

A grayscale photograph of three women with short hair and glasses, smiling and looking towards the camera. They are wearing dark-colored tops. The image is slightly faded and serves as a background for the text.

Annual Report 2000

semcon

Contents



SEMCON'S BUSINESS

Semcon develops products, processes and people at Sweden's leading industrial companies. During the year Semcon compiled a new strategy programme and a new vision statement, which says: Semcon's ambition is to be one of the global leaders in design and development.

2 2000 IN BRIEF

4 THIS IS SEMCON

6 HANS JOHANSSON, CEO

12 MARKETS

16 PRIORITY INDUSTRIES

18 Telecom

22 Vehicle

28 Medical

32 A GLOBAL WORKPLACE

35 TECHNOLOGY MANAGEMENT

38 E-DESIGN

41 INDUSTRIAL DESIGN

44 COMPETENCE DEVELOPMENT

46 HUMAN CAPITAL

50 STRUCTURAL CAPITAL

56 SEMCON'S SHARES

58 DEFINITIONS OF KEY FIGURES

59 FIVE-YEAR SUMMARY

60 DIRECTORS' REPORT

64 INCOME STATEMENT

65 BALANCE SHEET

67 CASH FLOW STATEMENT

68 NOTES

76 THE BOARD OF DIRECTORS

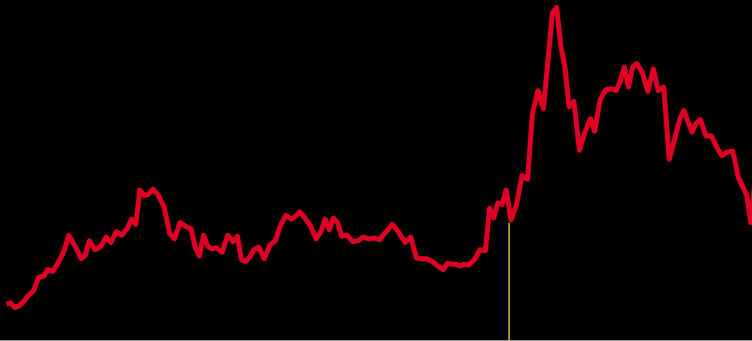
77 SENIOR MANAGEMENT

78 ADDRESSES

80 THE ANNUAL GENERAL MEETING

MARKETS

Semcon's customer base will continue to be broad but will focus on the prioritised industries of telecom, vehicle and medical. Developing alongside customers, supplying value and keeping at the forefront of technology are essential for Semcon. The company seeks long-term relationships with existing and new customers.



SEMCON'S SHARES rose by 25% during 2000, 37 percentage points higher than the OM Stockholm Exchange's general index.

FINANCIAL ACCOUNTS

Semcon showed stable growth for the 20th year in a row. The Group's sales rose to SEK 1,007.2 million, an increase of 17%. Consultancy operations increased by 34%.

2000 in brief

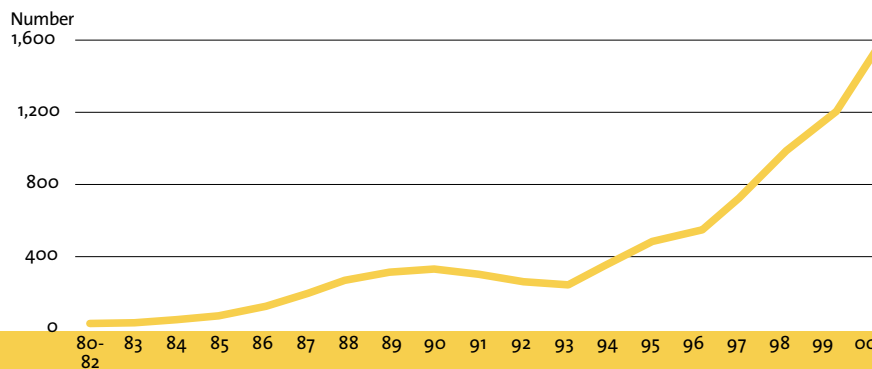
STABLE GROWTH

In 2000 Semcon celebrated its 20th anniversary and for the 20th year in a row reported stable growth. Consultancy operations increased by 34% and the Group as a whole increased sales by 17% to SEK 1,007.2 million. The operating profit was down on last year, mainly due to the losses in and the winding up of Competence Development. Profits were also affected by reduced demand from the forestry and processing industries.

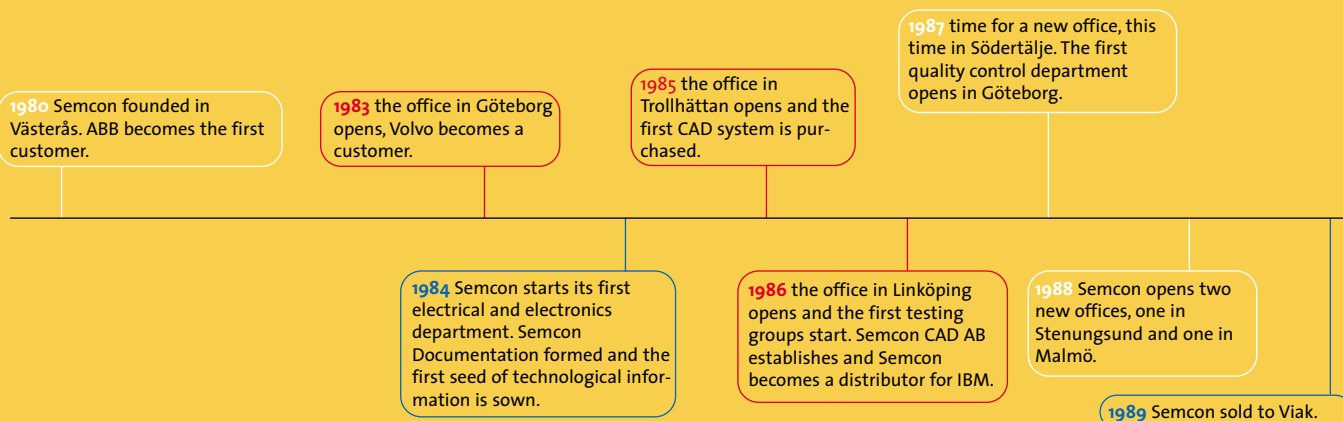
The turbulence in the IT industry at the end of the year favoured Semcon because recruiting was made easier while customers looked for long-term and secure supplier relationships.

Semcon presented a new vision and new long-term aims in 2000. As a result, a new organisation was formed, and came into operation at the beginning of 2001.

AVERAGE NUMBER OF EMPLOYEES



SEMCON'S HISTORY



IMPORTANT EVENTS IN 2000

Major business

- Outsourcing agreement signed with Valmet and ABB Automation Systems
- Letter of Intent signed with Besam, Tetra Top Packaging and ABB Flexible Automation for outsourcing of technical information
- The long-term relationship with Saab Automobile resulted in two major deals. Semcon was chosen as outsourcing partner for IT services for product development, and an order worth around SEK 20 million was received concerning consultancy services, training as well as hardware and software
- Semcon chosen as IT consultant and technical partner in ASSA ABLOY's investment in the Volvo Ocean Race 2001/2002

Important acquisitions and start-ups

- Zipper by Semcon is a new operation within the area of IT strategies and infrastructure
- Pelmatic Group with around one hundred employees was acquired, includes leading marine design company, Knud E. Hansen

- Euromation formed together with Ford, Volvo Truck Component Corporation and Volvo Technology Transfer
- TimeIT AB formed, TimeIT supplies software for operational steering through web and WAP solutions

Strategic development

- Semcon Technology Trend Offices opened in Tokyo and Silicon Valley, San Francisco
- Competence Development business area wound up
- New offices opened in Malmö, Uppsala, Borlänge and Katrineholm, new departments opened in Västerås and Karlstad
- Semcon launched a new strategy focusing on *Telecom, Vehicle* and *Medical*

Key events after the end of the financial year

- Semcon refined operations to pave the way for continued growth
- Semcon chosen as partner for the development of Ford's THINK electric car
- Zipper by Semcon received two orders for its Fasttrack™ IT infrastructure, which will involve 96,000 users

Key figures

	2000	1999
Sales (SEK m)	1,007.2	863.5
Operating profit (SEK m)	50.1	84.4
Equity/assets ratio (%)	34.1	38.0
Earnings per share (SEK)	1.99	3.38
Average number of employees	1,504	1,173

1990 Semcon celebrates its 10th anniversary and Viak is bought by VBB. Semcon thereby becomes a subsidiary of VBB.

1991 Semcon is forced to make redundancies. Training business started.

1993 Semcon opens an office in Stockholm. The SMASH-method of project management is ready for introduction. Ericsson becomes major customer.

1995 becomes the most expansive year so far with new offices in Helsingborg, Sundsvall, Kista and branches in Ludvika and Varberg. Semcon Engineering UK begins in London. The work to build Europe's most modern test lab – Semcon Test Lab AB – begins. Semcon has more than 500 employees by the end of the year.

1997 Semcon listed on the OM Stockholm Exchange's O list. Three new offices and ten new departments started.

1999 Semcon established in Norway and Denmark. Partnership agreement with Volvo signed for taking over of their operations in technical information.

1992 a matter of survival in a very hard market. K 2000 competence development programme put into operation. The first branch opens at Volvo Cars.

1994 Semcon CAD AB becomes Semcon Data AB. Semcon receives ISO 9001 certificate.

1996 Semcon's employees buy back the company from VBB. A new office in Växjö and a branch in Oskarshamn opens. Semcon becomes one of the first companies in the world to receive the ISO 14001 certificate.

1998 new office and six new departments started.

This is Semcon

We love technology!

Semcon is one of Scandinavia's leading design and development businesses. Semcon develops products, processes and human resources in partnership with Sweden's leading industrial companies. The combination of profitability over the past twenty years and Semcon's long relationships with leading industrial companies forms the basis for continued success.

Semcon's greatest strength is that the company can be responsible for entire development projects. Semcon's consultants handle whole processes, including strategies, conception phase, design, project management, analysis, design engineering, programming, testing, prototypes and model production, IT support, technical information, website development and product training.

During 2000 Semcon's services were arranged in the following business areas: Industrial Design, e-Design, Technology Management and Competence Development. These

focus on giving customers comprehensive choice including development of their:

- Products (Semcon Industrial Design)
- Processes and systems (Semcon Technology Management, Semcon e-Design)
- Human resources (Semcon Competence Development)

The Competence Development business area was closed down during the year due to a slump in publicly financed training. The training aimed at industry will still be run by Semcon's other business area. From 2001 Semcon will have three business areas. Major customers include Ericsson, Ford, ABB and Saab Automobile.

MISSION

As a close partner to industry we supply the human and technical skills to boost our customers' profits.

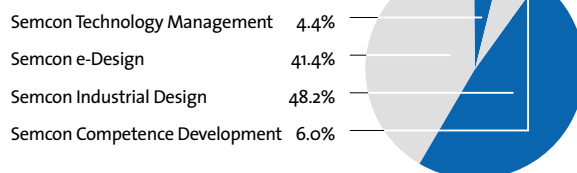
VISION

Semcon aims to be one of the global leaders in design and development.

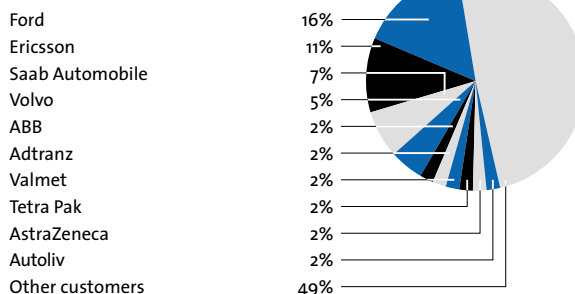
A company where people can develop and grow.

All Semcon's major customers are global leaders in their respective industries. It is logical therefore for Semcon to continue growing internationally along with its customers. Through expertise in design, an increasingly important product quality as technology and performance become more difficult to compete with, Semcon boosts the competitive edge of its customers. Semcon's vision has a three to five year timetable.

Turnover distribution



Biggest customers 2000, groups



LONG-TERM BUSINESS OBJECTIVES

- A minimum top-five ranking among potential employees and customers.
- Internationally established.
- Increased focus on value, giving increased value for the customer.

FINANCIAL OBJECTIVES

- Semcon aims to maintain an operating margin of above 10% over a business cycle.
- The debt/equity ratio will be low and the equity/assets ratio will exceed 35%.
- Over the long-term, Semcon aims to pay out 30–50% of the profit after tax to Semcon shareholders.

LONG-TERM STRATEGIES

To achieve its objectives, Semcon will implement the following strategies:

Staff

Semcon will intensify efforts to recruit highly skilled employees. Existing staff will be encouraged to stay and develop by offering them challenging assignments and continuous training via, for example, e-learning. We aim to offer various bonus systems and part-ownership in the company in order to enhance commitment to Semcon's long-term development.

Customers

Semcon seeks long-term relationships with customers by providing competence, fast service, listening to their needs and commitment to the best solution. Local knowledge of customers and their development tools is very important. The customer base shall remain broad, but the focus is on telecom, vehicle and med-

ical. To best meet the demands of the market, Semcon has made clearer boundaries between its business areas and established focus areas for each segment.

Operations

Semcon shall supply a competitive range of services in the areas related to product development. This will be achieved through close communication with customers and through complete solutions covering all competency areas.

Growth

Growth shall primarily be organic, but complementary specialist business areas will be acquired and outsourcing and partnerships will be sought in priority segments.

OPERATIONAL OBJECTIVES 2001

- Intensified efforts in industrial design, embedded design and mobile internet.
- Clearer focus on telecom, vehicle and medical industries.
- Continued development of partnerships with customers.
- Develop and sell complete solutions to customers.
- Intensify efforts to recruit highly skilled employees.
- Strong presence in large city regions and at more innovation centres.
- Continued efforts in internationalisation. Establishing in a number of European cities, either with partners or customers.

VALUES

Semcon will defend the strong business culture built up since its start in 1980. The company's culture is built on a strong belief in the individual but also the joint values concerning personal responsibility, commitment, sensitivity and co-operation. Semcon's values can be summarised as follows:

Semconites are	Positive Businesslike
----------------	-----------------------

Semconites like	To develop To have fun To make a difference To meet challenges
-----------------	---

Semcon sells	Better results
--------------	----------------

Semcon believes in	The individual
--------------------	----------------



Hans Johansson, CEO

Intensified efforts in design and product development

The past year was the 20th year in a row that Semcon reported stable growth since the company was formed in 1980.

This is unique in the industry, and it shows that we work for the long-term.

Growth for the Group as a whole in 2000 was 17%. The performance of Semcon's consulting activities was especially pleasing, with growth of 34%. The operating margin for the Group was 5%, which was lower than the previous year.

The main reason for the fall in profits was the losses made by our Competence Development business area and the cost of closing it down. Profits were also hit by lower demand from the forest and processing industries.

The losses and the cost of closing down this business area have now been taken and expectations for 2001 are positive.

Our major customers are constantly involved in exciting development projects meaning that we can count on continued growth.

ACQUISITIONS STRENGTHEN OUR POSITION

During the year Semcon made its greatest acquisition to date.

The Pelmatic Group, with around 100

employees, was acquired, strengthening Semcon's competence in the Industrial Design business area. The acquisition also involved the Copenhagen-based subsidiary, Knud E Hansen, world leaders in marine design.

Pelmatic is located at the rapidly expanding TelecomCity in the Karlskrona/Ronneby region. It is one of the Nordic region's most vibrant regions for development in the telecom and IT industries. There are 40 or so companies here, with around 4,500 employees.

The deal means that we are moving forward in geographically interesting parts of the Nordic region where there is strong growth. It is important for us to be close to our customers.

The acquisition is also a part of Semcon's vision to be a global leader in design and development. It is a clear trend in the consultancy industry that customers want a greater share of services from fewer primary suppliers. Co-operation between consultant and customer is more frequently now in the form of a partnership.

To be an attractive partner for the major international companies requires a certain size. This is the reason for the current restructuring of our industry that we intend taking an active part in.







HANS JOHANSSON, CEO

The acquisition of Pelmatic, together with our organic expansion, means that Semcon currently has 1,600 employees, just over 400 more than at the start of the year.

Over the past year Semcon has also been able to take pride in new successes in the car industry. Together with the Ford Group, which now owns Volvo Cars, and the Volvo Group, we have formed Euromation AB. It will develop future production systems for trucks and cars.

The company strengthens our position as a close partner to the vehicle industry.

Semcon's successes are continuing in the telecom sector. At the start of 2000 Ericsson chose us as a Preferred Supplier. Semcon is playing an important role in developing the next generation of mobile telephone networks, 3G, and also the wireless Bluetooth technology.

A great deal of the new technology comes in the form of internet solutions in different products. There is an enormous demand for our specialist competence in this area.

2000 was also the year we formed Zipper. This is Semcon's IT consultancy company operating under its own name. The company has over 30 employees, and is expected to expand during the year. Zipper has turned its services into products in order to take overall responsibility for the implementation of IT platforms for its customers.

