



**A N N U A L R E P O R T**

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**vacon**

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## WHAT IS A FREQUENCY CONVERTER?

A frequency converter is a power control unit used to steplessly control the speed of a squirrel cage induction motor. A squirrel cage motor is a typical prime mover used in industry and in the public engineering sector. Its rotation speed is proportional to the frequency of the electricity supply, so steplessly changing the supply frequency results in a corresponding change in the rotation speed of the motor. More than 30 million squirrel cage motors are sold worldwide every year. The installed base of such motors is at least ten times this number. Only an estimated five per cent of all the squirrel cage motors in use are equipped with frequency converters. Pumps and fans are typical applications for frequency converters, providing not only process control but also significant savings in energy. Other places where frequency converters are used are in hoists and cranes, elevators, conveyors, winders, compressors and winches.

Frequency converters allow squirrel cage motors to be started and stopped smoothly regardless of the load on the motor. Many modern industrial processes require the speed control provided by a frequency converter. Frequency converters also enable electric motor drives to be connected to an automation system via field buses, for example, and can make available a wide range of measurement and control data on the process itself. One of the main advantages of frequency converters is the savings in energy that can be achieved by controlling the rotation speed of the motor to match the needs of the process. This is particularly true of pump and fan applications, where the energy savings achieved can pay back the investment costs for a frequency converter in less than one year. Frequency converters also reduce the load on the electricity network and the mechanical stress on machinery compared to starting the motor directly on line.



## VACON IN BRIEF

Vacon develops, manufactures and markets low voltage frequency converters for the needs of industry and the public sector worldwide, from the simplest to the most demanding applications. Vacon, founded in 1993, is a full-scope AC drive supplier. The company focuses on its core competencies – R&D, key account management and logistics. Vacon's shares are listed on the main list of the Helsinki Exchanges.

Vacon is the «Drives House» with in-depth expertise in frequency converters and in the full range of electric drive technology and related issues. As an independent supplier of frequency converters, Vacon supports open automation and international standards.

In line with the company's precision product strategy, Vacon offers customer and application specific frequency converters in the power range 0.2–3,000 kW. Customization involves configuring the software to individual customer needs and does not require changing the product hardware, which improves manufacturing efficiency. Vacon's production process is based on extensive subcontracting and networking. The company only carries out within its own organization the phases of production related to its core competence,

such as assembly and testing. Products are manufactured to order and not to stock. Some two-thirds of the company's R&D efforts focus on designing the software used in the products and in customized applications.

Vacon continues to pursue its strategic targets for continuous profitable growth. Implementing the strategy for growth plays a central role in our future success, as it has during our short history. The five key issues for growth are:

- Technology leader in application specific drives
- Independent multi-channel, multi-branding partner with global approach
- Strong belief in quality steering through efficient logistics
- Focus on people with an environmental concern
- Continuous organic growth with focus on financial ratios

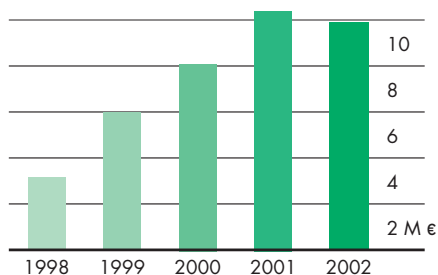
In 2002, Vacon's revenues totalled EUR 97.5 million and the operating profit amounted to EUR 9.9 million. At the end of 2002, Vacon had 426 employees.

## HIGHLIGHTS OF 2002

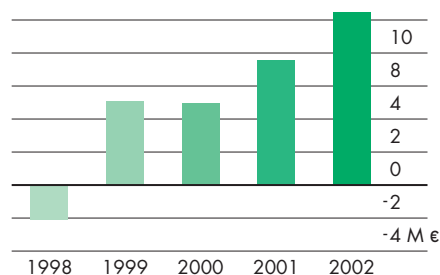
Vacon Plc and Rockwell Automation, a leading industrial automation and drives supplier, entered into a collaborative product development relationship in high-power and high-performance variable speed drives. This brings together complementary technologies to improve the performance of variable speed drives.

In recognition of the company's continuous growth, Frost and Sullivan, a global leader in international strategic market consulting, awarded Vacon the prestigious Market Engineering Growth Strategy Award. This award is given to the company that has demonstrated an exceptional growth strategy within the electric drives industry.

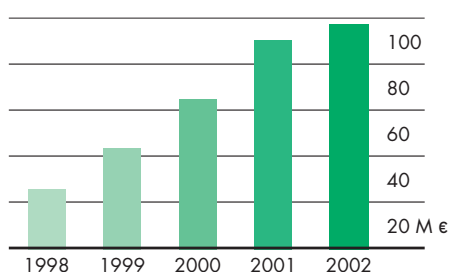
**Operating Profit**



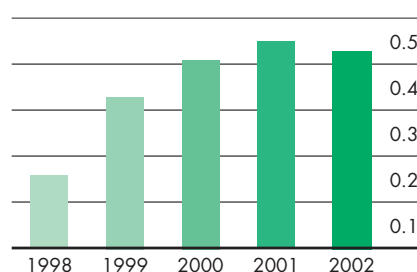
**Operative Cashflow**



**Revenues**



**EPS**



## BUSINESS ENVIRONMENT

In the AC drives market, 2002 has been a year with declining demand. Yet it has been forecast that the market will grow at an annual rate of between 5 % and 7 % for the next 5 years. The situation varies considerably, however, between different geographical areas, mainly reflecting overall economic developments. In general, Europe and the US have shown much lower growth figures than Asia. One key element is the rise in energy costs, which makes AC drives an attractive investment. A frequency converter usually gives considerable energy savings, so the payback period for the investment can be extremely short.

This general trend towards more energy-efficient processes is encouraged by various programmes supported by governments and the European Union. Standard AC motors, for example, are now classified according to their efficiency, with the stated goal of reducing sales of low efficiency motors. Governments are beginning to recognize the environmental benefits of AC drives, supporting energy efficient investments through tax benefits or in other ways. The energy saving potential of drives has partially compensated for the fall in the market due to generally low economic activity. At times like these it becomes more attractive than ever to save costs in processes by optimizing energy usage.

Drives customers expect to be able to use the increased computing power available in drives to integrate them more closely with their own systems and

machines. This creates new opportunities for suppliers that can react quickly and effectively to the changing needs of customers. Vacon's software-based application strategy gives an edge in this market. The factory can focus on manufacturing standard hardware in large volumes, even though the individual product is optimized for a specific customer.

The low overall level of economic activity has created fierce competition for shares in a shrinking market. This competition has also resulted in a reduction in market prices, increasing the need for more efficient marketing and production. The companies that have increased their market share – i.e. have grown during 2002 – are well placed for the anticipated economic upturn.

The market for frequency converters can be divided into two categories according to voltage. Most frequency converters operate on low voltages (110–690 V). Small amounts of medium voltage (2,300–11,000 V) frequency converters are also manufactured. Vacon only produces low voltage frequency converters.

The biggest customers for frequency converters are the end users (industry, construction and the public sector), although OEMs (equipment and machine manufacturers) have become increasingly important. The channels to the end user market are distributors, retailers of electrical components and equipment, brand label customers wishing to extend their product range, and system integrators. Vacon has been actively strengthening its presence in the global end-user market, using its network of existing and new distributors. In the OEM field, the company focuses on major, global accounts. In major projects, the end customers, such as industrial plants in different fields, often purchase their frequency converters directly from the manufacturer or from the systems integrator responsible for the project.



Less than 4 kW	24%
5–40 kW	28%
41–200 kW	23%
201–600 kW	14%
Above 1000 kW	11%

← The world market for frequency converters is approximately USD 5.5 billion\* and can be divided into the following categories according to the power range of the frequency converters.

\*] Source: ARC Advisory Group "ARC": "Low Power AC Drives Worldwide Outlook", 2001 and "High Power AC Drives Worldwide Outlook", 2000

## PRESIDENT'S REVIEW

### To our stakeholders,

Vacon's goal is to further strengthen its position as the technology leader in the AC drives business. We aim to improve the productivity and competitiveness of our customers' core processes. Vacon is widening its scope from being a supplier of frequency converters to being a Drives House and providing a wide range of products and services and comprehensive expertise for the AC drive needs of customers.

Our core competencies are AC drives R&D, key account management and logistics. It is this combination that makes Vacon unique and creates our competitive advantage. Networking globally with leading partners increases our operating flexibility, improves our cost effectiveness, and equips us to serve customers even better.

Vacon's technology strength is based on an in-depth knowledge of the AC drives applications and technology of our customers. This enables us to provide products that speak the customer's language. Ongoing investment in research and product development ensures that Vacon will be able to maintain its technology leadership in AC drives technology and provide state of the art AC drives for changing customer needs.

For us account management is a strategic issue. Our direct sales efforts have expanded to include new strategic alliances. Partnering with customers speaks for our ability to meet their needs for timely delivery of high performance AC drives and support.

Vacon's production can best be described as a logistic hub and is based on extensive networking. By selecting globally first class partners for our inbound logistic chain and applying mass customization principles, we have been able to create a logistics chain that has a competitive edge, in terms of fast response to customer requirements and needs. Furthermore, it provides top quality products.

Our goals in the coming years are to achieve earnings before taxes of more than 14% and to maintain a constant average growth rate of 20%. We will expand our product offering in the AC drives business to cover the main power range in all main low voltage supply networks, with the main expansion occurring through organic growth.

Vacon has divided its business into three business areas in order to better respond to different customer requirements; Component Drives, Engineered Drives and Global Customers including Brand Label and OEM (Machine and Equipment Manufacturers) Customers. Each of these business areas has its own competitive strategy that requires a set of special capabilities. These consist of competencies and processes that are unique to each business. We have created a capability management framework that helps us further develop and utilize the knowledge and skills that we possess at Vacon.



## 2002 – a challenging year

Business in 2002 presented many challenges to Vacon. The industrial market declined, in many countries being more than 10 per cent down on the previous year. The uncertainty about the depth and duration of the economic downturn continued throughout the year. In spite of this difficult market environment, we succeeded in clearly increasing our market share and so strengthened our market position.

In 2002, total revenues grew 7.7 per cent to MEUR 97.5 from MEUR 90.5 in 2001. Our two main market areas of North America and Europe suffered from recession. Sales in Asia and Australia continued to grow and Asia is clearly becoming our third major market area.

Earnings before extraordinary items and taxes were MEUR 9.8, which was less than in 2001 due to the

← *A speed-controlled conveyor starts and stops smoothly. At the airport this means that your luggage gets a smooth ride through the terminal building.*

unsatisfactory first quarter in 2002. In the spring of 2002 we created a roadmap for improving margins, and this already showed results during the second half of the year when we managed to counter

act the general decline in the industrial economy. Earnings per share declined 4.4 per cent to EUR 0.43.

Successful management of working capital enhanced the cash flow from operations, which was MEUR 10.5 in 2002 compared with MEUR 7.6 in 2001. A positive cash flow from operations enables us to finance our plans for organic growth.

These were some of the major steps in developing our business in 2002:

- We launched new products to expand our market coverage and strengthen our drives house concept. We made several successful pilot customer deliveries using our latest liquid-cooled drive technology.
- The multi-channel, multi-branding marketing strategy showed its winning strengths as a growth driver in declining markets in 2002. Vacon Plc entered into a collaborative product development relationship with Rockwell Automation, a leading industrial automation and drives supplier, in high-power and high-performance variable speed drives. This brings together complementary technologies to improve the performance of variable speed drives. Vacon won major new customers.

Important orders in year 2002 were:

- Comalco Alumina, aluminium refinery, Australia
- RWE Solutions GmbH, Zellstoff Stendal GmbH pulp mill, Germany
- Rolec S.A, Celulosa Arauco y Constitución S.A pulp mill, Chile
- UPM-Kymmene Oyj, pulp drying machine, Finland
- City of Kaunas, district heating plant, Lithuania
- OOO Kamenergoremont, Tatenergo district heating pumps, Tatarstan, Russia

In recognition of our continuous growth, Frost and Sullivan, a global leader in international strategic market consulting, awarded Vacon the prestigious Market Engineering Growth Strategy Award. This award is given to the company that has demonstrated an exceptional growth strategy within the electric drives industry.

Vacon has over the years successfully implemented a multi-channel, multi-branding channel strategy.

Vacon has the following four main channels to market: own sales units, distributors, OEMs and brand label customers. Strengthening and expanding our distribution channels has been and will continue to be a key objective. We recognize that our success is interconnected with the success of our channels. We have made significant investments in IT infrastructure, service support and marketing programmes to facilitate improved channel efficiency and performance. One practical example of these investments is related to Vacon's goal of functioning as a single global company. This means making our processes, principles and tools more and more uniform all over the world. To facilitate this, during the year under review we invested in uniform IT systems, and this process is going to continue. For our channel partners, working as a single company means that we are an easy company to do business with.

## Our target for 2003 is profitable growth

Our main target in 2003 is profitable growth. We will continue to effectively exploit our roadmap for margin improvement. We are launching new products, so our business potential will grow significantly and our operations will be able to grow faster than the average organic growth in the market. We are looking for growth particularly in our focus business areas. This will strengthen our competitiveness, even though we are still waiting for a sustainable market growth to evolve.

