taxi Association and Mini Bus Association organised by PolyU and sponsored by the Group in January 2001.
- *Eco-Trap* was promoted through advertisement on newspapers, road shows and commercials in radio since October 2000.
- A PRC contractor was engaged to manufacture suction filters in June 2001 and return line filters in August 2001.
- Suction filters and return line filters were commercially launched. Orders for suction filter and return line filter from the PRC and Taiwan were received in May 2001. The suction filters ordered by the PRC client and the Taiwanese client were delivered in July 2001. The return line filters ordered by the Taiwanese client was scheduled to be delivered to Taiwan in or about December 2001.
- suction filter was promoted in an exhibition in Shanghai in July 2001.
- as at the Latest Practicable Date, a total of 16,735 *Eco-Traps* was sold for HK\$21.8 million.
- the Group appointed a distributor to carry out distribution of its hydraulic filters in the PRC and Taiwan markets in December 2000.

# **Production activities**

- commercial production of suction filters was commenced in June 2001.
- commercial production of return line filter was commenced in September 2001.

## Staff

• as at the Latest Practicable Date, the number of employees was increased to 17.

### Fund arrangement

- as at 31 July 2001, HK\$2,767,000, HK\$935,000 and HK\$313,000 were advanced by Dr. Chiang, Dr. Pau and Mr. Shah Tahir Hussain.
- all advances from the Directors were settled and the operation of the Group is funded by internal resources.

## DIFFICULTIES ENCOUNTERED BY THE GROUP SINCE ITS ESTABLISHMENT

Vehicle particulate reduction devices have not been commonly employed in Hong Kong until recently. The Directors consider that the tightened control and increased penalty on smoky vehicles have contributed to the growing adoption of vehicle particulate reduction devices. Since 1 November 2000, the exhaust emission is required to be tested during the roadworthiness inspection and the fixed penalty on smoky vehicles has been increased from HK\$450 to HK\$1,000 with effect from 1 December 2000. In order to raise the public awareness about vehicle emission problem and the effective ways to abate the problem, in particular by installing *Eco-Trap*, the Group has paid great effort in promoting *Eco-Trap*, including setting up promotion booths in Caltex service stations and sending out promotional materials of *Eco-Trap* to representatives of the Motor Traders Association of Hong Kong, Taxi Association and Light Public Bus Association.

As no detailed official standard for vehicle particulate reduction devices has yet been announced by the relevant authorities of the Hong Kong government, and *Eco-Trap* being the only device approved by the EPD for installation under the Voluntary Installation and Subsidy Program that is designed to physically trap the particulates generated from fuel combustion, the Group has devoted in testing *Eco-Trap* and made necessary modifications to the design of *Eco-Trap* to ensure that it would meet the requirements of the EPD under the Tender and the demands of the market. The EPD finally awarded the Tender to the Group in August 2000 and *Eco-Trap* was first launched to the market in September 2000.

*Eco-Trap* requires daily cleaning for proper operations and maintenance. Some users of *Eco-Trap* may consider that it is inconvenient to remove the filter cartridge from the *Eco-Trap* and clean it everyday. In order to alleviate the inconvenience, the Group provides cleaning services in several Caltex gas stations and at the head office of the Group in Kwun Tong.

The current model of the Group's diesel oxidation catalyst is designed to control vehicle emission from diesel heavy vehicles that are fuelled with low sulphur diesel. However, the Directors believe that some truck Drivers in Hong Kong who frequently travel to the PRC usually refill their trucks with high sulphur diesel in the PRC which is relatively cheaper than diesel for sale in Hong Kong. The high sulphur diesel will not only impede the effectiveness of the diesel oxidation catalyst in purifying SOF in the vehicle commission particulate, but also damage the diesel oxidation catalyst. To counter this problem, the research and development team of the Group is in the process of finding an effective solution to the problem.

At present, most of the return line filters available in the market are for low pressure application which in general deform easily when operated under a high pressure environment and in turn cause leakage of hydraulic oil. The Group developed return line filters with higher pressure sustainability by enhancing the structure of the existing return line filters under development by the Group so that the modified return line filters can function properly in high-pressure operating environment to filter the hydraulic oil without leakage of the oil resulting from the deformation of the return line filters. The Directors anticipate that the change of the design of the return filters will inevitably lead to an increase in the cost of production, in particular, in terms of the consumption of more materials. The research and development team of the Group and the contractor is developing a new technique to form the outer casing of the return line filter with fewer fabricating procedures to avoid or limit the additional cost as the Group intends to compete on a price basis with respect to the sale of its hydraulic filters.

### PRODUCTS AND SERVICES

#### Marketed product: Eco-Trap

At present, the major commercialised product of the Group is *Eco-Trap* which consists of two different sizes, one for the installation in diesel vehicles of below 3,000 c.c. and the other for the installation in diesel vehicles of 3,000 c.c. or above.

