



## **NUPLEX INDUSTRIES LIMITED**

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## NUPLEX TODAY

When Nuplex Industries Limited (Nuplex) purchased Australian Chemical Holdings (ACH) in March 1998, it was only the second time a listed New Zealand company had purchased a listed Australian company. The takeover was particularly unusual because the target was twice the size of the takeover company. Nuplex is the quiet achiever; few people had heard of the company, which has grown to be the largest resin manufacturer in Australasia.

The company's capital has grown from 500 pounds in 1952 to year 2000 net assets in excess of \$300 million, and revenues of approximately \$400 million<sup>1</sup>. Nuplex is notable for its two long serving Chief Executives. The first, Bill Campbell, had a 46 year association with the company, including the first 30 years as Chief Executive-Chairman, followed by 14 years as Chairman and two years as Deputy Chairman prior to his final retirement in August 1998. His successor as Chief Executive, Fred Holland, has been in the role since 1981 making him one of New Zealand's longest serving CEOs. During his time as CEO revenues increased from \$25 million to \$400 million today, and had grown more than fourfold in the four years since 1997. In 2000, Fred Holland stepped down as CEO, but continues as Chairman.

The company was first registered on the stock exchange as *Floor Tiles and Parquet (NZ) Ltd* in 1956, then as *Revertex Industries (NZ) Ltd.* until 1990, when it took on its present name of *Nuplex Industries Limited*. It remains as one of the longest standing listings on the New Zealand Stock Exchange.<sup>2</sup>

The company's success is due to the competitive advantages it has been able to create and maintain. These relate to the company's strong relationships with customers, suppliers and staff, and its ability to tailor products to meet the needs of customers. Also important is the company's ability to see change coming, and then act to be the master of change rather than its victim.

### *The business portfolio*

Nuplex has three divisions, Resins, Construction Products and Special Waste Treatment. The Resins division is the largest. It is responsible for the manufacture of synthetic resins and polymers for the paint, printing ink, adhesives and fibreglass-reinforced plastics industries. In the Construction Products division compounds and resins sourced from the resin plant are applied to flooring, coatings, waterproofing, roofing and adhesives products. The Special Waste Treatment Division is responsible for the collection, processing, recycling and disposal of liquid, hazardous and other wastes.<sup>3</sup>

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<sup>1</sup> Inclusive of sales of the company's 1998 Australian acquisition, ACH. (Sales exclusive of ACH revenues were \$175 million in 1998).

<sup>2</sup> 1996 Annual Report - Bill Campbell Leaves the Chair - A Tribute

<sup>3</sup> 1998 Annual Report

Nuplex products infiltrate everyday life. Polymer compounds are used in moulded shower units, spa baths, bench-tops, paint, printing ink, curtain lining and concrete roof tiles. Power boats, yachts, surf skis, fishing rods, swimming pools and play equipment all have resin bases. Farms use fibreglass water tanks, dairy sheds have hygienic protection with specialist coatings and electric fence poles are made from non-conducting polymers<sup>4</sup> This broad product range has been built around the company's core capability in chemical engineering.

The company's geographic scope is focussed on the New Zealand and Australian home markets. Targeted exports to South East Asia comprise about \$12 million from a total of \$320 million. Nuplex services all market segments in its Australasian home market, while internationally it targets defensible niches.

The rationalisation of the resins industry in both New Zealand and Australia has been a focus of Nuplex's strategy for over a decade. However this phase in the industry's evolution appears to be drawing to a close.

The following statements summarise Nuplex's competitive strategy,

“We are determined to be the best, - which is achieved through excellent customer service, a willingness to customise products, a good return on investment and a broad view of the total industry”.<sup>5</sup>

“Nuplex is established to provide the very best of global resins and specialist building product technology tailored to meet local requirements within New Zealand”<sup>6</sup>

The company's success is based on finding out what the customer wants and then delivering it; and on continuous improvement in technology and production. “Particular emphasis has been placed on strong product back-up from close personal contact. This entrenched policy has developed a dedicated and knowledgeable staff at all levels of the organisation”.<sup>7</sup>

Until the late 1980s the company maintained a family atmosphere, due to relatively low employee numbers and the people skills of Bill Campbell. Company growth in the 1990s has initiated change to a less paternal, more functional style of management. Growth has also seen the company's style become more corporate. For example, until 1992 Annual General Meetings were always held in the company's boardroom. However, with a threefold increase in shareholder numbers in that year, this was no longer feasible.

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<sup>4</sup> Joanna Wane *Making Resin-able Profits* NZ Business June/July 1993 p33.

<sup>5</sup> Interview with Fred Holland, Managing Director 1998.

<sup>6</sup> Nuplex Corporate Profile 1990

<sup>7</sup> Nuplex Corporate Profile 1990

### *Responsible chemistry*

Manufacturers within the chemicals industry have a responsibility to demonstrate their commitment to protecting the environment, in relation to both facilities and products. Nuplex has responded as follows in the area of plant safety:

“Nuplex will always ensure that the group operations do not present an unacceptable level of risk to the community at large or the environment”.<sup>8</sup>

Nuplex has also responded in the area of product safety:

“ ‘Nuplex researchers’ Mr. Holland said ‘were working to meet increasing demand for environmentally friendly products - resins with no smell and containing more water and less solvent. We are rapidly moving our technology into these areas to keep ahead of the demands leading into the next century’ ”.<sup>9</sup>

The company has seen environmental regulation as an opportunity rather than a threat. Diversification into Specialist Waste Treatment exemplifies this attitude.

The chemical industry places a heavy emphasis on process conformance. This is reflected at Nuplex by the attainment of ISO 9002 and ISO 9001 certification, as well as the International Safety Rating System (ISRS) used as a basis for the continuous improvement programme.