## Thanks to all our stakeholders

I would like to extend my deepest thanks to our stakeholders – customers, shareholders, employees and business partners – and to the communities in which we work, for our successful cooperation in 2002.

A very special thanks to Vacon's employees, whose professional skills, commitment, cooperation and drive have produced excellent results in challenging market circumstances.

We enter 2003 optimistic that the extremely tough challenges that we faced during the past year are behind us, and resolved to continue our history of growth. We appreciate your ongoing interest and are confident that our fundamental strengths and strategic focus have placed Vacon in a position where it can deliver increasing value to customers and shareholders.

Vesa Laisi  
President and CEO

## VACON'S MISSION, VISION AND VALUES

### Vacon's Mission

We help the users of industrial AC drives to improve their processes, output and quality by providing superior AC drives solutions for their needs.

### Vacon's Vision

We strengthen our position as a technology leader in customer and application specific low voltage AC drives that speak the user's language.

### Vacon's Values

Vacon's business culture is based on the values listed below. A statement of values is not enough. They are consistently practised in everyday life.

- Customer-orientation and service-mindedness. The customer comes first in everything we do. We always keep our customers informed and involve them in decisions that have an impact on their expectations. We treat our internal customers with the same respect as our external customers.
- Focus on people. Our people constitute our most valuable asset. The cornerstone of our success and growth is the effort of each individual. The company will prosper if we respect the individual and take care of the well-being of each employee.
- Entrepreneurship and drive for achievement. Our personnel observe the principles of internal entrepreneurship and all members of the organization are committed to accomplishing results. Employees have the freedom to achieve their targets as they see fit, without the intervention of management.
- Courage and fair play. People at Vacon are free to make their own decisions with confidence and accept responsibility for the consequences. We do not "cheat" or take unfair advantage. We treat everyone as we wish to be treated ourselves.
- High-tech and superior quality. Vacon prefers innovative approaches to old, familiar ones. We do not compromise on quality and offer the customer the best expertise available.
- Lean, flexible organization. The hierarchy and status are not important in the organization. Esteem depends on expertise, experience and the respect of management and colleagues, not on titles. Barriers are not constructed between departments and tasks, and responsibility for customer service is shared by everyone. We stress flexibility and taking customer needs into account, whatever the circumstances.
- Continuous development and learning. Vacon personnel are committed to finding new and better solutions, regardless of the high quality of existing products and the good results obtained with them.
  - *Speed control makes travelling in ski lifts safe and comfortable.*





## CONTINUOUS PROFITABLE GROWTH AND VALUE CREATION

2002 was a successful year for Vacon, with respect to growth, profitability, further globalisation and strengthening its market position. Vacon's goal is to continue its strong, profitable growth and to become a market leader.

Two years ago Vacon was listed on the Helsinki Exchanges to bring the company closer to international investors. Good liquidity creates the conditions for a fair market share value. This value is boosted by the Rockwell Automtions and Cutler-Hammer agreements, resulting in further visibility in the US. The company's well-established position in the European market is of utmost importance when expanding its business into the rest of the world.

The drives market is going through a phase of consolidation, with drives suppliers suffering from the difficult economical environment. Vacon has been able to show top-line growth combined with good margins. The company's competence lies in its core business and it can only create added value by continuously concentrating on this. The long-term growth expectations for the drives markets are unchanged, and when the uncertainty in the macro-economy recedes, future developments are likely to be positive. Energy prices are rising, and this will increase energy-saving investments that utilize frequency converters.

### Technology leader in application specific drives

Vacon's strategy is based on being a full-scope AC drives supplier, concentrating only on its core competences (R&D, key account management and logistics). This makes it the technology leader in customer and application specific low voltage products that speak the user's language. Vacon continuously seeks to create, develop and exclusively hold its core technologies and intellectual property, without losing its ability to serve many different customers.

Vacon continues to invest strongly in product development to further strengthen its position as technology leader. Growth expectations are based on four different product models of NX product family (NX Light, NXS, NXP and NX Liquid Cooled) that utilize the same platform. With these four product models, Vacon will cover the main supply voltages, an extremely broad power range and virtually all application sectors in frequency converter operations.

The notable principle of the NX product family has been to separate the power and control units from each other, instead of having them integrated into one unit. Vacon was granted a patent for this idea during the third quarter. This solution brings many significant advantages for NX users.

The basis for continuous improvement is advanced technology research, with extensive focus on power electronics, cooling techniques for compact power packaging, motor control, and wireless communication.

Vacon emphasizes cost-driven technology, with a long-term approach in order to maintain its technology leading position in the market. In addition Vacon targets to protect its technology through patents.

### An independent multi-channel, multi-branding partner with a global approach

Vacon is one of the few exclusive players in the AC drives business. This is a major advantage in tougher times when companies are forced to concentrate on key competence areas - but it can also be seen as a challenge. Vacon believes, however, that as an independent technology leader with a clear focus, the company will continue to benefit from all present and future market developments.

Vacon has systematically built up a global distribution network, based on its own sales companies and offices and on distributors, brand label customers, OEMs and system suppliers. Vacon aims to create an effective worldwide sales network by exploiting these different distribution channels.

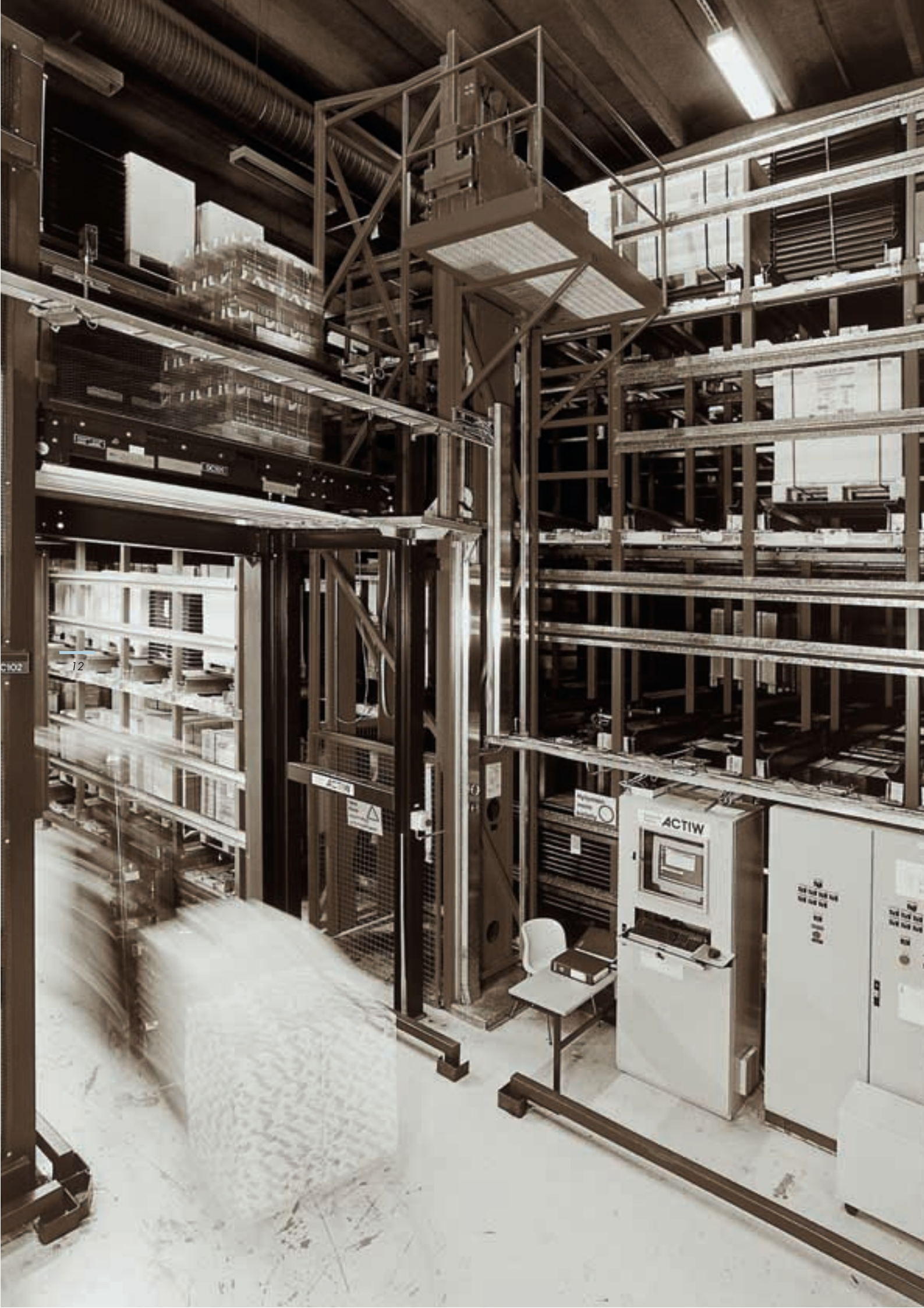
Vacon's objective for its direct sales is to expand its existing sales network so that it covers the key world markets. Vacon's main aims in extending its distributor network are to expand its geographical coverage and to cater to a wider range of customer sectors. OEM customers are aware of the benefits

of using frequency converters in different industrial processes and of the savings in equipment costs that frequency converters offer. Vacon is well placed to exploit this situation. Early signs also indicate that Vacon, as an independent drives supplier, is in a strong position when drives suppliers consider supplementing their own product ranges with brand label frequency converters. Vacon's experience and success amongst existing brand label customers form a good basis for Vacon's future expansion.

For Vacon, being global also means being local. Global growth brings the company closer to customers, enabling it to create a good foundation for the best possible products and services. The co-operation agreement with Rockwell Automation supports its strategy in this respect, as it can benchmark its activities on a broader basis.

→ In marine applications speed control is needed every day to keep vessels moving safely. When a ship reaches the harbour, speed-controlled winches pull it towards the quay and allow passengers to disembark safely.





### **A strong belief in quality steering through efficient logistics**

Vacon's product development and production processes are based on extensive subcontracting and networking. Vacon itself only carries out those operations that are of strategic importance.

Vacon creates added value for its customers by creating a network that links together modern technology, high level quality, statistical process control, highly automated testing, and logistics that are time and cost effective. Vacon concentrates on its logistics competences of mass customization, quality control and on networking with its partners. Together Vacon and its partners develop processes and action models that guarantee a high level of quality as well as a cost effective logistics network.

Vacon focuses on an organization that designs, manages and improves its processes in order to support its strategy and generate value for all stakeholders. In addition, the company focuses on managing, developing and releasing all the knowledge and potential of its people at the individual, team and organization level. This provides a comprehensive, systematic review of the organization's activities and a means of measuring progress and achieving consensus on quality improvement. The end result is a stronger emphasis on the Vacon Group's common values.


This approach also enables Vacon to link its customers, business partners, suppliers and employees together in a seamless value chain by creating user-friendly electronic processes for shared information.

### **Focus on people with an environmental concern**

The importance of the constantly growing concern for the environment is reflected in Vacon's basic values. The product itself stands for green values. The use of AC drives can produce substantial energy savings. They can also be used in new environmentally friendly energy sources – micro turbines, fuel cells and wind power.

The company's employees are its most valuable resource in meeting growth and profitability targets. The goal is to improve the commitment and competence of existing Vacon personnel and newcomers to meet future requirements. "Focus on people" is a value of ever increasing importance in a growing multi-cultural company. The aim is to create a common understanding of Vacon's values and success factors among different cultures through a remuneration system that encourages employees to achieve their goals through

continuous learning and training. Employee satisfaction is regularly measured and people are encouraged to give spontaneous feedback. Vacon's personnel is its most valuable resource that working together will build a company that everybody can be proud of.

 *Fast access and controlled movement are keywords when it comes to handling goods in a warehouse. The weight and size of parcels may vary – customer requirements do not.*

### **Continuous organic growth with focus on financial ratios**

A profitable company in a profitable business, combined with high returns on capital employed, decreasing net gearing and a strong cash flow from operations are the main goals in the strategy of continuous growth. These goals were all met in 2002, despite the recession that affected the drives markets.

Vacon concentrates on its core technology, AC drives. Now is the time for organic growth, even though competitors with a broader perspective have been up for sale during the past year. Vacon aims to be a forerunner – the preferred choice for customers, personnel and investors. The company will continue its efforts to reach that goal during the coming years, aiming to make Vacon even more flexible and able to react more quickly in all situations. Everyone is working together to fulfil Vacon's vision of being the leading supplier of application and customer specific AC drives worldwide.

## MULTI-CHANNEL, MULTI-BRANDING SALES AND MARKETING

For Vacon, selling through multiple channels and using its own Vacon brand and the brands of its brand label partners have been some of the main drivers for the company's growth. And Vacon aims to continue with the same strategy. Sales are through four channels; end users, brand labels, OEMs and distributors. These four channels ensure the best possible coverage of the market. The company has systematically developed these channels and is going to further strengthen this multi-channel market approach.