*Eco-Trap* is an add-on device that can be easily connected to the exhaust pipe of diesel light vehicles without affecting the normal exhaust system of the existing vehicles. It serves to physically trap the diesel emission particulates, which are SOF being the mixture of HC (unburned fuel and lubricating oil), carbon soot (carbon black generated as a result of incomplete combustion of fuel), water and sulphate (which comes from the sulphur in the diesel fuel). Those particulates are the main causes of smoke opacity which is blamed to be the major cause of air pollution problem in cities with busy traffic like Hong Kong. In comparison with the diesel particulate reduction device supplied by other contractor appointed by the EPD under the Voluntary Installation and Subsidy Program, *Eco-Trap* is a relatively economical choice for the reduction of diesel emission particulate as, no material mechanical alteration on the vehicles is required for its installation and the production cost for *Eco-Trap* is competitively low.

The basic configuration of *Eco-Trap* is shown in Figure 5 below.



Figure 5

Each piece of *Eco-Trap* consists of two main components: a filter cartridge and a housing mounted with a connector. These two main components are made by stainless steel and are assembled to form a single component for installation to the exhaust pipe of a vehicle. The filter cartridge is divided into three compartments stuffed with stainless metallic fibrous elements. The packing densities of the stainless metallic fibrous elements are calculated to ensure good filtering efficiency and low pressure dropping through *Eco-Trap*. Within each compartment, two stainless steel struts are welded at the bottom of the compartments horizontally to avoid the twist of the stainless metallic fibrous elements in the compartments.

The particulates emitted from the exhaust pipe of a vehicle will go through *Eco-Trap*. These particulates are physically trapped by *Eco-Trap's* stainless metallic fibrous elements, through three mechanisms: interception, diffusion and inertial impaction. Figure 6 below shows the cross-section of *Eco-Trap*.



Figure 6

The filter cartridge is assembled with the housing by quick release clamps. The connector is directly connected to the exhaust pipe of a vehicle using suitable clamps and bolts. In order to further secure the connection of *Eco-Trap* to the exhaust pipe and to avoid accidental despatch of *Eco-Trap* from the exhaust pipe, a steel wire is fixed at the end of the exhaust pipe to tie up with the installed *Eco-Trap*.

As requested by the EPD, PolyU carried out a study of performance and effectiveness of *Eco-Trap* in abating diesel vehicle emission problem for the period from August to December 1999. 60 diesel vehicles including taxis, light goods vehicles and public light buses were invited to participate in a local trial road test of *Eco-Trap*. Laboratory test on the performance of *Eco-Trap* was also performed by 天津大學內燃燒學國家重點實驗室 (the National Engine Combustion Laboratory of the Tianjin University) in December 1999. The road and laboratory tests showed that after installing *Eco-Trap*:

- the average smoke levels emitted by taxis, light goods vehicles and public light buses were reduced by about 30%, 35% and 21% respectively;
- smoke opacity and particulates emitted from the exhaust of diesel vehicles were both reduced by about 30%; and
- an average of about 20 grams of particulates were trapped for taxis in every week, 12 grams of particulates were trapped for light good vehicles in every week, and about 23 grams of particulates were trapped for light buses in every day.

The results of the tests indicate that *Eco-Trap* is effective in reducing smoke level and particulates. Hence, the Directors believe that *Eco-Trap* is effective in minimising air pollution.

Eco-Tek was one of the two contractors appointed by the EPD to supply and install particulate reduction devices under the Voluntary Installation and Subsidy Program, pursuant to which eligible diesel light vehicle owners who had received invitation letters from the EPD were entitled to claim grants of HK\$1,300 from the Hong Kong government for installation of particulate reduction devices for their vehicles from any one of the two appointed contractors.

As the price of HK\$1,300 fixed by the Group for each *Eco-Trap* under the Tender was paid by the Hong Kong government under the Voluntary Installation and Subsidy Program and the price quoted by the Group was inclusive of the installation charge, the grant of HK\$1,300 by the Hong Kong Government to each eligible diesel light vehicle owner who were subsidised under the Voluntary Installation and Subsidiary Program would not be required to pay any extra costs for the installation services. In addition, the Group will provide free replacement of *Eco-Trap* to the eligible vehicle owners of damages of *Eco-Trap* which are caused by improper installation. As at 31 July 2001, the Group had made a provision for warranty costs of HK\$775,000 by reference to the estimated costs required to settle the Group's potential obligations.

### Installation of Eco-Trap

The installation of *Eco-Trap* is currently undertaken by 18 selected Caltex service stations, 5 garages and the Company's head office in Kwun Tong. To ensure sequential ordering and reservation for the installation of *Eco-Trap*, a central ordering and reservation system for

the installation is set up by the Group for prior appointment for installation service. Every customer is requested to fix the time and the specified Caltex service station or garage or the Company's head office for the installation services under the central ordering and reservation system. Upon receipt of orders from the customers, the Group is responsible to ensure that sufficient stocks are available at the designated Caltex service stations or garages. All installation work is performed by the staff of Caltex and the garages after attending the training session organised by the Group which instructs the employees of Caltex and the garages on the proper installation of *Eco-Trap* or their technicians engaged by the Group. The whole process of the installation of an *Eco-Trap* normally takes not more than 15 minutes.