Nuplex has been successful in product innovation at the same time as it has developed the above ISRS and ISO systems. Product innovation has entailed getting close to the customer, and in some cases, the customer’s customer.

“The group operates on a divisional structure. Each division operates as a separate profit centre with a General Manager or Divisional Manager responsible for the returns of each business and reporting to the Chief Executive”.<sup>10</sup>

### *Financial performance*

Nuplex’s financial performance is summarised in Appendix 1. The return on equity climbed steadily from 8% in 1989 through to 24% in 1995 and 1996. In 1997 it fell slightly before a major fall in 1998. The 1998 result reflects the New Zealand economy’s move into recession and the cost of restructuring the company after the ACH purchase.

Traditionally Nuplex operated with a very low level of debt. Expansion in recent years has seen the level of debt increase. The issue of additional equity in 1997 has helped to fund growth.

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<sup>8</sup> Nuplex Corporate Profile 1990

<sup>9</sup> National Business Review 11/3/94

<sup>10</sup> Nuplex Corporate Profile 1990 p 5

## **Bases of Competitive Advantage**

Nuplex developed its strategy from its '*determination to be the best*'. Rather than being outstanding in a single area, Nuplex has a range of competencies in several key areas, including,

- Strong Management Processes,
- Loyal and Competent Staff,
- Strong Customer Relationships,
- Strong Associate Relationships,
- Strong Research and Development Capability,
- Efficient Plant and Production Processes,
- Quality and Safety Processes.

These competencies have been built up together over time, rather than developing sequentially. They are discussed in detail below.

### *Management Processes*

A presence in international markets has given Nuplex a clear, broad vision of the industry and the global standard of competition. For example, foreseeing industry rationalisation enabled Nuplex to lead this rationalisation rather than follow it.

A strong focus on safeguarding the interests of shareholders is another salient feature. This is achieved partly through prudent investment to facilitate growth. Nuplex has historically operated with very little debt. This has, however, changed recently with the purchase of ACH. Freedom from domination by a single shareholder may also be an advantage.

### *Loyal and Competent Staff*

“All through the activities of procurement, formulation, and production there is an essential requirement of skilled personnel and it is in this area that Nuplex has achieved an enviable reputation for credibility and reliability in servicing the requirements of customers”.<sup>11</sup> The chemical industry is capital rather than labour intensive. Accordingly the workforce is highly skilled and specialised. The small scale of local manufacturing means employees have a broader understanding of the industry than their international counterparts, including R&D, production and

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<sup>11</sup> Nuplex Corporate Profile 1990 p 9

marketing. According to Nuplex “many of our staff have grown with and learned from their experience within the company, gaining intimate knowledge not only of the Nuplex product but also the end use of the product in particular customers’ processing plants. Many of these processes are unique and confidentiality and trust become common bonds between the production staff and the Nuplex representative or technical advisor”.<sup>12</sup> Practical work experience is considered as valuable as tertiary qualifications.<sup>13</sup> This breadth of understanding makes it easier to develop and implement product innovations than in larger, more structured companies.

Nuplex tends to promote from within, rather than employ senior management from outside the company. A number of middle and senior level managers were transferred to ACH following the recent purchase of that company.

### *Strong Customer Relationships*

The clear aim is to give the customer what the customer wants. Finding out what the customer wants is the trick. Because of the specialist nature of the resins industry Nuplex uses its own sales force to get as close as possible to the customer. In the Construction Products division, the emphasis is on licensed distributors and applicators. This system has worked well for Nuplex since the 1950s.

The majority of Nuplex’s customers are manufacturers and so they are relatively few in number. Nuplex’s ability to tailor a product to the specific needs of the customer has strengthened its relationship with customers. “Every application needs a slightly different resin to achieve the required performance, and we have built a tremendous range of products” Fred Holland says. “There is not a plant in the world today that produces as wide a range of resins as we do”.<sup>14</sup> Nuplex’s ability to meet all of a customer’s needs from an exceptionally broad base of technical competency is another important differentiator.

Customer relationships are typically long-standing. In some cases the company is now dealing with the third generation since its relationship with a family business was established.<sup>15</sup>

The Nuplex ‘brand’ has a clear value with many customers. “The company through its high profile and reputation in the construction industry, continues to attract new product opportunities to add further value to the existing services”.<sup>16</sup>

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<sup>12</sup> Nuplex Corporate Profile 1990 p 9

<sup>13</sup> Interview

<sup>14</sup> Nuplex Pushes into Australia Based on NZ Resin Know How. [NBR 11/3/94 p75]

<sup>15</sup> Nuplex Corporate Profile 1990 p 9

<sup>16</sup> 1996 Annual Report p 10

### *Strong Research and Development Capability*

The value of Nuplex's current product range at any one time is subject to constant erosion through changes in customer needs, technology and international competition. This erosion is counteracted by Nuplex's ability to develop new products to meet the evolving needs of customers.

Bill Campbell was quick to realise the value of technology links with overseas principals. He negotiated agreements in the United Kingdom, Germany and the USA.<sup>17</sup>

Nuplex started out as the junior partner in its relationships with its technical principals. They owned the technology, but allowed Nuplex to apply it in New Zealand. Initially development was limited to the requirements of adapting the international product to the local market. As the company grew, so did its research and development capability. When the principals were unwilling to license Nuplex into export markets, the company developed its own products for these markets. However, the objective has remained, wherever possible, to tailor an existing product rather than develop a new product from scratch.

Over the years Nuplex has continued to increase its research and development capability to the stage where many technology agreements are now two way. Technologies developed in New Zealand are being used to sell product in the USA, UK and Europe.<sup>18</sup> About half of Nuplex's products are no longer subject to license arrangements. Currently around 10% of Nuplex's staff are research and development chemists, with 5% of turnover going into research and development.