### **Serving customers better**

Good customer relations are a company's key assets and Vacon highly appreciates and cherishes these. The company prefers close cooperation and partnerships that create added value for all parties involved. Vacon's products and services should help its customers serve their customers better. Customers should consider Vacon as a reliable and easy partner to do business with. Vacon wants to listen to the customer.

### **Responsiveness is important**

Vacon's future is in global business and global processes. A key issue is how to set up operations to optimize responsiveness. One global Vacon is the objective. To succeed, efficient tools in real-time communications and real-time workflow, both internally and externally, are crucial. Vacon is convinced of the enormous potential that Internet offers in its business. Increasing use will be made of Internet solutions and Internet-oriented partners to build a truly interactive company.

### **Continuous development of after sales**

Efficient, well organised after sales operations have always been a cornerstone of Vacon's overall activities. As operations expand and the number of Vacon drives in use increases, the after sales sector will take on even greater significance. To meet this development and the needs of the changing market, Vacon aims to establish itself as a high-tech service provider for the globally interconnected market place. The company is prepared to strengthen its resources to offer cost efficient services that will help customers improve their own processes. Vacon serves its customers 24 hours a day, 365 days every year.

### **Vacon aims at continuous growth**

Vacon is aiming at growth. It is well aware, however, that growing in size does not in itself bring any value to its customers. Customers will only benefit if Vacon can convert growth into better products and services. Vacon is confident that it possesses both the knowhow and the commitment to achieve this.

The company aims to grow faster than the market. Vacon must do what it does best, and do it well: to manufacture frequency converters and deepen its expertise throughout the drives field.

→ *In the public transport sector, speed control is essential for comfort and availability.*





## RESEARCH AND DEVELOPMENT

The motors running industry and the public sector consume about 60 per cent of the total electrical energy used. Frequency converters are likely to become standard equipment for these motors thanks to their ability to steplessly control the motor speed according to the varying needs of the process.

Sensitive listening to and indepth understanding of customer and market needs, combined with ongoing innovative development of frequency converters, are key factors in Vacon's success. Vacon is seen today as an innovative technology leader in customer and application specific frequency converters, thanks to the software driven technology approach in its products. Vacon has developed the NX frequency converter that combines Vacon's leading expertise in full power range electronics and software-controlled frequency converters with open automation features and know-how in numerous applications for industry, the public sector etc.

One revolutionary idea is the use of modularity in NX frequency converter technology. This makes it possible to design frequency converters that exactly meet customer needs. The first Vacon NX frequency converters launched in October 2000 were air-cooled versions. Inspired by challenging customer needs, Vacon has now taken its technology a step further. It has introduced NX frequency converters with a liquid coolant to achieve a very compact design. The liquid-cooled NX is perfect for locations where space is expensive, such as the marine, oil drilling and heavy process industries. A new member in the Vacon NX product family is the Vacon NX Light, an extremely slim, space-saving and easy-to-use frequency converter for low power range applications such as pumps, fans, compressors, conveyors and so on.

Vacon rolled out its first CX range frequency converters in 1995. The Vacon CX, the predecessor of the NX range, proved to be highly reliable among customers world wide. Vacon has seen its customers coming back time and time again for new solutions and services. Vacon's NX range frequency converter is a leading technology frequency converter that has proved to be even better in field operation, giving flexibility and field reliability. Continuous run-time self-supervision and an incorporated alarm system help





ensured dependability in the Vacon NX frequency converter. If required, the control logic can also be powered from an external auxiliary supply, to maintain power to the control panel, internal functions in the frequency converter and field buses. Input and output filters are included in typical power options. To reduce harmonic currents and to protect the rectifier against voltage spikes in the supply, an AC choke is a built-in feature. Intelligent software control reduces reflected voltage waves in the motor output in order to reduce the voltage stress on the motor windings. The incorporated optional brake resistor in frequency converters in the lower power range enables rapid machine stops. All these features help make Vacon products safe for customers.

The Vacon NX can be flexibly adapted to a variety of needs using the pre-installed "All in One" targeted application software package. Typical uses for the Vacon NX include pumps and fans, compressors, conveyors, winders, mixers, cranes and hoists, elevators and crushers. It is also easy to create custom-made applications for the Vacon NX using the software block-programming tool Vacon NC1131-3 Engineering. Complying with the IEC 61131-3 standard, NC1131-3 is a graphical design tool for customizing the control logic and parameters in the Vacon NX.

✦ *When a plane arrives at the terminal building, the plane has to empty quickly. This calls for efficient speed control to drive the jetty quickly and smoothly into the correct position.*

Stepless speed control using a frequency converter saves energy, protects

electricity grids and machinery, and increases the quality and volume of production. Rising concern about energy consumption and the environment is increasing demands for energy savings, and processes in industry and the public sector will need to be more productive and reliable in future. As a result, the penetration of frequency converters will increase and frequency converter manufacturers will need to be able to offer more flexible customer solutions. Vacon's expertise in frequency converter electronics for the full power range, combined with its software driven approach to customer solutions, creates a competitive edge in serving customers fast – worldwide.

## LOGISTICS AND PRODUCTION

Vacon believes in quality steering through efficient logistics. Production is largely based on networking, which means outsourcing functions that are not part of the company's core competence. In line with its strategy, Vacon concentrates on final assembly, quality assurance and effective management of a large number of end customer variations. Production is to order, in other words virtually no products are made to stock. Internal and external material flows are demand-driven, ensuring a fast, smooth flow of materials through production. This also enables effective use of working capital.

Vacon concentrates on operations that produce significant added value for customers, on areas such as continuous development, innovative R&D, continuous improvement of efficiency, and reliable verification of quality assurance. One example of this is the investments in the concept of mass customization, aiming to reduce delivery times considerably – from weeks even to just a few days. The model has been incorporated into the operations of the entire network and the results have been significant.

### **Vacon and quality**

The use of statistical procedures in developing quality is part of everyday operations at Vacon. Production processes are monitored and analyzed in real time, utilizing measurements taken direct from databases. The company provides added value for customers by raising efficiency throughout the network, right down to its smallest partner. Cross-functional quality teams, consisting of personnel from Vacon and its partner companies, carry out production and product technology development and quality assurance for the whole network. This operating model has proved to be an effective and efficient tool for developing total quality.

### **Production capacity**

During 2002 several new production systems were introduced. They are for producing the new generation frequency converters and will meet the needs arising from the new customer agreements signed during 2002. The increase in production capacity enables the company to make fast deliveries for individual customers and ensures that production capacity will be sufficient during the coming year.

The "Concept for supplier partnership" model developed by Vacon improves the partnership between the supplier network and Vacon. The model focuses on continuously improving the following elements:

- The standard and management of cooperation
- Quality of operations
- Product quality
- Time
- Costs
- Technology (knowhow of the companies and technical standard of production equipment)

Vacon's strong supplier network safeguards the conditions for success in the future as well. A fast, flexible network makes it possible to react quickly to changes in the markets, generating added value for Vacon's customers.

→ *Fast, efficient cargo handling keeps society running. Speed control of cranes and loaders means that goods are handled quickly and smoothly. This increases efficiency in the harbour and makes it a safer place to work.*



# HUMAN RESOURCES

## Efficient, flexible organization

A skilled and motivated personnel is the company's only permanent competitive asset. The goal of Vacon's personnel strategy is an efficient, flexible organization that promotes the wellbeing of employees and encourages continuous learning, participation and an open work atmosphere.

The personnel strategy is based on Vacon's values and on the skills requirements identified during strategic planning. The means for achieving the goal of the personnel strategy include performance and skills management, internal communications, and looking after the wellbeing of personnel. Vacon gives personnel a say in setting targets and they can participate in decision-making and the planning of activities. Personnel are extensively involved for example in business development projects and programmes to improve the work environment.

## Performance management

Vacon has long- and short-term goals for performance management. The company's vision, values and goals are guiding factors when planning actions. Action plans are drawn up and development projects are planned on an annual basis and then split down into targets that are monitored at quarterly intervals.

Development discussions are used to link the company and team level goals to the individual's work. These interviews are for assessing the past year, setting targets for the coming year, and defining key responsibilities and the skills required for these. An individual development plan is built up from these elements.

At Vacon giving feedback and recognition for work is part of daily management activities. Employees are encouraged to participate in job rotation and opportunities are given for this.

## Skills management

The competence analyses carried out as part of the business strategy identify existing skills and those that will be required in the future. Vacon's personnel management uses these competence analyses to assess the skills requirements for the whole organization and plans the necessary actions. Supervisors are responsible for assessing the skills requirements of individuals and teams and taking the necessary steps. Assessing

the skills of individuals and deciding on action to obtain required skills takes place during the development discussions.

Skills development needs are taken into account in recruitment and training plans and in job rotation. Training includes courses, independent study and learning on the job. In addition to learning at work, employees are encouraged to study and obtain qualifications outside their work.

Independent study is assisted through flexible working hours, for example.

→ *Lifts with speed control keep going smoothly day and night.*

## Internal communications

Internal communications help the company in reaching its goals and carrying out its strategy. Internal communications also aim to motivate personnel, boost job satisfaction and improve the work atmosphere.

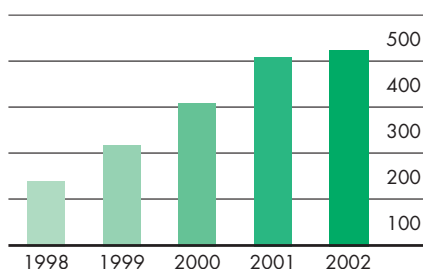
Vacon's most effective and most frequently used channels for internal communications are email, intranet and the personnel magazine published at three week intervals. Departmental, process and team meetings are other important channels for interaction. Meetings are held four times a year for all personnel when the company's results are announced.

## Looking after the wellbeing of personnel

To maintain the mutual trust between the company and its personnel means paying attention to working conditions, job contents and the work of supervisors. The annual job satisfaction survey describes the current state of personnel motivation and satisfaction and points at ways to improve wellbeing. The survey results are used to improve operations at company level and within individual departments. Personnel have expressed their particular appreciation of the corporate spirit and the way Vacon looks after its employees. Employees consider Vacon to be a good employer.

Vacon has set up a job satisfaction team whose main tasks are to increase personnel wellbeing, to arrange joint events for personnel, to maintain and improve work fitness, and to nurture corporate spirit, the Vacon Spirit. The occupational health and safety committee is responsible for matters relating to job health and safety at Vacon. The committee attends to safety and comfort at work. This year the air conditioning system in production was improved and an ergonomics survey was carried out of all personnel. Vacon offers its employees benefits in a wide range of leisure activities, everything from sports to cultural activities. Vacon accepts its social responsibility by supporting sports and cultural activities and the work of charitable organizations.

Personnel





## ENVIRONMENT

The role of environmental assets will become more and more important in the future.

### **Our products save energy**

The air we breathe indoors, the food we eat and the objects and buildings we use are largely produced with processes maintained by electric motors. It can even be considered that industry and our present standard of living are based on the ability of electric motors to transform electricity into mechanical energy.

A basic feature of the squirrel cage motor is that it rotates at a fixed speed. A frequency converter is a device for steplessly adjusting the rotation speed of the squirrel cage motor. Speed control gives motor drives many advantages. Using variable speed control instead of a choke in gas and liquid flows gives considerable energy savings. The frequency converter itself stands for green values.

### **Product design taking environmental aspects into account**

The goal of Vacon's environmentally friendly product design is to choose design solutions that reduce environmental load. These solutions must also maintain a balance with safety, technical and economic requirements.

One specific tool is the Design for Environment (DFE) inspection list used in the concept phase of product design. The list includes matters that help to increase efficiency in the use of materials and resources and to minimize the use of substances harmful to the environment. The list also anticipates the European Union's ROHS directive (Restriction of use of certain hazardous substances in electrical and electronic equipment).

### **Supplier partnership and environmental issues**

Vacon's external partners have a considerable impact on the standard of the company's environmental conservation. The company has included environmental issues in the criteria for selecting suppliers, in supplier audits and in the points system developed for assessing suppliers. It requires a high level of environmental conservation of its carefully chosen sub-contractors and insists on continuous monitoring of and improvement in the environmental impact of their production.

To minimize environmental impact, suppliers must possess a full knowledge of the material contents of products. In the autumn of 2002 we carried out an extensive survey of suppliers to find out the raw materials contained in our products. This gave us a list of substances that our products contain and of those they do not contain. The company continues to work with its suppliers to further reduce the use of hazardous substances.

### **Environmental management system – part of Vacon's operational system**

The environmental management system helps link environmental issues with general business management and creates the conditions for reaching environmental goals and meeting environmental targets.

Vacon has had a certified environmental management system since 2000. In the spring of 2002 the environmental management system was combined with the quality management system to form a single operational system. This system meets the requirements of ISO 14 001:1996 and ISO 9001:2000. Certification was carried out by SGS-FIMKO in May. With the common operational system Vacon wishes to emphasize that quality and environmental issues are not separate activities but part of its business operations.

The objective of Vacon's environmental activities is to improve the environmental properties of products throughout the life cycle of the product. Vacon aims in all its operations to choose raw materials and operating methods and processes that are most beneficial for the environment. The company has committed itself to recognizing and complying with the items of environmental legislation that are binding on its operations and to continuously develop its system.