### Cleaning of Eco-Trap

In order to maintain the effectiveness of *Eco-Trap*, it is recommended that the filter cartridge of *Eco-Trap* should be replaced once every 6 months or after running of every 10,000 kilometres by the vehicles, whichever is the earlier. The *Eco-Trap* users may clean their *Eco-Trap* by dipping the used filter cartridge into the mixture of water and the recommended detergent. As the water will then be polluted by the particulates consisting of chemical substances, special arrangements for its disposal are required under relevant laws and regulations in Hong Kong. To comply with the statutory requirement, the Group has arranged for the installation of water used to clean *Eco-Trap* from the *Eco-Trap* users.

In April 2001, the Group launched the cleaning services of the filter cartridges of *Eco-Trap* in the head office of the Company in Kwun Tong. The Group collects the contaminated filter cartridges from Caltex service stations. Those contaminated filter cartridges will then be delivered to the Group's cleaning centre set up in Kwun Tong for cleaning. The cleaning of the filter cartridges of *Eco-Trap* is processed through a semi-automatic washing line system which consists of a conveyor belt, three washing tanks and a continuous filtration system that helps to remove the particulates stranded in the filter cartridges. After cleaning, filter cartridges can be re-used. Currently, the cleaning services of the filter cartridges are provided by the Group to Caltex at a fixed charge. During the promotion period which is expected to expire at the end of November 2001, Caltex provides free cleaning service of filter cartridge to *Eco-Trap* users who refill petrol in Caltex gas station up to a specific amount. After the promotion period, Caltex will charge the *Eco-Trap*'s users who refill petrol in Caltex gas station up to a specific amount at a discount rate. For *Eco-Trap* user who has not consumed petrol up to a specific amount, fixed charge will be payable for the cleaning service of filter cartridge.

The Directors consider that the cleaning service will provide *Eco-Trap* users with convenience as they can leave the cleaning procedures to the Group. Besides, as usable and clean filter cartridge is provided every time the cleaning services are employed, the *Eco-Trap* users are not required to replace filter cartridges for their *Eco-Trap* once every 6 months or after running of every 10,000 kilometres by their vehicles as recommended by the Directors.

#### Marketed product: Hydraulic filters

In view of the wide application of hydraulic filters in the construction, agricultural and industrial machinery sectors, the Group has launched two types of hydraulic filters, i.e. suction filter and return line filter and is developing pressure line filter. Metal mesh or glass fibre are used as filtration media for the Group's filters.

The suction filter is the first component that is installed in a standard hydraulic system. It is installed between the inlet and the pump of a hydraulic system to filter the particulates of the hydraulic oil before the hydraulic oil is sucked by the pump. The suction filter is therefore a protector for the pump. It will prevent any dirt or particulate which is larger than 0.1 millimetre from entering into the hydraulic system.

The return line filter is installed in the hydraulic system such that the hydraulic oil must pass through the return line filter before it returns to the tank. It normally filters particulates larger than 0.02 millimetre to protect the hydraulic system components so that the hydraulic system can work in a good condition. The return line filter manufactured by the Group is subject to a maximum surge pressure of 30 kg/cm<sup>2</sup> and is with relatively high-pressure sustainability as compared with most of the return line filters currently available in the market.

The pressure line filter is normally installed between the pump outlet and the other components. It helps to filter particulates which are larger than 0.01 millimetre and gives further protection to the dedicated hydraulic system. The Group's pressure line filter is strong enough to withstand oil pressure that is higher than  $210 \text{ kg/cm}^2$  which is with a high-pressure sustainability as compared with other types of hydraulic filters. The Directors expect that as the pressure line filter possesses the heaviest housing, the price of the pressure line filter will be about four times more expensive than the return line filter.

The return line filter and the pressure line filter both consist of metal housing and the filter elements which are installed inside the housing are made from meshed metal or glass fibre. The filter elements need to be replaced every 500 working hours. The suction filter has no housing and can be cleaned manually.

#### New products under development

#### Diesel oxidation catalysts

The Group's diesel oxidation catalyst in regular model consists of a monolith honeycomb substrate coated with a platinum group metal catalyst ordered from the specialist manufacturer of such catalyst which can then be packaged in a stainless steel container designed by the Group. The specification of the catalyst is provided by the Group for the production by the catalyst manufacturer. The honeycomb structure with many small parallel channels presents a high catalytic contact area to exhaust gases. As the hot gases contact the catalyst, several exhaust pollutants such as CO, gas phase HC and SOF are converted into harmless substances, such as  $CO_2$  and water vapour mainly through oxidation effect.

The Group's diesel oxidation catalyst in regular model will be particularly suitable for heavy vehicles such as heavy trucks and public buses as well as construction machinery and other diesel engine driven products. For the installation on different varieties of diesel heavy vehicles, the Group is prepared to design different fittings of the housing to suit the different mechanical designs of exhaust system installed on such diesel heavy vehicles.

