

SVEDALA BARMAC

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Introduction

Svedala Barmac Ltd. is based in the small Waikato town of Matamata. Matamata is dairy country, and might seem an unlikely location for a business that exports quarrying equipment throughout the world. But then Svedala Barmac is different from a lot of companies. In 1997 it won the prestigious Exporter of the Year Award. Over 90 percent of production is exported.

The company manufacturers and markets the New Zealand developed and patented Barmac Vertical Shaft Impact (VSI) rock crusher range for the international mining and cement industries.¹ The Barmac uses a rock-on-rock crushing principle. Its introduction 25 years ago revolutionised the mineral processing industry by making the advantages of impact crushing an affordable reality for all operators, regardless of the abrasion characteristics of their material.²

Bryan Bartley and Jim McDonald invented the Barmac in New Zealand. Their licensing company, Barmac Associates, licensed the product internationally in the 1970s and 1980s. Matamata-based P.L. Tidmarsh Ltd. (later renamed Tidco) became a leading licensee in the 1980s, through the process of acquiring licences and developing new markets. The consolidation of licences continued until Tidco was sold in 1990 to Allis Mineral Systems, a subsidiary of Svedala Industri AB (Svedala). Svedala's purchase of Barmac Associates in 1994 completed the consolidation process.

As Tidco, and later as Svedala Barmac, the company has been exporting for 20 years and accounts for 10% of New Zealand's heavy machinery exports.

This is the story of a remarkable New Zealand product, and the remarkable organisation that grew up to support it. First we look at the company as it is today. Then we tell the story of the Barmac crusher, and how Tidco/Svedala Barmac gained and then retained international control of the Barmac process.

 ¹ Warren Head "Diversity shines in the 1997 Export Awards" Export News 10, November 1997, page 1
² Tom McKenny as reported in "Svedala Introduce 1100 Series Barmac Duopactor" Quarry

² Tom McKenny as reported in "Svedala Introduce 1100 Series Barmac Duopactor" Quarry Magazine, June 1998.

Svedala Barmac Today

Svedala Industri AB.

Svedala Industri AB is a global manufacturing company focused on mining and construction industries, and employs 11,700 people in about 50 countries worldwide. It has major global competitors such as Sandvik and Nordberg, but these compete only in sectors of Svedala's business.

Svedala is a world leader in the manufacture of mining and quarrying equipment. It has been making crushers for 110 years. The company sees its competitive advantage as offering customers complete solutions for very large projects. According to Svedala President and CEO Thomas Older,

"In every market segment cultivated by Svedala, we are the only player able to offer complete solutions to satisfy all customer demands and requirements".

With strong global competition in equipment sales, Svedala is aiming to transform its competitive appeal to a service-led relationship with its clients. Rather than sell items of equipment, the vision is to sell full-service bundles, contracting to produce the customer's required flow of material, and taking responsibility for sourcing all spare parts, and maintaining equipment service schedules.

Svedala has been improving its cost position globally by rationalising an extensive range of products acquired through the company's programme of mergers and acquisitions. For example, it has reduced the range of rock-grading screens made by its various subsidiaries from 2,200 to 500. Since acquisition in 1990, the New Zealand manufacturing company has been told to focus wholly on the Barmac machine. Other products once made by Tidco have been sold off or discontinued.

Internationally Svedala operates with a matrix structure. On one axis, a network of 50 "Svedala Houses" in each national market, supported by over 200 service centres, is responsible for sales and product servicing in the local market. On the other axis, global responsibility for product support is centred on product managers based in the specialist manufacturing units located all over the world. Matamata is one of these units.

Worldwide, the Svedala group of companies is aiming to lift its competitive capability through a "Good to Great" programme. This initiative aims for a 100% increase in profitability, based equally on an increase in market share and a reduction in costs. A key element in Svedala's management philosophy are the company's "Key Words" (Exhibit One).

ŀ	Return on Assets	
Ι	nformal Communications	
(Good Products, Unmatched Service	
Ν	More Action, Less Planning	
Ι	ntegrated Results	
H	Human Relations	
I	A Main Player	
Ι	Lowest Total Cost	
7	Truly Decentralised*	
Ν	Matrix Organisation	
7	Fruly Centralised.*	
The compar	ny employs both centralisation and	
lecentralisation policies, applying whichever is the most		
effective in a given context.		

Exhibit One: Key Words in Svedala's Management Philosophy

Svedala Barmac and the Barmac Crusher

Acquired by Svedala in 1990, the New Zealand manufacturing operation is solely responsible for the manufacture and product development of the Barmac VSI rock crusher.

The Barmac is an interesting mix of simplicity and complexity. The principle on which the Barmac is based is straightforward. The machines are made from parts that are not unusually rare or expensive. Despite the harsh treatment they receive, with adequate maintenance the Barmac will last twenty to thirty years. But according to Andi Lusty, Managing Director of Svedala Barmac, "making our crusher is easy; making it work isn't"³ Each machine is customised for its specific site to ensure that it works efficiently with the material it will handle.

³ Unless otherwise indicated, all quotes are drawn from interviews with Andi Lusty held in

The quarrying process is usually very hard on plant. However, the Barmac's rock-onrock technology dramatically reduces wear and tear. A fast spinning rotor throws rock against rock, reducing them to gravel and sand. The technology is effective only for the last stages of rock crushing, to reduce stones from 50mm in diameter to gravel and sand. Larger rocks must first be split by large drilling rigs and then broken down with large jaw crushers. The final stage, in which Barmac competes, is the stage that often determines the quality of the final product. The particle sizes generated are ideal for surfacing roadways and for processing mineral-rich rock into a concentrated form of mineral ('concentrates').⁴

Production cost for the Barmac crusher is a relatively small proportion of the total cost. Much greater costs are associated with marketing, on site installation, and after sales support. Installation, despite its costs, is a critical part of the benefit bundle for the client. When a machine is installed the standard product must be customised to match the equipment to the material being processed. Andi Lusty explains:

"It's quite common for us to take a gas axe to these machines in the first day to get the stone build-up to sit in the chamber . . . It horrifies customers but it's quite common to use a gas [torch] . . . The Barmac operates on stone build-up within the machine that prevents it from wearing. So wherever there's steel exposed, you have a stone build-up on it. Every material that you put into it, any feed stock you put into it, has different characteristics and will often build up in different ways. So you have gussets and barriers and holders and keepers and all sorts of things that are there to maintain the build up. So we [process] anything from absolutely bone dry small feed, to something that's totally wet large feed - to the extent that you might have four times as much water going through it than feed material. Each of those categories will require different degrees of change within the machine, most of which is welded or bolted on."