Personnel are given regular training in environmental matters. Vacon's environmental guide is used by the entire personnel. Each Vacon employee recognizes the environmental impact of their work and makes a point of preventing pollution of the environment. Environmental matters are also included in the introductory training for new employees.

The main environmental targets during the review year related to product design that takes environmental aspects into account, and to developing supplier partnership in environmental issues and continuous development and improvement of waste management.

### **Continuous planning and improving of waste management**

At Vacon the task of waste management is to make sure that all waste is recycled properly either in production or in a natural process, without damaging the environment or human health.

↓ *Speed control keeps the air of the train fresh though the number of passengers and the outside conditions change.*

By continuously planning and improving waste management, Vacon has succeeded in significantly increasing the re-use and recycling of waste. At present some 95 per cent of waste is utilized. The biggest use is made of energy waste and electrical and electronic scrap, from which the different metals are extracted using for example sink-float separation technology. Vacon has also worked with suppliers to reduce the amount of waste. One example of this is the re-usable crates used for transport between Vacon and its suppliers. This sort of system is already in use with nine suppliers.

### **Other environmental impact**

In normal circumstances the company's operations do not emit pollutants to water or soil. Small amounts of volatile organic and chemical compounds, from the use of soldering tin and lacquers, are discharged into the atmosphere. These emissions are studied and the company is making continuous efforts to prevent and restrict them.

During the review year, no mishaps or accidents occurred in the company's operations that had a major environmental or health impact, and the company is also not aware of any infringement of the terms of environmental permits.



## BOARD OF DIRECTORS AND MANAGEMENT GROUP

### Vacon Plc's Board of Directors in 2002

The members of the Board of Directors do not hold any stock options. Shareholdings are as per the share register on 30 December 2002.

#### **Mauri Holma**

- born 1950, B.Sc. (El. Eng.)
- President, Vaasa Switchgears Oy
- 382 171 shares

#### **Jari Eklund**

- born 1963, M.Sc (Econ.)
- Investment Director, Tapiola Insurance Group
- No shares

#### **Harry Ollila**

- born 1950, M.Sc. (Engineering)
- President, Konecranes Nordic Oy, vice president, KCI Konecranes International Oyj
- 37,740 shares

#### **Stefan Wikman**, secretary

- born 1956
- Partner, Roschier Holmberg Attorneys Ltd
- Attorney
- No shares



#### **Harri Niemelä**, chairman

- born 1944, B.Sc. (El. Eng.)
- President, Vaasa Group Invest Oy
- 399,840 shares

#### **Veijo Karppinen**

- born 1950, M.Sc. (Engineering)
- President, VNT Management Oy
- 494,249 shares

#### **Jan Inbarr**

- born 1948, M.Sc (Econ.)
- President, Ahlström Capital Oy
- No shares



## President and Management Group

### **Veijo Karppinen**

- President, Vacon Plc, until June 2003.
- Born 1950, M.Sc. (Eng.).



### **Vesa Laisi**

- President, Vacon Plc, since July 2002.
- Born 1957, M.Sc. (Eng.), M.Sc. (Econ.), President of Vacon Plc. Responsible for Vacon's vision and strategy.



## Other Management Group members

### **Erkki Raunio**

- Executive Vice President, Business Development; Deputy to the President.
- Born 1949, B.Sc. (Eng.); Responsible for Vacon Group Business Development.



### **Heikki Hiltunen**

- Vice President, Sales, Marketing and Service.
- Born 1962, B.Sc. (Eng.), Responsible for Vacon Group sales, marketing and service operations for each business area.



### **Tuula Hautamäki**

- Vice President, Information Technology and Process Development.
- Born 1964, M.Sc. (Eng.), M.Sc. (Econ.). Responsible for co-ordination of process development and for developing the Company's quality and environmental management systems.



### **Dan Isaksson**

- Vice President, Engineered Drives BA.
- Born 1965, M.Sc. (El. Eng.). Responsible for engineered products, products in cabinets and system products business.



### **Jukka Kasi**

- Vice President, Component Drives BA, Vice President, R&D.
- Born 1966, M.Sc. (Eng.). Responsible for component products business and Group Product Management. Responsible for the continuous development of Vacon's frequency converter products and for the Company's technological competence.



### **Jari Koskinen**

- Vice President, Production.
- Born 1960, M.Sc. (Econ.), MBA. Responsible for the manufacturing processes and the logistics chain for Vacon's products, from Vacon's suppliers via Vacon to its customers (supply chain, manufacture at Vacon, invoicing and forwarding, and service and start-up of drives).



### **Jukka-Pekka Mäkinen**

- Vice President, Global Customers BA.
- Born 1959, B.Sc. (Eng.). Responsible for brand label and volume OEM customers business.



### **Leena Taka**

- Vice President, Human Resources
- Born 1954, Graduate of Vaasa Commercial Institute (Marketing). Responsible for Vacon's personnel administration and its development.



### **Dag Sandäs**

- Vice President, Finance and Control, from 1998 until January 31, 2003.
- Born 1959, M.Sc. (Econ.). Responsible for monitoring and developing Vacon's financial position and for managing the Company's treasury functions.



### **Mika Leppänen**

- Vice President, Finance and Control, since February 4, 2003.
- Born 1959, M.Sc. (Econ.). Responsible for monitoring and developing Vacon's financial position and for managing the Company's treasury functions.



## INFORMATION FOR INVESTORS

### Annual General Meeting

The Annual General Meeting of Vacon Plc will be held on Thursday, 20 March 2003 at 3.00 pm in Vacon Plc, Runsorintie 7, Vaasa, Finland.

To be entitled to attend the Annual General Meeting, shareholders must be registered on 10.3.2003 in the company's list of shareholders maintained by the Finnish Central Securities Depository. Shareholders wishing to attend the Annual General Meeting are requested to notify the company not later than 4.00 pm (Finnish time) on 13.3.2003 – by e-mail to johanna.koskinen@vacon.com, by telephone to Johanna Koskinen on +358 (0)201 212 528, by mail to Vacon Plc, Johanna Koskinen, P.O.Box 25, 65381 Vaasa, Finland, or by fax to +358 (0)201 212 208. Letters of authorization should be sent with the notification of attendance.

### Payment of dividends

The Board of Directors proposes to the Annual General Meeting that a dividend of EUR 0,17 per share be paid for the 2002 financial year. The record date for dividend payment will be 25 March 2003 and the proposed payment date for the dividend is 1 April 2003.

### Financial reports in 2003

Vacon is publishing three interim reports in 2003 as follows:

- January-March: Tuesday, 29 April 2003, at 10.00 am
- January-June: Tuesday, 5 August 2003, at 10.00 am
- January-September: Tuesday, 28 October 2003, at 10.00 am

The financial statements and interim reports are also published in Finnish. The annual report is also available in Finnish and Swedish. Annual reports are available on the Internet at [www.vacon.com](http://www.vacon.com).

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### Further information

[www.vacon.com](http://www.vacon.com)

### Financial analysts

that monitor Vacon as an investment target:

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**A N N U A L   R E P O R T**

**2 0 0 2   F I N A N C I A L   S T A T E M E N T S**

**vacon**



# BOARD OF DIRECTOR'S REPORT FOR 1 JANUARY – 31 DECEMBER 2002

Vacon Group continued to deliver profitable growth. The Group strengthened its market position on all continents.

Vacon entered into a collaborative product development agreement relationship with Rockwell Automation, a leading industrial automation and drives supplier, in high-power and high-performance variable speed drives. This brings together complementary technologies to improve the performance of variable speed drives.

The first engineered drives based on Vacon liquid cooled technology for the steel industry were delivered. This demonstrates not only the capabilities of our technology but also that end users with the most demanding requirements have given us their approval as a supplier of reliable frequency converters.

We are the technology leader in customer and application specific frequency converters. Our heavy investments in R&D now place us in a favorable position. Growth expectations are based on four different NX-product family models (NX Light, NXS, NXP and NX Liquid Cooled) that utilize the same platform. With these four product models Vacon will cover the full power range, for all supply voltages, for everything from very simple to extremely complex applications.

## Market position

In AC Drives market, 2002 has been a year with declining demand. By following our precision product strategy, we have consolidated our position as a supplier of reliable, easy to use AC drives. Despite the decline in the market, we have succeeded in clearly increasing our market share and strengthen our market position. Vacon currently holds about two per cent of the global frequency converter market and we believe that our share will continue to rise. The frequency converter market is still fragmented. The market leader has about 13 per cent of the total market and thirteen biggest suppliers have a combined market share of 80 per cent. Competition is getting tougher and a restructuring of the sector is going to take place. The drives markets are going through a consolidation phase. Some of our competitors are trying to restructure its drives business, either through divestments or joint ventures.

The technology is developing rapidly, which can be seen in terms of higher performance products, a wider range of applications and communications options, and falling product prices. Success in the sector requires continuous development of products and working methods.

The market leaders are multinational corporations in the automation and electrical engineering sectors who offer a broad range of products and services. In contrast to Vacon, for many of our competitors frequency converters only make a marginal contribution to the net sales of the entire group.

In its sales and marketing Vacon is aiming at the widest possible geographical coverage. Vacon channels its sales and marketing through its own direct sales, and through distributors, original equipment manufacturers (OEM), and brand label customers. Vacon sells its products through these different channels in more than 100 countries.

Vacon's direct sales are mainly to heavy industry and system suppliers. Vacon has more than 100 distributors all over the world. When looking for and selecting distributors, Vacon's main criteria are geographical coverage and end-customer coverage in different industrial sectors.

Brand label customers sell and market Vacon frequency converters under their own brand label to extend their own product range. In the view of company management, Vacon has the capabilities to boost its sales through the brand label channel, since it has the reliability, flexibility and technical know-how that brand label customers demand of their suppliers. The Rockwell agreement clearly proves this fact.

To work with original equipment manufacturers, Vacon has enhanced its ability to analyze customer and end-user processes and to tailor-make the products according to customer needs. OEM contracts are by their very nature usually long-term commitments.

Some of the key features of our strategy are customer-orientation and service-mindedness, the ability to respond promptly, focusing on our core competence, continuous development of expertise, and unbeatable quality. In fact, these factors, coupled with expert, motivated personnel are vital to the company's success. Vacon is systematically building a network of partners, consisting of customers, suppliers, universities and its own specialist expertise, to develop ever better frequency converters to control public sector and industrial processes.

Vacon is well placed to take advantage of the recent development trends in its business environment.

### Group structure

The Group established a sales company in Belgium in the beginning of the year and the opening ceremonies for Vacon's sales company in Norway took place at the beginning of April 2002. Vacon's network of own sales companies is now extended to cover the main AC drives markets in Europe.

In December 2001 agreement was reached to raise Vacon's holding in the Group company Vacon Traction Oy, located in Tampere, from 65 per cent to 90 per cent by purchasing shares from other shareholders. The agreement was realized in January 2002.

In April the local shareholders of Vacon Drives UK Ltd, i.e. the local management, acquired 10 per cent of the shares in the sales company, increasing their share holding from 20 per cent to 30 per cent by executing the call options agreed when the sales company was established.

In October Vacon and former Vacon President Veijo Karppinen established VNT Management Oy to administer the fund which will be established. The fund will invest in power electronics used in distributed energy production and electricity quality field, and in special electric motors. Vacon Plc owns 74% of the shares, and Mr Karppinen the remaining 26%.

### Prospects

Many economists are forecasting that a volatile short-term up and down economic growth pattern may emerge quarterly. Vacon believes most of the markets it serves will experience growth over the next few years. Serving customers better than our competitors, gaining market share, improving cash flow, investing in innovations and maintaining solid improvements in the overall financial performance are Vacon's core activities in the changing environments.

Vacon has solid revenues and profitability outlook. The new NX product family primarily drives growth. Vacon's profitability outlook remains strong reflecting the good execution of the margin improvement program. Vacon has systematically developed its sales network to cover the entire industrial world. Vacon is known in more than 100 countries and in nine years we have built a strong reputation as a supplier of reliable, easy to use products. New customer relations and our own sales companies create a firm foundation for the growth of operations in the coming year as well.

Year 2003 is anticipated to show Vacon return on higher growth than in 2002. Vacon's outlook for year 2003 top line growth is 10 to 20 per cent with better profitability than in year 2002.

### Net sales

Consolidated net sales rose from EUR 90.5 million in the previous year to EUR 97.5 million, an increase of 7.7 per cent. The parent company Vacon Plc recorded net sales of EUR 85.7 million.

Vacon's net sales in 2002 by distribution channel were: own direct sales 39 per cent, distributors 21 per cent, OEM 22 per cent and brand label customers 18 per cent.

Vacon's net sales by market area were: Europe 67.6 per cent, North America 17.8 per cent, Asia and Australia 12.2 percent and others 2.4 per cent.

### Order intake and order backlog

Order intake grew 15.4 % compared to previous year. The order book at the end of the year totaled EUR 14.8 (2001: EUR 6.5) million.