Since September 2001, the Group is also engaged in the research and development of a regenerative diesel oxidation catalyst which is designed to provide both of the physical trapping function and oxidation effect to reduce vehicles emission and pollutant. The regenerative diesel oxidation catalyst is targeted at the higher end market, including government vehicles.

#### Soundproof barrier

Most of the noise barriers currently available to the market are installed on the roads or railways while their tops are uncovered. In that case, the barriers are able to isolate noises in areas that are surrounded by them but noises are still spread from the top of the noise barriers. As a result, the effectiveness of those noise barriers decreases. Aiming to overcome the weakness of the existing noise barriers, the Group intends to develop a new soundproof barrier using ASE technology which was employed by JAI in developing its noise proof barrier for the Japan market in 1998.

The ASE noise proof barrier developed by JAI based on the ANC technology of which Dr. Pau has substantial knowledge. The soundproof barriers utilise the ANC technology to be introduced in Hong Kong. The noise is received by the microphone at the source and the control circuit shifts sound waves up to 180 degrees, then, the speaker outputs negative sound waves to cancel the noise received. A test on the ASE noise proof barrier developed by JAI has been conducted by the Japanese Ministry of Construction in January 2000. The test shows that the ASE noise proof barrier has good noise reduction performance for both a fixed noise source and a high speed running truck. Further, the noise reduction effect of the ASE noise proof barriers. However, improvement in noise reduction effect of the ASE noise proof barrier, especially at 400 Hz and 800 Hz, and the appropriate position of its installation are major issues to be further researched and resolved.

As stated in the paragraph headed "History and development" under this section, the Group has entered into an agreement with JAI on 1 December 2000, pursuant to which JAI will assist the Group in the development of soundproof barrier in Hong Kong by employing the ASE technology for a term of five years commencing from 1 December 2000.

# APPLICATION OF COMMON MATERIALS AND KNOW-HOW IN THE DEVELOPMENT OF THE GROUP'S DEVELOPED PRODUCTS AND PRODUCTS UNDER DEVELOPMENT

The common characteristics among the Group's marketed products and new products under development are (i) the adoption of mechanical processes as the core working principles of these products; and (ii) usage of similar raw materials for manufacturing and application of similar manufacturing process.

## Adoption of mechanical processes as core working principal

The core working principal of the Group's marketed products are based on mechanical process, *Eco-Trap*, diesel oxidation catalysts and hydraulic filters apply the principle of filtration, while the mechanical process adopted in developing soundproof barrier is a mechanical barrier made by sheet metal and/or steel and using active sound edge technology which is designed to off-set traffic noise. The development of the Group's marketed products and new products under development is guided by Dr. Chiang and Dr. Pau who have strong technical knowhow in the mechanical process.

### Similar raw materials and similar manufacturing process

*Eco-Traps*, diesel oxidation catalysts, casing of the soundproof barrier and hydraulic filters are or will be produced by similar raw materials, sheet metal and/or steel, and these marketed products and new products under development are or will be manufactured under similar manufacturing process. The manufacturing processes of the Group's products involve the sizing of metallic materials, the bending, shearing, welding and forming and structuring of the metallic components and the composition of such components into end-products. The manufacturing processes are designed and controlled by Dr. Pau who has been an active member in the industrial sector in Hong Kong for years.

## **RESEARCH AND DEVELOPMENT**

The Directors believe that the continuing commitment to research and development is a key to maintain Group's competitiveness in the environmental protection industry, a growing industry which arises mainly due to the increasing public awareness and concern on the environmental problems and their remedies and the environmental protection. The Directors also believe that through its research and development, the Group is able to (i) identify environmental problems which are not currently tackled by any means effectively; (ii) design and develop practical and economic products and services to abate those identified problems; and (iii) carry out any necessary modification of the Group's existing products in order to improve its effectiveness in abating environmental problems.

Except for the initial design of *Eco-Trap* which was undertaken by PolyU, research and development of the Group's products are undertaken by the Group's in-house research and development team ("R&D Team"), which is supported and advised by the Group's research and development committee ("R&D Committee"). Research and development costs for the year ended 31 October 2000 and the nine months ended 31 July 2001 amounted to HK\$100,000 and HK\$960,000, respectively.

The Directors expect that the Group's R&D Team which comprises 3 full-time members as at the Latest Practicable Date, Dr. Chiang, Dr. Pau and Mr. Yung Chi Kay, the deputy general manager, will play a significant role in enhancing the Group's competitiveness. The R&D Team's primary responsibilities are:

• to conduct research and development works aiming to improve the Group's existing environmental protection related products and services in terms of performance and production efficiency; and

• to initiate and realise potential projects with an aim to develop and commercialise new products and services.

Among the members in the R&D Team, a leader is appointed to lead the research and development of each product. Currently, Dr. Chiang is primarily responsible to lead the research and development of *Eco-Trap*, hydraulic filters and waste plastic recycling process while Dr. Pau is mainly responsible to lead the research and development of soundproof barrier and diesel oxidation catalysts.