The Zipper operations are outside Semcon's core operations, which focus on product development, and this is the reason for choosing to form an independent company and brand name.

By organising this type of operation as its own company, Zipper can combine the flexibility of a small company with the support of a large Group.

NEW STRATEGY FOCUSES ON THREE KEY SECTORS

Semcon began working on a new strategy back in 1999. This continued during the year with extensive discussions with key people working for our customers. The aim was to map out what requirements the leading global companies will set their consultancy partners in the future.

The work has resulted in a new strategy extending to 2005.

We have always worked to create clear visions for the future. It means that each individual in the company should be committed and know where we are headed. We have also received an excellent response to our strategy work from the senior managers at our major international customers.

The new strategy means that Semcon will focus on three key industries: telecom, vehicle and medical. The explanation is simple. It is within these industries that the greatest resources are being channelled for development of future technology and new products.

To be successful in this industry you must be good at recruiting the right people. The right people attract the right customers. And where do the best people want to work? They want to work where development is most intensive – which is true of our customers. It is a positive spiral.

INVESTING IN DESIGN

At a time when competing products often have similar performance and quality, design becomes an all-important competitive weapon. It is mainly through form and feeling that manufacturers of items such as mobile phones or cars project themselves

and their brands. Today's consumers are very aware and knowledgeable about design and set high standards for the products' design qualities. Consequently, design is intimately linked to product development and it is an important issue for the company's management.

This trend does not only concern consumer products. Products that are aimed at industry must also be designed in a thorough way enabling them to be launched successfully on the market.

As part of the new strategy, Semcon is intensifying efforts on design and product development. Over the past two years, a group of 20 or so designers has been created and we believe that this will grow, not least of all internationally. It creates even more opportunities to enter at the design stage of the development process of a new product and thereby take greater responsibility.

Product development is something all companies must invest in, no matter what the prevailing business climate. By moving in this direction we become less sensitive to fluctuations in the market thus increasing the value of our services.

If I were to describe what Semcon stands for in a nutshell it would be product development. This is central to our strategy.





HANS JOHANSSON, CEO

GLOBAL PLAYER

The determination to be a global player to a much greater extent than before is also an important part of Semcon's plans for the future. Development is driven by changes in the ownership of our customers that have occurred in recent years. A long series of mergers in the pharmaceutical and vehicle industries have opened new opportunities for Semcon.

Our major customers in the key industries want us to join them on the global stage. It is an honour not only for us, but also for Swedish engineering. Sweden has a very good reputation overseas for technology.

Semcon already has its own offices in Tokyo, San Francisco, London and Copenhagen. The first two were opened in 2000. The company's consultants are also active in many other countries including Austria, Germany, France, Italy, China and the US. This means that Semcon is already an international company used to running projects in global environments.

I have been with the company since the early 1980s and we have never been in a better position than we are today. Our opportunities are unique. If we do the right things now then we will have all the ingredients for success.

MORE EFFICIENT ORGANISATION

To be better equipped for international expansion and handle sizeable development projects, Semcon reorganised at the beginning of the year. The Group's operations were gathered into three companies:

- Semcon Sweden AB – includes the Swedish consultancy operations that in turn are split into three regions.
- Semcon International AB – consists of Semcon's offices overseas and is responsible for international expansion.
- Semcon Innovation AB – includes development companies not focused on product development, such as Zipper AB and Time IT AB. Companies that Semcon owns together with other companies are also included here.

The new organisation allows us to provide customers with complete solutions more easily, because all different types of competence are available locally. We can quickly put together effective project groups that can take the customer's vision from the idea stage to the finished product.

The new organisation also makes the administration and management more effective and shortens decision-making routes within the Group.

In conjunction with the reorganisation, the Competence Development business area was wound up, mainly because the market for publicly-funded training slumped dramatically. The costs incurred by the winding up amounted to around SEK 45 million.

The profitable operations in Competence Development – training aimed towards industry – will remain and be further developed within the framework for Semcon's existing business areas, Technology Management, Industrial Design and e-Design.

WE LOVE TECHNOLOGY

To strengthen Semcon's position on the market the internal strategy work has been followed up with an upgrade of external communication, which now matches more effectively our aim of being a global leader in design and development. The new image is summarized vigorously in Semcon's catchphrase "We love technology."

All our communication will reflect our love of technology. This does not imply that technology has any value of its own. We love technology because it has the power to improve people's lives.

I consider that rapid technological development has made the world both bigger and smaller at the same time. Bigger, because it has become more complex and the boundaries of what is technically possible are

always increasing. But at the same time smaller, because information technology has partly erased the geographical distances between people.

To be part of this development that greatly affects people's lives is fascinating. We must continuously step out into the unknown and think differently. I believe it is this challenge that attracts so many competent people to apply to and stay with Semcon.

I am back where I started, talking about people.

It is people devoted to technology that have laid the foundation for Semcon's 20-year success story and it is people that will develop the Semcon of the 21st century. Together with these people, we look forward to an exciting 2001 where we expect to see good sales growth with considerably improved operating margins.

Göteborg 2001

Hans Johansson



Markets

Stock market growth turned into turbulence

The favourable economic spiral culminated in the spring of 2000 when reports about slower growth first appeared. The first wave of investments was ebbing away and the Y2K problems had been conquered. The new dotcoms were failing to attract customers. The heroes in the new economy were being questioned.

Internet consultants reported heavy losses and personnel were laid off.

A high level of invoiced hours is what makes consultancy companies profitable, and is a condition for their survival. When assignments tail off, it is only the companies with the right combination of know-how and services that survive because the customers can't do without them.

Consultancy companies' future success in terms of profitability, growth and value are mirrored mainly in how they develop over the years. There is strength among the well-established players because they built their business concept over a 10–15 year period, during which period a great deal of the industry did not exist.

SECTORS CONSTANTLY MERGING

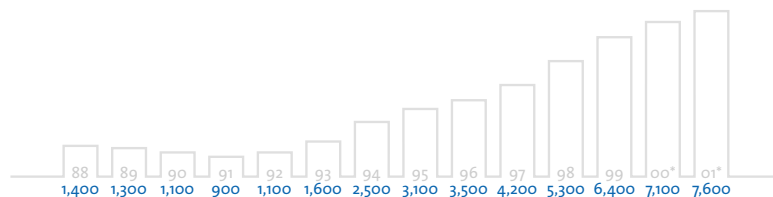
The changes in the consultancy industry during recent years can be seen as large and startling in many respects. But sectors of industry are always merging and changing. The global competitive pressure and the fast technical development, not least in IT, means that product life-cycles are becoming shorter. Products and production technology are becoming more complicated. To keep pace with development we need to adapt operations to the threats and opportunities created by the new network economy.

The focus in the industry is still on consultancy services linked to investments in IT. Growth is very fast but the focus of investment fluctuates. Up to last year customers were investing heavily in large business systems resulting in a very large consultancy market for implementation and training. During the year the market weakened and IT investments were channelled instead towards internet solutions, where new opportunities were created. To meet market needs in demanding sectors such as mobile internet and broadband, new combinations of cutting-edge competence are today being requested, such as expertise in embedded systems, electronics and design.

FUTURE DEVELOPMENT

According to financial analysts Alfred Berg, sales turnover for development consultants has risen six-fold since the beginning of the 1990s. Growth looks set to continue because among

Sales, industry consultants, Sweden, (SEK m)



* Estimated values

Source: The Swedish Federation of Architects and Consulting Engineers, Alfred Berg

OECD countries Sweden is puts the most resources into R&D, with nearly 4% of GDP (Source: SCB).

The great challenge for the industry is linked to the effects of globalisation. The more global customers become, the more manufacturing will be placed outside Sweden. Thus demands will increase on the consultants that the global businesses choose to do business with. Swedish know-how in Bluetooth technology and 3G mobile telephony means that Swedish companies have been given a golden opportunity to expand globally.

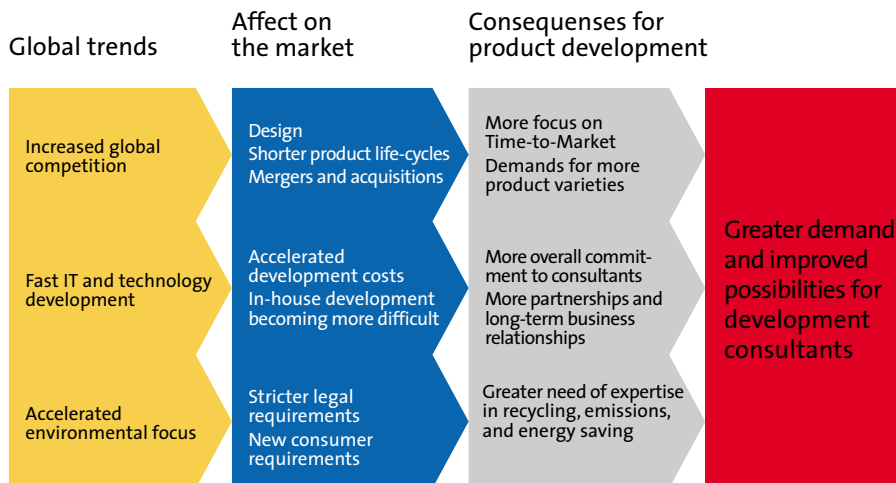
A clear trend is emerging that customers are transferring large amounts of their development work to IT and industrial consultants. This used to apply to components, but it now applies to modules. The trend now is towards assigning full responsibility for development of whole systems. The customers want to own the recipe for the product and just be involved in the idea and conceptual stages. Then they put development and implementation to tender. The driving forces behind this development are more complex products and demands for shorter lead times from idea to delivery.

To be included in the upper part of the product's value chain and be on the primary supplier list, a consultancy company must increasingly be international. Consultants that succeed in establishing strong contacts with senior managers when assignments are sold have a greater chance of showing future profitability.

Internationalisation is also a must if companies are to compete for the best employees and retain competence within the company. The fight for the best consultants is tough, and consultancy companies must adapt their initiatives programme accordingly.

FORCES FOR GROWTH

Semcon believes that design and development markets will continue to show increased growth. The main growth factors are summarised below.

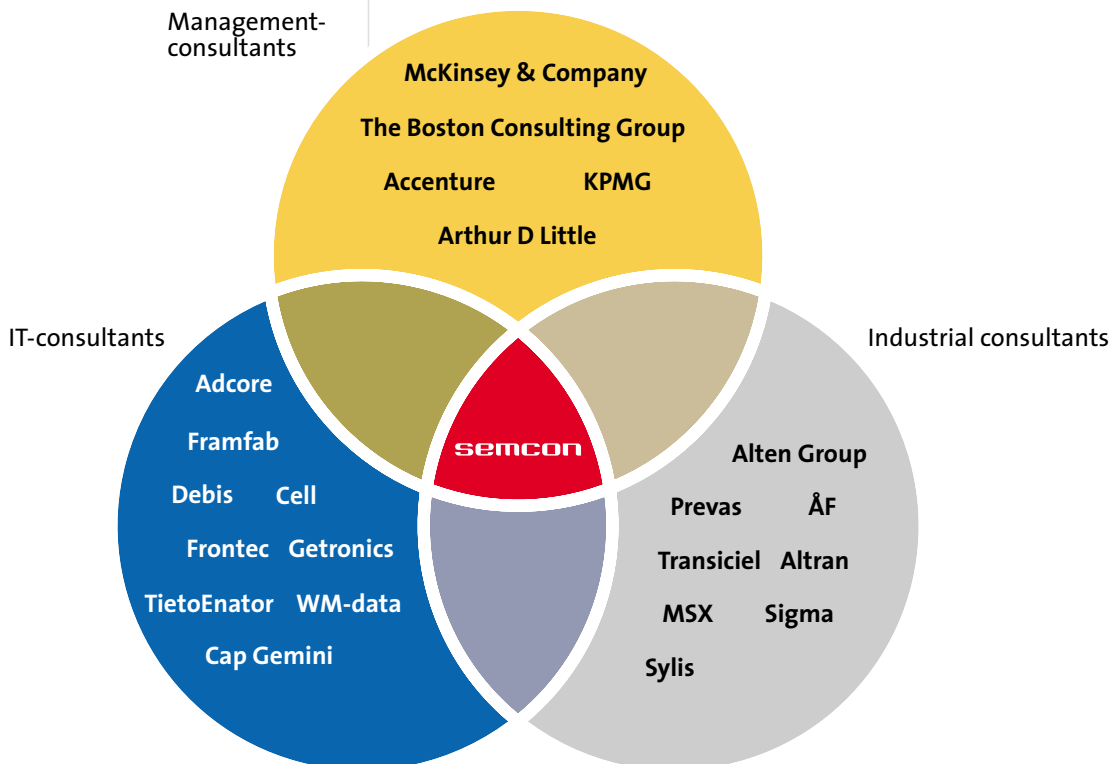


SEMCON'S POSITION

In terms of competence, Semcon has both breadth and specialisation.

The company finds itself in an intersection between a number of the related consultancy industries.

Semcon's breadth of competence matches its customers' clear desire for fewer large consultancy partners that can take a complete grip of the development process. Semcon's different areas of operation also give know-how synergies because the problems to be solved are not usually isolated. An overall view is required, with several departments and disciplines working together to achieve results. This is where Semcon's know-how in design, engineering, IT and management comes in. Sweden's relatively good position in many of Semcon's areas of operations creates a favourable starting block for international expansion.





 **PRECISE**
BIOMETRICS

Priority industries

Telecom, Vehicle, Medical

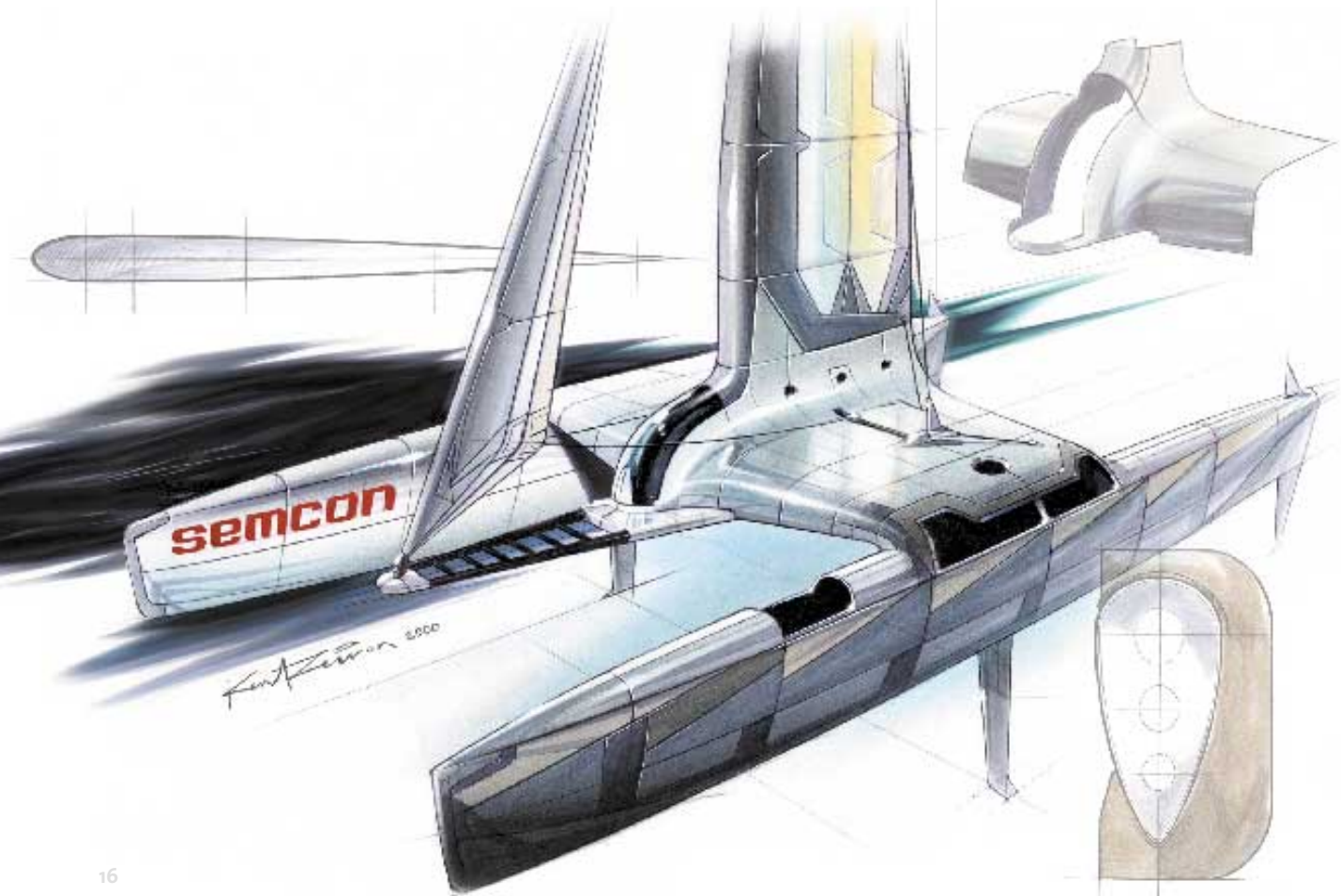
Swedish companies increased their R&D investment substantially during the 1990s. In 2000 they invested around SEK 80 billion in research and development. The main investment areas were those in which Sweden's main businesses are active – telecom, vehicle and medi-tech companies. These are the areas in which Sweden succeeds internationally.