The Nuplex laboratory employs 12 staff, which is small by international standards. There is only one PhD and some BSc's. Technically trained staff with extensive industry experience are more numerous. New products are developed by people with a background in the client's industry (e.g. paint). Nuplex has also employed one or two key specialists from offshore.

Chemical engineering is the heart of the company. Technical and manufacturing staff have direct experience of dealing with customers. All managers, other than the Financial Controller, come from a technical background. The path to general management is through marketing or sales, and general management experience comes early in one of Nuplex's many profit centres.

Technology providers are now referred to as associates to reflect the more even balance in these relationships. The technology networks that Nuplex has built up over the years enable it to keep up to date with leading world trends.<sup>19</sup>

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<sup>17</sup> 1996 Annual Report - Bill Campbell Leaves the Chair - A Tribute

<sup>18</sup> Interview p 4

<sup>19</sup> 1995 Annual Report - MD's Report p 8.

Within the Specialist Waste division Nuplex is looking to technology to give them the capacity to process more difficult waste streams.<sup>20</sup>

### *Strong Associate Relationships*

Nuplex's technology relationships have evolved into a global network of (typically) medium sized resin manufacturers. These companies feel exposed in today's global economy and appreciate the opportunity to globalise, without the major investment this would require. There are 25 key relationships with companies in Italy, Germany, Norway, France, Spain, Asia, Africa and the United Kingdom. Associates are visited personally by the Managing Director every two years and more frequently at a technical level, as the need arises.

The network is far reaching; it facilitates joint projects, and enables the exchange of products and ideas. For example a global company such as International Paper may want to buy the same product in the USA or Europe as they do in New Zealand. In such cases orders can be filled from the closest production facility. These arrangements work because they are based on personal relationships, supported by the knowledge that each manufacturer will stay within their home region.<sup>21</sup> Sharing of technology between associates is seen in the context of a continuing relationship. Short-term one-way benefits are expected to even out over time.

### *Efficient Plant and Production Processes*

Formulating and processing resins and polymers is a complex process, involving skilled technicians and including reaction and blending equipment. Some product grades require up to 16 hours in a reactor. Constant monitoring of reaction process, temperature control and viscosities is carried out by kettle-room staff and supported by quality control in batch testing by laboratory technicians.<sup>22</sup>

The number one priority in handling potentially hazardous materials is to ensure they do not represent a real threat to staff, customers, neighbours, the general public or the environment.<sup>23</sup>

Nuplex has used application of the International Safety Rating System (ISRS) and ISO9001 and ISO9002 to drive its continuous improvement programme.

The company looks to a combination of these capabilities to create competitive advantage, as Bill Campbell noted in 1989.

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<sup>20</sup> 1997 Annual Report Chairman's Report

<sup>21</sup> Interview p 9

<sup>22</sup> Nuplex Corporate Profile 1990 p 8

<sup>23</sup> 1995 Annual Report, MD's Report p 8

“The Group’s concentration on efficient manufacturing units, supported by a very wide range of top-flight international technology, has enabled us to capitalise on industry rationalisation which has been gathering momentum over the past five years. The resulting growth in volume will enable us to maintain a strong competitive position both in an unprotected local market and also in our key Pacific Rim countries”.<sup>24</sup>

Managing these areas successfully has enabled Nuplex to achieve superior performance, and therefore pursue its growth strategy.

### *Vision*

Nuplex prides itself upon its ability to take a broad view of what is happening in the industry. Developments such as industry rationalisation and increased environmental regulation have proved to be both a threat and an opportunity.

The purchase of ACH, a company twice Nuplex’s size illustrates the ability of Nuplex to marshal its resources as opportunities arise.

With the number of local resin manufacturers falling from ten to four, the number of local competitors with comparable resources is small. Among global competitors, the ability to read industry developments and marshal resources is more common. However, Nuplex’s flexibility and its ability to tailor products to the needs of clients with relatively small orders differentiate the company from its larger competitors.

For example, the flooring product Terrazzite is used in high traffic areas such as major shopping malls. Although it has been around for a long time, Terrazzite has undergone continual improvement. Accordingly it has developed a strong reputation, leading to increased export sales. The reputation of products such as Terrazzite, together with the skills needed to correctly apply the products, make a combination that is difficult to imitate.

Nuplex has built up a very complex business of thousands of products selling into thousands of applications, with a considerable interdependence between the company's products, markets and capabilities. The difficulty of unravelling this business was demonstrated when Consolidated Press sold their interest in 1991. Although the industry was experiencing a high level of rationalisation, Nuplex was sold as a going concern to independent investors, rather than to a competitor for consolidation.

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<sup>24</sup> 1989 Annual Report

## **The Resins Industry**

Following rationalisation, the number of companies in the New Zealand resins industry fell from ten to four, and is expected to decline even further.<sup>25</sup> Economies of scale and strict environmental controls under the Resource Management Act prevent the entry of new domestically based competition.

Globalisation has enabled overseas competitors to enter the New Zealand market. A foreign competitor has the advantage of large production runs. It may enter a market provided the marginal costs of production are met. However foreign competitors typically lack a local distribution network and the ability to adapt products to the local market.

For example, the Construction Products division operates through a network of licensed applicators. These strong bonds with distributors would make it difficult for competitors to enter.

Close to 90% of the raw materials for the production of resins are imported: vegetable oils from South America, pigments from India, fillers from Asia, solvents from Australia, rubber latex from Malaysia and petrochemicals from Europe.<sup>26</sup> The commodity nature of these inputs means supplier power is typically low. The only suppliers with power in the industry are the technology providers. The licensing of technologies limits access and makes entry for a newcomer difficult.