### Profitability

The Group's operating profit was EUR 9.9 million, compared to EUR 10.4 million in the previous year. The depreciation of the capitalized R&D expenses for NX Light and liquid-cooled frequency converters started from the beginning of the third quarter this year and will continue over 5 years. The parent company's total depreciations of capitalization expenses in 2002 amounted to EUR 0.45 million.

Net profit for the financial year was EUR 6.5 (last year: EUR 6.8) million. Taxes accounted for EUR 3.3 million.

### **Balance sheet and financing**

The consolidated operative cash flow was EUR 10.5 million positive. This shows that the group's growth can be financed by income from operations. The balance sheet total was EUR 53.1 million, an increase of 7.9 per cent. The equity ratio remained at strong level at 51.7 per cent.

The Group's liquidity was good throughout the year. Interest bearing liabilities totaled EUR -0.8 (2001 EUR 3.5) million at the end of the year and the net gearing was -3.0 per cent. The return on investment 30.4 per cent and return on equity 26.2 per cent remained at a good level.

### **Investments**

Gross investments by the Group during the year totalled EUR 4.7 (7.5) million. The largest investments were in testing facilities for high power AC drives, which will provide future growth potential for Vacon Group. Other investments were allocated to tools for NX products, the product development laboratory and information technology.

A total of EUR 0.6 (1.8) million has been capitalized in the income statement of the parent company for the R&D expenses for NX Light and liquid-cooled frequency converters, in the same way as the previous year. No further capitalization regarding these two projects will be made. The parent company has not capitalized any R&D expenses in the second half of the year. The total capitalization of R&D expenses on group level for year 2002 is EUR 0.8 (2.1) million.

### **Organization and Personnel**

Vacon further sharpened its focus on profitable growth by reinforcing its organizational structure in autumn 2002. The new structure simplified operations, improved efficiency and will provide superior value propositions to customers.

The number of parent company personnel increased by 8 during the year to 315 at the end of the year. At year-end 111 persons worked in the Group's subsidiaries, an increase of 9 from the beginning of the year. New employees were hired mainly in R&D and sales. Workforce turnover was minimal. The entire Group had 426 employees at the end of 2002.

### **Board of Directors and Auditor**

The members of Vacon Plc's Board of Directors were Jari Eklund, Mauri Holma, Jan Inborr, Veijo Karppinen, Harri Niemelä, and Harry Ollila.

The chairman of the Board was Harri Niemelä, with Stefan Wikman as secretary. Veijo Karppinen was President up to June 31<sup>st</sup>, followed by Mr Vesa Laisi, taking over the position on July 1st, 2002.

The company's auditor was KPMG Wideri Oy Ab. The principal auditor was Raimo Wiklund, APA.

### **Shareholders**

The dividend for 2001 was EUR 2.4 million or EUR 0.16 per share. It was paid in April 2002.

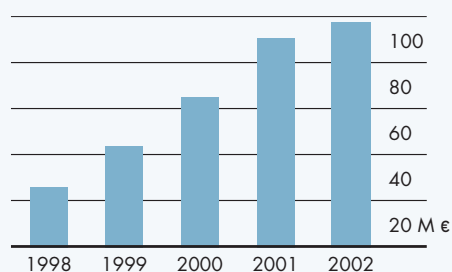
The company's share price on the Helsinki Exchanges ranged between EUR 5.60 and EUR 11.60. The share price on the closing date was EUR 7,40.



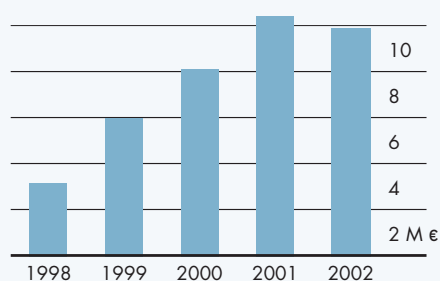
# INCOME STATEMENT

1,000 €	Notes	Group 2002	Group 2001	Parent 2002	Parent 2001
<b>Net sales</b>	1	<b>97,489</b>	<b>90,533</b>	<b>85,714</b>	<b>81,233</b>
Change in inventories of finished goods and work in progress, increase (+)/decrease (-)		1,196	385	560	-76
Production for own use			37		37
Other operating income		117	68	103	68
<b>Materials and services</b>					
Materials and consumables					
Purchases during the financial year		-47,414	-46,663	-44,648	-44,564
Change in inventories		-1,211	136	-1,237	136
External services		-1,305	-736	-1,128	-669
		-49,930	-47,263	-47,013	-45,097
Personnel expenses	2	-18,989	-16,511	-12,520	-11,184
Depreciation and write-downs	5	-2,946	-1,876	-2,376	-1,496
Other operating expenses		-17,008	-14,945	-13,979	-12,057
<b>Operating profit</b>		<b>9,929</b>	<b>10,428</b>	<b>10,489</b>	<b>11,428</b>
Financial income and expenses	6	-94	-304	-390	-144
<b>Profit before appropriations and taxes</b>		<b>9,835</b>	<b>10,124</b>	<b>10,099</b>	<b>11,284</b>
Appropriations	7			-520	-575
Income taxes	8	-3,288	-3,355	-2,807	-3,103
Minority interest		-37	50		
<b>Profit for the financial year</b>		<b>6,510</b>	<b>6,819</b>	<b>6,772</b>	<b>7,606</b>

**Net Sales**



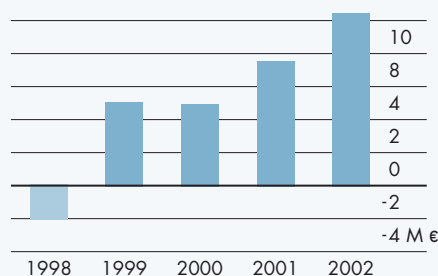
**Operating Profit**



# CASH FLOW STATEMENT

1,000 €	Group 2002	Group 2001	Parent 2002	Parent 2001
<b>Cash flow from operating activities:</b>				
Operating profit	9,929	10,429	10,490	11,428
Adjustments to operating income	-11			
Depreciation	2,946	1,876	2,376	1,496
Cash flow before changes in working capital	12,864	12,305	12,866	12,924
Changes in working capital:				
Current assets, non-interest bearing, increase (-)/decrease (+)	982	-3,801	1,205	-4,096
Inventories, increase (-)/decrease (+)	9	-563	677	-60
Current liabilities, increase (+)/decrease (-)	822	2,571		3,401
	1,813	-1,793	1,882	-755
Cash flow from operating activities before financial items and taxes	14,677	10,512	14,748	12,169
Interest received	311	74	277	187
Interest paid	-366	-347	-328	-306
Other financial items	-62	-10	-11	-4
Taxes paid	-4,017	-2,642	-3,948	-2,489
<b>Cash flow from operating activities</b>	<b>10,543</b>	<b>7,587</b>	<b>10,738</b>	<b>9,557</b>
<b>Cash flow from investing activities:</b>				
Investments in tangible and intangible assets	-4,746	-7,470	-3,888	-6,091
Proceeds from sale of fixed assets	958		917	
Other investments	45	837	-236	-735
Loans granted			-1,138	-2,386
Repayments on loan receivables			58	62
<b>Cash flow from investing activities</b>	<b>-3,743</b>	<b>-6,633</b>	<b>-4,287</b>	<b>-9,150</b>
<b>Cash flow from financing activities:</b>				
Long-term loans, increase (+)/decrease (-)	756	2,481	178	2,603
Current loans, increase (+)/decrease (-)	-742	1,234	-633	-306
Preferred capital loans, increase (+)/decrease (-)	-461	208		
Dividends paid	-2,424	-1,969	-2,424	-1,969
Other changes	-17			
<b>Cash flow from financing activities</b>	<b>-2,888</b>	<b>1,954</b>	<b>-2,879</b>	<b>328</b>
<b>Change in liquid funds</b>	<b>3,912</b>	<b>2,908</b>	<b>3,572</b>	<b>735</b>
Liquid funds at the beginning of the period	5,304	2,396	2,192	1,457
Liquid funds at the end of period	9,216	5,304	5,765	2,192

## Cash flow from operating activities



# BALANCE SHEET

1,000 €	Notes	Group 2002	Group 2001	Parent 2002	Parent 2001
<b>Assets</b>					
<b>Fixed assets</b>	9				
Intangible assets					
Development expenses		3,725	3,469	3,211	3,075
Intangible rights		1,230	531	1,027	408
Goodwill on consolidation		2,336	2,388		
Other long-term expenditure		118	134	92	110
		7,409	6,522	4,330	3,593
Tangible assets					
Machinery and equipment		7,569	6,667	6,986	6,296
Other tangible assets		69	441	28	269
Construction in progress		1,668	2,265	1,668	2,259
		9,306	9,373	8,682	8,824
Financial assets					
Shares in group companies	10			4,881	4,645
Receivables from group companies				4,349	3,620
Other shares		117	117	117	117
Other receivables		398	454	208	208
		515	571	9,555	8,590
<b>Total fixed assets</b>		<b>17,230</b>	<b>16,466</b>	<b>22,567</b>	<b>21,007</b>
<b>Current assets</b>					
Inventories					
Materials and consumables		2,340	3,550	2,218	3,455
Finished products/goods		4,563	3,367	1,996	1,436
Advances paid		5			
		6,908	6,917	4,214	4,891
Short-term receivables	11				
Trade receivables		17,660	18,285	17,312	18,247
Other receivables		1,011	963	864	677
Prepaid expenses and accrued income	12	1,069	1,313	949	1,202
		19,740	20,561	19,125	20,126
Cash and bank balances		9,216	5,304	5,765	2,192
<b>Total current assets</b>		<b>35,864</b>	<b>32,782</b>	<b>29,104</b>	<b>27,209</b>
<b>Assets</b>		<b>53,094</b>	<b>49,248</b>	<b>51,671</b>	<b>48,216</b>

1,000 €	Notes	Group 2002	Group 2001	Parent 2002	Parent 2001
<b>Shareholders' equity and liabilities</b>					
<b>Shareholders' equity</b>					
	13, 14				
Share capital		3,030	3,030	3,030	3,030
Share premium reserve		3,499	3,499	3,499	3,499
Other reserves		20	19		
Retained earnings		13,961	9,616	16,217	11,035
Profit for the financial year		6,510	6,819	6,772	7,606
		27,021	22,983	29,518	25,170
Preferred capital notes	15	1,555	2,016	1,180	1,808
<b>Total shareholders' equity</b>		<b>28,576</b>	<b>24,999</b>	<b>30,698</b>	<b>26,978</b>
<b>Minority interest</b>		47	19		
<b>Group reserves</b>		71	77		
<b>Accumulated appropriations</b>					
	16				
Depreciation difference				1,095	575
<b>Liabilities</b>					
	17				
Long-term					
Loans from credit institutions		5,779	4,905	5,628	4,778
Other long-term liabilities			118		44
Deferred tax liability		396	198		
		6,175	5,221	5,628	4,822
<b>Current</b>					
Loans from credit institutions		1,070	1,812	284	916
Advances received		768	1,013	503	1,009
Trade payables		11,045	10,097	10,751	9,842
Other current liabilities		1,511	2,232	336	1,277
Accrued expenses and deferred income	18	3,831	3,778	2,376	2,797
		18,225	18,932	14,250	15,841
<b>Total liabilities</b>		<b>24,400</b>	<b>24,153</b>	<b>19,878</b>	<b>20,663</b>
<b>Shareholders' equity and liabilities</b>		<b>53,094</b>	<b>49,248</b>	<b>51,671</b>	<b>48,216</b>

# ACCOUNTING PRINCIPLES

## General accounting principles

The financial statements of Vacon Plc and the consolidated financial statements are prepared in accordance with the Finnish Accounting Act and other rules and regulations governing the preparation of financial statements.

When preparing the financial statements, the company's management is required by the regulations in force and good accounting practice to make assessments and assumptions that affect the valuation and allocation of financial statement items. Although the assessments are based on the latest available information, the final figures may differ from these assessments.

Key figures and other information for the 2000 financial year are pro forma figures and are based on the financial information for Vacon Plc, Vaasa Control Oy and Vaasa Engineering Invest Oy. The Vacon Plc Group was formed on 31 August 2000 when Vaasa Control Oy and Vaasa Engineering Invest Oy merged with Vacon Plc. The operations of the current group consist of the business that Vaasa Control Group was engaged in. The key figures and other information for the 1999 financial year are based on the financial information of Vacon Oy and Vaasa Control Group. The figures for 1998 are from the consolidated financial statements of Vaasa Control Oy.

## Principles of consolidation

The consolidated financial statements include the accounts of the parent company and the accounts of companies in which the parent company owns more than half of the voting rights. Subsidiaries established during the financial year are consolidated from the date of establishment. The Group's share of the figures for the joint venture company Vacon Americas LLC have been incorporated in the consolidated financial statements. Investments in other companies (Group ownership and voting rights less than 20 per cent) are presented in the balance sheet at acquisition cost.