Despite significant global successes, R&D investments are expected to continue in Sweden in the expanding areas of Stockholm, Göteborg and Öresund.

Semcon has its roots in consultancy operations for Sweden's leading industrial companies. Over the years

the company has built up strong relationships with these customers. In line with development, Semcon has complemented activities with strategic competence and underlying know-how in design, technology and IT. Many customers have undergone considerable re-structuring programmes and global mergers. Major global companies generally choose to work with fewer and larger consultancy partners and this has affected the consultancy companies. Semcon has emerged as an important partner and primary supplier to several of Sweden's top companies.

Recent industrial development has created new opportunities for taking greater responsibility in projects and expanding internationally. Semcon



seeks long-term relationships with existing and new customers. The customer base will continue to be broad but will focus on the expanding *telecom*, *vehicle* and *medical* industries. It is vital for Semcon to grow together with its customers and follow them overseas, delivering value and staying at the forefront of technological development.

TELECOM

Continued strong accelerated growth for communication and equally rapid expansion in the use of the internet means great development opportunities. New products and services are being developed to supply the increased demand placed on communication. Sweden and the Nordic countries in general are home to the most demanding and most knowledgeable customers. The Nordic region has become a test-bed, and this creates major opportunities for higher investment in the telecom industry.

In the midst of this IT revolution, the Swedish telecom industry faces favourable market conditions. The total telecom market during the first half of 2000 was worth around SEK 19.6 billion, an increase of 12% (Source: PTS). The market is expected to grow by a further 14% during 2001 (Source: PTS and Öhrlings, Coopers & Lybrands). Sweden has a high penetration of fixed and mobile telephone subscriptions, a high level of computer ownership, a large number of prominent companies in IT, high use of technology products and communication services, a favourable IT policy, low unemployment and an economy experiencing relatively fast growth.

VEHICLE

Due to excess capacity, tough competitive pressure and increased customer demands, vehicle manufacturers are being forced to reduce costs and lead times and increase quality. A result of the cost pressure is the increased number of mergers between the large vehicle manufacturers. The mergers aim at reducing costs by spreading investments across larger volumes and attaining benefits in purchasing. Vehicle manufacturers also want to concentrate on what they consider to be their "core competence" and hand over the rest to suppliers.

The vehicle manufacturers' strategy is therefore to place greater responsibility on suppliers. Purchasing behaviour is changing. The most important trends are:

- that suppliers take on a large part of development work
- that suppliers take responsibility for the whole system or modules in the vehicles
- single sourcing, one supplier per component, system or modules, especially when products are complicated
- increased globalisation, when suppliers must deliver to the vehicle manufacturer wherever the vehicle is being produced
- increased internet usage in product development and information handling.

The Swedish vehicle industry has around 185,000 employees. The automotive manufacturers employ around 60,000, of which 20,000 manufacture components in-house. Exports of vehicles and parts are worth around SEK 96 billion a year, accounting for 14% of Swedish exports. Purchasing by Swedish vehicle manufacturers amounts to just over SEK 90 billion a

year. Swedish-based suppliers account for SEK 25 billion of this sum. The vehicle industry's own component manufacturing amounts to SEK 25 billion. Swedish suppliers export products worth SEK 7 billion a year, and the after-sales market is worth SEK 3 billion a year (Source: Fordonskomponentgruppen).

MEDICAL

Medi-tech is one of the areas affected most dramatically by new technology. The driving forces, apart from increased competition, are strong demands from the consumer. The industry includes sectors such as medi-tech, pharmaceuticals, healthcare, food and agriculture.

Medi-tech and IT are becoming closer, and Sweden is among the front-runners within IT for medi-tech, food and healthcare. The link to IT makes medi-tech an exciting industry of the future with excellent possibilities of becoming an important new development area in Swedish trade and industry. Pharmaceutical products cover a huge area, and Swedish research and industrial development has been and continues to be very prominent.

In Sweden the industry includes around 1,000 companies with around 15,000 employees. The industry had sales of SEK 30–40 billion this year, of which around half were exports. In terms of sales, the industry is dominated by a number of large internationally active companies with significant industrial and research and development bases in Sweden.

Telecom

IP – technology of the future



Håkan Eriksson,
head of research, Ericsson

Ericsson's head of research, Håkan Eriksson, doubts that future 3G terminals will be called mobile phones.

"I think that remote control might be a better way of describing its functions," he says.

When the things that we used to just talk into all of a sudden can turn on the sauna, pay your shopping bills and show Britney Spears' latest video it may be time to modernise the language.

When Sweden discussed 3G, or the third-generation mobile telephone network, Håkan Eriksson surprised the industry by already talking about 4G with even faster transfer speeds.

This is typical of him. As head of research at Ericsson it's not what is happening at the moment that is most interesting, but rather what is to come. It is there, in the future, that IT treasure lies hidden, waiting to be discovered by those who get there first.

When Håkan Eriksson gives his vision of development for the next five to ten years there are two letters he constantly refers to, IP. This is the abbreviation for Internet Protocol, which is a joint language for net addresses on the internet. It is IP technology that makes computers understand where to obtain information when writing www.di.se for example in the web browser's address column. And it is this that creates near limitless possibilities for the mobile internet.

He uses the home to explain what will happen. Nearly all appliances can be supplied with an IP address, such as the freezer, washing machine, TV, garage door and so on. The IP address means that every appliance has its own web site, so you can control it using the internet in fixed or mobile

form. The owners of holiday cottages can for example put the heating on in the cottage while sitting in the car a few hours before arriving.

Switching the heating on from a distance might not be new, but there is an important difference. The magic abbreviation, IP, pops up again.

"Many applications in homes can today only do one thing. Systems for turning the heating on and off can do nothing but turn the heating on and off. If it's a long way to the cottage and there are no kind neighbours to help, then you may buy one of these solutions. But if the background system moves over to IP, heating can be just one of many functions of daily life governed by remote control. In this way technology will probably become cheaper and simpler to use," states Håkan.

How do you make a remote control device with so many functions simple to use?

"It is very important that we succeed with it. If you want to open the right hand door of the garage and the function is seven menu levels down it might get a little irritating. The remote control must therefore have certain finesses such as voice activated controls and sensors. If I point to the garage door and say "yes", then the garage door should understand that I wish to open it".

So it's about mimicking human communication?

"Yes, otherwise it would be far too difficult for people to handle the technology. The remote control must be what we call context aware, meaning it needs to know who I am, where I am, what I'm doing and what I want to do."

What will the remote control look like?

"It will probably look very similar to modern hand held devices without a keyboard, rather than a mobile phone. To be able to use more advanced services the displays will need to be bigger than those of today."

Using a remote control for more or less advanced things in our home and at work is of course just a small part of the mobile internet. The majority of services will be those supplied directly to the remote control. Håkan Eriksson has divided services he believes will be the most successful into three categories:

■ MESSAGES

SMS-messages and e-mail are messaging services that already exist and are available on most mobile telephones. It will be possible to equip 3G remote controls with a little camera making it possible to send still pictures and freeze-frame video between users. A tourist visiting Paris will be able to contact home and friends in real-time with the Eiffel tower in the background.

■ E-COMMERCE AND BANKING SERVICES

Apart from the plainly obvious, that internet banking will be mobile, future remote controls will also be able to take care of paying at the counter in shops. Instead of ten different cards with magnetic strips, all the information will be in the remote control. The days of the wallet are numbered.

■ ENTERTAINMENT AND INFORMATION

Faster transmission speeds will open new doors of opportunity for sending moving pictures and sound over the net to mobile users. The media industry is already in the starting blocks. Count on a flood of computer games in real-time, news with moving pictures, music, stock market tips and adverts.

From a situation where the users themselves were responsible for the benefit in the service – by talking to each other – development is heading

in the direction of someone else producing the content. Ericsson has therefore started a new unit called Internet Applications and Solutions that will produce services for mobile internet.

"It will first of all be basic communications systems featuring multimedia, things like video SMS. In these cases the connection to the traditional telephony is clear. But together with partners we will also develop other types of services," says Håkan Eriksson.

With the help of GPS technology the net will always know where the user of the remote control is. What does this mean for the development of new services?

"Imagine that you are surfing the net on your PC at home in the kitchen and receive information about today's special offer at McDonald's. This may be a little interesting. But if you are 200 meters from the door of the restaurant, things take on a different perspective. If you buy a Quarter Pounder you may get U2's latest single in MP3 format as well. GPS technology allows creative people to develop completely new services based on where the receiver/customer is, and what he or she wants at the time."

What user group will carry out development of the mobile internet?

"When Ericsson began with mobile telephones, businesses were the primary target group. Sales were driven by people such as plumbers and electricians who replaced their secretaries with mobile phones. Where 3G is concerned we thought five years ago that it would once again be businesses that would lead development. But we now think it will be youth culture that will probably prepare the way for 3G."

How has that come about?

"We already know that young people have a major influence on development. For example, for nearly seven years SMS was used solely to inform the telephone's owner of a message waiting on his answering machine. Teenagers then realised the benefits of SMS and the service is today a very profitable business for operators. But who would have thought that it would be a means of communication at discos, to enable people to communicate when the music is too loud?"

So Ericsson's first 3G telephones, sorry remote controls, will be tailored for young people?

"Well, if one tries to make an MTV mobile and, for example, build certain displays for youth services we are back to the narrow minded ideology. Niche markets for a certain public are risky because there is always the chance that you miss something else. I believe we must broaden our horizons. 3G terminals should work just as well for all types of services. Then every user can get what he or she wants."



World premiere in Hong Kong for new GSM statistics system

Semcon has been commissioned by Ericsson Radio Systems AB in Linköping, and its development centre in Bangalore, India, to develop the next generation statistics system for GSM.

An advanced statistics system illustrates the strengths and weaknesses of a mobile telephone network. The operator uses the system as a basis for improvement measures and the extension of their mobile network. Faults can be corrected before the subscriber has even noticed the problem.

Large amounts of radio measurements can be made with the new statistics system. These are used as a basis for producing reports with information of the number of calls between base stations. By adapting and using the produced statistics the operator can in good time prepare and adapt capacity for periods of increased network traffic. The operator can even get a more cost effective network because over-capacity can be avoided.

Semcon's consultants were also given the opportunity to participate at the world premiere in Hong Kong when the latest version was put into operation.

Third generation mobile system (3G)

At Ericsson Mobile Communications AB in Lund consultants from Semcon Embedded Design work with 3G mobile systems, also known as UMTS (Universal Mobile Telecommunications System).

Semcon is involved in the development of Ericsson's next platform for mobile telephones in the new high-speed system. Semcon's part in the project is to offer experience and competence in hardware-related real-time programming. Peter Kornevi and Oscar Lindahl are Semcon's consultants at Ericsson in Lund.

"The exciting part of this assignment, apart from being at the absolute cutting edge of technology, is the broad nature of our assignment. We work with nearly everything in the way of software development. The tasks are everything from system design to hardware-related special programming. Quite simply, this is technology and creation in wonderful harmony," says Peter. "If we can help Ericsson move one step ahead and at the same time have fun then I can't think of a more exciting assignment."

"The work of producing third generation mobile phones often involves finding solutions to problems that have just arisen. At first glance there doesn't seem to be a solution but given a little more thought one soon finds different paths to take," says Oscar. "Ideas come when you least expect it."



More effective processes in a rapidly growing company

Micronic Laser Systems AB's business concept is to satisfy the demand for extremely precise laser writers for the production of photo masks in sectors such as screens, semi-conductors and packaging. The customers are some of the global leaders in electronics together with their sub-contractors.

Micronic Laser Systems history stretches back around ten years. The company is a world leader thanks to its highly competitive product.

A NEW PROCESSOR-ORIENTED WORK METHOD

In the autumn of 1999 Micronic Laser Systems AB decided to:

- Develop a more process-oriented work method.
- Strengthen project work.
- Introduce an IT-based system for storing and tracking information.

Semcon Industrial Management was chosen to carry out the consultancy assignment. A joint project was defined and participants from both companies were chosen for steering and performing the work.

A NEW METHOD FOR WORKING EFFECTIVELY

Since the project was completed, Micronic's work-flow and contacts with customers, suppliers and other players have been analysed, improved and documented. A standard structure for project steering, based on Semcon's SMASH® methodology (Semcon's method for managing proj-

ects), has been developed and is being introduced. Important parts of this work have been interviews with a large number of employees, key personnel and management, and discussions and decisions in special groups. Consultants at Semcon Industrial Management have been responsible for coordination of the project and have provided expert support in issues concerning process orientation and project work. They also supplied administrative support.

In close cooperation with Semcon IT Consulting IT based information systems have also been created in projects. The system stores information about the company's operations concerning work-flow instructions and projects.



Vehicle

World class car design at Volvo



Peter Horbury, head of product design at Volvo Cars.

The world's most computerised car design studio is located in Göteborg, Sweden.

"We demand that our consultants can plug into our system quickly," says Peter Horbury, head of product design at Volvo Cars.

The rapid growth in computer development has meant that the borders between technology and design have got smaller and smaller.

Assar Gabrielsson, one of the founders of Volvo, is believed to have once said: "Designers – are they really necessary?"

This reflected the views of an engineer-driven company in the 1930s. Such a view is of course very antiquated today. A company that does not see the importance of design as a means of competing is a lost cause, however technically competent they may be.

The market is bombarded daily with information about form and design. The newspaper stands are brimming over with magazines about home furnishing, fashion and food. Food, for example, shouldn't just taste nice, it should be aesthetically pleasing, too.

The automotive industry is following the trend. The chassis alone in a Volvo contains around 250-300 parts requiring comprehensive design work.

"All parts that come in contact with the customer's feelings must be designed to appeal to those feelings. If you don't care about how they look then you'll end up with a completely different product," states Peter Horbury.

Global competition in the automotive industry has never been so tough. Demands for efficiency and speed are being ratcheted higher and higher.

Nowadays Volvo Cars has almost no sketches on paper, everything is done via a CAD programme. The Volvo V70 was designed in a third of the time than it took for the Volvo 850.

In line with technology advancements, the demands placed on subcontractors have become more stringent. The consultants working in association with the product design department at Volvo Cars must have the same technical competence as the employer.

"Our ALIAS system is both advanced and expensive," says Peter Horbury. "Semcon takes this very seriously even if it costs them a lot. They have learned quickly and become aware of our needs."

For their latest model, Volvo Cars used external expertise in the design work.

"Semcon has been a great help, especially in translating the designers' intentions into noughts and ones in a computer. That's vital in ensuring that toolmakers will be able to provide perfect tools," says Peter Horbury.

A car's form is very complicated. Enormous know-how is required to translate the designers' clay model into a working concept in the computer system. The measurements must be perfect.

"Semcon has a high degree of competence," says Peter Horbury. "We have people from Semcon here in the department as well. We hire a resource – we don't ask the consultant to take it to the end result."

All external companies working with Volvo's design department must adapt to what Peter Horbury calls the Volvo design philosophy. It has its roots in typical Scandinavian design; clarity, simplicity, functionality and timelessness.

"Safety and our Scandinavian origins are areas where we never compromise. We have to have the overhang at the front to deal with safety. We must have the straight lines in the rear of the estate cars to retain the Volvo character and create the practical load possibilities."

How does the design department solve such technical problems?

"Our starting point in design are the practical requirements. Then we add that touch of desire."

Why does Volvo need to employ external designers?

"Volvo cars were previously more functionally oriented. But society has changed. Years ago a professor looked like a professor to show that they had certain knowledge. This is not the case today. A professor can look like any ordinary person. We have a different attitude towards image, both for people and products."

"Volvo must reflect new attitudes and meet the demands of the market. That is why we want to increase contact with the outside world to gain inspiration and influence for our

designers. It is valuable to have an outside perspective."

Peter Horbury should know. He has worked as an external consultant to the British automotive industry. In the 1980s he was one of the men who created the form of a car that became synonymous with new thought processes in car design, the Ford Sierra.

How has the dramatic development in technology changed a designer's role? Where are the boundaries between design and technology?

"We used to be called stylists," says Horbury. "But the phrase was taken over by hairdressers."

This created some confusion. The automotive industry needed a name that described a more comprehensive creative process. A process that included form and function.

"We are now called product designers. Engineers also call themselves design engineers sometimes. Semcon has design engineers as well as product designers."





At Volvo Cars' design department there are also studio engineers.

"They act as a bridge between us and the engineers. They are here all the time and are responsible for form throughout the process."

When Horbury began at art college in the UK he had no idea about this process.

"But I have gradually learned how to co-operate with engineers. Volvo is in business to make money, after all," he points out. "Clay models and design are not ends in themselves. Our job is to create attractive products that appeal to customers and create long-term revenues for the company."