Typically Nuplex sells into an open, competitive market. However, in some client industries such as the paint industry, where three companies control 90% of the market, customers have a high level of control.

With rationalisation and globalisation, rivalry has become international rather than local. Globalisation makes the profit potential for commodity production poor. To achieve real profits, Nuplex must target specialist applications, as well as sectors such as Construction Products and Waste Management where the effect of globalisation will be less severe.

For all three of its divisions Nuplex has a strong position within the value system. As the largest resin manufacturer in Australasia it has a large market share with control over a number of technologies. Within the construction products industry Nuplex has powerful products such as Terrazzite. It also plays a major part in the distribution

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<sup>25</sup> Interview

<sup>26</sup> Joanna Wane *Making Resin-able Profits* NZ Business June/July 1993 p33.

network. The Waste Management division is typically well integrated into the business of its customers, so that customers are naturally unwilling to change supplier.

## **THE NUPLEX STORY**

How Nuplex came to be the leader in its industry in the Australasian market, and a successful regional competitor, is a story that spans almost 50 years. It begins with a small tile-laying business in the 1950s (Phase One), and moves through a long and productive partnership with Revertex (UK) (Phase Two), to a period under foreign control (Phase Three), and to today's position of being a widely held publicly-listed company (Phase Four).

### **Phase One: Floor Tiles and Parquet Ltd. (1952 – 1966)**

This phase covers the initial history of the company from start-up to local manufacture.

#### *Major Events in Phase 1.*

1952	Floor Tiles and Parquet (NZ) Ltd formed as a private company with 500 pounds capital. The company was owned by Bill Campbell and his friend Max Nairn.
1956	Initial public float of Floor Tiles and Parquet (NZ) Ltd on the New Zealand Stock Exchange.
1957	First association with Revertex (UK) Ltd.
1958	Vinylpave Products Pty. Ltd., a subsidiary formed in Australia.
1962	Floor Tiles and Parquet and Revertex (UK) formed a joint venture Revertex (NZ) Limited to manufacture Revertex products in New Zealand under license.

Source: adapted from Nuplex Industries Limited Corporate Profile (1990).

As the name suggests, Floor Tiles and Parquet NZ Ltd. was involved in laying floor tiles and parquet. In the 1950s new technical developments permitted seamless flooring systems. These new products were poured on, like cement. However, unlike cement they were polymer based to give long wear, they came in attractive colours

and patterns and they didn't have the cracking potential of concrete. The initial applications for these products were in institutions such as hospitals, school, libraries etc.

Bill Campbell realised the potential value of these products and accordingly he sought technology links in the United Kingdom, Germany and USA to bring them to New Zealand. When buying floor resins from United Kingdom based Revertex, he saw the value of forging even closer links with that company. Revertex (UK) became a 32% shareholder in Floor Tiles and Parquet NZ Ltd. Five years later, Floor Tiles and Parquet NZ Ltd. merged with Revertex NZ to become Revertex Industries (NZ) Ltd.<sup>27</sup>

Special skills were required to install the product correctly and so the company set up a licensed distributor network. This network system is still in place today.

Floor Tiles and Parquet Ltd. started as a distribution company; the move into manufacturing was driven by the constraints imposed by import licensing. The small scale of production meant the plant wasn't particularly efficient. However, at the time it didn't need to be because Government policies promoted local manufacture and limited competition by restricting imports. The agreement with Revertex (UK) allowed for any surplus production to be exported. Domestic production of the base polymer also removed the constraint on growth imposed by the import license limit.

### **Phase Two: Revertex (NZ) Ltd. - Bill Campbell as CEO (1967 – 1980)**

This second phase covers the period from the establishment of Revertex (NZ) Ltd. through to the retirement of Bill Campbell as Chief Executive in 1980. The major features of this time were the accumulation of technologies, growth into additional products and markets and the move into exports.

#### *Major Events in Phase Two*

1967	Floor Tiles and Parquet (NZ) Ltd. merged with Revertex (NZ) Ltd. to form Revertex Industries (NZ) Ltd.
1971	Resin Plant and laboratory built; Joint venture with Monsanto Australia begun.
1974	Shareholding in Vinylpave Products (Aust) Pty Ltd. increased to 100%.
1975	Acquired majority shareholding in Fletcher Chemical Co. and name changed to Titan Chemicals Ltd.

Source: adapted from Nuplex Industries Limited Corporate Profile (1990).

<sup>27</sup> 1996 Annual Report - Bill Campbell Leaves the Chair - A Tribute

### *Ownership and Control*

During this phase Revertex (UK) increased their shareholding from 25% to 33%. Revertex (UK) was a hands-off shareholder and did not have any other interests in this part of the world.

Bill Campbell was appointed Managing Director of Revertex Industries (NZ) Ltd following the merger between Floor Tiles and Parquet (NZ) Ltd and Revertex (NZ) Ltd. in 1967. He subsequently took on the position of Chairman as well. When the company started to manufacture it was still quite small, and employed about 15 staff.<sup>28</sup>

Bill Campbell had a reputation for being a strong people person. He prided himself that up to 1981 (when he retired as Managing Director), Revertex had never had an industrial dispute which resulted in a strike.<sup>29</sup> Until the late 1980s and early 1990s when Nuplex employed about 180 to 200 staff, he knew each person by name and many of their families as well. He liked to go “walkabout” on the factory floor to natter with factory hands. They knew him as W.R. or simply “The Chief”. When asked about the reason for his success Bill Campbell replied “Its the calibre and friendship of the people you gather around you. Without their support and loyalty I wouldn’t have got far. One must nourish their goodwill and respect each one for his or her strengths and skills”.<sup>30</sup>

### *Product and Market Growth*

In a larger market a manufacturer such as Revertex (NZ) might have committed to a single technology, but the New Zealand market was small. The company sought to build up critical mass in a different way. Economies of scale required Revertex (NZ) to seek additional products, and so it acquired additional licenses for the manufacture and distribution of resins in New Zealand. Many of the licenses acquired in the 1960s are still in place today. New lines of business were opened in adhesives, printing ink, surface coatings and paint.