Generally, Dr. Chiang undertakes to oversee commercialisation process, i.e. to ensure the functionality and practicability of each products, and strategic direction of the research and development of each products. Dr. Pau undertakes the mechanical design and the production process design of each product. The other member of the R&D Team is responsible to supervise the execution of the design work, such as the production of prototype and to coordinate the testing of the products in each stage of development.

The R&D Committee was set up in December 2000. At present, the R&D Committee comprises 3 representatives of the Group and 8 representatives of PolyU. Currently, representatives from PolyU comprise professors and lecturers with expertise in environmental engineering, civil and structuring engineering and mechanical engineering. In addition, PTeC has agreed to further support the Group through the nomination of professors or lecturers with expertise in additional areas, including construction and land use and health and social studies, upon request by the Group. The R&D Committee has advisory and supervisory roles and its main duties and responsibility are:

- to provide technical information to the R&D Team;
- to collate marketing information and prepare feasibility studies in the Group's proposed projects to develop and commercialise new environmental protection related products and services;
- to verify the conformity of the specifications provided by the R&D Team with any specific requirements and/or market demands;
- to advise the R&D Team on technical problems; and
- to provide general advice and supervision to the R&D Team.

# PRODUCTION

# Production of *Eco-Trap* and hydraulic filters

*Eco-Trap* and hydraulic filter are the marketed products of the Group. *Eco-Trap* is made of stainless steel sheet while hydraulic filter is mainly made of carbon steel sheet and stainless mesh sheet. The production process of *Eco-Trap* and hydraulic filters starts with the sizing of a metal sheet by shearing machine according to a drawing provided by the Group. The rolling

machine then bends the sized sheet to tube form. The edges of the tube will then be jointed by argon gas welder and/or spot welder. The press extrudes the tube into the size as required in the drawing. The housing is finished and ready for further process. The "connector" is processed under the same procedures as the housing. Then the housing and the connector are jointed together by argon gas and/or spot welder. The manufacturing of filter cartridge body for *Eco-Trap* also follows the same procedures as that of the housing. The stainless metallic fibrous elements will be stuffed into the cartridge body at a formulated density. The steel mesh sheet of the hydraulic filter designed by the Group is bent into shape and press-fitted onto the body of the hydraulic filter. The plastic components are purchased from third party.

The production process of *Eco-Trap*, suction filter and return line filter are illustrated in the following flow chart:



The Group currently engages two contractors in Shunde and Zhongshan, the PRC to undertake the mass production of Eco-Trap, suction filter, return line filter and ancillary components. The two contractors are independent third parties not connected with the Directors, chief executive or substantial shareholders of the Company or its subsidiaries or their respective associates. The contractors are responsible for the entire production process, from the purchase of raw materials for production to the shipment of the finished products. The Group has provided the contractors with assistance throughout the production process including the setting up of production schedules and quality control procedures. The delivery lead times from the placement of order to the delivery of Eco-Trap, suction filter and return line filter are approximately 2 weeks, 4 weeks and 6 weeks respectively. The contractors have signed confidentiality agreements to confirm that they will not sell Eco-Trap to any third parties and agree that all information in relation to *Eco-Trap* will be kept confidential. Although there is no long-term contract between the Group and these contractors, the Directors believe that the Group will not encounter any major difficulties in engaging competent contractors for the production of the marketed products of the Group as there are numerous manufacturers engaging in the production of stainless steel parts and components and the Group will also provide such manufacturers with assistance in relation to the production and quality control. It is the Group's strategy that it will continue to identify reliable contractors which offer competitive cost quotations to manufacture *Eco-Trap* and hydraulic filter. In order to ensure the quality of

the finished products manufactured by the contractors, quality control inspectors are appointed by the Group to station in the PRC to attend inspection in the manufacturing plants of the contractors. The quality control inspectors are responsible to inspect the batch of finished products before the same are packed for shipment.

The sales and marketing staff of the Group monitored the sale daily. In addition, the sales and marketing staff of the Group reviewed the inventory level on a weekly basis in order to plan the production schedule with the contractor and used to maintain the inventory level below 2-month sales.

The major raw materials of the Group's marketed products are sourced by the contractors of the Group. The purchases were mainly settled in Hong Kong dollars by cheques or telegraphic transfer. In general, the major suppliers grant credit terms of 30 days to the Group. Such credit terms may be negotiated from time to time by the Group.

The top five suppliers of the Group accounted for approximately 98% and 100% in aggregate for the Group's total purchases for the year ended 31 October 2000 and the nine months ended 31 July 2001, respectively. For the same periods, the largest supplier of the Group accounted for approximately 37% and 94% of the Group's total purchases, respectively.

None of the Directors, their respective associates or, so far as the Directors are aware, shareholders who own more than 5% of the issued share capital of the Company (immediately following the completion of the Capitalisation Issue and the Placing and taking no account of the Shares which may be taken up under the Placing or issued pursuant to the exercise of Over-allotment Option and ANT-Option), has any interests in any of the top five suppliers of the Group for the period ended 31 October 1999, the year ended 31 October 2000 and the nine months ended 31 July 2001, respectively.