Good relationships and mutual understanding between civil engineers and designers at Volvo Cars is one of the conditions for success. Total understanding and respect are required for Volvo to succeed in building a beautiful, safe and functional car.

"This was once an area of conflict, but today we have a very good relationship. Concrete proof of this is the real-life bridge that has been built to link the product design department with the engineers in the engineering department."

"We no longer have to trudge up and down stairs to meet. It is a bit like the channel tunnel, that was planned for centuries and finally became reality, so that the French don't have to feel so cut off," jokes the Englishman Horbury.

When the new link between technology and design department was opened the engineers were given a Trojan horse as a present.

"To show that we are a little group infiltrating them and changing their lives... Seriously, we designers must understand the need for timing, budgets and so on. And technicians must learn that it costs just as much to make a car that is ugly as one that is beautiful."

Horbury's thesis is simple; it costs a vast sum of money to produce all the tools required to build a car, but the tools would not be cheaper if the car was ugly.

"It makes no difference to the tool manufacturer," he points out. Our philosophy is that each part, each component must be optimised for function and form without generating extra costs."

The car designers of today have become even more comprehensive. Years ago people weren't concerned about what things looked like under the bonnet. Do these parts need designing at all?

"Of course, one has to wonder if it is actually worth all the cost it entails. How many times do you as a car owner look under the bonnet?" asks Horbury. "Engines are becoming far more reliable and the customer may only need to open the bonnet a few times during the time he or she owns the car. Just look at the Audi A2 that just has a service hatch that you open to fill up on oil and windscreen washer fluid, and to check the battery. In the long-term we should be able to produce a car where the customer doesn't need to open the bonnet at all. We could save both money and weight. Just think what the gadgets that open and close the bonnet cost and weigh. It's a question of attitude, and attitudes can change."

Examples of good Scandinavian design?

"Nokia and Bang and Olufsen. They express Scandinavian design traditions in superb ways."

Nowadays, nearly everything seems to be over-designed. Is there any product that has lagged behind in terms of design?

"Caravans, they are ugly. Both inside and out," concludes Peter Horbury.

Quiet and environmentally friendly new gas engines for trucks and buses

Scania is one of the world's leading manufacturers of heavy trucks, buses and engines. Semcon is a preferred supplier of consultancy services for Scania's engine development and has been involved in many areas of design engineering and testing.

When the new gas engine, OC12 Go1, was to be developed, Semcon was asked to lead the construction work.

Today, Scania has a 260 horsepower gas engine used in trucks and buses. The advantages of gas engines compared to conventional diesel engines are mainly that emission levels can be kept at a minimum. The engines are also a lot quieter. A disadvantage is that the space for fuel in the gas containers limits the vehicle's range. The desire from the customer for stronger gas engines brought about the plans to develop a variant of the modern twelve-litre engine with four valves per cylinder.

"Design engineering groups at Scania's engine department were already hard pressed by other projects, so the wish was that we should take on as much of the design engineering work as possible," says Eric Ridström, who headed Semcon's involvement in this project. "Because we established a department for Scania assignments at Semcon's office in Södertälje we could work in parallel with many things and in so doing gain time."

Eric Ridström, Göran Andersson and Klas Kurman took responsibility for engine components normally developed by Scania. Eric has made and modified components such as cylinder heads, pistons and valves. Göran has concentrated on engine ventilation, the gas system and the turbo, while Klas has been responsible for the electrical and ignition systems. Each one has in turn asked other Semcon consultants to help with the work, via links with the Scania network.

Semcon has been responsible for making sure that all components fit in the space provided in the engine compartment. Semcon has also produced all detail, assembly and certifi-

cation drawings needed to convert a diesel engine into a gas engine. The documents needed to describe the engine and its components have also been produced by Semcon. Semcon's partner, MTC AB, was responsible for testing.

The engine is basically the same as a six-cylinder, 12-litre diesel engine with four valves per cylinder. It has been converted to work as an Otto engine. Compression has been reduced compared to the diesel engine, the ordinary diesel injectors have had to make way for spark plugs and a gas mixer has been fitted. Inlet and outlet tubes for the engine's ventilation have been modified and a new turbo with wastegate has been added. The ignition and electrical system is also new.

OC12 Go1 meets the power and emission requirements set at the beginning of the project. Following a final extensive test, trucks equipped with the new gas engine should be delivered to the customer towards the end of 2001.

Embedded design on track

Semcon has been selected as the preferred supplier to Adtranz in the development of a new train. Adtranz is one of the world's leading suppliers of railway systems, which means developing modern underground trains, engine carriages and high-speed trains with carriage-tilt technology.

Today's environmentally aware society expects efficient and environmentally friendly forms of transport. Comfort and reliability are of great importance, too, if transport is to be attractive. At Adtranz, production methods



are constantly being further developed, especially regarding the choice of materials. Semcon's consultants are involved in several different development projects at Adtranz at a number of sites around Sweden.

One of the assignments is run from Semcon's department for embedded design in Lund. Semcon works here as a technical sounding board for development of a Bluetooth application. Bluetooth is a technology for wireless communication of data. The range between two Bluetooth modules is up to 100 metres.

Among other projects, Semcon is helping Adtranz to develop a Bluetooth antenna for mechanically extreme environments. The system will be tested on trains in the spring of 2001. Semcon is also responsible for training of personnel at Adtranz in Bluetooth. Meanwhile, as a *preferred supplier* to Adtranz, Semcon has been involved in a number of other development projects such as the Oslo-Gardemoen project and the Öresund train project.

"One Source of Information"

A source for all information. This was the basic principle when, at the beginning of 2000, Semcon was given the task of developing One Source of Information in association with Volvo Car Customer Service.

OSI, as the product would be later known, is a unique platform for information handling.

The partnership that was formed between Volvo and Semcon one year earlier builds upon Semcon taking overall responsibility for Volvo's technical information. Semcon will develop new and existing information products and make production more efficient while implementing the latest technology. This assignment, combined with Semcon's solid experience of technical information production, made Semcon extremely suitable to also develop OSI.

If the main purpose was to reuse information, it was also important to meet Volvo's changing requirements for different channels of information.

The use of the platform generates cost reductions thanks to more effective and more controlled processes for the production of information. The recycling level is higher due to the platform being able to recognise phrases and pictures and give the user examples of existing material. There's no need to re-write text and translation need not be repeated. Further gains are the common factors linking different products and simplifying matters for the user in finding the correct information.

The platform is unique in the way it can serve different channels of information. With OSI as the starting point, a number of different types of media can be produced. CDs, web sites, printing files for data sheets or books can be produced from one source. OSI can also be used for handheld computers, WAP solutions, on-board computers in vehicles and future, even more advanced interfaces.

Semcon's vision is to lead the way in the development of technical information. Together with Volvo Cars' leading position in information strategy, the co-operation contributes to strengthening Semcon's strong position both in the Ford Group and in the vehicle industry as a whole.

Semcon InfoMedia, which developed One Source of Information, presented a number of products produced with the help of the platform. Especially noteworthy is the CD-based interactive drivers' manual for the Volvo S60 and a web-based accessories catalogue for Volvo's sales teams.



Medical

Global giants reach patients via the internet



Håkan Mandahl, Deputy Managing Director LIF, the Swedish Association of the Pharmaceutical Industry

Håkan Mandahl, Deputy Managing Director at LIF, the Swedish Association of the Pharmaceutical Industry, has worked in the pharmaceutical industry for many years, both nationally and internationally, and has a good overview of everything happening in the pharmaceutical industry. He expects three clear trends to appear that will characterise the future of the pharmaceutical industry.

- Four or five super giant companies will share the global pharmaceutical market.
- Better IT will speed up the production of marketing and new medicines.
- Doctors connected to companies will make home visits via the internet to take tests, make diagnoses and regulate long-term medicines.

"In ten years time we may only have four or five global pharmaceutical companies. All other companies will be based on regions or on countries," believes Håkan Mandahl.

He describes a scenario where a few gigantic companies will control 20–25% of the world pharmaceutical market. Global sales teams will map out each region, country, even individual doctors. The companies will divide the more common illnesses among themselves and cover everything in their respective specialist fields.

"The pharmaceutical industry is already extremely niched. Not even the large companies can have global market shares in all specialist fields," he says.

SWEDEN IS AN INTERESTING COUNTRY FOR RESEARCH

Another clear trend in the pharmaceutical industry is the large US dominance in all areas. In the US huge investments are being made for the future. They have the largest market growth and the highest gearing per invested dollar. Of the really big biotechnical companies, 97% are from the US.

"In three to five years the pessimists believe that 20 of the 25 new global products will be from the US," he states, and adds that he himself doesn't fall into that category. He believes that the figure will be closer to 15 of the 25.

Sweden is no longer in the front line, not as the home of any global giant anyway. Sweden can still be an interesting region for research, however, due to Swedish researchers still maintaining high standards. Many of the future medicines will be partly Swedish, he believes.

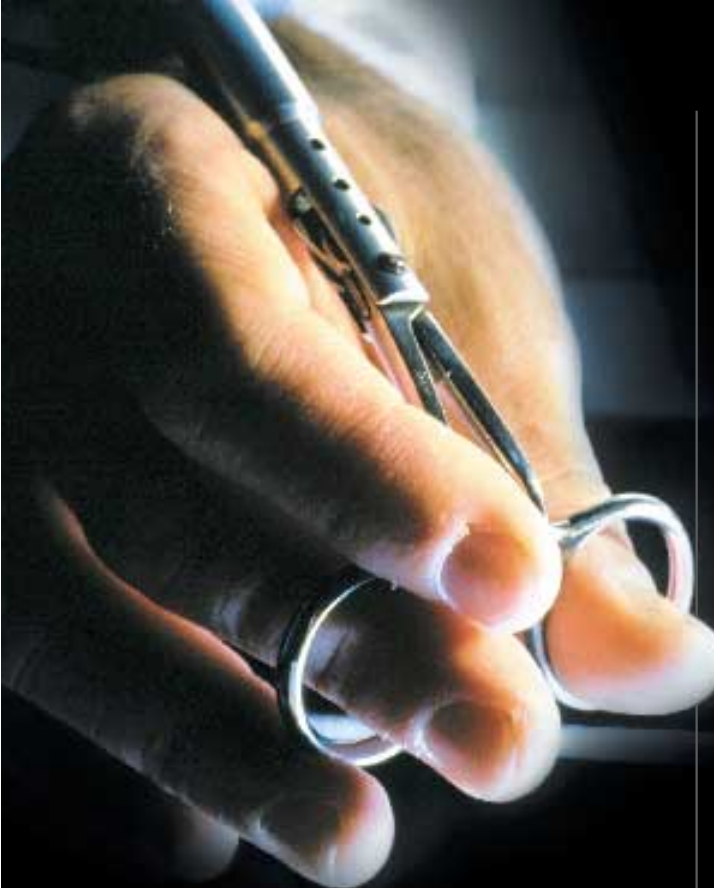
The global giants will of course have enormous research budgets. Much of this research will however be put to tender among the contracted suppliers of cutting edge research, the CROs, contract research organizations. Swedish companies will be well represented in this group.

FEWER EMPLOYEES

– BUT MORE IT

At the same time as they grow, the companies will cut back on personnel. This trend will probably continue and it's all to do with the breakthrough of IT technology, according to him.

"It has always been said that the pharmaceutical industry is conservative, but I wonder if that is the case any more," he says.



Demand from the pharmaceutical industry for good IT solutions will increase steadily in the near future. Expanding IT departments must learn to use the new technology that has been adapted to the needs of the pharmaceutical industry. Håkan Mandahl believes that development and training in IT departments will make a big difference to companies during the next few years.

"The pharmaceutical industry is unique, with many special rules, comprehensive requirements for documentation, patent secrecy and so on."

Håkan Mandahl says that it would be very difficult to develop new medicines today if it wasn't for IT. Documentation of one single product can require information enough to fill 500 A4 ring binder files.

In future, global registration guidelines will be established. Clinical trials will be made in a standard format, maybe with the use of interactive trials between testers and patient. When documentation is complete the hard drive will be handed in to the pharmaceutical authority for analysis.

Research today in the pharmaceutical industry happens almost entirely on computer. Experimenting with chemicals to produce a new substance is outdated. New molecules are

discovered in virtual environments. They are brought to light in the computer in the form of number combinations that describe their ability to bond to a certain receptor or their reaction to a certain substance. It is also via the computer that researchers modify a molecule to change its chemical qualities. At a conservative estimate, only one out of 5,000 potentially useful molecules reaches the market.

INCREASED PATIENT CONTACT VIA THE INTERNET

IT will also be essential in the future when the pharmaceutical industry meets the user, the people who need medicines. With the help of IT, companies will be able to make home visits in most homes in countries with many computers. It is also possible that users will demand more information, training and insight, and that companies will meet this demand with developed internet

services. There may even be more company portals. Maybe even special doctors, employed by companies, who will make virtual home visits.

The patient will be able to map out their profile with the help of new net-based diagnostic techniques, maybe analyse blood values, evaluate risk factors, judge what a certain lifestyle can cause. Håkan Mandahl believes that the pharmaceutical industry's interest in diagnostics and the possibility to prevent disease will increase.

"Diabetics can already inject themselves via a computer and get a result of their blood sugar levels and the level of dosage for their insulin. The sick person can mail their results to a medical advisor – maybe a specialist already at the company marketing the medicine."

"Consumer advertising for prescription medicine is currently not permitted. This will soon change," believes Håkan Mandahl.

"Thanks to IT and the internet it will be simple for everyone to find out most things about the medicines available," he says.

High precision medical technology

Semcon is a primary supplier to Gambro – a global medical technology company who are the world leaders on the market for dialysis products. A number of Semcon's consultants have been involved in different development assignments at Gambro.

Nearly a million people around the world are currently being treated for kidney problems with dialysis. Thanks to major investments and long-term research, new effective treatment methods are constantly being developed. Apart from Gambro's 580 clinics worldwide, the company also produces kidney healthcare products such as dialysis monitors and dialysis machines.

In medical technology products, precision is vital. Together with four colleagues from Semcon's Embedded Design competence area in Lund, Lars Ros has become used to performing assignments that place high demands on precision.

"We are involved in developing the new generation of dialysis machines. With our know-how in C/C++, SDL and user interfaces for embedded systems, we supply added value to the customer," says Lars Ros.

Lars works as a project manager and says that Semcon also takes part in further development of dialysis machines that Gambro recently launched on the market.

"This project uses our competence and experience of C/C++, SDL and PLM for embedded systems," says Lars.

Semcon was also involved in developing Gambro's external software with monitoring systems for dialysis clinics, logging programs for service, preset programs and programs for downloading programs in dialysis equipment. The tools that are used daily are Visual C++ for monitoring systems and Labwindows for the other external programs.

Apart from specialising in medical technology equipment for patients with renal failure, Gambro is investing in blood-bank technology. The compa-

ny manufactures equipment for blood separation, mainly used to relieve the effects of cancer treatment. As a complement to Gambro's strong success factors such as deep and solid know-how, strength in innovation and a strong will to succeed, Semcon supplies human and technical competence.

Development of future precision instruments in medicinal technology

Biacore AB is a world leader in Surface Plasmon Resonance based biosensor technology. The company has its own marketing organisation in the US, Europe, Japan, Australia and New Zealand.

Biacore's main growth area is pharmaceutical research. The company currently markets six systems including BIACORE[®] 3000, adapted for applications in pharmaceutical research, mainly high-throughput screening, HTS. A new high performance system, which will be adapted for applications using HTS, is under development.

Semcon's role in Biacore is to provide project management, design and calculations for the next generation of high performance instruments. Biacore uses Semcon's project management model, SMASH (Semcon's method for managing Projects), and modern design and calculation programmes. The solid know-how and experience that characterise Semcon's consultants are also vital for successful cooperation with Biacore.

Working internationally gives new perspectives

Semcon has been asked to develop an instrument for analysing human serum, blood and plasma for Pharmacia & Upjohn Diagnostics in Uppsala.

Pharmacia is the world's leading company in this field and has a market share of 70%.

When a new instrument, with four times the capacity was to be developed they contacted Semcon.

"The project is somewhat of an engineers' dream," says Håkan Hammarberg, a consultant at Semcon in Uppsala. The assignment involves a number of disciplines such as the development of software for operator and instrument steering, mechanics, electronics and power as well as pneumatics and hydraulics. Chemistry as well, because a very well defined chemical process makes up the basis

for the functionality of the instruments.

Pharmacia & Upjohn Diagnostics chose at the start of the year to change their Swedish manufacturing partner and instead chose Kollsman Inc of Boston, USA. This has meant that Håkan has been given the benefit of working internationally and making new contacts in the US. At the end of June he travelled to Boston to be responsible for the transfer of instrument construction and the preparations prior to the start of production at the US manufacturer.

"Consultancy assignments can vary greatly, every consultant is aware of that," says Håkan. "But whatever the assignment, the essential thing is always to ensure maximum customer satisfaction."

He believes that the assignment at Pharmacia & Upjohn Diagnostics has been beneficial in many ways.