Nuplex’s broad range of licenses differentiated the company from many of its competitors, who committed to a single supplier. The company began to build competencies in several different product technologies. Its local competitors, subsidiaries of overseas firms, stayed focused on their parents’ limited product range. Nuplex's breadth has proved to be an enduring competitive advantage.

Evolutionary growth has been part of the Nuplex philosophy. They have looked for new products for established markets and new markets for established products.

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<sup>28</sup> J.D. Watson Safety at Revertex A Priority Concern; Company Director and Professional Administrator. December 1986

<sup>29</sup> Baker Donna; Bill Campbell - The Catalyst Behind the Revertex Expansion; NZ Business November 1987 p 56.

<sup>30</sup> 1996 Annual Report; From Bill Campbell Leaves the Chair - A Tribute written by David Findlay, Findlay and Associates

“We will make anything that is required for the markets we service, and we will try and sell anything which can be made in the units we’ve got”.<sup>31</sup>

The company's original flooring product was adapted to new applications: for walls, ceilings and external coatings.

When the company's first invested in resin manufacture in 1962 it produced water-based polymers. In 1971 the company moved into high temperature resin manufacture, producing alkyds for the paint industry. In the same reactor they were able to also produce unsaturated polyesters for use in the fibre-reinforced plastics (fibreglass) industry.

The company realised the plant wasn't going to be fully utilised if it served just the paint industry. The question was asked, “*what else can you make in there?*” This led Revertex into other similar resins, such as the unsaturated polyester resin used in the fibreglass industry. When the fibreglass industry wanted new products, the company developed them and continued to grow. The company's new range of fibreglass resins brought Revertex into contact with a whole new set of customers. Fred Holland summarised the philosophy “Every expansion of existing business gave us a touch into a new area and we have branched from that. We have had to go with the flow”.<sup>32</sup> The result has been a huge product range, which runs into the thousands.

#### *Technical Competence*

As Revertex (NZ) expanded its portfolio of licenses and built markets for its products over the first two decades of the company's life, it also grew its technical competency. An early driver of this process was the need to adapt polymers to cope with local needs, for example the high UV content of New Zealand light.

Revertex also developed distinctly close relationships with its customers in New Zealand's small and isolated market. These customers were typically other manufacturers (e.g. paint) and were keen to help Revertex develop products better suited to local conditions. Close customer relationships and the distinctively broad range of chemical products handled by the company produced more opportunities for cross fertilisation than would occur in more specialised firms.

There were occasions when extensive international search for a solution to a customer's problem drew a blank and Revertex turned to its own growing capabilities to design its own products. In general, however, Revertex preferred to source offshore if at all possible, unlike many New Zealand enterprises, which allowed themselves to re-invent products that were “not invented here”.

“We said why reinvent the wheel, if there is technology available elsewhere, and we can obtain it, it is a lower cost way of doing the same job”.<sup>33</sup>

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<sup>31</sup> Source: Interview with Mr. Fred Holland, November 1998.

<sup>32</sup> Source: Interview with Mr. Fred Holland, November 1998.

<sup>33</sup> Source: Interview with Mr. Fred Holland, November 1998.

Only when these efforts were fruitless did the company develop its own solutions. Some licensees also allowed Revertex to continue selling and developing a product in their own name when the original licence expired.

Through these processes Revertex built up its technological competencies, almost imperceptibly. Although it took until the mid 1980s for the company to produce strong proprietary product technology, the necessary competencies had been accumulating for many years. By the late 1990s approximately 50% of total sales were based on Nuplex's own technology.

Fred Holland sees the company's growing technological competence as an expression of a distinctly New Zealand source of advantage. High educational standards for the time, and an innovativeness born of working in small, non-specialised organisations, bring people to an overview of problems at a much earlier age than is common elsewhere, even in Australia. The loss of specialisation can be more than compensated by the gain in overview. Holland has found it possible to develop general managers faster in New Zealand than elsewhere.

### *Exports*

Revertex (NZ) had been into exports from a very early stage as illustrated by the establishment of an Australian subsidiary in 1958. In the early 1970s Bill Campbell had the vision to sense the beginnings of global business networking. In relatively small markets like New Zealand's, it could be a case of "*export, or wither and die*".<sup>34</sup> Bill Campbell set out on pioneering trips to South East Asia and South Pacific countries to establish export marketing contacts for Revertex's small production run specialist resins.<sup>35</sup> In the late 1970's Fred Holland joined Bill Campbell in exploratory visits to Hong Kong, Singapore, China Thailand and Indonesia with a view to forming joint ventures. They visited the area four times a year, developing a good understanding of where they could compete<sup>36</sup>.

Revertex was quick to realise that export incentives wouldn't last forever, and used them to cover the initial costs of entering and developing new markets. The company was careful not to become reliant on export incentives. If a market wasn't viable, then tax incentives weren't going to make it so.

"People thought that the good times were going to last forever. We used them [export incentives] to develop our markets in Asia, but unlike [others] . . . we didn't structure our whole company on them because we knew it wouldn't last. But we did use them for what I think they are good at which is to cover our initial cost of establishing your market...but we never got carried away. If the thing didn't make good business sense, then just doing it because of the tax didn't make good sense to me".<sup>37</sup>

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<sup>34</sup> 1996 Annual Report - Bill Campbell Leaves The Chair

<sup>35</sup> 1996 Annual Report - Bill Campbell Leaves The Chair

<sup>36</sup> 1996 Annual Report - Bill Campbell Leaves The Chair

<sup>37</sup> Source: Interview with Mr. Fred Holland, November 1998.