The installation staff will often stay a week and then come back and visit the following month.

"It doesn't matter which machine you look at, you can always improve on its performance and do something else. Either new parts, or [a] new generation of bits and pieces. Everything's retro-fittable. It's not just the set up, it's the constant running."

in November 1998 and September 1999.

⁴ M Parkinson and B Paulin, Tidco International, in B Poulin, B Mills and D Spiller, *Strategy and Management, A New Zealand Casebook,* Auckland, Longman.

The objective is to visit every site twice a year, but with 2,500 machines installed this task is becoming impractical.

Training the customers' operational staff is important for maintaining productivity and thus the reputation of the Barmac. The company tries to involve every operator in a service course at least once a year. These courses are held in each country in which Barmacs are sold.

The sales process is usually orderly because customers can plan their requirements in advance. If required, however, a new machine can be built in three days. This takes about 220 labour-hours. Painting takes a further three days. Although this might seem an extravagance, it is important for the machine's image in the market place.

The finished machines are shipped out via the ports of Auckland and Tauranga. If necessary, machines can be sent by air. This is an expensive process, because it is difficult to fit a Barmac inside a 747; "you have to cut bits off here and there and stick it back together when it gets there".

Svedala Barmac maintains a 3-month parts inventory in New Zealand, with additional stock held in each market as determined by the market demand. In some locations complete machines are held in stock.

Market Scope and Competition

The Barmac is sold in about 60 countries in every major region of the globe: the Americas; Europe; Asia; and the Southern Hemisphere. Since acquisition by Svedala, most sales are made through the network of Svedala Houses, but several countries not yet served by this network are still served directly by dealers established before the buy-out.

Pirates suffer from two limitations:

- 1. not all firms develop the product knowledge and service competence to make the business effective and
- 2. pirates lack the resources to grow much beyond a local base.

Pirates are typically small companies. They are frequently former Barmac distributors who learned the technology from Barmac.

Even though the quarrying industry might appear mature, there is strong growth, particularly in newly industrialised markets like China and India. A growing population and a rising standard of living both increase the demand for infrastructure.

Suppliers

The components of the Barmac are not particularly specialised or expensive. About 80% of the materials are sourced in New Zealand. Long-term supply arrangements allow the company to source supplies at the most competitive price. This may involve guaranteeing to take a certain quantity of product. Key components are sourced from two separate suppliers to avoid becoming dependent on a single source. Every second or third year, a wider pool of suppliers is asked to bid for work to ensure that preferred suppliers are not taking advantage of their status. Games of golf and years of doing business with each other add personal confidence to the relationships.

Svedala Barmac shares its production plan with key suppliers and can keep an eye on supplier stock levels. Continuity of supply is critical because production stops if a key component runs out.

"We try and align ourselves to the key suppliers to make sure the supplier chain is pretty solid".

Although New Zealand might seem remote from the rest of the world, benchmarking against the rest of the Svedala Group shows that the New Zealand company's sourcing of materials is very cost effective.

Marketing and Service

The aim of the marketing strategy is to overcome the distance (both geographic and organisational) between Svedala Barmac and its customers, and to show that the company is able to respond quickly to customer needs.

Over time, the marketing emphasis has changed from the uniqueness of the machine to its dependability. Hence the primary marketing strategy is excellence in service support. This is what differentiates the company from the imitators. Svedala Barmac has been able to develop infrastructure, systems and back-up on a global scale too expensive for the competition to replicate. The Barmac's reputation is based on quality, continual improvement and reliability. Pirated parts and machines are usually cheaper than the genuine article, but lack the reliability demanded by most customers.

The sale to Svedala changed the company's focus from selling to support, for both internal and external customers. Direct overseas representation out of Matamata has declined substantially since the sale. However, the company still has several staff who average more than 100 days a year on the road, visiting with Svedala House staff, or customers, or accompanying House staff on site visits. A lot of effort now goes into making it easy for Svedala House employees around the world to sell the product. Andi Lusty explains how:

"We're making cd-roms for them and we make all sorts of modeling programmes, sizing programmes, and everything we can to make it easier for them to take a machine. Making service calls and all that. Just constantly sending guys out to do service calls for customers over the life [of the machine]".

The mining and crushing industries can be conservative; it sometimes seems that any innovation less than fifty years old is viewed with suspicion. Around 90% of orders come from existing customers, making it relatively easy to get to know the client. It is more cost effective to invest resources in the existing client base than in those Svedala House operations that are just not interested.

Product Development

Svedala Barmac's R&D team includes one UK and six New Zealand based employees. The basic principle of the machine has hardly changed in the last twenty years. Although the original Barmac patents expire around 2002, the company has sought to protect itself by patenting its major developments, by building market strength and by developing a low cost position in New Zealand. The end customer is an important source of ideas for improvement. The company operates its own quarry plant to test product developments.

The development emphasis is on many incremental changes, or continuous improvement, rather than on fundamental change.

"Most of the improvements come in the wear parts, in the rotor that flings the stones and the wear parts that are placed in the rotor. . . [Suggestions] come from quarries, from anybody". An Applications Committee has been established to standardise the techniques used to provide customised solutions for customers. This group fostered the development of the Barmac selection software module within Svedala's *Plant Designer* programme, which is now used by all Svedala application engineers to ascertain the best Barmac solution for each customer application.⁵

Since Svedala redirected Barmac's attention to ongoing product development, the development process has been continuous. Typically 10 or 12 good ideas lead to one new patent, with an average of three new patents registered each year. With much of the development cost hidden in the cost of sales it is hard to quantify the level of R & D expenditure. However, it averages about 4% of turnover.

Making a new product fully operational can take years. For example, the company made an over-sized machine for use in the Arctic Circle. It took four years to get the machine up to its peak performance. Such a high level of development creates a barrier for new entrants.

The R & D process is very structured. A specific code is allocated to each new idea and to each product development.⁶ Formal processes are followed to develop an appropriate design for testing. Test results are recorded in a Test File, which also covers all communication with dealers regarding the part.⁷ The R&D Department analyses the results and, if these are positive, recommends adoption to the international R & D Committee.

A Loyal and Skilled Workforce

With high levels of customisation required to get the best return from Barmac technology, a skilled workforce figures large in the portfolio of competitive assets at Svedala Barmac.