The consolidated financial statements are prepared using the acquisition cost method. The acquisition cost of subsidiary company shares has been eliminated against the equity of the subsidiaries as at the date of acquisition. The resulting group goodwill is depreciated over fifteen years and the resulting Group reserve is entered as income over fifteen years. Intra-Group business transactions, receivables as well as liabilities and unrealized margins on intra-group transactions are eliminated in the consolidation. Minority interests are presented as a separate item in the consolidated income statement and the share of minority interests in shareholders' equity is also shown separately in the consolidated balance sheet. Changes in the depreciation difference of group companies are divided into changes in tax liability and the result for the year in the consolidated balance sheet. Accumulated appropriations are divided into tax liability and shareholders' equity in the consolidated balance sheet.

## Foreign subsidiaries

Items in the income statements of foreign subsidiaries are translated into euros at the average of the monthly average exchange rates, and items in their balance sheets at the average exchange rate on the balance sheet date. Translation differences resulting from the different exchange rates used in the income statement and balance sheet are entered under consolidated shareholders' equity. Translation differences arising from the application of the acquisition cost method, resulting from changes in exchange rates, are also entered under consolidated shareholders' equity.

**Net sales**

Net sales are calculated by deducting indirect sales taxes, discounts and exchange rate differences from gross sales revenues. Revenue is recognized at the date of delivery, except for large, long-term projects, which are recognized using the percentage-of-completion method.

**Foreign currency transactions**

Business transactions in foreign currencies are recorded at the rates of exchange prevailing on the transaction date. Receivables and payables on the balance sheet date are valued at the average exchange rate on that date. Exchange rate differences relating to sales and purchases are recorded as adjustments to these items. Exchange gains and losses related to financing operations are recorded under financial income and expenses.

**Pension arrangements**

Statutory and supplementary pension obligations in Finland are covered through payments to pension insurance companies and recorded as determined by periodical actuarial calculations prepared by those institutions. In Group companies outside Finland, the pension obligations are arranged and pension liabilities recorded in accordance with local legislation and practice.

**Leasing**

Leasing payments are treated as rentals. Unpaid leasing fees are recorded under leasing liabilities in the notes to the financial statements.

**Research and development**

The costs of research activities are recorded under expenses. Development costs are also recorded under expenses, except for significant projects that create new business operations and will generate revenue in the future. These are capitalised and amortised during their effective life span, but no later than in five years. Grants received are entered as deductions in the relevant items.

**Income taxes**

In the consolidated income statement, taxes are calculated in accordance with the local tax regulations for each company. Taxes include taxes paid and accrued during the period and adjustments to the taxes for previous periods. Taxes also include the change in the deferred tax liability.

**Fixed assets and depreciation**

Fixed assets are valued in the balance sheet at their original acquisition cost less accumulated planned depreciation. Planned depreciation is calculated on a straight-line basis on the original acquisition cost, based on the estimated useful economic life, as follows:

- Intangible assets 5–15 years
- Buildings and structures 15 - 40 years
- Machinery and equipment 4 - 15 years
- Other tangible assets 5 - 10 years

**Inventories**

Inventories are valued at the cost of acquisition and manufacturing, or the net realizable value if this is lower. The average price method has been used to determine the acquisition price. The acquisition cost of finished and semi-finished products includes an appropriate proportion of indirect production costs.

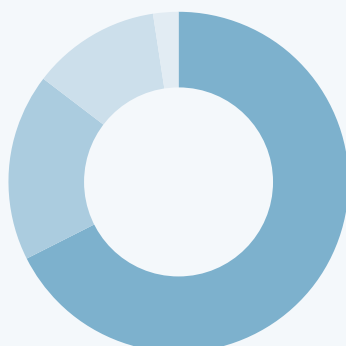
**Dividends**

Dividends proposed by the Board of Directors are not recorded in the financial statements until they have been approved by the Annual General Meeting.

# NOTES TO THE FINANCIAL STATEMENTS

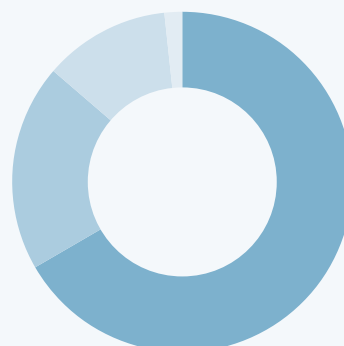
## 1. Net sales 1,000 €

Group (by market area) 2002



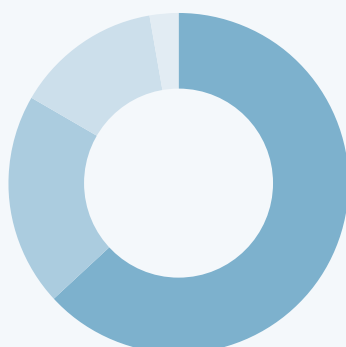
Europe	65,867	67.6%
North America	17,359	17.8%
Australia and Asia	11,915	12.2%
Other countries	2,348	2.4%
Total	97,489	

Group (by market area) 2001



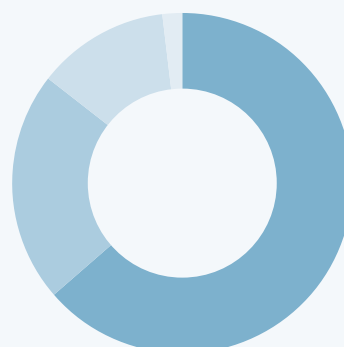
Europe	60,321	66.6%
North America	17,812	19.7%
Australia and Asia	10,871	12.0%
Other countries	1,529	1.7%
Total	90,533	

Parent (by market area) 2002



Europe	54,092	63.1%
North America	17,359	20.3%
Australia and Asia	11,915	13.9%
Other countries	2,348	2.7%
Total	85,714	

Parent (by market area) 2001



Europe	51,671	63.6%
North America	17,812	21.9%
Australia and Asia	10,221	12.6%
Other countries	1,529	1.9%
Total	81,233	

### Projects for which percentage-of-completion method is applied

Recognized accumulated income

	Group 2002	Group 2001	Parent 2002	Parent 2001
	1,923	835	1,923	835
Wages and salaries				
Presidents and members of the Boards of Directors	1,886	1,645	311	300
Other wages and salaries	13,520	11,525	9,840	8,672
	15,406	13,170	10,151	8,972
Other personnel expenses				
Pension costs	1,922	1,595	1,648	1,284
Other compulsory personnel costs	1,661	1,746	721	928
	3,583	3,341	2,369	2,212

## 2. Personnel expenses 1,000 €

Wages and salaries

Presidents and members of the Boards of Directors

Other wages and salaries

Other personnel expenses

Pension costs

Other compulsory personnel costs

	Group 2002	Group 2001	Parent 2002	Parent 2001
<b>3. Average number of personnel</b>				
Office personnel	279	251	175	163
Factory personnel	147	154	144	149
Total	426	405	319	312
<b>4. Pension commitments to the president</b>				
The retirement age agreed for the President of the parent company is 60 years.				
<b>5. Depreciation and write-downs 1,000 €</b>				
Intangible assets	845	113	685	56
Tangible assets	1,912	1,619	1,691	1,440
Total	2,757	1,732	2,376	1,496
Goodwill on consolidation	195	150		
Decrease of group reserves	-6	-6		
Total	189	144		
Depreciation according to plan, total	2,946	1,876	2,376	1,496
<b>6. Financial income and expenses 1,000 €</b>				
Dividend income				
From others	9		9	
	9		9	
Interest income from financial assets				
From group companies			224	139
From others	15		15	
	15		239	139
Other interest and financial income				
From group companies			3	16
From others	287	74	26	32
	287	74	29	48
Write-downs on financial assets				
From group companies			-325	
			-325	
Interest and other financial expenses				
From others	-405	-378	-342	-331
	-405	-378	-342	-331
Financial income and expenses, total	-94	-304	-390	-144
<b>7. Appropriations 1,000 €</b>				
Change in depreciation difference			-520	-575



	Group 2002	Group 2001	Parent 2002	Parent 2001
<b>8. Income taxes</b> 1,000 €				
Income taxes on operations	-3,091	-3,201	-2,807	-3,103
Change in deferred tax liability	-197	-154		
	-3,288	-3,355	-2,807	-3,103

	Development expenses	Intangible rights	Goodwill on consoli- dation	Other long-term expenditure	Total
<b>9. Assets</b> 1,000 €					
<b>Group</b>					
<b>Intangible assets</b>					
Acquisition cost on 1 January	4,917	703	2,759	185	8,564
Increases	808	724	143	16	1,691
Decreases					
Transfers between items	35	429			464
Acquisition cost on 31 December	5,760	1,856	2,902	201	10,719
Accumulated depreciation on 1 January	-1,448	-172	-371	-51	-2,042
Accumulated depreciation of decreases and transfers	-34	-193			-227
Depreciation for the financial year	-553	-261	-195	-32	-1,041
Accumulated depreciation on 31 December	-2,035	-626	-566	-83	-3,310
Net book value on 31 December	3,725	1,230	2,336	118	7,409

	Machinery and equipment	Other tangible assets	Construction in progress	Total
<b>Group</b>				
<b>Tangible assets</b>				
Acquisition cost on 1 January	10,416	791	2,265	13,472
Increases	3,594	16	1,417	5,027
Decreases	-958		-2,014	-2,972
Transfers between items	185	-600		-415
Acquisition cost on 31 December	13,237	207	1,668	15,112
Accumulated depreciation on 1 January	-3,749	-350		-4,099
Accumulated depreciation of decreases and transfers	-25	230		205
Depreciation for the financial year	-1,894	-18		-1,912
Accumulated depreciation on 31 December	-5,668	-138	0	-5,806
Net book value on 31 December	7,569	69	1,668	9,306

	Other shares	Other receivables	Total
<b>Group</b>			
<b>Financial assets</b>			
Acquisition cost on 1 January	117	454	571
Increases		1	1
Decreases		-57	-57
Net book value on 31 December	117	398	515

	Development expenses	Intangible rights	Other long-term expenditure	Total
<b>Parent company</b>				
<b>Intangible assets</b>				
Acquisition cost on 1 January	4,380	569	113	5,062
Increases	586	590	6	1,182
Decreases				
Transfers between items		375		375
Acquisition cost on 31 December	4,966	1,534	119	6,619
Accumulated depreciation on 1 January	-1,305	-161	-3	-1,469
Accumulated depreciation of decreases and transfers		-134		-134
Depreciation for the financial year	-450	-212	-24	-686
Accumulated depreciation on 31 December	-1,755	-507	-27	-2,289
Net book value on 31 December	3,211	1,027	92	4,330

	Machinery and equipment	Other tangible assets	Construction in progress	Total
<b>Parent company</b>				
<b>Tangible assets</b>				
Acquisition cost on 1 January	9,651	402	2,259	12,312
Increases	3,298		1,417	4,715
Decreases	-917		-2,008	-2,925
Transfers between items	-1	-374		-375
Acquisition cost on 31 December	12,031	28	1,668	13,727
Accumulated depreciation on 1 January	-3,355	-133		-3,488
Accumulated depreciation of decreases and transfers	1	133		134
Depreciation for the financial year	-1,691			-1,691
Accumulated depreciation on 31 December	-5,045	0	0	-5,045
Net book value on 31 December	6,986	28	1,668	8,682

	Shares in group companies	Receivables from group companies	Other shares	Other receivables	Total
<b>Parent company</b>					
<b>Financial assets</b>					
Acquisition cost on 1 January	4,645	3,620	117	208	8,590
Increases	247	1,138			1,385
Decreases	-11	-409			-420
Net book value on 31 December	4,881	4,349	117	208	9,555

## 10. Shares

### Group companies

	Group holding-%	Group votes-%	Parent company holding-%
Vacon GmbH, Düsseldorf, Germany	100	100	100
Vacon Traction Oy, Tampere, Finland	90	90	90
Vacon Benelux B.V., Gorinchem, The Netherlands	100	100	100
Vacon SpA, Montecchio Emilia, Italy	100	100	100
Vacon Drives Ibérica S.A., Manresa, Spain	100	100	100
Vacon Drives (UK) Ltd, Leicestershire, United Kingdom	70	70	70
Vacon AB, Sundbyberg, Sweden	100	100	100
Vacon AT Antriebssysteme GmbH, Leobersdorf, Austria	70	70	70
Vacon Americas LLC, Milwaukee, USA	50	50	50
Zao Vacon Russia, Moskow, Russia	100	100	100
Vacon France SAS, Moissy Cramayel, France	70	70	70
Rotatek Oy, Lappeenranta, Finland	51	51	51
Vacon AS, Holmestrand, Norway	80	80	80
Vacon Benelux NV/Sa, Heverlee, Belgium	100	100	99
VNT Management Oy, Vaasa, Finland	74	74	74

### Group reserves 1,000 €

	Group 2002	Group 2001	Parent 2002	Parent 2001
Acquisition value on 1 January	77	83		
Increases				
Acquisition value on 31 December	77	83		
Accumulated value entered as income	-6	-6		
Net book value on 31 December	71	77		

### 11. Short-term receivables 1,000 €

From group companies				
Trade receivables			8,049	6,521
Prepaid expenses and accrued income			64	
	0	0	8,113	6,521
From others				
Trade receivables	17,660	18,285	9,263	11,726
Other receivables	1,011	963	864	677
Prepaid expenses and accrued income	1,069	1,313	885	1,202
	19,740	20,561	11,012	13,605
Short-term receivables, total	19,740	20,561	19,125	20,126