### **Phase Three: Revertex (NZ) Ltd. - Fred Holland as CEO (1981 – 1990)**

Fred Holland was appointed Managing Director in 1981, replacing Bill Campbell on his retirement. The 1980s were a period of domination by the majority shareholder, initially Monsanto, and then from 1988 Kerry Packer's Consolidated Press Holdings. This was also a time of industry rationalisation first in New Zealand and then in Australia.

#### *Ownership and Control*

When Bill Campbell was asked to identify both a high point and a low point in the Revertex/Nuplex years he responded,

“The high point November 1991, when majority ownership of Nuplex Industries reverted from Australia to New Zealand.

The low point? The ten years from 1981 when majority ownership of Revertex was in the hands of the Australian subsidiary of a global chemicals manufacturing conglomerate. “Big is not always ideal. It took a long time to get decisions, whether big or small in those years”.<sup>38</sup>

His comments are supported by Fred Holland who saw foreign ownership as the consequence of the lack of local equity investment. “Unfortunately New Zealanders would rather speculate on houses than on putting [resources] into manufacturing, productive operations.”<sup>39</sup>

The overseas shareholding proved a mixed blessing for Nuplex. Initially it was positive because Revertex (UK) provided the technology and investment that enabled manufacturing in New Zealand. Without any other interests in Australasia, Revertex (UK) provided a light hand in management. The relationship with Monsanto wasn't always as straightforward because they had Australian interests to protect. When Consolidated Press acquired the Monsanto interest in 1988, its strategic focus was to maximise profit flows. Accordingly Nuplex's debts were almost eliminated during the Consolidated Press period of control. This created a borrowing capacity that proved very useful in the subsequent growth phase of the company.

Although foreign control might have been considered as “free” management consulting, the cost was inhibited growth. According to Fred Holland “By and large...overseas ownership is not a good thing, because if you are going to move off internationally, [the owner] will get in the way, limiting export areas or limiting investment areas”.<sup>40</sup>

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<sup>38</sup> 1996 Annual Report - Bill Campbell Leaves the Chair - A Tribute

<sup>39</sup> Interview

<sup>40</sup> Interview p 16

### *Major Events in Phase Three*

1981	Monsanto Australia gained significant shareholding in Revertex (NZ) Ltd. from Revertex (UK).
1983	Closer Economic Relations Agreement signed between Australia & New Zealand
1984	The Penrose resin plant and laboratory were destroyed by fire. The fire slowed the company's growth for three years.
1985	Major construction following the fire: new resin plant and extension to polymer reactors and new technical centre completed the following year.
1988	Remaining shares in Titan Chemicals acquired. Purchased Giant Polymers.  Monsanto Australia chemical operations and shareholding in Revertex (NZ) sold to Consolidated Press Holdings.
1990	Lockfast Chemicals, Reese Chemicals including C&F Distributors purchased. Name changed from Revertex Industries (NZ) Ltd, to Nuplex Industries Limited.

Source: adapted from Nuplex Industries Limited Corporate Profile (1990) and Nuplex Annual Reports.

Foreign control had some benefits, however. It exposed the company to concepts of safety, health and environmental protection, so that now, these are taken for granted. It also gave the company tools for forecasting. According to Fred Holland "We forecasted ad nauseum for America, but it's good..... we really had to justify our expenditure.". Monsanto required the forecasting before the company was allowed to borrow or invest its profits. Over this period the company didn't receive any additional funding from its major shareholders. Neither did the owners extract significant dividends. Expansion had to be funded from profits, and was therefore closely managed.

Through the 1980s management and the major shareholders had different interests. Monsanto wanted to limit the entry of Nuplex into its Australian market and was more cautious than Nuplex management. But Fred Holland believes the discipline of keeping demanding offshore owners happy was good experience for the company's eventual emancipation as a widely held New Zealand stock. During this period there was a strong bond between management and employees.

The Penrose resin plant and laboratory were destroyed by fire in 1984. Although this was a disaster at the time, it proved to be a “blessing in disguise”. Losses were adequately covered by insurance and Revertex was able to replace the destroyed facilities with a superior plant, and double the size of its laboratory. The new plant incorporated the latest technology and sophisticated safety and design features.<sup>41</sup>

### *Deregulation and Rationalisation*

The 1980s was a decade of economic reform in New Zealand. The regime of import licensing and tariffs had built up a resins industry characterised by excess capacity and fragmented supply. The signing of Closer Economic Relations (CER) in 1983 freed up trade with Australia and initiated a period of rationalisation.

Nuplex’s international relationships and its presence in Asian markets helped the company to “see the train coming down the track”.<sup>42</sup>

“Everyone thought that their happy little environment in New Zealand was going to continue. Because we were exposed globally with our contacts and we were very much involved with the world all the time, we saw these trends happening, we saw the changes and thought “how do we survive?”<sup>43</sup>

Nuplex decided to be the rationaliser rather than the rationalisee. This created a need and a determination to be the best in the industry, a goal that was ultimately achieved. Nuplex set out to rationalise the fragmented New Zealand market by acquiring under-performing companies and consolidating their production, distribution and infrastructure. The number of local producers fell from a dozen in the early 1980s to four by the end of the 1990s. As the volume of throughput increased, the business became more cost effective through economies of scale.

With each company acquired, the level of throughput increased, making the plant more efficient. Rationalisation ensured that the most efficient plant was fully utilised, while less efficient plant was withdrawn from service.

Tariff reduction began in New Zealand in the 1970s and 1980s, a decade ahead of similar reforms in Australia. Rationalisation of the resins industry therefore began earlier and proceeded faster in New Zealand. A point was reached where opportunities on the other side of the Tasman appeared more attractive.