It usually takes Barmac service people two years to become fully proficient with the Barmac process. Although this represents a significant cost to Svedala Barmac and its customers, the cost is higher for competitors, who typically lack the depth of product knowledge. Investment in improved production technology is also changing the skill set needed on the shop floor from labouring to more technical skills. In 1997, the company

⁵ Svedala New Zealand Ltd. Company Profile for the 1997 Export Awards p.8 ⁶ Svedala New Zealand Ltd. Company Profile for the 1997 Export Awards p 19

⁷ Svedala New Zealand Ltd. Company Profile for the 1997 Export Awards p.19

increased the level of training required for both employees and customers' operators. Some activities were out-sourced and an in-house training officer was employed.

A mining qualification is required before anyone can join the sales team. To gain such a qualification the employee must have worked underground in a mine for six months. The nature of the work therefore attracts some rather rugged individuals.

Staff benefits include a profit share scheme for all staff based upon return on investment, plus life insurance, critical care and accident insurance, company-funded superannuation, and support for the social club.

"We have a good long-term relationship with our staff. I think we're pretty good in terms of the extras we add on. I think the benefits are probably worth 21% per annum to people including average bonuses. The bonuses have generally been well above average in the 1990s."

A transparent reporting system keeps both salaried and shop floor staff informed of what is going on in the company. Bonuses are based on achieving budgets.

"If we do better than the budgets then there's probably an extra week's bonus at the end of the year, for hourly paid employees."

Clear goals are an integral part of the company's relationship with its workforce. The company's current goals, clearly displayed throughout the Matamata facility are shown in Exhibit Two.

The company has a single in-house industrial agreement that covers all employees. The site committee, which is elected by the staff members, is responsible for negotiating site safety issues, disagreements, disciplinary problems and general working conditions. It is now becoming more involved in wider company issues such as health, safety and bonus structure.⁸ The company has never yet lost a day's production due to industrial action.

Culture

Svedala Barmac retains the open door policy adopted by the company's founder, with senior management both visible and accessible. MBWA (Management By Walking Around) has continued to the present day. ⁹ The New Zealand operation has its own distinctive style within the Svedala group.

⁸ Svedala New Zealand Ltd. Company Profile for the 1997 Export Awards p.1

"We have our own identity within the organisation, which suits us well. We believe this captures our ability to make independent decisions when we have to, pointing to us as being different - in the right sense! The Barmac people like to work hard and play hard. "10

Information is open to all. All faxes received overnight are available in a central area for all office staff to review.¹¹

Exhibit Two:	Svedala Barmac	Goals
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Manufacturing products in excess of the standards	
expected by the customer	
Providing quality of service which exceeds the customers	
expectations	
Continuous product improvement	
A return on assets that encourages further growth	
Sharing the successes of the company with the employees	
Making working for Svedala enjoyable	
Maintaining Matamata as the manufacturing base for the company	
Providing job security for its employees	
full copy of the goals is included in Appendix 1:	

The company has always been very aware of its responsibilities as the major single employer in a small town. Both Paul Tidmarsh, the previous owner, and Andi Lusty are Matamata residents and carry prominent reputations in the community. The company has supported a range of community projects over the years, and proudly displays a scrapbook of letters of community appreciation from local civic (and national) leaders.

Structure

Svedala Barmac has a very flat, team-based structure; the supervisor of each team reports directly to Andi Lusty. Lusty has about 10 such reports. The structure is empowering because it pushes decision making down to the teams. For example, the decision to

 ⁹ Svedala New Zealand Ltd. Company Profile for the 1997 Export Awards
¹⁰ Svedala New Zealand Ltd. Company Profile for the 1997 Export Awards
¹¹ Svedala New Zealand Ltd. Company Profile for the 1997 Export Awards

employ a new team member is made by the team; it is unusual for Andi Lusty to be involved.

"I don't get involved at all beyond approving the extra member of staff. They're responsible for hiring their own staff and they live and die with the staff they hire. I don't get involved . . . usually until they want to lay somebody off. Maybe one in five, or one in ten doesn't work out¹²".

Naturally Andi Lusty does not agree with all of the decisions,

"I've found out over the years that there's many ways of skinning a cat and you can make a completely different decision and end up in the same place. So it's usual that you have to hold your breath when you disagree with a decision . . . Half the problem is when somebody won't make a decision."

Each year the company has a 'no holds barred' retreat to which a cross-section of the work force is invited. Problems can be aired without fear of repercussions. The objective is to ensure that the communication bridge between management and staff is strong and wide.¹³

Quality Systems

The company gained ISO 9001 registration in 1992. Employees monitor their own work against set criteria. The emphasis is on building quality into the process rather than on checking for mistakes afterwards. The company believes that the person most qualified to analyse a job is the person who is doing it.

The adoption of Total Quality Management (TQM) meant that a number of work practices needed to be changed. The company integrated the best aspects of several existing programmes to develop their own workplace improvement program known as the 6 S's. The 6 S's, displayed in posters around the plant and office are shown in Exhibit Three.

¹² Lusty fulminates against current employment law for making it next to impossible to dismiss incompetent workers. The extensive programme of multiple warnings required, and the probability of appeal and counter appeal in the Employment Courts imposes significant costs which discourage employment, in his view.

¹³ Svedala New Zealand Ltd. Company Profile for the 1997 Export Awards

Sifting
Sorting
Sweeping
Spik 'n' span
Standardisation
Shitsuke (Self-discipline).

Exhibit Three: Svedala Barmac's 6S Quality Programme

When a problem with an internal process is identified it is documented and allocated a Machine Rework (MR) number. Any action taken to correct the problem is also documented, along with the hours taken to apply the fix, and any methods put in place to stop a recurrence. ¹⁴ This system ensures that non-conforming parts are quickly brought to the attention of production staff to minimise the amount of rework required.

Every customer complaint is registered and a task force set up to investigate. The company keeps a comprehensive file on all actions carried out in connection with each complaint. The ultimate aim is both to find the solution to the problem and to prevent it from recurring. The customer must indicate satisfaction with the outcome before the problem can be removed from the open complaint list.

Svedala Barmac History

Behind all of the attributes we see in Svedala Barmac today is a history stretching back 25 years or more. What appears today as a unified and cohesive enterprise began life as several separate businesses, which acquired dealerships stretching around the world. The history of how these parts became a whole has been broken into three phases, each a step towards the ultimate consolidation of the Barmac technology.

- The 1970s: Jim McDonald's & Bryan Bartley's invention of Barmac
- The 1980s: Manufacturing and selling Barmac under license
- The 1990s: International manufacture and distribution within Svedala.