In the long run, the Group intends to set up its own production facilities in the PRC for the manufacture of *Eco-Trap*, hydraulic filter and the other products of the Group such as diesel oxidation catalysts and soundproof barrier. The Directors are in the process of identifying suitable premises for the production facilities. Please refer to the paragraph headed "Overall business objectives – Improvement in production capabilities" under the section headed "Business objectives and implementation plans" in this prospectus for further details.

### QUALITY CONTROL

Notwithstanding the fact that the production of *Eco-Trap* and hydraulic filter are outsourced and the installation of *Eco-Trap* is mainly conducted by the staff of Caltex at its service stations and the staff of the 5 garages, the Group has been making every effort to implement and maintain quality control as the Directors consider that quality of the Group's products is critical to the success of its business.

To control the quality of manufacturing of *Eco-Trap* and hydraulic filter, the Group currently adopts a two tier quality control system for *Eco-Trap*. The first tier of quality control procedures of *Eco-Trap* are undertaken before the finished products are shipped to Hong Kong by members of the quality control team who are responsible for inspecting the quality of the materials and components used to produce *Eco-Trap* as well as the finishing and packing density of the finished products against the standards set by the Group at the manufacturing plants of the contractors in the PRC. The second tier of quality control procedures are undertaken upon shipments of finished products to Hong Kong. Normally, about one-fifth of the products will be tested by the Hong Kong staff. If the passing rate of the tested product is less than 80%, the whole batch of finished products will be rejected by the Group and returned to the responsible contractor. If the passing rate of the test product is higher than 80%, only the defected products will be returned to the suppliers.

To control the quality of manufacturing of suction filter and return line filter, the members of the quality control team are responsible to inspect the quality of the materials and components used to produce suction filter and return line filter. Production and packaging processes are also inspected by the Group's inspectors. The filters will then be shipped to the distributors in Taiwan and the PRC after being inspected.

*Eco-Trap* can now be installed at 18 selected services stations of Caltex, 5 garages and the head office of the Company in Kwun Tong. All installation work is performed by staff of Caltex, the garages or the technicians of the Group. In order to ensure that the responsible staff is managed to master the necessary skills to install *Eco-Trap* for the customers properly, the Group has organised training sessions for the staff of Caltex and the garages in respect of the necessary skills of installation. Further, an installation report is required to be completed by the responsible staff after installing each *Eco-Trap*. Up to the Latest Practicable Date, no material complaint was received by the Group from the customers relating to the mechanical function or installation of *Eco-Trap*.

#### SALES AND MARKETING

The Directors consider that since the Group is a new entrant to the environmental protection industry and the environmental protection regulations and policies implemented by the government in the proposed markets for the Group's products have significant impact on the overall future development of the environmental protection industry which in turn will inevitably affect the Group's future development in the localities, it is in the interest of the Group to cultivate a close working relationship with the relevant local government authorities, such as the EPD in Hong Kong and the PRC-EPA in the PRC, to facilitate the prompt receipt of latest policies on environmental protection issues in their localities and environmental protection projects initiated by such government.

In order to ensure successful commercialisation of Eco-Trap in Hong Kong, the Group took its first step successfully in promoting *Eco-Trap* as one of the two particulate reduction

devices admitted by the EPD. Since the price, i.e. HK\$1,300 fixed by the Group for the installation of each *Eco-Trap* under the Tender matched with the amount granted to the eligible diesel vehicle owner by the Hong Kong Government under the Voluntary Installation and Subsidy Program, the Group managed to capture approximately 85% of particulate reduction devices installed under the Voluntary Installation and Subsidy Program. After the expiration of the Voluntary Installation and Subsidy Program, it is the Group's intention to promote *Eco-Trap* to market *Eco-Trap* to the owners of diesel light vehicles not installed with *Eco-Trap* by promoting effectiveness and the low installation costs of the product against the tougher action and penalties for smoky vehicles introduced by the Hong Kong government.

At the moment, the Group has alliances with Caltex to install *Eco-Traps* in 18 Caltex service stations and 5 garages to sell filter cartridges in 50 Caltex service stations. As at 31 July 2001, the Group's inventories held in Caltex service stations and 5 garages amounted to HK\$95,000 and HK\$25,000 respectively.

The Group normally exercises the following control measures over the inventories held in Caltex service stations and the garages:

- staff in the Caltex service stations and the garages are required to sign on *Eco-Traps*' delivery notes to acknowledge receipt of *Eco-Traps* from the Group
- the members in the sales and marketing team maintains records for the quantity of *Eco-Traps* stocked in each Caltex service stations and the garages and the number of *Eco-Traps* installed in each Caltex service stations and the garages
- weekly report on the quantities of the stock of *Eco-Traps* in each Caltex service stations and the garages is compiled by the members in the sales and marketing team
- the members in the sales and marketing team will then formulate the quantities of *Eco-Traps* to be supplied to each Caltex service stations and the garages in accordance with the confirmed orders placed with each Caltex service stations and the garages

The Group plans to expand the retail network through the effort of the members in the sales and marketing team and the senior management. The senior management will also approach, for example, the Light Bus Association to further promote the sales of *Eco-Trap*.