### 12. Main items in prepaid expenses and accrued income 1,000 €

Recognized accumulated income according to percentage-of-completion method	185	835	185	835
Contributions	302	143	254	84
Other	582	335	510	283
	1,069	1,313	949	1,202

	Group 2002	Group 2001	Parent 2002	Parent 2001
<b>13. Shareholders' equity</b> 1,000 €				
Share capital on 1 January	3,030	3,030	3,030	3,030
Change				
Share capital on 31 December	3,030	3,030	3,030	3,030
Share premium reserve on 1 January	3,499	3,499	3,499	3,499
Change				
Share premium reserve on 31 December	3,499	3,499	3,499	3,499
Other reserves on 1 January	19	18		
Change	1	1		
Other reserves on 31 December	20	19	0	0
Retained earnings on 1 January	16,435	11,631	18,641	13,005
Dividend distribution	-2,424	-1,970	-2,424	-1,970
Other changes	12	-26		
Translation difference	-61	-19		
Retained earnings on 31 December	13,961	9,616	16,217	11,035
Profit for the financial year	6,510	6,819	6,772	7,606
Preferred capital notes on 31 December	1,555	2,016	1,180	1,808
Shareholders' equity, total	28,576	24,999	30,698	26,978
<b>14. Distributable equity</b> 1,000 €				
Retained earnings on 31 December	13,961	9,616	16,217	11,035
Profit for the financial year	6,510	6,819	6,772	7,606
-Depreciation difference and other untaxed reserves	-967	-484		
Distributable equity total	19,504	15,950	22,989	18,641

### 15. Preferred capital notes

The parent company has received a capital note of EUR 232,099 from Tekes and EUR 948,201 from shareholders' of the company. The terms and conditions of the capital notes are in accordance with the provisions of Chapter 5 Section 1 of the Finnish Companies Act.

Principal terms of the capital note received from TEKES:

1. The note period is six years, of which the first three years are free from repayment. The note will be repaid in equal annual instalments. The first instalment is due in year 2002.
2. The interest rate is set one per cent below the current base rate listed by the Bank of Finland, but a minimum of 3.0 %. The present interest rate for the note is 3.0 %.
3. No security was required for the note.
4. If the development work performed does not lead to financially profitable business, TEKES can, pursuant to an application from the recipient, be exempted from repayment of the note either in full or in part, if terms stipulated in the decision of the Council of State are met. No exemption, however, can be made for payment of the interest.

Principal terms of the capital note received from shareholders:

1. The note will be repaid, the provisions of Chapter 5 Section 1 in the Finnish Companies Act taken in to account, on June 30th 2006 at the earliest.
2. Interest will be paid on the last day of June every year, the provisions of Chapter 5 Section 1 in the Finnish Companies Act taken in to account. The interest for the note corresponds to a prevailing market-rate. The interest rate for the note was 5.75 % p.a. at issuance of the note.
3. No security was required for the note.
4. The note can be repayed in full before June 30th 2006 under certain conditions specified in the capital note agreement section 2.6. This is applicable only if provisions of Chapter 5 Section 1 in the Finnish Companies Act allows it.

Interest expenses relating to these capital notes totalling EUR 36,366 were allocated at the end of year 2002.

## 16. Appropriations

The appropriations in the parent company comprises of accumulated depreciation difference.

	Group 2002	Group 2001	Parent 2002	Parent 2001
<b>17. Liabilities</b> 1,000 €				
<b>Long-term</b>				
Interest-bearing *)				
Loans from credit institutions	5,779	4,905	5,628	4,778
Other long-term liabilities		118		44
	5,779	5,023	5,628	4,822
Non interest-bearing				
Deferred tax liability	396	198		
	396	198		
<b>Long-term liabilities, total</b>	<b>6,175</b>	<b>5,221</b>	<b>5,628</b>	<b>4,822</b>
<b>Current</b>				
Interest-bearing				
Loans from credit institutions	1,070	1,812	284	916
	1,070	1,812	284	916
Non interest-bearing				
Advances received	768	1,013	503	1,009
Trade payables	11,045	10,097	10,521	9,503
Trade payables to Group companies			230	339
Other current liabilities	1,511	2,232	336	1,277
Accrued expenses and deferred income	3,831	3,778	2,376	2,797
	17,155	17,120	13,966	14,925
<b>Current liabilities, total</b>	<b>18,225</b>	<b>18,932</b>	<b>14,250</b>	<b>15,841</b>
Interest-bearing liabilities *)	6,849	6,835	5,912	5,738
Non interest-bearing liabilities	17,551	17,318	13,966	14,925
Liabilities, total	24,400	24,153	19,878	20,663
*) The preferred capital notes are not included in long-term interest-bearing liabilities.				
<b>18. Main items in accrued expenses and deferred income</b> 1000 €				
Wages, salaries and wage-related liabilities	2,366	2,211	1,610	1,843
Other	1,465	1,567	766	954
	3,831	3,778	2,376	2,797
<b>19. Collateral and contingent liabilities</b> 1,000 €				
For own loans/commitments				
Mortgages given	5,298	5,129	5,129	5,129
For group companies				
Contingent liabilities	780	783	780	783
For other				
Contingent liabilities	87	87	87	87
<b>20. Amount payable according to leasing contracts</b> 1,000 €				
Maturity within one year	820	488	522	169
Maturity after one year	1,506	583	1,231	261
	2,326	1,071	1,753	430

# PROPOSALS OF THE BOARD OF DIRECTORS TO THE ANNUAL GENERAL MEETING

The Board of Directors proposes that the accounts for the financial year January 1, 2002 to December 31, 2002 be adopted by the Annual General Meeting in the form presented by the Board.

Distributable consolidated equity is EUR 19.5 million and the parent company's distributable equity is EUR 23.0 million. The Board of Directors proposes that a dividend of EUR 0.17 per share, corresponding to a total of EUR 2.6 million be paid for the financial year January 1, 2002 to December 31, 2002.

Vaasa, February 7th, 2003

Harri Niemelä  
Chairman

Jari Eklund

Mauri Holma

Jan Inborr

Veijo Karppinen

Harry Ollila

Vesa Laisi  
President and CEO

## AUDITOR'S REPORT

### To the shareholders of Vacon Plc

We have audited the accounting, the financial statements and the corporate governance of Vacon Plc for the period 1.1.–31.12.2001. The financial statements, which include the report of the Board of Directors, consolidated and parent company income statements, balance sheets and notes to the financial statements, have been prepared by the Board of Directors and the Managing Director. Based on our audit we express an opinion on these financial statements and on corporate governance.

We have conducted the audit in accordance with Finnish Standards on Auditing. Those standards require that we perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining on a test basis evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by the management as well as evaluating the overall financial statement presentation. The purpose of our audit of corporate governance is to examine that the members of the Board of Directors and the Managing Director have legally complied with the rules of the Companies Act.

In our opinion the financial statements have been prepared in accordance with the Accounting Act and other rules and regulations governing the preparation of financial statements. The financial statements give a true and fair view, as defined in the Accounting Act, of both the consolidated and parent company's result of operations as well as of the financial position. The financial statements with the consolidated financial statements can be adopted and the members of the Board of Directors and the Managing Director of the parent company can be discharged from liability for the period audited by us.

The proposal by the Board of Directors regarding the distribution of retained earnings is in compliance with the Companies Act.

Vaasa, February 7th, 2003  
KPMG WIDERI OY AB

Raimo Wiklund  
Authorized Public Accountant

# CORPORATE GOVERNANCE

According to Finnish law and the Company's Articles of Association, the control and management of the Company is divided among the shareholders represented at the Annual General Meeting, the Board of Directors and the President.

## The Board of Directors

The Board of Directors deals with the matters stipulated by the Finnish Companies Act and the Company's Articles of Association. The Board is responsible for the overall administration, visions and strategies of the Company, and for setting the framework for the strategies of Group companies. It also approves the Company's action plans and budget, defines the framework for the action plans of the Group companies, and sets the Company's short- and long-term goals.

The Board makes decisions on the Group's strategic investments and approves the investment programmes of the Group companies. It monitors the Company's financial performance and how its goals are put into effect. The Board appoints the President, the Executive Vice President and the members of the Management Team and proposes the boards of directors of the Group companies.

## The President and the Management Team

The President prepares the matters to be decided at the meetings of the Board of Directors, carries out its decisions, and directs the Group's administration. He sits on the boards of the Group companies and is chairman of the Management Team. The subsidiaries report on marketing and sales to Group's Vice President for Sales, Marketing and Service.

The Management Team prepares and guides the development of the Group's processes and business areas and the Group's joint functions. It does not decide on matters falling within the decision-making authority of the Board of Directors. The Management Team consists of the President and representatives chosen from among the Group's senior management. The Management Team is not an administrative body stipulated by the Finnish Companies Act.

## Insider dealing

Vacon observes the guidelines for insiders for listed companies approved by the Helsinki Exchanges. Vacon's insiders include the Board of Directors and the auditor, the Management Team, personnel in the treasury and communications departments and the secretaries to senior management. The holdings of the company's permanent insiders can be viewed in the SIRE system maintained by the Finnish Central Securities Depository Ltd.

The company maintains registers of insiders for individual projects.

## Incentive schemes

The company has an incentive scheme for the entire personnel and an options scheme approved by the Annual General Meeting in 2001.

## Vacon Plc's Board of Directors in 2002

### Harri Niemelä, chairman

- Born 1944, B.Sc. (El. Eng.), President, Vaasa Group Invest Oy
- 399,840 shares

### Jari Eklund

- Born 1963, M.Sc (Econ.), Investment Director, Tapiola Insurance Group
- No shares

### Mauri Holma

- Born 1950, B.Sc. (El. Eng.), President, Vaasa Switchgears Oy and Vaasa Service Oy
- 382,171 shares

### Jan Inbarr

- Born 1948, M.Sc (Econ.), President, Ahlström Capital Oy
- No shares

### Veijo Karppinen

- Born 1950, M.Sc.(Engineering), President, VNT Management Oy
- 494,249 shares

### Harry Ollila

- Born 1950, M.Sc. (Engineering), President, Konecranes Nordic Oy, Vice President KCI Konecranes International Oyj
- 37,740 shares

### Stefan Wikman, secretary

- Born 1956, Attorney, Partner, Roschier Holmberg, Attorneys Ltd,
- No shares

The members of the Board of Directors do not hold any stock options. Shareholdings are as per the share register on 30 December 2002.

## President and Management Team in 2002

### Veijo Karppinen

- President until June 30, 2002.
- Born 1950, M.Sc.(Engineering)

### Vesa Laisi

- President, Vacon Plc, since July, 2002
- Born 1957, M.Sc. (Eng.), M.Sc. (Econ.) Responsible for Vacon's vision and strategy.

### Other Management Team members:

#### Erkki Raunio

- Executive Vice President, Business Development; Deputy to the President;
- Born 1949, B.Sc. (Eng.) Responsible for Vacon Group Business Development.

#### Heikki Hiltunen

- Vice President, Sales, Marketing and Service
- Born 1962, B.Sc. (Eng.) Responsible for Vacon Group sales, marketing and service operations for each business area.

#### Tuula Hautamäki

- Vice President, Information Technology and Process Development
- Born 1964, M.Sc. (Eng.), M.Sc. (Econ.). Responsible for co-ordination of process development and for developing the Company's quality and environmental management systems.

#### Dan Isaksson,

- Vice President, Engineered Drives BA
- Born 1965, M.Sc. (El. Eng.) Responsible for engineered products, products in cabinets and system products business.

#### Jukka Kasi

- Vice President, Component Drives BA, Vice President, R&D
- Born 1966, M.Sc. (Eng). Responsible for component products business and Group Product Management. Responsible for the continuous development of Vacon's frequency converter products and for the Company's technological competence.

### Jari Koskinen

- Vice President, Production
- Born 1960, M.Sc. (Econ.), MBA. Responsible for the manufacturing processes and the logistics chain for Vacon's products, from Vacon's suppliers via Vacon to its customers (supply chain, manufacture at Vacon, invoicing and forwarding, and service and start-up of drives).

### Jukka-Pekka Mäkinen

- Vice President, Global Customers BA
- Born 1959, B.Sc. (Eng.). Responsible for brand label and volume OEM customers business.

### Dag Sandås

- Vice President, Finance and Control until 31 January, 2003
- Born 1959, M.Sc. (Econ.). Responsible for monitoring and developing Vacon's financial position and for managing the Company's treasury functions.

### Mika Leppänen

- Vice President, Finance and Control since 4 February, 2003
- Born 1959, M.Sc. (Econ.) Responsible for monitoring and developing Vacon's financial position and for managing the Company's treasury functions.

### Leena Taka

- Vice President, Human Resources
- Born 1954, Graduate of Vaasa Commercial Institute (Marketing), responsible for Vacon's personnel administration and its development.