¹⁴ Svedala New Zealand Ltd. Company Profile for the 1997 Export Awards p.18

The 1970s: Bryan Bartley & Jim McDonald Invent Barmac¹⁵

The Barmac is named after its inventors, Bryan Bartley and Jim McDonald. McDonald worked as an engineer for the Wellington City Council, where his duties included overseeing the Ngauranga Gorge quarry. He developed the idea of using stone to crush stone, rather than the conventional steel jaws or hammers. By 1970 he had a crusher working on that principle. However he had been unable to excite any interest from the quarrying industry, with Bryan Bartley's recollection being that he and mineral company Winstones were the only ones wanting to have a closer look.

According to Bartley "I persuaded the directors to whom I reported that we should give it a try, so we made one of his crushers in the workshops and took it out to Winstone's Hunua quarry and tested it".

The original prototype used hard cast tips, requiring replacement every two and a half hours. In a successful experiment these were replaced with tungsten carbide tips, which lasted six weeks. This made the crusher far more of a commercial possibility. It was about 40% cheaper to build a machine using the new technology.

McDonald and Bartley were keen to develop the machine's technical and commercial possibilities but they knew it was going to take considerable time, effort and possibly capital. They decided to keep their day jobs, working on the crusher as a secondary occupation. The business would be kept low key, with the machine's sales funding further development. Investment levels would be kept as manageable as possible; an expensive manufacturing operation was to be avoided. Instead the Barmac would be licensed to manufacturers, who would also be responsible for marketing, sales and maintenance.

Sympathetic employers provided necessary support. The Wellington City Council had decided it had no great interest in being in the quarry crusher industry. It came to an agreement with Jim McDonald. It would cede its claim on the machine to him, in return for a new crusher for the Ngauranga Gorge quarry.

¹⁵ This section draws heavily on an article by Denis Edwards "Duo's Journey to Design Perfection" in Quarry Magazine, December 1996

"That was the early seventies and even though it was only a few thousand dollars in today's money it was a very good deal for the council, because it solved their machinery problems."

In Auckland, Winstones' Board was coming to a similar arrangement with Bryan Bartley. It would pass on its interest to him. "Which was very generous because legally they owned me body and soul, as far as the crusher went." In turn he agreed not to charge a royalty on machines Winstones might buy.

A big breakthrough came in 1976 when Sir William Stevenson praised the Barmac. The Stevenson stamp of approval made it easier for others to follow.

Bartley and McDonald established Barmac Associates to license the machine. Early New Zealand licensees included Keith Neiderer in Auckland, Dalgety's, and Fulton Hogan in Dunedin. A total of twelve licences were eventually issued for marketing the crusher. Three of these licensees subcontracted their manufacturing to Tidmarsh. By the end of the 1970s, Barmac licensees were developing markets in Australia, Japan and the UK.

One offshore licensee came by chance. Jim McDonald had attended a dinner, and had been seated next to a Japanese trade commissioner. The man listened carefully to McDonald and soon after a Japanese company made an approach for a licence.

Duopactor

Experimentation on the Barmac was constant, an important development being the ability to handle stone bigger than 60 mm.

"Eventually (and some of the manufacturers did a lot of their own development) there would be a range of six machines, from 10 horsepower up to 600 horsepower."

Research was driven by the need to overcome the Barmac's one significant drawback, namely that competing machines could handle bigger rocks. Simply building a bigger version of the original machine was unsatisfactory. Larger stones, hit by smaller stones, would break if weak or if hit head on, but if they were chunky and merely hit with a glancing blow they were likely to survive.

"That drew comments from people seeing the product coming out, with larger rocks still intact, that the machine wasn't doing anything, when in fact it was doing a great deal."

A further problem was that the larger rocks in the rotor were accelerating the wear on the tungsten carbide tips, thus reducing their useable life and adding cost. These problems were solved in a second type of crusher, the Duopactor, or dual feed machine. Larger stone is fed directly into the breaking chamber, rather than through the rotor. The smaller stones are fired at high speed from the rotor at the larger ones in the breaking chamber, breaking some of them but improving the breaking efficiency of the fast stones.

The next development was the Cascade Version, in which same-sized material is fed to both rotor and breaking chamber. This delivered a significant increase in the amount of fine material produced. Even better, it was delivered for the same horsepower and energy input, and with no extra wear.

P. L. Tidmarsh Ltd

Paul Tidmarsh's involvement with Barmac began in the mid 1970s as a sub-contractor, manufacturing the Barmac machine (then called the McDonald Impactor) for three of the New Zealand based licensees¹⁶. He had been operating a small engineering business, P.L. Tidmarsh Ltd., since 1963. Tidmarsh had initially worked from the back of an old truck, however when the business grew in the late 1960s he opened a workshop in Matamata. The business focused on general engineering, including the construction of rotary cowsheds and odd jobs for the forestry industry. In 1971 the company subcontracted to manufacturer Hammermill rock crushers and began its involvement in the manufacture of quarry plant¹⁷.

Like Paul Tidmarsh himself, the company built a reputation for quality and a strong work ethic. Tidmarsh had a strong personal commitment to quality. The rock-crushing machines he was to make his fortune from were finished "as if they were motor cars". Svedala Barmac still has the second unit ever made. It was in active use at Hunua until 1997.

Tidmarsh presented the Barmac as a premium product. He believed the Barmac should shine, that the staff should wear uniforms, and that the workplace, offices and gardens

¹⁶ M Parkinson and B Paulin, Tidco International, op cit.

should be kept clean and tidy. These were the visible signs of a quality operation. This approach has carried through to the Svedala era.

The 1980's: Manufacturing under Licence

By 1980, Tidmarsh had been manufacturing quarry plant for a decade, for half of that time making Barmac machines. He had developed a conviction that the Barmac was a world-beating product and he wanted a bigger role in its future. In 1980, Tidmarsh acquired what was to be the last licence issued by Barmac Associates, to develop the North American market, including the US, Canada and Mexico. On the same day, Barmac Associates issued identical licences to two of its established licensees: one based in New Zealand, and Kemco in Japan¹⁸. The result was that the early development the North American market was quite chaotic.

In 1981, Paul Tidmarsh formed a subsidiary of PL Tidmarsh Ltd to market Barmac in North America, bringing in as a minority (25%) shareholder Andi Lusty who was to be responsible for marketing. Andi had been working for PL Tidmarsh on a part-time basis, two days a week, "doing the wages", as a means of supplementing his income while he and his wife built up a grape business on a section they had just bought outside Matamata.