For the year ended 31 October 2000 and the nine months ended 31 July 2001, the Group's turnover was predominantly attributable to the sales and installation of *Eco-Traps* to the eligible vehicle owners under the Voluntary Installation and Subsidy Program, in which the Government paid to the Group in Hong Kong dollars within 30 days after completion of installation. The other customers of *Eco-Traps* paid the Group in cash upon delivery.

The top five customers of the Group, who are the individual eligible vehicle owners under the Voluntary Installation and Subsidy Program, accounted for less than 30% in aggregate for the Group's total turnover for the year ended 31 October 2000 and the nine months ended 31 July 2001, respectively.

None of the Directors, their respective associates or, so far as the Directors are aware, shareholders who own more than 5% of the issued share capital of the Company (immediately following the completion of the Capitalisation Issue and the Placing and taking no account of the Shares which may be taken up under the Placing or issued pursuant to the exercise of Over-allotment Option and ANT-Option), has any interests in any of the top five customers of the Group for the period ended 31 October 1999, the year ended 31 October 2000 and the nine months ended 31 July 2001, respectively.

The Group also plans to introduce *Eco-Trap* to the PRC market in December 2001. The Group had preliminary negotiations with a number of parties in relation to the distribution of *Eco-Trap* in the PRC, including a car distributor which has already expressed its interests in distributing *Eco-Trap* in Shunde, the PRC.

Based on its experience in working with the EPD to supply and install *Eco-Trap* for diesel light vehicles in Hong Kong under the Voluntary Installation and Subsidy Program, the Group plans to capitalise the program proposed to be launched by the Hong Kong government in the second or the third quarter of 2002 to encourage the diesel heavy vehicle owners to install diesel catalyst converters for their vehicles, to first introduce the Group's diesel oxidation catalyst to the market.

The Group has appointed an experienced independent distributor to market the Group's hydraulic filters in Hong Kong, the PRC and Taiwan. In May 2001, the Group first entered into purchase orders for the sale of suction filters and return line filters to Taiwan and the PRC. The Group intends to appoint another distributor, who is experienced and who has established solid client networks in the hydraulic filter industry, to be its distribution agents for the sales and marketing of its hydraulic filters in the US by early 2002.

### COMPETITION

#### Eco-Trap

The vehicle emission control devices currently available in the market include devices such as oxidation catalysts, continuously re-generating filters and active lean nitrogen oxide catalysts. However, retail prices of such vehicle emission control devices, including the other particulate reduction device adopted by the other contractor approved by the EPD under the Voluntary Installation and Subsidy Program, ranging from HK\$4,000 to HK\$7,500 per unit, are 3 to 6 times to that of *Eco-Trap* of HK\$1,300 per unit. Further, *Eco-Trap* has been approved by the EPD for installation under the Voluntary Installation and Subsidy Program which infers that the function of *Eco-Trap* is recognised. The Directors believe that notwithstanding the Voluntary Installation and Subsidy Program had expired, the competitive price and the recognition on the effectiveness of *Eco-Trap* will be the competitive edges of *Eco-Trap* over the other vehicle emission control devices currently available in the market.

#### **Hydraulic filters**

The major competitors for the supply of hydraulic filter are the manufacturers from the United Kingdom, the US and Italy. Similar to the strategy adopted for diesel oxidation catalyst, the Group is prepared to adopt the low price strategy to build up and expand its market share in the industry of hydraulic filters to cut the production costs of hydraulic filters. The Group has located suitable manufacturer in the PRC to undertake the mass production of the Group's hydraulic filters.

Generally, industrial machines require return line filters with high pressure of 30 kg/ cm<sup>2</sup>. However, most of the existing suppliers for hydraulic filters only provide low pressure return line filters of up to 12 kg/cm<sup>2</sup>. In order to build up the Group's competitive advantage in the industry of hydraulic filters, the Group intends to develop high pressure return line filter of 30 kg/cm<sup>2</sup> to meet the demand from the user of industrial machinery.

#### **Diesel oxidation catalysts**

At present, most of the diesel oxidation catalysts available in the market are produced by US based companies. The Group is now proposing to enter into the diesel oxidation catalyst market and to build up the competitive edge of its diesel oxidation catalyst in regular model by adopting a low cost strategy. Having considered that the production costs in the PRC is comparatively low, the Group plans to manufacture the Group's diesel oxidation catalysts in regular model in the PRC. The Directors expect that the production costs of the regenerative diesel oxidation catalyst will be comparatively higher than its regular model as the mechanical structure of the regenerative diesel oxidation catalyst is designed to provide both of the physical trapping function and oxidation effect. The Directors intend to promote the regenerative diesel oxidation catalyst to the higher end market, including for the use by government vehicles.