"It has been incredibly interesting and stimulating," says Håkan. "Working internationally gives new perspectives and contacts. Besides which it gives an insight into how people work in other countries."

A global workplace

During the year Semcon has continued to invest in long-term international expansion, following its customers abroad. Through a number of global development assignments many of Semcon's employees have received the chance of getting international experience. It is an important step in the direction of Semcon's aims of retaining and developing employees through challenging assignments. Here is a brief selection of some of the assignments where Semcon's consultants worked for Swedish and foreign companies around the world.

TECHNOLOGY TREND OFFICES

The first office has been established in San Francisco, close to Silicon Valley and to the development intensive medical technology industry in the region. In association with the Gadelius trading company Semcon has also started activities in Tokyo, Japan. Here, the main focus is the Japanese electronics industry and the car industry. Both offices represent Semcon's desire to be first with new technology and methods and to lay down the foundations for a long-term expansion abroad.

Both Japan and the US are expansive industrial nations and by being on-site with Technology Trend Offices Semcon will be able to monitor and follow at an early stage the latest trends in areas such as technology and people. Initially the offices will publish reports, mainly in areas such as telecom, vehicle and medical. The offices will also work as knowledge banks for Semcon's consultants and organise study visits for Semcon's employees and customers.

RALEIGH, USA

Ingemar Hedvall, Semcon, Västerås
Customer: ABB Automation Products Metering

Ingemar Hedvall at Semcon's electronics department in Västerås has worked for ABB Automation Products Metering in the US for three years. He develops data collection systems for the electricity industry.

The use of electricity is constantly monitored and measurements are gathered in a system that Ingemar develops with the help of the C++ programming language.

Ingemar has also worked in Malaysia, with another data collection project.

NEW YORK, USA

Jonas Gudmundsén and Jonas Malmsten, Semcon, Göteborg
Customer: Cornell University Hospital.

The fertility centre helps childless couples to conceive via in vitro fertilization (IVF).

Semcon's consultants were given the task of developing a programme for a journal handling system. They have also worked with project management, further development and customer adaptation of journal handling systems for IVF clinics, examples being the fertility centre at the Sahlgrenska University Hospital, Cornell Medical University in New York and the University of Utah.

MILLBROOK, ENGLAND

Hans Sjöberg, Semcon, Göteborg
Customer: Saab Automobile AB

Semcon Research & Development has produced design improvements for Saab cars together with staff at Semcon's design departments. The assignment has included producing technical and durability solutions and adapting them for manufacturing and assembly. The solutions have been verified in the test facility at Semcon R&D. The signals from the tests have been measured by Semcon R&D's test engineers in the test facility in the UK and then reproduced on the test rig.

DENMARK

A number of consultants from Semcon in Göteborg, Stenungsund and Helsingborg
Customer: Novo Nordisk

The Novo Nordisk Group are world leaders in insulin and diabetes products. The head office is in Denmark, but the company is represented in more than 60 countries.

The assignment has meant project administration and co-ordinating and construction of process systems. The project's main aim has been to extend the yeasting capacity of the Healthcare products and to separate support systems for the Health Care and Enzyme Business units.

AACHEN, GERMANY

Anders Ljungberg, Semcon, Karlstad
Customer: Ericsson Eurolab Deutschland (EED)

EED is Europe's leading R&D centre for wireless telecommunications products, systems and applications. Operations in Aachen mainly deal with Production Unit Application Core, Mobile Data Networks and Mobile Switching Systems.

Anders Ljungberg has worked for Ericsson Eurolab to produce a "System Administrator's Guide" for the WebOnAir product to be used for the mobile internet. WebOnAir is a solution for increasing access speeds to the internet via mobile networks.

CHINA

A number of consultants from Knud E. Hansen, Copenhagen, Denmark
Customer: Rederi AB Gotland

Rederi AB Gotland has ordered vessels for delivery in autumn 2001. Cooperation in this project was with Knud E Hansen for complete design. The order can involve between one and four companies and each vessel's investment is estimated at around SEK 500 million.

Knud E Hansen A/S is now an independent subsidiary of the Pelmatic Group acquired by Semcon in spring 2000. The company has cutting-edge competence in marine design. Customers include the world's leading shipping companies.

JAPAN

Hans Sjöberg, Semcon, Göteborg
Customer: Nittan Valve Co

Nittan Valve Co is a Japanese subcontractor developing and manufacturing valves and other vehicle components.

Hans Sjöberg works with quality assurance for food and transport control of Nittan's components supplied to Volvo Cars.

GHENT, BELGIUM

Johan Andersson, Magnus Andersson and Daniel Lind at Semcon Göteborg
Customer: AB Volvo and Volvo Car Corporation

Semcon's management consultants run a training scheme in Total Quality Management for both Volvo Groups and their European suppliers. The aim is to mediate the Volvo Group's view of Total Quality Management and not least to improve the co-operation and integration with suppliers. The scheme has run for over 5 years and sessions are held twice a year for two weeks. The scheme is also planning to include additional regions such as North and South America and Asia.

DURING 2000 SEMCON RAN PROJECTS IN:

Austria	France	Japan	Switzerland
Belgium	Germany	Malaysia	Spain
Czech Republic	Holland	Monaco	UK
China	India	Norway	USA
Denmark	Italy	Poland	



technology

management

e-design

industrial

design

competence

development

Technology Management

Technology know-how is a must for management consultants

Semcon Technology Management has built its rapid expansion in strategic advising, project management and change processes on a unique understanding of technology and processes in its customers' operations.

By using networks of competence throughout Semcon the business area leads development projects that cover strategy, organisation, processes, people and technology.

The business area currently has offices at four locations, Stockholm, Göteborg, Helsingborg and Lund.

Semcon Technology Management employs management consultants, project managers and IT strategists.

DEVELOPMENT DURING THE YEAR

The business area expanded rapidly during 2000. Sales climbed by 84% to SEK 44.5 million. The operating profit was down by 11% to SEK 2.7 million. The start of new activities in project management and IT strategies had a negative effect on profits. A shift from time-based to value-based prices occurred during the year.

Demand rose for assignments aimed at improving the efficiency of product and product development processes and business development. The focus lies on product development processes and efficiency projects for development intensive companies. Change intensive industries such as telecom and the vehicle industries make up the most important customer groups.

Semcon Product Management

The area of product management and leadership developed positively during 2000. To allow for continued expansion Semcon Project Management was formed. The company works with project management, analyses, advice and competence development.

Semcon has an in-house project method called SMASH®. Based on this methodology Semcon's project manager training was further expanded during 2000, in cooperation with the university colleges in Trollhättan and Uddevalla. The training gives the student 20 points on their curriculum, according to the Swedish system.



Key figures

	1998	1999	2000
Sales, (SEK m)	13.6	24.2	44.5
Operating profit, (SEK m)	1.1	3.1	2.7
Operating margin, (%)	8.1	12.8	6.2

Zipper by Semcon

Zipper by Semcon was started up in 2000. The business will focus on IT strategies and infrastructure. Zipper performed well over the past year and further investment will be carried out during 2001.

Zipper's operations meet businesses' needs for a well thought out and uniform infrastructure for information management. Two new products were developed during the year; Insight™, which is an analysis tool for establishing the current situation and action plan for the technical infrastructure and Fasttrack™, which is a semi-manufacture for automation of major PC platforms.

MAJOR CUSTOMERS

Major customers include: Ericsson Radio Systems, Ericsson Radio Access, AB Volvo, Volvo Car Corporation, Volvo Aero, Victor Hasselblad, EHPT, Micronic Laser Systems, The Nolato Group, Scania, Autoliv, Vattenfall, SCA, Ringhals and Hydro Automotive Structure.

COMPETITORS

Competitors include international as well as local consultancy companies in management and strategy. The main competition is from Arthur D. Little, Accenture and AT Kearney.

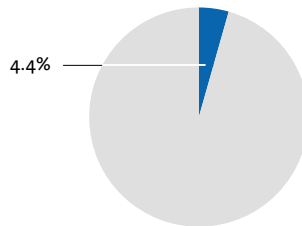
OUTLOOK

The Semcon Technology Management business area is expected to have continued strong growth during 2001. The key factors affecting the business area are globalisation, the fast pace of change in trade and industry, rapidly developing technology, de-regulation and privatisation and IT development.

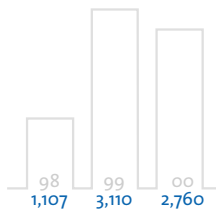
Apart from the vehicle and telecom industries the focus will be on the medical technology industry. Recruitment of new employees will mainly occur in the Stockholm and Öresund regions.

The newly started companies will put a brake on the profits for the year, although they will break even during 2001.

Share of total sales



Operating profit, SEK 000





e-Design

Systems for information management

The e-Design business area develops and supplies systems for information management in the following main areas: IT and electronic systems that are built into other products; IT systems for managing information connected to a product during the development and user phases; and support systems for the product development. The demand for interactive web solutions and web design are expected to increase.

One of Semcon's strengths is its exceptional know-how in product development combined with cutting edge know-how in the latest IT areas such as web systems, mobile internet and product life-cycle management. This has given Semcon a strong position compared with other IT suppliers that usually focus more on administrative systems. Some examples

of competence in e-Design are Oracle and RUP (Rational Unified Process), Lab View, Bluetooth and PDM.

Semcon leads the way in the Nordic region in interactive technical information. Semcon was the first to produce an interactive driver's manual together with Volvo Car Corporation.

DEVELOPMENT DURING THE YEAR

The business area had strong sales and profit growth of 29% during 2000. Sales rose to SEK 416.9 million and the operating profit increased to SEK 51.7 million. Turbulence within the internet and IT industries at the end of the year favoured Semcon in two ways. Insecurity led customers to demand a more long-term and secure supplier and recruiting was made simpler.

All activities in the business area contributed to the positive development. An increased demand was noticed in mobile internet, embedded design and PDM.

INFORMATIC

Four new partnerships were initiated during the year, meaning that Semcon will take over the technical information operations at Valmet, Besam, ABB Flexible Automation and Tetra Top Packaging systems. Semcon will take over responsibility for staff and equipment and acquire main responsibility for the production of all technical documentation for customers at the four companies.

Key figures	1998	1999	2000
Sales, (SEK m)	248.6	323.7	416.9
Operating profit, (SEK m)	29.9	39.9	51.7
Operating margin, (%)	12.0	12.3	12.4





IT CONSULTING

Semcon's consultancy operations work with IT management as well as systems and web development. Around 20% in IT management and 80% in systems/web development. The development was positive during the year with great demand in areas such as PDM, Oracle and web development. A major concentration on training and implementation of the RUP system (Rational Unified Process) was carried out to further increase quality both internally and externally. During the year Semcon developed an application for optimising control and management of projects via the web. It also gives the customer an insight into the project via the internet.

IT SOLUTIONS

Semcon IT Solutions supplies effective tools and methods for product development. Success continued during 2000, and business was done with many new customers with

great potential for the future. Major efforts were made to enhance competence and establish important references and packaging of complete solutions in CAD and PDM. IT Solutions' long-term relationship with Saab Automobile resulted in orders for product development tools and a five-year partnership agreement for outsourcing systems and operative support for Saab Automobile's product development environment.

MAJOR CUSTOMERS

The largest customers are in telecom, including Ericsson and Telia, and the automotive industry – Volvo and Saab. The business area also has a number of customers in medical technology, manufacturing and pharmaceuticals. Among these are Kalmar Industries, Turbec, AstraZeneca, Siemens-Elcoma, Steris AB and AGA Cryo.

COMPETITORS

Competitors in the area include HiQ, Enea Data, Cap Gemini, Frontec, Tieto Enator and Sigma.

OUTLOOK

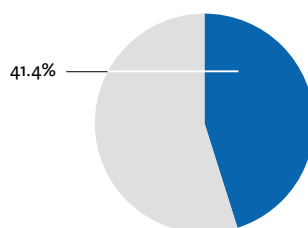
The business area expects good growth in sales and profits during 2001.

There is still a large potential for improving efficiency because development of software and hardware is still in its infancy with regards to the mobile internet.

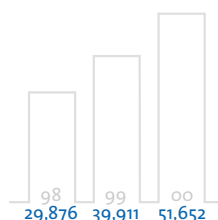
Continued investment will occur in mobile internet and PDM, Oracle and RUP.

Semcon will further build upon and implement IT based solutions for more effective design and development within Semcon and for customers.

Share of total sales



Operating profit, SEK 000



Industrial Design

Development and design of products and production systems

The Industrial Design business forms the foundation of Semcon's product development know-how. The main operations are development and design of products and production systems. Design has become a very important part of the development process. Integrating design know-how with other technical disciplines enables a holistic view that other design companies cannot offer. Semcon's link to industrial design unites man and technology in unique ways.

DEVELOPMENT DURING THE YEAR

The business area had stable growth during the year in the telecom and vehicle industries. Sales increased by 35% to SEK 485.4 million, and the operating profit was SEK 22 million. Operations in the Stockholm region had the strongest development during the year. The drop in profits was due to a fall in demand from the forest and process industries, combined with higher wages due to increased competition for personnel in the city regions. Restructuring of the Pelmatic Group also affected profits. A programme of measures was begun at the end of 2000 involving a focussing on customers in growth industries and an overview of costs. Semcon was chosen as preferred supplier by a number of leading companies including Adtranz, Ericsson and Volvo Car Corporation.

Semcon signed an agreement with ABB Automation Systems AB during 2000. The agreement means that Semcon took on responsibility for around 30 employees.

New departments were started in Katrineholm, Borlänge, Uppsala and Kista.

Operations in Norway were closed due to a very weak market.

During the year Pelmatic was acquired. Pelmatic's operations complement Industrial Design, because the company supplies cutting-edge competence in analysis and calculations.

Semcon signed a two-year agreement with Tour Anderson Hydraulics AB of Ljung. Semcon will supply design and development competence in the product and concept development phases at TA Hydraulics. In addition to the agreement, a framework agreement was signed for Semcon's other services.

Euromation AB, a joint company, was formed during the year. The owners, apart from Semcon, are the Volvo Car Corporation, Volvo Truck Component Corporation and Volvo Technology Transfer from the Volvo Group.



Key figures

	1998	1999	2000
Sales, (SEK m)	335.1	360.2	485.4
Operating profit, (SEK m)	38.0	34.8	22.0
Operating margin, (%)	11.3	9.7	4.5

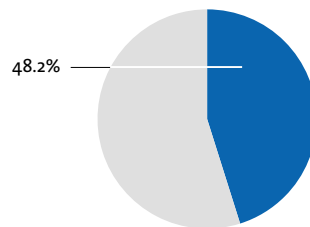
COMPETITORS

Competitors that can be compared with Semcon Industrial Design are: Sigma, WM-data Caran, Tieto Enator, Rucker and ÅF Industriteknik.

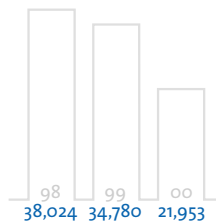
MAJOR CUSTOMERS

The business area includes several of the leading industrial companies in Sweden as customers. Among them are ABB, Adtranz, Ericsson, Saab, Scania, Siemens Elema, Volvo, Ford, Mölnlycke and Nokia. Examples of new customers are Novo Nordisk, Biacore, Pharmacia Diagnostics, Åmic and Pyrosequencing.

Share of total sales



Operating profit, SEK 000



OUTLOOK

Design will continue to be the most important means of competition for Semcon's customers and, therefore, for Semcon, too. To succeed with design assignments it is really important to see the product from a holistic perspective. This is where Semcon has a unique competitive edge because the company's consultants also have a grasp of areas such as construction, production, environment and IT.

The business area expects stable growth to continue during 2001 with a return of profitability. The need for recruitment is great but not considered to be an obstacle for continued strong development.

During 2001 Industrial Design will further develop its already strong mechanics operations. This will occur partly through increasing specialisation for mechanical engineers, but also by packaging services focused on value based sales. In addition the business area will take on more jobs where it has overall responsibility for a project.

The company will significantly expand operations in Embedded Design in areas such as built-in electronics and IT in products. The aim is to have a market share of 10% in this development intensive area within two years.

Co-operation with the universities and colleges will also intensify.

The Öresund region around Karlskrona and the Stockholm, Linköping and Göteborg areas are prioritised growth areas.

Offers to customers will not only include value-based sales, but also partnerships and in-house departments at the bigger customers.





Competence Development

Development of human resources and competence systems

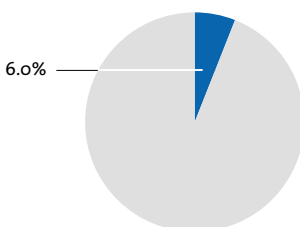
Semcon Competence Development develops human resources and competence systems for the business world of the future.