Andi brought a varied and international background to the role, but had not had a role in international marketing before¹⁹. A Londoner, his first job had been in his father's aircraft catering business. By the time he got to university (where he studied accounting and economics), he had earned a pilot's licence. Playing squash took up a growing part of his life, and when Andi completed his accountancy qualification, he took up squash professionally for five years, until his body "started complaining". Squash took him all over the world, including New Zealand on one occasion. (He met his Matamata born wife at a squash tournament in Canada). He also set up a fish farming business for a few years until disease wiped out the fish and the business. As squash wound down, Andi

¹⁷ Svedala New Zealand Ltd. Company Profile for the 1997 Export Awards

¹⁸ Tidco manufactured the Barmac machine for both of the New Zealand based licencees. Kemco made its own machines.

¹⁹ Andi Lusty attributes his success in this venture to commonsense, a nose for a good sales lead, the energy to go after it, and to selecting the right people, with the right enthusiasm, to work with.

returned to accountancy as a management accountant with paper and magazine publisher Reed International, until he and his wife moved to Matamata to be close to her parents.

The strategy that Andi Lusty devised to open up the US market began with advertising in industry magazines and direct mail shots to quarries. Follow up sales effort went to areas that produced the strongest response. Initial 'strikes' were made in Southern California, Washington State, and New York. Generally, Andi Lusty found himself concentrating on the West Coast, while Auckland-based licensee Neiderer focused on the East Coast. From these initial 'cells' of interest, the reputation of the Barmac spread by word of mouth and competitive success:

" If one bloke bought it and it did him good, and [he] suddenly started producing quality aggregate, all the cement companies or concrete companies came to him to buy the stuff. So all the others took notice . . . all his competition".

Another key to the US market was Tidco's decision to display the Barmac at the 1981 CONAG show in Las Vegas²⁰. It cost \$200,000 to finance the display over the three weeks of the show, but the result was that the machine was successfully placed with a California quarry. Within 9 months, two further machines sold.

Customers took their time to test the quality of the machine, and of the organisation that supported it. The first buyer made Tidco wait 9 months before paying for his Barmac, even though it had paid for itself in the first four weeks! Another frustration was that one of the other Barmac licensees in the US turned up at the Las Vegas fair and, for a fraction of the cost Tidco had faced to put a machine on show, camped outside their stand and took notes on every sales lead that walked in!

Dealer Network

During the first 3-4 years of the North American venture, Andi Lusty spent a full six months each year away from home, following sales leads and appointing dealers, both in the US and Canada. A dozen dealers were signed up in the US, and a couple more in Canada. Dealers were required to pay for machines for stock. This provided the cash flow for growth, and ensured the dealer's commitment to produce sales. As dealers signed up, Tidco's US sales grew strongly from 1982 onwards.

Andi Lusty describes the basis on which he selected dealers:

"Gut feeling; how you get on with them; what their record [was] with us; . . . what the potential is; what are their business plans? . . . but I guess the most important is, can you get on with them."

Looking back on these selections, Andi estimates that two or three out of ten dealerships have been failures - "and we've paid for it" - but the great majority worked out well. Half of the initial dealerships are still with the company after 20 years, some rising to senior ranks in Svedala companies worldwide. By contrast, Tidco's efforts to develop the South African market were held back by poor dealer selection and pirating.

Strong personal relationships characterised Andi's relations with his dealers. He has always spent up to 100 days each year offshore, visiting dealers. Conferences were held every year for dealers to visit Tidco, and update product and sales expertise. As Andi Lusty puts it,

"There's not many international hotels in Matamata, so at least half of the guys would stay with us at home. If we have the choice, we would always put them up at home."

The personal relationships could be stronger than the business tie: one of Andi's regular visitors and friends now works for the competition.

Lusty preferred not to give over full responsibility for sales and marketing to the dealers.

"I think there's a huge danger for us being remote from the customer. If you use a local dealer you have still got to be there all the time. You've still got to be visiting alongside. There's no replacement for having a local knowledge and a local representative, he can let you know what's going on, but at the same time you've still got to be there."

Barmac America Joint Venture

One of the more successful dealers, Seattle-based Evans Equipment, arrived in Matamata one day with a proposal that he establish a distributorship for the whole of Tidco's US dealer network. He proposed to buy a number of machines and supply dealer demand

²⁰ Sadly, Barmac's inventor Jim McDonald, who was to have attended the Las Vegas show, died just two weeks earlier.

out of Seattle. Barmac America was established in 1983 as a joint venture between Evans (75%) and Tidco (25%).

The extra capital and scale allowed an expansion of the sales effort and two or three specialist Barmac sales engineers were hired. The business did well and sold between 15-20 machines per year in its first 3-4 years. By 1985, Barmac America had grown the US dealer network to 18.

The danger with the new arrangement was that the distributor effectively 'owned' the relationship with the client. From the client's perspective, the distributor was the supplier. Once the joint venture arrangement ended, the distributor would be in a stronger position to capture the client's business.

The Pirates Move In

The relationship with Evans proved to be short lived. The company was primarily a Komatsu dealer with only marginal commitment to crushing machinery, and when it was sold in the mid-1980s, the new owner had no interest in the Barmac venture. Evans' 75% interest in Barmac America was sold to another Barmac dealer, who turned out to be intent on taking the Barmac design for himself.

Pirating has been an on-going feature of the Barmac design. The parts and castings for components are easy to make. The machine is also very cost-competitive against the alternative cone-crusher technology, and can be made "in a backyard shop". Lusty had priced the Barmac close to these alternative machines so that gross margins were high²¹. However, good gross margins were needed to support the on-site setup and tuning required to get the Barmac to work properly. If not properly tuned, the machine's light construction was quickly damaged.

But pirates could sell the machine without having the ability to install and service it properly, and harvest the margin before these problems emerged²². Such pirates do not last long, but others, typically former Barmac dealers who do have the skill to install the

²¹ Export incentives were also available from the New Zealand government at the time. But Andi Lusty did not factor these into his pricing decisions:

[&]quot;I think any subsidy destroys and distorts a market. I'm totally anti subsidies of any description. But if you dangle a subsidy in front of me, I'll spend half of my time trying to get it because it's the easiest money I'll ever get. So you're just distracting me from what I should be doing."

²² These hit-and-run pirates damage the reputation of the Barmac machine, but also raise the reputation of genuine suppliers such as Tidco and later Svedala.

machine correctly, can sustain their position quite effectively. Lusty estimates there are now between 35 and 40 pirates worldwide making Barmac copies, and at least 30 foundries making pirated Barmac parts²³.

Tidco, and later Svedala, raise the cost of pirating by spending half a million dollars each year in patent litigation. This does not deter all small-scale pirates, but it is effective against large manufacturers. Only one large global competitor has tried to enter the market by designing around Barmac patents. This competitor has made three attempts, all ending in failure. It is rumoured the company spent US\$12 million on its latest effort without producing a viable machine²⁴.