With a high per capita usage of resins, there was limited potential for further expansion in New Zealand. Growth required an involvement in Australia. By leading industry rationalisation in New Zealand, Nuplex had built a distinctive expertise in acquisitions and takeovers which it sought to apply in Australia. These ambitions were frustrated, however, until the company's overseas control came to an end.

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<sup>41</sup> Baker Donna; Bill Campbell - The Catalyst Behind The Revertex Expansion; NZ Business November 1987 p 56

<sup>42</sup> Interview

<sup>43</sup> Interview

## **Phase Four: Nuplex Industries Limited. (The 1990s)**

Revertex (NZ) Ltd. became Nuplex Industries Limited in 1990. The major feature in this final period has been the independence of the company following the sale in 1991 by Consolidated Press Holdings and Chemplex Australia Ltd of their 73% holding in the company. Free of external control, Nuplex has undergone dramatic growth in the 1990s culminating in the purchase of ACH in 1998.

### *Ownership and Control*

According to Fred Holland “we could now do what was right for this company, rather than what was right for an American company or an Australian company.”<sup>44</sup> The growth in the Nuplex share price since 1991 illustrates the share-market’s faith in the current management (see Appendix Three).

Following independence the interests of shareholders and management became more closely aligned; they focused on growth and shareholder returns. This may have been at some cost to management-employee relationships as evidenced by some industrial action and the loss of jobs following restructuring.

Emancipation from owners with an interest in limiting the company's strategic development has given management more scope. It may also be the case that a less concentrated shareholding gives shareholders a smaller direct influence over goals. However, Fred Holland believes that the current shareholders are entitled to the same information and respect as the previous majority shareholders.<sup>45</sup>

### *Australian Expansion*

Having gained a degree of control over its own destiny, Nuplex was free to apply its rationalisation skills to opportunities in Australian markets. The company had been exporting to Australia since its inception, but the purchase of Frankston Manufacturing in 1993, a small resin plant in Melbourne, increased Nuplex's credibility in the market.

Five years later in 1998 Nuplex took the opportunity to acquire Australian Chemical Holdings (ACH), an under-performing resins manufacturer twice Nuplex's size, and thus became the largest participant in the industry in Australasia. ACH had a business scope very similar to Nuplex as a manufacturer, importer and distributor of a range of specialty chemicals and related products. Its products are principally resins

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<sup>44</sup> Interview

<sup>45</sup> Interview p17.

used in the manufacture of paints, printing inks, adhesives, paper and fibre-reinforced products.<sup>46</sup>

***Major Events in Phase Four***

1991	Floor contracting division closed. New reactor commissioned in Onehunga Consolidated Press Holdings and Chemplex Australia Ltd. sold their 73% holding in Nuplex by public placement. Shareholder numbers increased from under 400 to over 1100.
1992	ISO 9002 certification achieved. Purchase of Stratos gelcoat and distribution, expanding the supply of unsaturated polyester resins to the reinforced plastics industry. Increased Penrose site by 30% enabling the consolidation of production.
1993	Purchase of the Melbourne resin manufacturer Frankston Manufacturing Company, creating greater credibility in the Australian market.
1994	Purchase of Dryvit and Conspray external insulation and cladding systems.
1995	Acquired United Environmental, providing an introduction into waste management. New warehouse and dispatch facility in Penrose facilitated JIT supply to customers. ISO 9001 certification achieved.
1996	Acquired Plaster Systems Ltd., broadening the base and strength of the construction products business. Acquired Medical Waste Group Ltd., the medical and quarantine disposal business.
1997	Waste management started in Australia with the acquisition of a solvent recycling business.
1998	Purchase of Australian Chemical Holdings. Retirement of Bill Campbell as Deputy Chairman after 46 years of association with the company.

Source: adapted from Nuplex Industries Limited Annual Reports 1991-1998

<sup>46</sup> 1998 Annual Report p 4

In 1997 ACH employed twice the resources of Nuplex; however its profits were only a third those of Nuplex. This poor result was the result of a lack of focus on customer service; ACH had become the supplier of necessity rather than the supplier of choice. The company had also made some poor investment decisions. Consequently ACH's shareholders had lost faith in the company. Nuplex had originally targeted ACH's New Zealand subsidiary for acquisition, but as Nuplex's own Australian business grew, Fred Holland admits, "I got a bit more ambitious".

Nuplex and ACH ran parallel operations, with minor variations, in both New Zealand and Australia. Nuplex was by far the larger in New Zealand, while ACH was by far the larger in Australia. Each company carried the full marketing, administration, technical and production overheads in both countries as well as carrying the increasingly onerous compliance costs required by changing community standards.<sup>47</sup> Nuplex considered that a merger to rationalise production was inevitable. However ACH didn't see the need, so Nuplex set out to buy the company.

Nuplex initially offered \$A2.50 per ACH share in December 1997; however it needed to increase the offer to \$A2.89 to get the support of the ACH Board.<sup>48</sup> This was 35% more than the ACH share price before the Nuplex offer.

The total purchase price of \$111 million was funded partly by the issue of additional shares, which raised \$38 million, and partly by a reorganised borrowing facility at 6% interest per annum.

Nuplex then needed to act quickly to cut costs, before it was overcome by the burden of debt it carried. The rationalisation programme started immediately and was mostly implemented by the end of June 1998, with the process expected to be completed by Christmas 1998. Combined staff numbers fell by 17%, which contributed to anticipated annual savings of \$11 million. The rapid consolidation of ACH operations is not the usual Nuplex strategy. Fred Holland describes himself as an evolution person. "I like to see things evolve rather than force them". But the poor financial condition of ACH and the need to reduce debt forced rapid and substantial change.