### Soundproof barriers

The conventional soundproof barriers used in Hong Kong are only noise isolation barriers which are designed to isolate noise but not extinguish it. Another disadvantage of such noise proof barriers is that particularly high barrier panels are normally required to isolate noise. Apart from blocking sunlight, these high barrier panels also interrupt or obstruct radio reception or transmission.

The Group is prepared to adopt ASE technology to develop innovated soundproof barrier for the Hong Kong market. The adoption of ASE technology, being developed based on ANC technology, in the soundproof barrier proposed to be developed by the Group is designed to extinguish noise rather than only to isolate it. The height of the panel on which the Group's soundproof barrier is installed will be adjusted in accordance with environment in the vicinity

and the targeted level of noise control. At present, the Group's soundproof barrier will be installed on the top of the barrier panels in the height as low as two metres, which is comparatively lower than the conventional noise proof barrier generally adopted in Hong Kong.

#### INTELLECTUAL PROPERTY

Pursuant to the Deed of Assignment, the First Supplemental Deed and the Second Supplemental Deed, PTeC assigned to Eco-Tek Technology the Patents which were registered in Hong Kong and the PRC and the Patent Applications of which applications for registration had been made in Thailand, India and Malaysia. As at the Latest Practicable Date, the Group had applied for registration of a patent and two trademarks in Hong Kong. Details of the Patents, the Patent Applications and other intellectual property rights of the Group are set out in the paragraph headed "Intellectual property rights of the Group" in Appendix IV to this prospectus.

### CONNECTED AND RELATED PARTY TRANSACTIONS

For the period from 27 October 1999 to 31 October 1999, the year ended 31 October 2000 and the nine months ended 31 July 2001, the Group had entered into certain related party transactions. For further details, please refer to note (g) under the section headed "Results" in the accountants' report as set out in Appendix I to this prospectus. The related party transactions had been terminated as at 31 March 2001.

### **RELATIONSHIP WITH POLYU**

Upon listing of the Shares, PolyU, through its interests in Advance New Technology, will be a substantial shareholder, holding about 16.1% of the entire issued Shares (assuming the Over-allotment Option, the ANT-Option and the options granted under the Share Option Schemes are not exercised).

PolyU is an academic institution in Hong Kong. PolyU, through its various academic departments, is actively involved in the research and development, study and analysis of technologies relating to environmental protection. Currently, these projects are focused on the study, experiment and analysis of issues on environment and the effectiveness and impact of proposed environmental protection technologies and/or measure(s) for academic and general research and development purposes. PolyU had confirmed that there are no product development activities being undertaken by PolyU currently that may compete or will compete with the products developed or proposed to be developed by the Group.

PolyU has agreed that if there is any research activity conducted by PolyU which may lead to the invention of technologies and/or knowhow and may result in specific environmental products that could be commercialised and may compete with the products of the Group in any respects, it will through PTeC offer a first right of refusal for the Group to commercialise products adopting such technologies and/or knowhow.

# **BUSINESS OBJECTIVES AND IMPLEMENTATION PLANS**

#### **OVERALL BUSINESS OBJECTIVES**

It is the mission of the Group to contribute towards the sustaining of a healthy and pleasant environment for both existing and future generations of mankind. By capitalising on the technical expertise and experience of the senior management and the research and development team of the Group, and applying innovative technology, the Group focuses on developing practical and economical environmental protection related products and services to improve and safeguard the environment.

Since environmental protection has become an issue of increasing global concern, the Directors believe that there is tremendous market potential in the environmental protection industry. With a view to achieving the Group's objective to become one of the leading providers of environmental protection related products and services in Hong Kong and other overseas markets, the Group has formulated major business strategies which comprise (i) development of new innovative products and services; (ii) development of new markets; (iii) improvement in production capabilities; (iv) improvement of the quality of existing products and service performance; (v) establishment of extensive distribution networks; (vi) securing government support; and (vii) promotion of public awareness towards environmental protection issues.

#### Development of new innovative products and services

The Directors believe that the key to success in the environmental protection industry lies with the ability to introduce innovative products and services using new technologies. Leveraging on the success in the development and commercialisation of *Eco-Trap* through the collaboration with PolyU, the Group intends to work closely with PolyU to develop and launch other environmental protection related products and services through consultancy services or joint research programs. The Group has set up a research and development committee, comprising representatives of both the Group and PolyU. In addition, the Group has established a research and development team to explore and develop other innovative products and services.

Apart from *Eco-Trap*, suction filter and return line filter, the Group has commenced the development of the diesel oxidation catalyst and pressure line filter and the preliminary study of soundproof barrier. Further research and development of these three products will be undertaken by the Group. Please refer to the paragraph headed "Products and services" under the section headed "Business" in this prospectus for details of these three products. The Directors expect that the diesel oxidation catalysts and the pressure line filter of the Group will be launched in the Hong Kong market in the second or the third quarter of 2002 and the soundproof barrier will be commercialised before the end of 2004.

#### Hydraulic filters

The Group intends to spend an aggregate of about HK\$1.0 million to conduct further research and development, recruit experienced technical engineers, commence in-house manufacturing and appoint distributors for the markets in the PRC, Taiwan