"... they just didn't have the technology to make it work; didn't have the people to make it work ... A big company goes at it differently to a small company."

Sadly, Barmac America's new joint venture partner turned out to be an early pirate, keen to cut Tidco right out of the business. Tidco discovered the truth by accident while touring a Korean foundry. Sitting on the floor were Barmac parts ready for shipment to the US joint venture partner. The relationship was severed and the US legal system was the great beneficiary for several years thereafter.

Barmac Consolidation

As Tidco's North American business developed, the confusion caused in the market by having several Barmac licensees intensified. Auckland-based Neiderer, one of the early licensees, had established a presence in several global markets in addition to the US, with operations in South Africa, South America and Asia, as well as Australia where he had overcome another Barmac licensee to be the principal supplier to that market²⁵.

In 1984, Tidco bought out Neiderer's Barmac interests and thus acquired licences for direct market access to all world markets except Europe and Japan. In 1987 Tidco bought out the UK licensee, who had also developed markets in continental Europe.

Tidco then put pressure on Barmac Associates to tidy up the chaotic structure of overlapping licences around the world. The practice of granting more than one licence

 ²³ Despite this, Svedala Barmac still sells 65% of its own parts.
²⁴ This was considerably more than Svedala paid for Tidco.

²⁵ Neiderer continued to sub-contract manufacture to Tidco, however.

for a market had created problems. There were limited incentives to invest in a market if another licensee would share the reward, or where another licensee's poor performance would damage the product's reputation.

A meeting of Barmac Associates and remaining licensees was held at which "lines were drawn on a map" and many exclusive territories were established²⁶. Licensees who had been unable to keep up with energetic developers like Tidco had their licences canceled. Tidco International ultimately developed dealerships in nearly 40 countries worldwide. In 1987, Tidco achieved a major coup with the establishment of a Hungarian subsidiary in Budapest to sell Barmacs in Eastern Europe. Tidco was the first non-Eastern European Company to have a majority owned subsidiary in Hungary.

The order in which these markets developed did not follow a pre-conceived plan, but rather evolved as opportunity presented itself. As a small company, Tidco lacked the resources for costly assessments of market potential. Trial and error, making low-cost forays into new markets, and following up only where potential customers appeared, was both more efficient and generated income to fund market exploration. Often the first contact with a new market would be from a local agent wanting to sell a Barmac to one of his customers.

By the late 1980s, only Tidco and the Japanese licensee Kemco remained of the original 12 licensees. In 1994, following its purchase of Tidco, Svedala also bought Barmac Associates and with it the rights to the machine's design and patents. Relationships between Svedala Barmac in New Zealand and the one remaining licensee in Japan are said to be excellent.

Starting with manufacturing subcontracts in the mid 1970s, it thus took two decades, and a new owner, for Tidco to complete the task of consolidating nearly all of the Barmac business into one company²⁷. Asked why the last firm to win a licence should end up running the entire operation, Andi Lusty replied:

"I think a combination of perseverance and absolute faith in the product . . . blind faith in the product."

Expansion Strategy

²⁶ Large markets such as the US remained open, however.

²⁷ In 1985, Tidmarsh had consolidated his various Barmac interests into one company, Tidco International, incorporating the manufacturing company and the North American sales company in which Andi Lusty was a shareholder. Lusty, together with other managers, ended up holding 25% of the equity in the consolidated group.

Tidco's gradual consolidation of Barmac licensees produced strong financial returns as the 1980s progressed. The cash flow gave scope for expansion of the business beyond Barmac, and Paul Tidmarsh also wished to diversify his personal wealth, by purchasing local farms. Tidmarsh developed two expansion strategies for Tidco. The first was to leverage off the global distribution system that the company was building.

"The plan was that we had a distribution network that was selling into the crushing and screening environment, [and] we could put other crushing and screening products through that same network."

These product development projects absorbed considerable funds but "never really got into world class as we did with Barmac".

The second strategy was to build an importing business to offset the currency risks of the company's near-total reliance on exports. The Barmac machine used WEG electric motors, and when WEG offered Tidco the rights to distribute their motors in New Zealand, it seemed to meet the company's needs perfectly. Tidco threw itself into the task of developing the New Zealand market with enthusiasm, spending over \$2 million in the first three months. But returns were minimal, and Tidco discovered that its knowledge of the quarrying industry gave it little insight into the much more diverse retail markets for electric motors.

Problems on the horizon

The New Zealand economy went through a period of radical economic change following the arrival of the fourth labour Government in 1984. Domestic markets were opened up to international competition. In many industries long-established firms disappeared, while those that remained concentrated on survival. There was no time for long term planning or growth.

With its concentration on the more stable international markets, Tidco initially escaped quite lightly from the economic turmoil. However, it was not immune to the changes. Interest rates were high and the banks, which only a few years earlier had bent over backwards to lend money, were by the late 1980s appointing receivers to any company that failed to meet its obligations. High interest rates also made the New Zealand dollar attractive to international markets and the currency appreciated sharply in 1989²⁸.

²⁸ Between May 1988 and May 1989, the US\$ depreciated 15% against the NZ\$.

Manufacturers of capital equipment are particularly sensitive to changes in the economy; customers often respond to the prospect of a downturn by deferring capital expenditure. In 1989, sales fell by 35 per cent, due both to currency and demand effects.²⁹ By the end of the year the company had almost 12 months production, sitting in stock awaiting sale. Despite all the investment in product and market diversification, only \$1 million of Tidco's \$7 million of sales was coming from non-Barmac products. With 110 people on the payroll, Tidco was overstaffed, but Paul Tidmarsh was most reluctant to make layoffs. Adding to the problems, this was also the time when Tidco was severing its ties to its major US distributor who had been pirating the Barmac design. Buying out the 75% of Barmac America it did not already own put further stress on Tidco's resources.

The 1990s: Svedala Barmac Limited

Turnaround Partner

Tidco needed new equity to manage its way through the problems that had started to develop. Forming Tidco into a public company was considered, but the share market was depressed at the time and the costs of listing were prohibitive. Furthermore, it was unlikely to solve many of the problems then facing the company.

A couple of companies had expressed an interest in Tidco, which started looking for a minority shareholder. The third company approached was Svedala, whose cone crusher had started to lose significant market share to the Barmac. Svedala's earlier attempt to develop a machine to compete directly with the Barmac had been unsuccessful. Buying the market leader was a more promising and cost-effective proposition than trying to develop a new product from scratch. In buying Tidco, Svedala would get not only the product, but also the distribution network and know-how.