Appendix 1 shows the 1998 fall in the return on equity. However it is expected to return to the previous high levels once Nuplex achieves all the potential savings from the merger.

### *Diversification*

In addition to these significant developments across the Tasman, Nuplex has sought to grow through diversification. In 1995 New Zealand-based United Environmental was acquired and in 1997 a solvent recycling operation was opened in Australia, as a first step towards entering the waste disposal industry in that country. These businesses contributed between a quarter and a third of Nuplex's profits in the late 1990s.

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<sup>47</sup> 1998 Annual Report p 4

<sup>48</sup> Nuplex Ups Offer of ACH Shares Dominion 21/2/ 98 p 14

Nuplex's new growth objective is to build a sufficiently large company for a dual float on the Australian and New Zealand sharemarkets. Without that independent status, Nuplex sees its only future as a subsidiary of a global player.

The common core between the resins and waste industries is their reliance on chemical engineering. The objective with industrial waste management is to recover the maximum value from the waste stream. The processes include bioremediation, chemical reaction, distillation and incineration and are carried out in sites in Auckland, Wellington, Christchurch and Dunedin.<sup>49</sup> This differs from medical waste management, which is based on incineration rather than chemical engineering.

The relative contribution of the three divisions (Resins, Construction Products and Special Waste Treatment) has fluctuated in recent years, in line with the fortunes of the industries they serve. The dramatic growth and strong returns of the Waste division fell in 1998, following a decline in local manufacturing, including the closure of the vehicle assembly industry. In recent years Nuplex has noticed a significant loss of manufacturing capacity across the Tasman to Australia.

The following table illustrates the fluctuating returns for the main divisions in recent years.

Nuplex Industries  
Contribution to Total profit by Division

	<b>Resins</b>	<b>Construction Products</b>	<b>Waste Management</b>	<b>Total</b>
1996	63.2%	11.2%	25.6%	100%
1997	54.4%	17.1%	28.5%	100%
1998	61.8%	20.1%	18.1%	100%

*Source: Nuplex Annual Reports 1996-1998.*

### *Globalisation*

Nuplex now sees itself as the leading regional player in Australasia. It is one of perhaps 10 independent regional companies that make up a second tier beneath the global giants such as Du Pont and Monsanto. The regionalisation of businesses is seen as a trend affecting many New Zealand enterprises. Most of Nuplex's own customers are now Australian owned. The company sees New Zealand's commercial future as a component of this regional economy.

Asia is a new focus for growth. Nuplex initiated its business in the region twenty years ago during the regime of export incentives and by 1998 it had grown to a total of \$12 million. This fell 40% during the Asian economic crisis that year. Despite the fall

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<sup>49</sup> 1996 Annual Report p 13

in sales, Nuplex managed to retain all of its customers due to close customer relationships and a history of not overpricing the market.

A niche strategy is used to target profitable offshore markets. The company focuses on providing specialist products and services at the upper end of the market. Nuplex's relatively small size means it is willing and able to tailor products to meet small scale, specific customer needs. According to the Export Manager Tony Leggett "A lot of bigger companies in Europe are not that flexible and are big enough to say 'take it or leave it' but we look after the smaller specialist customers".<sup>50</sup> The product mix sold into South East Asia is different from local markets, reflecting the distinctive composition of industries (e.g. polymers for textiles) and is supported by Nuplex's own technical capabilities.

Tony Leggett says Asian companies tend to take a longer-term view of their relationship with suppliers than some companies in New Zealand. "They have a different philosophy. They treat the supplier as part of their own manufacturing operation. It can take 18 months to two years to get a foot in the door, but once you have established your credibility, you become locked into their total operation".<sup>51</sup>

According to Fred Holland "Our success offshore shows we can do well with a very small share in large overseas markets. It just takes a bit of time to seek them out". Nuplex typically deals directly with its export customers rather than operating through agents as the product lines are too specialised for an agency relationship to be effective.

Nuplex's profile in the region has been significantly increased with the acquisition of a resin plant in Vietnam as part of the ACH buy-out. Vietnam represents a market of 77 million people (more than Malaysia and Thailand combined), at an earlier stage of economic development. The plant is the first and only one of its kind in Vietnam and with overcapacity rife elsewhere in the region, Nuplex's head start in this new market may prove hard for competitors to challenge.

The benefits of exporting have included better contacts with people in the industry, and the knowledge that the company can compete with the larger firms in the global industry.

### *Leadership*

With only 2 chief executives in 46 years, leadership at Nuplex has remained relatively consistent. Fred Holland believes a business must have a philosophy that it is following; it then needs to identify the routes that can bring the philosophy to pass.

"I am a great believer in that if something is right it will eventually happen".  
"If at first you don't succeed, just keep going along the same path and eventually it will happen" - "You know the routes that you need to take for it

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<sup>50</sup> Robin Major; Smallness Gives Nuplex the Edge; Export News 5 February 1996.

<sup>51</sup> NZ Hardware February 1993 p34

to come to pass, as long as you keep moving down those routes you don't have to force it. If you say I want to buy that and that and that and you go out and try to buy them then you will pay too much for them, it should happen naturally.”<sup>52</sup>

Like Winston Churchill, Fred Holland believes that history provides a good indicator of what will happen in the future.

“Asia in the 1980s was like Australia in the 1960s. Everyone saw it as the great white hope, “the future of the world”, and everyone was investing there. We can see the same type of thing happening again- similar patterns. I'm a great historian: it tells you what is going to happen in the future”.<sup>53</sup>

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<sup>52</sup> Interview p 18

<sup>53</sup> Interview p 19

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## Appendices

Appendix 1 Nuplex Financial Performance 1980 -1998

Appendix 2 Nuplex Staff Numbers 1988-1998

Appendix 3 Nuplex Share price 1991-1999