# SHARES AND SHAREHOLDERS

The shares of Vacon Plc were listed on the Helsinki Exchanges on 14 December 2000. Vacon's company code on the Helsinki Exchanges is VAC.

The roundlot for trading of the shares is 100 shares. Each share carries one vote. The company has 15,150,000 share with a nominal value of EUR 0.20 each. During 2002 a total of 4,599,195 shares were traded with a value of EUR 44.5 million. The highest quoted price during the review period was EUR 11.60 and the lowest was EUR 5.60. On the last day of 2002 the quoted price was EUR 7.40, which gave the company a market value fo EUR 112.1 million.

## Ownership of the members of the Board of Directors and the President

At the end of the year a total of 1,314,000 or 8.7 per cent of Vacon's share stock, were in the direct ownership of members of the Board of Directors and the President. Vacon Plc does not own any of its own shares.

## Options

### Option programme I

The Annual General Meeting, held on March 28, 2001, adopted the Board's proposal of option terms for Vacon Group's key personnel. The main conditions are as follows:

- Each option right will entitle its holder to subscribe for one (1) share in the Company each with a par value of 0.2 Euros.
- The share subscription price will be the average price of the closing prices on the Helsinki Stock Exchange during the period January 2 through February 28, 2001, in other words 10.45 Euros.
- The option rights are divided into series AI, All, BI and BII. Each series includes 75,000 option rights. The option rights entitle subscription for the Company's shares as follows:
  1. Series AI and All from Aug. 16 to Sept. 15, 2002.
  2. Series BI and BII from Aug. 16 to Sept. 15, 2003.
- The holders of series All option rights entitle subscription for shares only if the profit of the Vacon Group in the financial year from January 1 to December 31, 2001 is a minimum of EUR 11,500,000 and the return on investment is a minimum of 35 per cent.
- The holders of series BII option rights entitle subscription for shares only if the profit of the Vacon Group in the financial year from January 1 to December 31, 2002 is a minimum of EUR 9,000,000 and the operational cash flow EUR 9,900,000.
- New shares will qualify first for a dividend payment for the financial year during which the subscription has taken place. Other rights will commence on the date when the increase in the share capital is entered into the Trade Register.
- No shares have been subscribed based on AI and All

series option rights from Aug. 16 to Sept. 15, 2002. The share capital can increase by a maximum of EUR 17,500 due to the suscriptions of this option programme.

### Option programme II

The Annual General Meeting, held on March 25, 2002, adopted the Board's proposal of option terms for Vacon Group's key personnel. The main conditions are as follows:

- Option rights can be subscribed from May 1 to June 30, 2003. Each option right will entitle its holder to subscribe for one (1) share in the Company each with a par value of 0.2 Euros. Pursuant to the share subscriptions, the share capital of the Company can increase by a maximum of 300,000 shares corresponding to 60,000 Euros.
- The share subscription price will be the average price of the closing prices on the Helsinki Stock Exchange during the period January 2 through February 28, 2002, in other words 10.32 Euros.
- The option rights are divided into series CI, CII, DI and DII. Each series includes 75,000 option rights. The option rights entitle subscription for the Company's shares as follows:
  1. Series CI and CII from Aug. 16 to Sept. 15, 2003.
  2. Series DI and DII from Aug. 16 to Sept. 15, 2004.
- The holders of series CI and CII option rights are entitled to subscription for the shares only if the profit of the Vacon Group in the financial year from 1 January to June 30, 2003 is a minimum of EUR 3,000,000 and the operational cash flow is a minimum of EUR 3,200,000.
- The holders of series DI and DII option rights are entitled to subscription for the shares only if the profit of the Vacon Group in the financial year from 1 January to December 31, 2003 is a minimum of EUR 9,000,000 and the operational cash flow is a minimum of EUR 10,500,000.
- The Option programme will also include the new Managing Director of the company, who belongs as of 1 July 2002 to the inner circle of the company as defined in Chapter 1, Section 4 of the Companies Act. The Managing Director does not hold any company shares. The Managing Director has subscribed 25,000 option rights in each series based on this option programme. The option rights entitle to subscribe a maximum of 100,000 shares.
- New shares will qualify first for a dividend payment for the financial year during which the subscription has taken place. Other rights will commence on the date when the increase in the share capital is entered into the Trade Register.

### Proposal by the Board of Directors to authorize the Board of Directors to resolve to repurchase shares in the company

The Annual General Meeting adopted on March 25, 2002 the Board's proposals to authorize the Board to resolve to repurchase shares in the company and to

dispose of shares in the company. The authorization is valid including 24 March, 2003.

The authorization entitles the company to repurchase a maximum of 757,500 shares which amounts five (5) per cent of the total number of the share capital of the company and the total voting power of all shares issued by the company and existing at the time.

Shares can be repurchased for the purpose of developing the capital structure of the company, to be used in the financing of corporate acquisitions and

other transactions or for the purpose of being sold or otherwise transferred or cancelled. The cancellation of shares requires separate resolution by a Shareholders' Meeting to reduce the share capital of the company.

The Board of Directors shall be authorized to decide on the sales price or other consideration for the shares as well as on the basis for the determination of such consideration and the shares can be disposed of for other consideration than cash or otherwise on specific terms and conditions or by using right of set-off.

## Breakdown of ownership

### Division of shares

Number of shares	Number of shareholders	% of shareholders	Number of shares	% of shares
1–500	2,231	78.45	500,928	3.31
501–1,000	254	8.93	202,969	1.34
1,001–5,000	206	7.24	477,398	3.15
5,001–10,000	52	1.83	403,279	2.66
10,001–50,000	63	2.22	1,341,571	8.86
50,001–100,000	18	0.63	1,267,269	8.36
Over 100,000	20	0.70	10,956,586	72.32
Total	2,844	100.00	15,150,000	100.00

### Ownership structure

Corporations	135	4.76	2,689,602	17.75
Banks and insurance companies	16	0.56	5,244,673	34.62
Public sector entities	5	0.18	677,400	4.47
Non-profit organisations	18	0.63	64,800	0.43
Households	2,665	93.87	6,473,525	42.73
Total	2,839	100.00	15,150,000	100.00

### Major shareholder 30.12.2002

	Number of shares	% of shares
Nordea Pankki Nominee registered *)	4,269,916	28.2
Ahlström Capital Oy	1,832,983	12.1
Tapiola Group	975,400	6.4
Vaasa Engineering Oy	631,433	4.2
Karppinen Veijo	494,249	3.3
Niemelä Harri	399,840	2.6
Holma Mauri	382,171	2.5
Koskinen Jari	356,494	2.4
Ehnrooth Martti	312,770	2.1
Others	5,494,744	36.3
Total	15,150,000	100.0

### \*) Nordea Pankki Nominee registered 30.12.2002

Fidelity Funds	2,227,586	14.7
Goldman Sachs Funds	375,361	2.5
Other Nordea Pankki Nominee registered	1,666,969	11.0
Total	4,269,916	28.2

## KEY FIGURES

	2002	2001	2000 (pro forma)	1999 (pro forma)	1998
<b>Per share data</b>					
Earnings per share, EUR	0.43	0.45	0.41	0.33	0.16
Equity per share, EUR	1.78	1.52	1.32	0.56	0.34
Dividend per share, EUR *)	0.17	0.16	0.14	0.07	0.03
Dividend pay-out ratio, % *)	39.60	35.50	35.30	22.20	21.70
Effective dividend yield % *)	2.3	1.7	1.7		
Price/earnings-ratio	17.2	20.7	20.2		
<b>Share price information</b>					
Lowest during the period, EUR	5.60	7.85	7.50		
Highest during the period, EUR	11.60	12.60	8.50		
Closing price at the end of the period, EUR	7.40	9.33	8.30		
Average price for the period, EUR	9.68	10.02	7.76		
Market value of the shares, MEUR	112.11	141.35	125.75		
Number of shares exchanged	4,599,195	6,240,984	211,041		
Number of shares exchanged, %	30.4	41.2	1.5		
Adjusted average number of shares during the financial period	15,150,000	15,150,000	13,722,242	11,721,500	11,721,500
Number of shares at the end of the period	15,150,000	15,150,000	15,150,000	11,721,500	11,721,500
<b>Financial Ratios</b>					
Revenues, MEUR	97.5	90.5	64.9	44.3	25.7
Revenues, increase, %	7.7	39.5	46.6	71.9	51.4
Operating profit, MEUR	9.9	10.4	8.1	6.0	3.2
Operating profit, increase %	-4.8	28.4	34.7	91.4	22.8
Operating profit, % of revenues	10.2	11.5	12.5	13.6	12.2
Profit before appropriations and taxes, MEUR	9.8	10.1	8.2	5.7	2.9
Profit before appropriations and taxes, % of revenues	10.1	11.2	12.7	12.9	11.1
Return on equity, %	26.2	32.9	44.3	71.3	57.5
Return on investments, %	30.4	38.1	46.8	47.4	32.4
Interest bearing net debt, MEUR	-0.8	3.5	2.3	4.3	7.0
Net gearing (%)	-3.0	15.4	12.7	62.8	166.8
Equity ratio (%) (preferred capital notes excluded)	51.7	47.7	49.1	33.1	24.6
Gross investments in fixed assets, MEUR	4.7	7.5	8.8	1.4	2.9
Gross investments in fixed assets, % of revenues	4.8	8.3	13.6	3.3	11.1
Research and development expenditure, MEUR	7.1	6.9	5.8	3.6	**)
Research and development expenditure, % of revenues	7.3	7.6	8.9	8.1	**)
Personnel at the end of the period	426	409	308	220	141
Orderbook at the end of the period, MEUR	14.8	6.5	5.8	2.5	2.4

\*) The 2002 dividend is the Board of Directors' proposal to the Annual General Meeting.

\*\*\*) R&D expenditures were not separately identified for year 1998.

## CALCULATION OF FINANCIAL RATIOS

$$\text{Earnings per share} = \frac{\text{Profit before extraordinary items - income taxes -/+ minority interests}}{\text{Adjusted number of shares over the financial year}}$$

$$\text{Equity per share} = \frac{\text{Shareholders' equity}}{\text{Adjusted number of shares at the end of the financial year}}$$

$$\text{Dividend per share} = \frac{\text{Dividends paid for the financial year}}{\text{Adjusted number of shares at the end of the financial year}}$$

$$\text{Dividend payout ratio} = \frac{\text{Dividends paid for the financial year} \times 100}{\text{Profit before taxes - income taxes - minority interest}}$$

$$\text{Effective dividend yield} = \frac{\text{Dividend per share} \times 100}{\text{Adjusted share price at the end of the financial year}}$$

$$\text{Price/earnings} = \frac{\text{Adjusted share price at the end of the financial year}}{\text{Earnings per share}}$$

$$\text{Return on equity} = \frac{(\text{Profit before extraordinary items - income taxes}) \times 100}{\text{Shareholders' equity + minority interests, average over the year}}$$

$$\text{Return on investments} = \frac{(\text{Profit before extraordinary items} + \text{interest and other financial expenses}) \times 100}{\text{Balance sheet total - non interest-bearing liabilities, average over the year}}$$

$$\text{Solvency ratio} = \frac{(\text{Shareholders' equity} + \text{minority interests}) \times 100}{\text{Balance sheet total - advances received}}$$

$$\text{Net gearing} = \frac{(\text{Interest bearing liabilities} - \text{cash and bank balances}) \times 100}{\text{Shareholders' equity} + \text{minority interests}}$$

In the calculations the preferred capital notes are included in interest-bearing liabilities, not in shareholders' equity.

# INFORMATION FOR INVESTORS

## Annual General Meeting

The Annual General Meeting of Vacon Plc will be held on Thursday, 20 March 2003 at 3.00 pm in Vacon Plc, Runsorintie 7, Vaasa, Finland.

To be entitled to attend the Annual General Meeting, shareholders must be registered on 10.3.2003 in the company's list of shareholders maintained by the Finnish Central Securities Depository. Shareholders wishing to attend the Annual General Meeting are requested to notify the company not later than 4.00 pm (Finnish time) on 13.3.2003 by e-mail to johanna.koskinen@vacon.com, by telephone to Johanna Koskinen on +358 201 212 528, by mail to Vacon Plc, Johanna Koskinen, P.O.Box 25, 65381 Vaasa, Finland, or by fax to +358 201 212 208. Letters of authorization should be sent with the notification of attendance.

## Payment of dividends

The Board of Directors proposes to the Annual General Meeting that a dividend of EUR 0,17 per share be paid for the 2002 financial year. The record date for dividend payment will be 25 March 2003 and the proposed payment date for the dividend is 1 April 2003.

## Financial reports in 2003

Vacon is publishing three interim reports in 2003 as follows:

- January-March Tuesday, 29 April 2003, at 10.00 am
- January-June Tuesday, 5 August 2003, at 10.00 am
- January-September Tuesday, 28 October 2003, at 10.00 am

The financial statements and interim reports are also published in Finnish. The annual report is also available in Finnish and Swedish. Annual reports are available on the Internet at [www.vacon.com](http://www.vacon.com).

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## Further information

[www.investors.vacon.com](http://www.investors.vacon.com)

## Financial analysts

that monitor Vacon as an investment target:

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