Svedala offered a five-year profit-sharing scheme which was attractive to Paul Tidmarsh, and in 1990 it bought out all shareholders in Tidco International and the company name was changed to Svedala Barmac. The decision to sell was a difficult one for Paul Tidmarsh. Following the sale he initially stayed on as manager. Yet even before the change in ownership it was apparent that major changes were required. The evidence lay in the stock of finished goods.

The company recorded a loss in its first year within Svedala. Fortunately the new owner was not unduly worried. The change in ownership probably saved the company.

²⁹ Parkinson and Paulin *Tidco International*

Without the new equity and the willingness to re-strategise the business, the losses would have been unsustainable. Andi Lusty recognises the loss of "another Kiwi company sold offshore", but reckons there was no alternative.

It took two major restructurings to get the company back on track. One of those to leave was Paul Tidmarsh, who took the non-Barmac businesses and a number of mid-level managers with him. This led to the elimination of the middle management level, but the company remained overstocked. Andi Lusty remained as Managing Director and was immediately faced with the task of further downsizing. The second restructuring saw staff numbers reduced to 43 from the initial 110. Within 18 months of taking control, Svedala had returned the company to profitability - "we were back on track so fast".

The redundancies had a major impact on the town, leading to business closures in Matamata and the surrounding area. The memory of these impacts on staff and the town remains painful. A major driving force for the company is to ensure that this experience is not repeated. Andi Lusty recalls:

"The second time we pretty much took out all the dead wood that was in the organisation. The guys that were left were not only busy, but they were comfortable working with each other. The change in morale and productivity I think happened within two or three weeks after that".

The company has been rebuilt since the dark days of the early 1990s. Barmac staff numbers have returned to around 95, while turnover is five to six times the level of the pre-Svedala era. Part of this growth has been due to a long period of expansion in the key European market over the 1990s. But most has been due to Svedala Barmac's access to Svedala's global distribution network of "Svedala Houses" (see below).

A substantial investment in new equipment, at an estimated cost of \$5 million dollars, also improved productivity, lowered production costs, and improved quality, timing and morale. With lower production costs, the company was able to enter new markets. Svedala's willingness to fund investments in manufacturing plant with a good economic case was a significant improvement over the former regime of always being cash-short³⁰.

³⁰ The government-funded Development Finance Corporation had lessened these constraints on two or three occasions by funding major items of plant during Tidco's rapid growth in the 1980s.

The investment in new equipment is ongoing. The company recently purchased its first robotic welder, with plans to purchase a further four³¹. These will do the dirty or hazardous and repetitive work better suited to machines.

Research and Development

R & D was a low priority in the period from 1989 to 1993 because restructuring and the drive for profitability claimed all the available resources and management time. According to Andi Lusty:

"Paul was very much responsible for the R&D of the products and we completely changed the whole product line twice in the eighties. . . We got back into doing R&D probably in '93, '94 and now are still building up an R&D team. So we've got our own quarry plant and we've got our own R&D team, which is just up the road from the laboratory.

The market expects a new product line about every three years, and the demands for product enhancement are growing. Direct contact with customers is vital to the R&D effort and Svedala Barmac has had to work hard to retain this contact through Svedala Houses.

Measuring Performance

Before the sale to Svedala, cash flow was king. Demands for cash to finance expansion, and later pressures for survival, meant that Andi Lusty had "spent most of [his] time doing cash flow forecasts for the bank". But Svedala wasn't interested in cash flow; its primary measure of performance was return on assets employed (ROA). Within reason, Svedala didn't care how much was invested in a business as long as it met the required return.

According to Andi Lusty:

"We just kept writing to them *'we need more money'* and they just kept sending it - it was wonderful".

"I think the way the Swedish run their businesses is terrific. I'm just glad we didn't end up with somebody who just wanted to put money in and get it all out in a year or

³¹ Two more were acquired in 1999.

two. Prior to Svedala, a lack of cashflow had been a major constraint to growth... But there's been no blocks for us to spend any money to advance the business".

If the availability of cash was a plus with the new owner, the processes required to secure it were often a minus. Andi Lusty found that the regimes of a big company can encourage managers in the hierarchy to worry about the "political correctness" of their decisions often putting personal goals ahead of the logic of the business case. Also, capital expenditure decisions that Tidco would take in an instant can now take 18 months. On the other hand, Svedala has the cash to fund its decisions, whereas Tidco often didn't! Overall, Lusty finds doing business in a big corporate group "a bit less fun" than the original "seat of the pants" effort.

Svedala installed a demanding reporting system, designed to show quickly if performance was in accordance with the plan. Previously the results had taken 6 weeks to compile following the end of the quarter, but were now required monthly, within 3 working days of month end.

"They use a system where they agree a budget for a year and if the return on investment is satisfactory then they just go down the line of time basis. If you're on 100 you're on budget, 120 is good news, 97 or 98 is bad news. It's like a traffic light; if you go to orange and the return drops to about 10 or 15 percent then you're on notice, you've got to improve. If it drops below 10% return they get upset, but we haven't had that problem yet."

In 1997 the New Zealand operation ranked second amongst Svedala's 200 group companies in terms of return on assets. ³² The performance of the New Zealand operation is benchmarked against both the other companies in the Svedala group and the members of the Auckland Manufacturers Association.

Svedala adds value through the discipline of the budgetary process rather than from any superiority in market knowledge. When corporate office and the New Zealand subsidiary disagree on projections, the locals on the ground have been "proved right more often than not". The assumptions on which the budget is based can produce quite unrealistic estimates.

³² Svedala New Zealand Ltd. Company Profile for the 1997 Export Awards (unpublished)

Visits from senior Svedala managers are rare; the reporting system provides them with the information they need. New Zealand's physical isolation from the centre of Svedala, together with its specialisation, has enabled the local operation to maintain its identity.

Returning to Core Competence

As part of a global strategy to rationalise product lines across its growing portfolio of subsidiaries, Svedala were keen that the New Zealand operation return to its core competence, the manufacture of the Barmac machine. This made sense; Svedala already had world class products in the areas in which Tidco had been trying to diversify. According to Andi Lusty,

"Svedala said, 'You focus on what you're good at'. In those days everybody in New Zealand was talking about getting back to your knitting and that's exactly what we did."

As part of the rationalisation, the company tried to sell its under-performing WEG motors distributorship, without success. Svedala Barmac's continuing learning in this business eventually turned it around, and WEG motors now has a leading market share of over 25% of the domestic New Zealand market.

"[We] used the same formula . . . [as in] all our existing successful business, which is to make sure we are the only people around who had inventory who were open 24 hours a day".