DEVELOPMENT

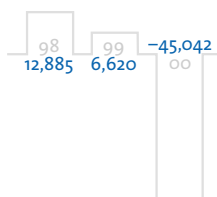
DURING THE YEAR

Sales totalled SEK 60.4 million and the loss was SEK 45.1 million. The poor performance of the business area was due to a major cutback in publicly financed training. Work to re-structure operations and prioritise aims towards private industry continued during the past year. The new management had the task of winding up unprofitable parts of the business area – operations providing services

Share of total sales



Operating profit/loss, SEK 000



Key figures

	1998	1999	2000
Sales, (SEK m)	111.6	155.4	60.4
Operating profit/loss, (SEK m)	12.9	6.6	-45.1
Operating margin, (%)	11.6	4.2	-74.6

to the public sector – at the end of the year. Remaining operations will focus on company training and be run in Semcon's other business areas.

Investments in e-learning were carried out during the year because education is one of the fastest growing activities on the internet. To support continued efforts, Semcon has made an inventory of the market for different LMS systems and chosen PingPong from Partitur Informationsteknik AB. Semcon will supply tailor-made training in the company's traditional training area and run the PingPong LMS system.

MAJOR CUSTOMERS

Customers include Sweden's leading industrial companies, such as Ericsson, Saab Automobile and Volvo Car Corporation.

COMPETITORS

Competitors in the training area for traditional training are mainly IFL, STF, MGruppen, WM-data, Informator and Eiknes.

Competitors in e-learning are those companies that produce training, such as K-world, Insight and Gravity.

OUTLOOK

The successful part of Competence Development, the part aimed at private industry, will be run by Semcon's other business areas. Many on-going training programmes will continue and new customers will be acquired from Semcon's existing customer base. The training areas are technology, quality and environment, operational development and project management.



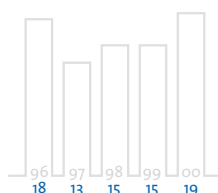
Human capital

Employees lift the company

**Total number of staff
31 December 2000**



Staff turnover in %



Semcon's employees – Semconites – are Semcon's most important success factor. One of our greatest challenges is to enthusiasm and a spirit of enterprise in a large organisation.

All employees at Semcon should feel important and find space for individualistic expression. This is the reason why Semcon has chosen a relatively flat organisation without preventing people from pursuing a career. Semcon believes in freedom with responsibility, and because many decisions are delegated as much as possible, employees have the opportunity to develop as individuals within the company.

THE PERSONAL TOUCH

At the same time that Semcon expands and benefits from larger Group resources, it is important to keep the personal touch of the small company. Since the start Semcon has mainly grown organically. When a department becomes too big it is quite simply divided and a new department is born. Using the Group's resources means more team work, both across geographic and business area boundaries.

THE SEMCON CULTURE

Semcon invested at an early stage in what was later to be known as human and structure capital. The aim, quite simply, was to create an environment where all Semconites could develop, feel comfortable and be stimulated. By having an open information climate with fun and stimulating activities, the

foundation was laid for the company's values – the Semcon culture. Strong loyalty with the company culture and the joint aims are basic requirements for all Semconites. It is also a condition that all should feel at home. Semcon trusts its employees and their ability to take responsibility. Trust and responsibility characterise management's position towards the employees in the same way as it characterises Semcon's way of working with the customer.

THE LEADER IS A ROLE MODEL

To create commitment and loyalty among employees it is necessary to have a strong leader. Semcon's leaders are committed and create results together with their work groups. A leader should be able to make decisions and carry them through. All leaders communicate continually with their colleagues so that all know what targets are being aimed at and how the group is to attain this. The most important aspect is that Semcon's leaders fully represent the values of the company. This is why high standards, both ethical and professional, are set for leaders. Semcon works hard to recruit internally for its management positions. In so doing the Semcon culture is retained and internal career opportunities are opened.

RECRUITMENT

Semcon is successful in recruiting new employees. One of the explanations is that recruitment responsibility is placed in the hands of the local departmental managers and they have the best understanding of what the market needs. When recruiting, social competence is valued as highly as professional competence. To involve all employees in the recruitment process,

Key figures

	1996	1997	1998	1999	2000
Average number of staff	521	695	955	1,173	1,504
Sales per staff member (SEK 000)	750	713	742	736	670
Value-added per staff member (SEK 000)	514	494	505	505	479
Profit after net financial items per staff member (SEK 000)	98.4	83.5	88.8	72.0	33.3





FACTS

Of the employees, 20% are female, and staff turnover was 19% for 2000. At the end of the year Semcon had 1,623 employees, compared with 1,266 last year. The number of employees increased by 28% during the year. Each Semcon employee completed an average of 106 hours of training during 2000.



Semcon has implemented a bonus scheme where information leading to new recruitment is rewarded.

WAGES AND INCENTIVE SCHEME

Individual wage systems are followed at Semcon. Wages are based on the individual employee's training, competence and experience. Semcon works with different forms of incentive and bonus programmes to motivate and involve its employees. The employees who suggest new appropriate employees and sell new consultancy assignments receive a bonus. During the autumn all employees were invited to take part in an options scheme. Semcon's aim is to have an annual options scheme. That aim of the options scheme is to make employees more involved in the growth of the company and to motivate the current staff to stay in the company as well as making recruitment easier. Each year the company also hands out grants to employees who have performed extremely well.

EQUALITY AND VARIETY

Semcon strives to make the most of the experience and competence of women and men. The company wants to achieve a more even balance between the sexes in all employee groups. Among current employees, 20% are women. Semcon has several female managers. At the AGM in 2000 Semcon's first female member was elected to the board.

Because Semcon is expanding, more employees are needed with different cultural backgrounds. In line with the market being more global this cultural breadth is a great asset.

TRAINING PROGRAMME

All new employees at Semcon complete a multi-stage introduction programme. An introduction course is held where the company history, future, values and work methods are presented.

During the first year the new employees are also trained in quality and environmental systems, business expertise and project methods. All employees then undergo continuous training programmes in their

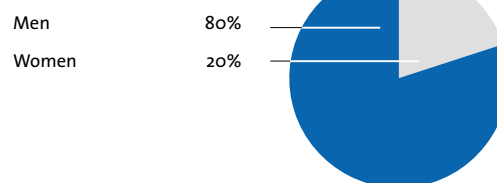
respective specialist areas. During 2000 Semcon employees trained an average of 106 hours.

Continuous training is also carried out at management level, both internally and externally. New managers have an introduction programme with a run-through of Semcon's basic values and training in recruitment, leadership and business expertise. Managers from all business areas partake in the programme, which gives the opportunity to build networks and develop co-operation in the Group.

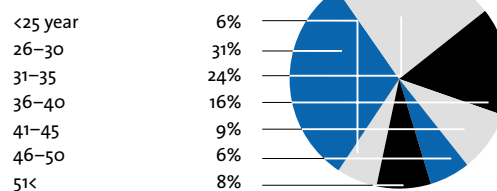
E-LEARNING

Semcon invested to develop an e-learning concept during 2000. Partnerships have been created with Partitur Informationsteknik AB, which developed a Learning Management System called PingPong. In the autumn employees will be able to carry out training in IT and the environment via e-learning portals. Semcon will be focussing on developing and producing customised training in Semcon's core operations. These will be available both internally and externally.

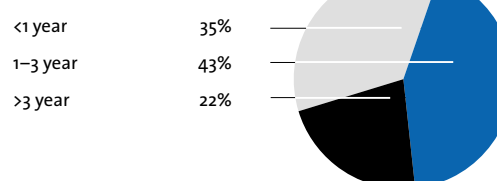
Distribution men / women



Age distribution



Average length of time employed



Structural capital

Good customer relations

LONG-TERM

CUSTOMER RELATIONS

The most important part of Semcon's structural capital is, naturally, relationships with customers. The customers who have chosen to work with Semcon return time and again. The level of re-purchase currently lies at 90%. The two main reasons why customers choose Semcon are Semcon's ability to successfully keep an overall assignment moving forward in projects, and the combination of IT and technical competence.

Semcon's business relationships with customers are long-term. Since the business started in 1980 many of Sweden's leading industrial companies have chosen Semcon and these companies make up a broad and stable customer base. They include ABB, Adtranz, AstraZeneca, Atlas Copco, Electrolux, Ericsson, Volvo, Ford, Saab, Scania, Siemens-Elema and Alfa Laval. Their previous good experience of Semcon's consultants is the main reason why customers choose the company. They consider Semcon's consultants to be enthusiastic and quick in their response in getting to grips with a problem and solving it. Another advantage for the customer is Semcon's many offices, which usually mean Semcon's consultants are close to the customer.

LIMITED SENSITIVITY

TO ECONOMIC FLUCTUATIONS

Semcon's customers are in a number of different industries, which has many advantages. The company is not so sensitive to economic fluctuations and consultants often bring experience from other industries.

TURBULENT MARKET

The past year was characterised by a turbulent market, and many of Semcon's competitors have more or less disappeared. This has benefited Semcon because customers want secure and long-term suppliers and Semcon's employees want a secure and stable employer. Semcon has mainly grown organically and therefore has not had any great merger problems to deal with. Furthermore, Semcon's long-term relationships with industry has contributed to the company being given increased trust and thereby increased possibilities both as a supplier and employer.

PARTNERSHIPS

A clear trend is that most industrial companies are focusing more closely on their core operations and outsourcing work to a few, large partners.

More assignments were generated via general agreements signed by the Group during the year. Semcon has been chosen as the Preferred Supplier to most of Sweden's leading industrial companies, creating stable customer relationships. Through mergers, acquisitions, deregulation and increased competition many of Semcon's customers have become increasingly global. To extend this, customers are seeking out global partners. Semcon, too, has taken the first steps towards globalisation and further prioritising will be carried out during the coming years to follow customers overseas.





WE REACHED THE NORTH POLE

Determination, problem- solving and high tech

Semcon was chosen as the Official Technical Supplier for Expedition Nordpolen 2000. For Semcon the sponsorship mainly involved contributing technical competence rather than financing. By actively contributing with technical solutions in expeditions such as this, we create added value for adventurers, the general public and our employees.

"Technological breakthroughs are often achieved in a sporting context. We have chosen an event that will attract a lot of attention in sports technology and we have the chance of showcasing our extensive technical know-how," says Hans Johansson.

The North Pole expedition is a good example of how much fun new technology can be. The whole of the expedition was characterised by new technology, everything from satellite telephones, GPS, sledges made of composite materials to the website that kept us all updated and informed. It of course is mostly about the success of the expedition, rather than the technology that helps them get there. The many parallels between the expedition and Semcon's daily activities was one of the reasons that Semcon chose to become a main sponsor.

"The interaction between man and technology is extremely important in an expedition such as this one, but it applies in many other situations, too," says Hans Johansson.

The ability to solve problems and the determination to reach the goal applies to both consultants and adventurers.

"This was no ordinary picnic," says Ola Skinnarmo. "We had extreme requirements and we had to have partners with cutting-edge technical competence. That is why we chose Semcon."

BRAND NAME

For a business-to-business company, Semcon's name is unusually well known to Swedish people. During the year a lot of strategy work has been carried out to further strengthen Semcon's position on the market. Parallel with the new strategy, a new graphic profile has been produced.

A consistent graphic profile contributes to creating a clear and strong identity.

Semcon aims to be more attractive, more modern and more vital and, above all, clearer in its message. This places new demands on the company's identity and communication.

Semcon's strong brand name makes recruiting a lot easier and also makes it a lot easier to be accepted in the customer's organisation. This means a great deal for the staff's pride in working for the company.

SPONSORSHIP ACTIVITIES

For Semcon, sponsorship is an event rather than purely a financial project. By actively participating in projects and if possible, contributing technical competence and solutions, added value is created for the sponsor as well as the general public and employees. During the year Semcon was chosen as IT and technical partner by ASSA ABLOY for its involvement in the Volvo Ocean Race 2001/2002.

WORKING PRACTICES

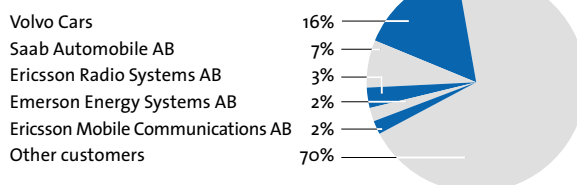
AND METHODS

Semcon is a decentralised organisation. This allows Semcon to maintain a small business identity, while allowing them to make use of a large Group's resources. The working practices are changing to become more team oriented, and with work in large projects, where Semcon's consultants take overall responsibility on behalf of the customer. A broad network of offices in more than 25 locations around Sweden ensures that Semcon is always near its customers. There are also offices in Copenhagen and London.

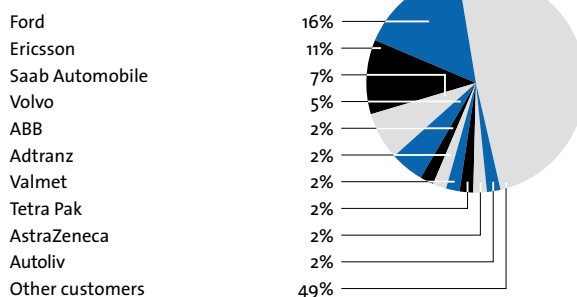
Semcon works increasingly in using experience gained from projects and developing it to become systemised working practices. One example of this is SMASH®, (Semcon's method for Managing Projects). SMASH® has been developed continually over the years. This method takes projects to completion on time with the right levels of quality and cost. Semcon's project managers are trained and certified in these methods. Semcon's IT consultants also use RUP (Rational Unified Process – a system development process from Rational) as a method in their projects. RUP gives the development project support in developing the right system at the right time, at the right price and with the right quality.

The ITID™ concept, a new way of working, was developed during the year. It means that Semcon enters

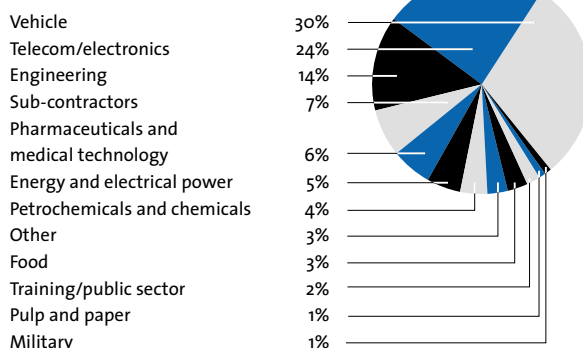
Biggest customers 2000, companies



Biggest customers 2000, groups



Sales per industry 2000



when the customer has a problem and identifies the problems in a way that traditional management consultants have done. The difference is that Semcon will solve problems using its own resources. Semcon receives payment for the improvements made in efficiency, usually a percentage of any financial gains the company makes due to Semcon's efforts.

NEW ORGANISATION

At the end of 2000 Semcon launched a new organisation. The new organisation has many advantages. Semcon can give the customer a better overall offer and create synergy effects between different competency areas. Small scale in the departments will be retained.

In addition to the parent company, Semcon AB, where Hans Johansson remains as CEO, the following companies were formed: Semcon Sweden, Semcon Innovation and Semcon International. Semcon Sweden AB includes the Swedish consultancy operation, and its Managing Director is Hans Krondahl, previously head of Semcon Competence Development. The new Swedish company is in turn divided into three regions where all competency is gathered locally. This means that customers can be offered better holistic solutions where different types of know-how are cross-fertilised. To increase focus on the three chosen key industries of *Telecom*, *Vehicle* and *Medical*, individuals will be appointed with responsibility for each industry. Semcon will in future run operations in the business areas of Technology Management, e-Design and Industrial Design, and will present financial reports for each of these three business areas.

COMPETENCE VILLAGES

To be able to spread new know-how quickly and easily help customers produce advanced solutions of complex systems, specialist competence

from the whole of the Group is concentrated in virtual organisations called Competence Villages.

There are currently Competence Villages in LabView, embedded design, Bluetooth and ProEngineer.

IT SUPPORT

All Semcon offices are linked to a network to ensure efficient communication. Employees keep themselves up-to-date via Semcon's intranet.

Semcon has also developed TimeIT®, a net based system for time reporting. TimeIT® is also linked to databases and business systems. The integrated system provides Semcon with valuable information about customers. This makes things easier for resource planning and work with deepening long-term customer relationships.

Semcon also has a system for competence transfer, Kompis. This is the company's competence database, where consultants with the right competence can be found. Competence Network is another tool currently being developed. This is a database of experience that will build upon assignments carried out for customers.

Semcon works actively with IT security, which is constantly being evaluated by auditors and customers. The company has a complete virus protection system installed on all computers in the network.



semco

SEMCON'S QUALITY WORK

During the year additional operations have gained ISO 9001 certification. In addition to previous certifications for consultancy services in electrical/electronics, mechanics, process engineering, analysis, calculations and testing, new certificates have been awarded for information technology and management.

The ISO audit of IT products was also carried out during the year, and a software development method was developed in accordance with RUP – Rational Unified Process.

Results have surpassed, or been on a par with, the required quality targets. Semcon measures customer satisfaction for every assignment carried out and has during the year surpassed its target of 40% "More than happy customers" – the final figure was 53.6%. Semcon employees have accomplished more than 100 hours of training on average and the cost of poor quality was just over the target of a maximum 0.2% of sales.

During 2001 the remaining parts of Semcon's operations, approximately 10%, will be certified according to ISO 9001 standards.