Svedala Houses

One of the most significant changes resulting from the Svedala takeover was the consolidation of Tidco's own international network of dealers and distributors into the new parent's global marketing and service network of "Svedala Houses". By the time of the takeover, Tidco had already established representation in 40 countries globally, with 20-30 sales representative companies predominantly devoted to selling Barmac. Wherever possible, Tidco had tried to encourage dealers to employ specialist Barmac personnel to deliver the high standard of product knowledge required to properly install and tune the Barmac to local conditions.

The new parent required that Barmac's sales and service functions offshore be transferred, wherever possible, to one of Svedala's Houses already established in 50

countries worldwide. In many instances, Tidco's Barmac-trained dealers were absorbed into the Svedala system, many going on to senior positions. But in other cases, dealerships were terminated. Faced with the loss of their livelihood, several dealers continued to serve their established markets very well with pirated parts and machines, and at high standards of technical knowledge and service. Svedala Barmac has found it very difficult to re-enter these markets.

Overall, however, access to the Svedala Houses has greatly improved Barmac's global reach and produced the six-fold increase in sales that Barmac has enjoyed over the 1990s. In 1997, the company won both the Regional Exporter of the Year Award and New Zealand Exporter of the Year Award. These awards were effective in increasing the profile of Barmac both inside the Svedala Group and within New Zealand.

Despite the benefits that Svedala Barmac has gained from access to the Svedala House system, there have been frustrations too. The typical Svedala House sells over 2000 distinct Svedala products and Barmac rarely figures large in the overall sales mix. Getting the attention of front line sales staff, and developing the level of expertise necessary, is a significant challenge. Many Svedala House managers are reluctant to make time for Barmac people from New Zealand to meet local sales personnel. With a multitude of product managers globally, all anxious to push their product through the sales organisation, Svedala House managers observe that their staff would have no time for customers if they made time for every visiting product specialist. House managers frequently take the attitude, "I can't afford to have you in here".

Svedala has also adopted a distinctively Swedish style of management with its Houses. Following the practice of other Swedish global corporates like ABB, Svedala gives its House managers great autonomy. Managers are local nationals, not Swedes, and are relatively free to devise strategies that they think will make the most of Svedala's huge global product line in their own markets. Any global product strategies must be sold to the Houses, whose only incentive to adopt them is an improved annual return on assets³³. Once again, products with a small share of the sales mix find it hard to attract a manager's attention.

Support for Barmac thus varies considerably between Svedala Houses, being strong where the House manager has experience with the crusher side of Svedala's range, and with the Barmac in particular, but less certain elsewhere.

³³ Svedala is currently considering a further separation of responsibilities by making manufacturing operations independent of product support. A close link between

Compounding these difficulties, a principal global competitor for Barmac's VSI machines are the small-gauge cone crushers made by Svedala itself. These carry twice the price and twice the profit per machine of the Barmac and hence compete powerfully for the attention of local sales staff. Svedala Barmac believes that two-thirds of Svedala's global sales of small-gauge cone crushers could be Barmac sales, and that one-third should be.

"We tend to go where the cone crusher is really having a problem and then they will sell ours [the Barmac] to solve the problem. We say they should sell ours and avoid the problem in the first place".

Although its sales have grown six fold, the Barmac has been losing market share to the competing Svedala machines over the 1990s.

Svedala Barmac has had to develop strategies to reach the ultimate customer through this sometimes-thick layer of organisational insouciance. Andi Lusty and his marketing manager continue to spend 100 days each year visiting Svedala Houses and Barmac's remaining direct dealerships.

A very successful strategy has been Barmac "service schools". These bring together current customers in a local market, customer service engineers, and experienced staff from Svedala Barmac to update everyone on the proper servicing of the machine. R&D staff also attend to pick up the customer experience which is vital to their ongoing development of the Barmac. At the end of a course the participants are asked about the problems they have had. Andi Lusty describes what can happen:

"Then we go through and ask them where they've got problems. [We] have a whole series of overheads with the theory, and then we've got a whole series of transparencies with pictures of disasters, and [we] say, 'Is any of this familiar?' You normally find somebody saying, 'Oh I've done that.' Somebody ran the machine backwards this time and the rotor had been cut in half!"

Supplier Relationships

Barmac's Swedish parent has also moved to change the pattern of the company's suppliers, although at a slower pace than for marketing and distribution. The supplier relationships established by Tidco were typically long-standing, stretching back up to 20 years. Several key components are sourced offshore.

manufacture and sales has been a strength of the Barmac operation in the past, and this

Wherever Svedala has a subsidiary interested in supplying Barmac, or where Svedala's major global competitors are involved, the parent company has suggested that Barmac change its source of supply. Andi Lusty expects that these changes will occur "in the medium term".

Svedala Barmac faces the Future

From the perspective of his engineering workshop in Matamata in the mid-1970s, Paul Tidmarsh could not have predicted the position of global leadership that his company achieved over the following quarter-century. Likewise, it is unlikely that the next quarter-century of Svedala Barmac's history can be predicted with any confidence.

But the forces that will influence the next phase in that history are already at work. As the century and the millennium come to a close, Andi Lusty could reflect on those forces; and on the considerable portfolio of competitive capabilities built up by Svedala Barmac over its history; and also on the strategies available to him to gain best advantage for his company in the future.

That future seems likely to be closely bound up with the future of the Svedala Group. Yet the Swedish style of management that Andi Lusty appreciates so much leaves considerable scope for the Matamata company to shape its own destiny. Like any close commercial relationship, the Swedish parent presents both constraints and opportunities. In 1997, Svedala established its newest Svedala House in New Zealand to distribute all Svedala products to the local market, with service centers located in Auckland and Christchurch. Andi Lusty was appointed Managing Director of this new venture, and now faces the same problems of all other House Managers around the world: what to sell, and how to market the Svedala concept – not just Barmacs!

new proposal is causing concern at Svedala Barmac.

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Appendix 1 - Svedala Barmac Company Goals

To manufacture efficiently and market products that are outstanding in terms of their appearance and performance, in excess of the requirements of Svedala New Zealand's ISO 9001 accredited status.

To provide our customers with an international quality of service that leaves them in no doubt as to our ability to supply and support our equipment promptly and courteously.

To continuously improve the quality of both products and service in a time frame surpassing that of any other supplier.

To achieve a return on the capital invested in our company, that will encourage further investment and growth in Matamata.

To share the success and profitability of Svedala New Zealand with its employees.

To make working for Svedala New Zealand an enjoyable experience both during and after working hours, in a safe environment, while supporting the local community.

To retain and enhance Matamata as the worldwide manufacturing base for Svedala New Zealand products and to provide job security for its employees.