SEMCON'S ENVIRONMENTAL WORK

Semcon's greatest opportunity to contribute to the development of an ecologically sustainable society occurs when the company performs its assignments. By encouraging environmental awareness early in the development process, Semcon can have a significant impact. The choice and combination of different materials, the choice of manufacturing process, designing for disassembly and recycling are some of the areas where Semcon consultants can make a difference.

This depends, of course, on employees at Semcon having environmental know-how. During 2000 an interactive basic training was developed that during the next few years will be followed by more spe-

cialised and in-depth training. During 2000 the company will carry out a more in-depth course in environmentally adapted product development.

The greatest direct effect the company has on the environment is the pollution caused due to transportation and travelling. To gain control of, and mainly reduce emissions, Semcon has during the year taken a number of measures. These include;

- A travel policy was produced to encourage environmentally friendly alternatives.
- A company car policy was produced to govern the choice of company car. Choice of alternative fuel vehicles to be encouraged and a list of other approved models has been established.
- A measuring method was established to measure carbon dioxide emissions per employee. The aim is to reduce this by 10% for 2001.
- The amount of working from home was developed and measured. The aim for 2001 is at least 1 consultancy year in total.

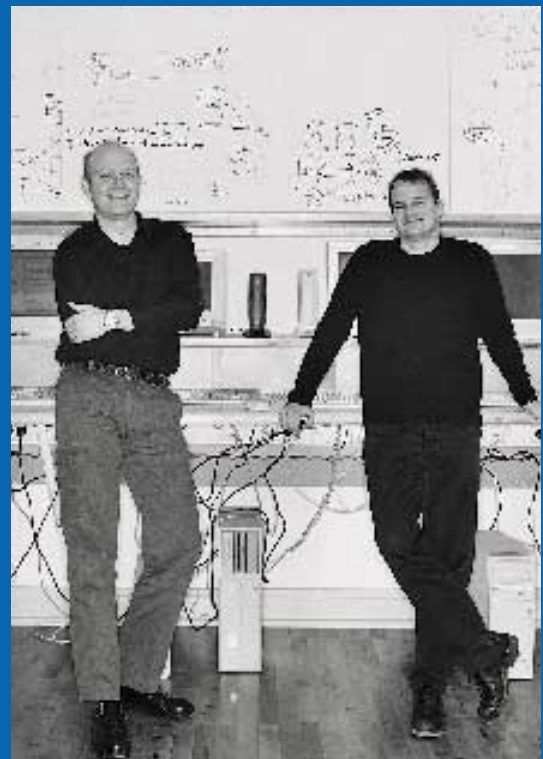
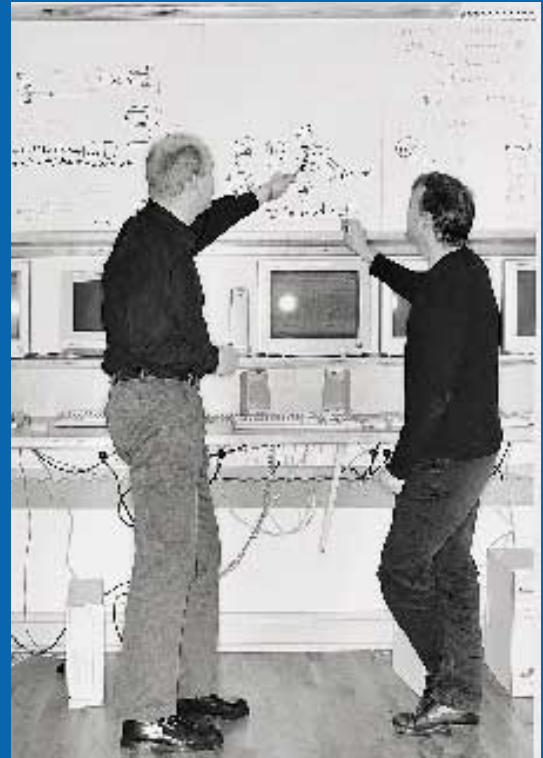
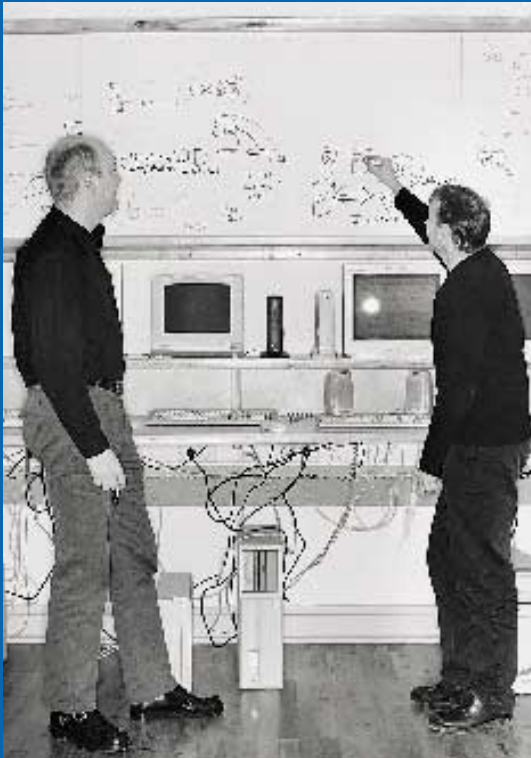
Beyond this, continual work is underway to reduce consumption of raw materials by using refill packaging, sorting at source, low energy appliances, etc. During 2001, ISO-14001 certification will be extended to include all of Semcon's operations.

SEMCON'S ENVIRONMENTAL POLICY

"We will lead the way towards a sustainable society. We will constantly improve our operations and give priority to the environmental aspects in our work."

OUTLOOK

The work towards a better environment will continue at all Semcon offices. The company's objective is partly to minimise environmental effects during assignments, and partly to reduce our own consumption of materials, energy and fuel.



Semcon's shares

Semcon's shares were launched on the OM Stockholm Exchange on 26 May 1997. The introduction price was SEK 31.5.

SHARE CAPITAL

Semcon's share capital is SEK 17,338,521, distributed over 17,338,521 shares, each with a nominal value of SEK 1. All shares confer an equal right to a share of the company's assets and profits. Each share gives an entitlement to one vote.

OPTIONS SCHEME

1998

At the AGM held on 23 March 1998, shareholders decided that the company should raise a debenture loan of a maximum SEK 900,000 by issuing not more than 900,000 options each with a nominal value of SEK 1. Each option included a detachable warrant giving the holder the right to subscribe for one new share in Semcon AB, from 2 May to 31 August 2001 inclusive, at a price of SEK 75. Interest in Semcon's option scheme has been high and 508 employees have subscribed for a total of 764,300 options. After full conversion, Semcon's share capital is SEK 18,102,821.

2000

At an EGM on 23 August 2000, shareholders decided that the company should raise a debenture loan of a maximum SEK 650,000 by issuing not more than 650,000 options each with a nominal value of SEK 1. Each option gives the holder the right to subscribe for one new share in Semcon AB, from 1 October to 31 December 2003 inclusive, at a price of SEK 196. 327 people showed their interest and subscribed for a total of 163,900 options. After full conversion, Semcon's share capital is SEK 18,266,721.

PRICE TREND

AND TURNOVER

During 2000 the share price rose by 25% from SEK 100 to SEK 125. The SX General index fell over the same period by 12%. At the beginning of 2000 Semcon's market value was SEK 2,167 million, based on the latest market price.

DIVIDENDS

The Board of Directors has established a dividend policy whereby Semcon AB's dividends shall correspond to 30-50% of profits after tax over the long-term. The Board of Semcon AB will propose to the 2001 AGM that SEK 0.5 (1.40) per share be paid out as a dividend for the 2000 financial year, totalling SEK 8.7 million (24.3m). 26 March is proposed as record day. If the AGM approves the resolution, dividends are expected to be distributed by VPC (the Swedish Central Securities Depository) on Thursday, 29 March 2001.

OWNERSHIP STRUCTURE

On 31 December 2000, Semcon had 3,706 shareholders. Institutional investors held around 85% of the share capital and voting rights on 31

December 2000. Foreign holdings are considerable and amounted to around 64% at the year-end.

CONTACTS WITH

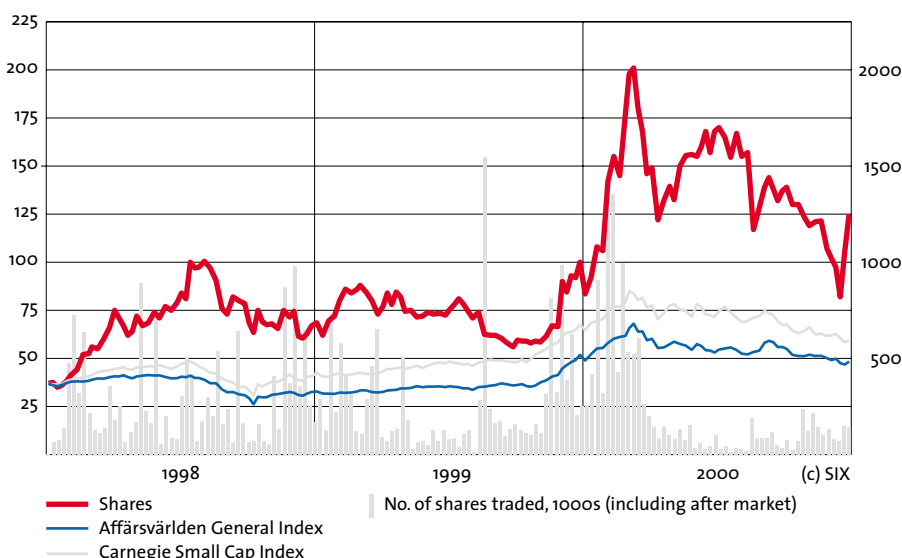
THE STOCK MARKET

Semcon has carried out a number of investor and analyst meetings in Sweden and abroad, including financial hearings via the internet. During the year the following financial institutions have monitored Semcon:

COMPANY	NAME
Enskilda Securities	Niklas Fhärm
Alfred Berg	Patrik Clase
Cazenove	Jonas Pålsson
Danske Securities	David Jacobsson
Handelsbanken	Martin Allen
Deutsche Bank	Klaus Bernprinter

The annual report and interim reports are published in Swedish and English. The reports are distributed to shareholders who have expressed an interest. Printed reports can also be ordered from Semcon's head office in Göteborg, see address list. The reports are also published on Semcon's website www.semcon.se, and can also be ordered in printed form via the website.

Semcon's shares



SHARE CAPITAL

Date	Type of issue	Number of shares issued	Total number of shares after issue	Share capital after issue
7 March 1997	Company formed	500,000	500,000	500,000
14 April 1997	Cash issue	4,003,700	4,503,700	4,503,700
14 April 1997	Issue in kind	496,300	5,000,000	5,000,000
25 April 1997	Cash issue	12,338 521	17,338,521	17,338,521

KEY FIGURES SHARES

	2000	1999	1998	1997
Shareholders' equity per share before dividend (SEK)	8.57	7.83	5.85	3.28
Shareholders' equity per share including 928,200 options (SEK)	8.14	7.43	5.55	3.11
EPS after tax (SEK)	1.99	3.38	3.44	2.31
EPS including 928,200 options (SEK)	1.89	3.21	3.27	2.19
Cash flow per share (SEK)	- 3.1	2.4	0.8	- 0.06
Proposed dividend per share (SEK)	0.50	1.40	1.40	0.60
P/E ratio	62.8	29.6	19.5	15.4
Share price 30/12 (SEK)	125	100	67	35.5
Market price 30/12 (SEK m)	2,167	1,734	1,162	615
Number of shares (000s)	17,338	17,338	17,338	17,338

LARGEST HOLDINGS ON 31 DEC. 2000

Shareholder	Number of shares	Percentage
Henderson Investors	2,657,716	15.3
SE-Bank funds	1,144,524	6.6
Putnam Funds (US)	861,330	5.0
T Rowe Price funds	459,950	2.7
Hans Johansson and relatives	450,000	2.6
SHB Funds	433,100	2.5
Uni-Invest Denmark funds	303,527	1.8
CitiBank Luxembourg funds	297,000	1.7
Robur funds	277,700	1.6
Wanger Asset Management	250,000	1.4
Total	7,134,847	41.2
Other ownership	10,203,674	58.8
Grand total	17,338,521	100

Source: VPC AB's Shareholder Register on 30 December 2000

OWNERSHIP STATISTICS

Size	Number of shares	Percentage	Number of shareholders
1-500	577,518	3.3	2,782
501-1,000	436,546	2.5	516
1,001-10,000	862,789	5.0	313
10,001-100,000	2,324,595	13.4	67
100,001-	13,138,073	75.8	28
Total	17,338,521	100	3,706

Source: VPC AB's Shareholder Register on 30 December 2000

Definitions of key figures

Operating margin. Profit after depreciation as a percentage of operating income.

Net profit for the year. Profit for the year after tax.

Interest cover ratio. Profit after net financial items plus financial expenses divided by financial expenses.

Return on average shareholders' equity. Net profit for the year as a percentage of average shareholders' equity.

Return on average capital employed. Profit after net financial items plus financial expenses as a percentage of average capital employed.

Capital employed. Shareholders' equity plus interest bearing liabilities.

Equity/assets ratio. Shareholders' equity as a percentage of the balance sheet total.

Share of risk bearing capital. Shareholders' equity plus deferred tax liabilities divided by the balance sheet total.

Debt/equity ratio. Interest bearing liabilities divided by shareholders' equity.

EPS after tax. Profit for the year divided by the number of shares issued.

EPS including options. Profit for the year divided by the number of shares issued plus options.

Shareholders' equity per share before dividend. Shareholders' equity divided by the number of shares issued.

Shareholders' equity per share including options. Shareholders' equity divided by the number of shares issued plus options.

Price per share/equity. Price per share divided by shareholders' equity per share.

P/E ratio. Price per share divided by earnings per share.

Average number of employees. Average number of full-time employees.

Sales per employee. Sales divided by the average number of full-time employees.

Value added per employee. Profit after depreciation plus payroll expenses and social security contributions divided by the average number of full-time employees.

Profit after net financial items per employee. Profit after net financial items divided by the average number of full-time employees.

Five-year summary

INCOME STATEMENT

(SEK 000)	2000	1999	1998	1997 pro forma	1996 pro forma
Sales	1,007,233	863,501	708,908	495,613	390,498
Operating expenses	– 957,172	– 779,080	– 627,016	– 438,452	– 341,413
Operating profit after depreciation	50,061	84,421	81,892	57,161	49,085
Financial income**	1,682	735	4,640	2,156	2,391
Financial expenses	– 1,286	– 719	– 1,692	– 1,307	– 187
Profit after financial items**	50,457	84,437	84,840	58,010	51,289
Tax	– 15,879	– 25,795	– 25,111	– 17,961	– 14,620
Net profit for the year	34,578	58,642	59,729	40,049	36,669

BALANCE SHEET

Capitalized development expenditure	4,329	2,808	—	—	—
Goodwill	57,929	19,652	—	—	6,389
Machinery/equipment/property	54,840	53,083	39,340	20,441	27,493
Financial fixed assets	12,050	—	—	—	—
Stock in trade	1,264	1,673	510	3,888	374
Work-in-progress	72,263	71,044	53,983	42,751	21,547
Accounts receivable	171,658	128,750	122,585	82,885	55,415
Other current assets	49,071	14,177	17,173	23,116	10,015
Cash and bank balances	12,542	66,073	24,023	10,076	11,113
Total assets	435,946	357,260	257,614	183,157	132,346
Shareholders' equity	148,637	135,727	101,358	56,833	31,431
Minority shares	297	297	—	—	—
Long-term liabilities and provisions	110,650	36,812	25,510	27,131	16,495
Current liabilities	176,362	184,424	130,746	99,193	84,420
Total shareholders' equity and liabilities	435,946	357,260	257,614	183,157	132,346

CASH FLOW STATEMENT

Cash flow from current activities	44,739	126,361	59,837	13,639	18,901
Cash flow from investments activities	– 76,602	– 60,037	– 35,487	– 10,333	– 16,335
Cash flow from financing activities	– 21,668	– 24,274	– 10,403	– 4,343	– 26,389
Change in liquid assets	– 53,531	42,050	13,947	– 1,037	– 23,823

KEY FIGURES

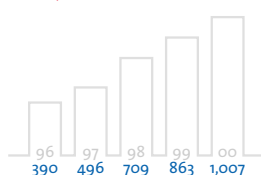
Increase in sales (%)	16.6	21.8	43.0	26.9	11.1
Operating margin (%)*	5.0	9.8	11.6	11.5	12.6
Interest cover ratio (times)*	40.2	118.4	51.1	45.4	275.3
Return on average shareholders' equity (%)*	24.3	49.5	75.5	90.7	132.9
Return on average capital employed (%)*	27.5	68.3	102.4	119.9	156.3
Equity/assets ratio (%)	34.1	38.0	39.3	31.0	23.7
Share of risk-bearing capital (%)	43.2	48.3	49.6	42.9	32.2
Debt/equity ratio (times)	0.45	0.18	0.05	0.1	0.2
Number of shares issued (000)	17,338	17,338	17,338	17,338	17,338
EPS after tax (SEK)*	1.99	3.38	3.44	2.31	2.11
EPS including 928,200 options (SEK)*	1.89	3.26	3.27	2.19	2.01
Shareholders' equity per share before dividend (SEK)	8.57	7.83	5.85	3.28	1.81
Shareholders' equity per share including 928,200 options (SEK)	8.14	7.43	5.55	3.11	1.72
Price per share/equity (times)	14.6	12.8	11.5	10.8	17.7
P/E ratio	62.8	29.6	19.5	15.4	15.2
Average number of employees	1,504	1,173	955	695	521
Sales per employee (SEK 000)	670	736	742	713	750
Value added per employee (SEK 000) *	479	505	505	494	514
Profit after net financial items per employee (SEK 000)*	33.6	72.0	88.8	83.5	98.4
Investments in machinery and equipment (SEK 000)	26,886	26,825	35,891	11,342	18,085
Investments in subsidiaries' shares (SEK 000)	41,120	30,722	1,007	—	—

* Including refund from SPP of SEK 19.6 million.

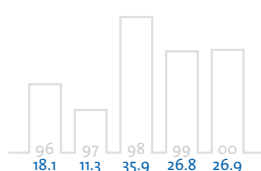
** Including minority interest of SEK 911,000.

Directors' report

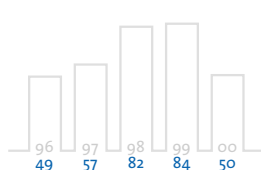
Sales, SEK m



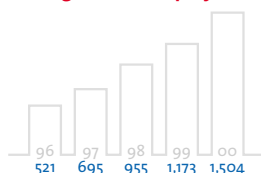
Investments, SEK m



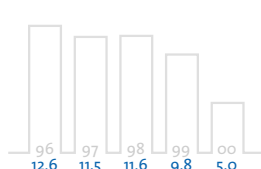
Operating profit, SEK m



Average no. of employees



Operating margin, %



The Board and Managing Director of Semcon AB (publ) co. reg.no. 5565 39-9549 herewith present the Annual Report and consolidated accounts for the 2000 financial year.

BUSINESS ACTIVITIES

Semcon AB (publ.) is the parent company in a Group consisting of 23 companies in accordance with note 7.

As a partner to the industry Semcon provides human and technical competence that improves customers' results. Semcon provides Swedish industry design and development competence in the Technology Management, e-Design and Industrial Design business areas.

MARKETS

Semcon's customers are amongst Sweden's largest industrial conglomerates, which work in significantly competitive international markets. It is important for these companies to develop products more rapidly and more frequently than their competitors. To succeed they must focus on their core skills and outsource additional skills and capacity from consultants like Semcon.

For the consultancy sector this means that major global customers have chosen to work with fewer but larger consultancy firms.

Semcon's objective is to build long-term relationships with new and existing customers. The customer base will continue to be broad, but focusing on prioritised sectors such as telecom, vehicle and medical. Today Semcon is a market leader as it can provide customer services in all these areas. Semcon has offices in the following locations: Borlänge, Grantham, Göteborg (HQ), Helsingborg, Karlstad, Karlskrona,

Katrineholm, Kista, Copenhagen, Linköping, Ludvika, Lund, Malmö, Oskarshamn, Oxelösund, Stenungsund, Stockholm, Sundsvall, Södertälje, Trollhättan, Uppsala, Varberg, Västerås and Växjö. In addition to these, Semcon Technology Trend has offices in Tokyo, Japan and San Francisco, USA.

THE WORK OF

THE BOARD OF DIRECTORS

The Board of Directors has five members, two employee representatives and two deputy employee representatives.

During the year the Board met ten times at five ordinary meetings and five extraordinary meetings. The Board follows the procedures set out for the Board and Managing Director's work. At the ordinary meetings the Board has dealt with the company's and Group's financial situation. In addition to this, strategic issues such as acquisitions, closures of unprofitable segments and new aims and the new organisation have been dealt with.

The company's accountants are present at all Board meetings and state their views on the internal control and financial reporting of the Group. Christian W Jansson and Pia Gideon were re-elected to the Board at the AGM.

Board members Göran Lundberg, Carl-Åke Jansson and Hans Johansson were also re-elected. Christian W Jansson was elected Chairman of the Board.

OPTIONS SCHEME

At the AGM held on 23 August 2000, shareholders decided that the company should raise a debenture loan of a maximum SEK 650,000 by issuing not more than 650,000 warrants each with a nominal value of SEK 1.

Each warrant gives the holder the right to subscribe for one new share in Semcon AB, from 1 October to 31 December 2003, at a price of SEK 196. 327 people showed their interest and have subscribed for a total of 163,900 warrants. After full conversion, Semcon's share capital is SEK 18,266,721.

COMPANY ACQUISITIONS

- 1 May 2000, Semcon acquired the Pelmatic Group.
- 26 June 2000, Semcon acquired 60% of Tioff AB and started new activities in IT strategies and infrastructure under the company name Zipper by Semcon.
- 29 December 2000, the remaining part of Tioff AB was acquired.
- Semcon formed Euromation together with Volvo Car Corporation and Volvo Truck Component Corporation and Volvo Technology Transfer.

FINANCIAL OVERVIEW

Semcon's growth continued. Consultancy activities showed continuing strong demand, mainly in the e-Design area.

Capacity utilisation in the Industrial Design area was high at the beginning of the year, but declined somewhat over the latter part of 2000. Profitability was also squeezed by price trends showing weaker progress than during the previous year. Technology Management is still seeing an upturn and two new companies were formed, Zipper by Semcon and Semcon Project Management, which had a negative impact on profits. Competence Development reported major losses during the year, and in October it was decided to close the business aimed at the public sector.

SALES AND RESULTS

The Group's sales climbed to SEK 1,007.2 million (863.5) a rise of 17%. The operating profit was SEK 50.1 million (84.4 m) and the profit after financial items was SEK 50.4 million (84.4 m). The improved sales figure compared with last year was mainly

due to greater demand, further over-all measures and growth in the number of staff.

The operating margin continued to be strong at 5.0% (9.8). EPS after tax was SEK 1.99 (3.38). Return on average shareholders' equity was 24.3% (49.5). The equity/assets ratio was 34.1% (38.0) and shareholders' equity stood at SEK 148.6 million (135.7 m) that corresponds to SEK 8.57 per share (7.83) before the dividend. The Group's liquid assets totalled SEK 12.5 million (66.1) including bank overdraft facilities set at SEK 45 million of which SEK 41.4 has been utilised. Semcon's share of Alecta Pensionförsäkrings profit was SEK 19.6 million.

INVESTMENTS

Semcon invested SEK 26.9 million (26.8) in 2000 mainly in computer equipment and networks. Investment in programming development was SEK 0.2 million (2.8). In addition, the company invested SEK 41.1 million (30.7) in subsidiaries' shares and SEK 11.2 million (0) in associated companies' shares.

EMPLOYEES

At the end of the year there were 1,623 employees (1,266), which is a net increase of 28% compared with the previous year. The average number of employees during 2000 was 1,504 (1,173) of which 20% are female (20).

DIVIDEND POLICY

The Board considers that the size of future dividends should be based on Semcon's long-term growth, profits and capital requirements for continued expansion with regard to its financial targets. The long-term aim is to pay out between 30 and 50% of profits after tax to Semcon's shareholders. The Board considers that the company's equity/assets ratio shall be a minimum of 35%.

One of Semcon's aims for the future is to expand and create long-term growth in value for shareholders. If conditions are right, with consideration given to financial targets and investment alternatives for con-

tinued expansion, the Board intends to pay out higher dividends.

At the 2000 Annual General Meeting, the Board of Directors will propose a dividend of SEK 0.50 per share (1.40) for the 2000 financial year, a total sum of SEK 8.7 million (24.3).

OPPORTUNITIES AND RISKS

This section tries to explain the factors that affect evaluations of consultancy companies the most.

Opportunities

Customer relations are the most important factor in a consultancy company's success. Thanks to skilled consultants who carry out assignments in a way that exceeds customer expectations, the customers return. A good relationship is created by initiative, openness, competence, involvement and reliability.

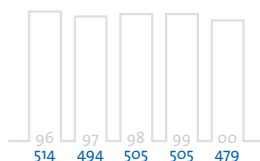
Global factors and changing markets

There are also a number of external factors that affect the customers' use of consultants.

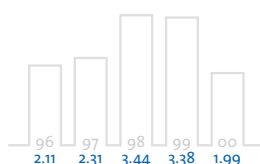
- Stiffening global competition and shorter product life cycles make the industry apply itself more towards design and product development.
- Sweden's relatively good position in many of Semcon's areas of operation gives a good starting point for international expansion.
- Greater technology and IT usage in products increases complexity. This in turn requires more specialist competence. Customers cannot afford time and resources to develop all the competency themselves.
- Continued environmental awareness and new environmental requirements mean that product and product development must be constantly monitored to secure the greatest possible environmental regard for materials and method choice as well as to increase recycling possibilities.



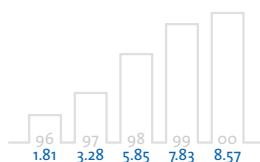
Value added per employee, SEK 000



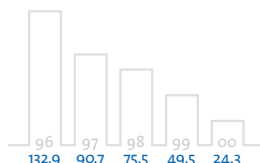
EPS after tax, SEK



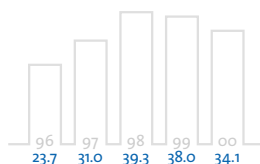
Shareholders' equity per share, SEK



Return on average shareholders' equity %



Equity/assets ratio %



Fewer suppliers

The consultancy companies chosen as primary suppliers by the leading Swedish industrial firms have significant advantages. The industrial firms want to work with fewer suppliers giving better control of the quality of the consultants. Semcon has been chosen as primary supplier via long-term cooperation built on mutual trust with the largest industrial firms. This means that Semcon always receives requests for assignments and that they are bigger, and in certain cases entails comprehensive measures.

Outsourcing

Customers are focusing more and more on their core activities and offer other activities out to tender. These create opportunities for a long-term partnership aimed at improving operations that so often have come as a second priority to the customer. Outsourcing is carried out in IT support, technology information, testing, design engineering and training.

Risks

The greatest risk in a know-how intensive company is that the employees find other employment, or a failure in recruiting the right employee. Unsuccessfully completed assignments can also affect results. This risk is limited however because in most cases the consultant is part of the customers' project and continual checks and balances are carried out during a project.

Business cycle

Semcon's customer base consists mainly of Swedish industrial companies. Semcon believes that the breadth of this customer base reduces dependence on individual sectors and economic cycles, and that Semcon is therefore mainly affected by the general economic cycle for Swedish exports.

Seasonal variations

As most of Semcon's assignments are ongoing assignments invoiced by the

hour, results are strongly influenced by the number of hours available. The summer period, when most employees take holidays, is a weak period for consultancy firms, and even the length of the Christmas holiday can have a decisive effect on profits during Q4.

Sensitivity analysis

The number of available working days varies from year to year. The earnings trend for Semcon is dependent on the number of available hours, the utilisation level and prices. The number of available hours depends on the number of employed consultants, speed of recruitment and access to suitable engineers. The time of the year when recruitment takes place also affects results.

Available hours are also affected by factors such as holidays and opportunities for overtime. Changes in the number of available hours influence both consultancy income and operating costs (wages).

In general, changes in the number of hours are driven by customer enquiries that lead to assignments and a need for recruitment. During 2000, Semcon actively changed towards value based sales, which in turn increased. During the latter part of the year a breakthrough occurred in sales of the in-house developed products Insight™ and Fasttrack™. Product development has been carried out to expand Semcon's earnings capacity. However, investments also mean that risk levels increase.

It is most important to have local market knowledge about available manpower. The utilisation ratio is a key factor for Semcon's profitability and also its most important control ratio. Changes in utilisation ratios only marginally affect operating expenses. The price level is controlled by factors such as the combined expertise of the company, market demand and general inflationary pressures. Semcon's management believes that the present inflation trend has a restraining effect on price trends, despite stable demand.

A change of +/- 1% in the following variables would have affected operating profit for 2000 as follows:

Variable, SEK m

Utilisation level	9.3
Average fee	7.5

FUTURE DEVELOPMENTS

NEW STRATEGY

Semcon introduced a new strategy programme during the year. The strategy is long-term and extends for five years. The new, guiding, vision is that:

Semcon will be a global leader in design and development.

Semcon's ambition is to be a design and development company, which all customers trust, and all skilled consultants want to work for. A company where people develop and grow. All Semcon's customers are global leaders in their respective industries. It is logical therefore for Semcon to continue growing internationally with them. By being experts in design, a product's increasingly important competitive strength, Semcon can improve its customers' competitive edge.

Semcon's business concept – *as a close partner to industry we supply the human and technical skills to boost our customers' profits* – means focussing on being one of the suppliers that customers want to work with, give comprehensive assignments to and who can supply them with greater added value.

LONG-TERM GOALS AND STRATEGIES

GOALS

Businesses are continuing to invest in both product development and competence development, so there is every prospect that 2001 will be another successful year with strong demand. We believe that restructuring among our customers will continue, together with increased outsourcing.

Growth will come:

- Organically (Nordic region mainly)
- Via outsourcing deals within prioritised segments
- Through the acquisition of complementary specialist companies

The top priority segments are:

- Telecom
- Vehicle
- Medical

Growth areas include:

- Embedded design
- Mobile internet
- Industrial design
- Project management
- Interactive information

The main growth regions are the major city regions and internationally, where the biggest customers are established.

REORGANISATION

To support the vision of being one of the globally leading design and development companies, as well as achieving its established goals and strategies, Semcon is to reorganise. The new organisation will make continued growth easier, both inside and outside the Nordic region. It means a clearer market focus to improve offers to local customers. The number of companies will reduce, meaning less administration, simplifying management and cutting costs. This will in turn shorten communication paths, allowing faster results. The new organisation came into effect on 1 January 2001.

VIEWS FOR 2001

The Board's assessment for the full year 2001 is that the company will experience good sales growth with considerably improved operating margins.

Proposed allocation of profits (SEK 000)

The AGM has the following profit at its disposal:

Profit brought forward	– 1,814
Profit for the year	57,092
Total	55,278

The Board proposes that the profits be distributed as follows:

Dividend to shareholders (SEK 0.5 per share)	8,669
Carried forward	46,609
Total	55,278

THE GROUP

According to the consolidated balance sheet, non-restricted equity amounts to SEK 63,495,000. It is proposed that SEK 200,000 of this be allocated to restricted reserves.

The Accounts

Income statement

(SEK 000)	THE GROUP		PARENT COMPANY	
	2000	1999	2000	1999
OPERATING INCOME				
Net sales	1,006,014	846,440	27,421	21,856
Changes in work in progress	1,219	17,061	—	—
Total operating income (note 1)	1,007,233	863,501	27,421	21,856
OPERATING EXPENSES				
Purchase of goods and services	– 122,348	– 135,228	—	—
Other external expenses	– 115,939	– 84,937	– 14,758	– 11,032
Staff costs (note 3)	– 688,100	– 535,686	– 10,338	– 9,620
Depreciation of tangible and intangible assets (note 6)	– 31,969	– 23,229	– 1,806	– 836
Share in associated companies profit/loss	1,184	—	—	—
Operating profit	50,061	84,421	519	368
FINANCIAL ITEMS				
Interest income	771	735	1,591	1,357
Group contribution received	—	—	89,750	67,744
Interest expense	– 1,286	– 719	– 2,328	– 296
Profit after financial items	49,546	84,437	89,532	69,173
APPROPRIATIONS				
Provision for tax allocation reserve	—	—	– 8,184	– 13,832
Excess depreciation	—	—	– 1,495	– 538
Profit before tax	49,546	84,437	79,853	54,803
Tax on profit for the year (note 5)	– 15,879	– 25,795	– 22,761	– 15,493
Minority shareholding in profit/loss	911	—	—	—
Profit for the year	34,578	58,642	57,092	39,310

Balance sheet

(SEK 000)	THE GROUP		PARENT COMPANY	
	31 Dec 00	31 Dec 99	31 Dec 00	31 Dec 99
ASSETS				
<i>Fixed assets (note 6)</i>				
<i>Intangible assets (note 6)</i>				
Goodwill	57,929	19,652	—	—
Capitalized development expenditure	4,329	2,808	2,474	2,808
<i>Tangible assets (note 6)</i>				
Plant and machinery	3,933	5,624	—	—
Equipment	15,978	10,055	8,673	4,137
Computers	26,435	28,666	257	234
Property	8,494	8,738	—	—
<i>Financial assets (note 7)</i>				
Shares in subsidiaries (note 7)	—	—	43,100	66,714
Shares in associate companies	11,904	—	11,170	—
Other long-term investments held as fixed assets	146	—	146	—
Total fixed assets	129,148	75,543	65,820	73,893
<i>Current assets</i>				
Receivables from subsidiaries	—	—	116,975	114,415
Stock and commodities	1,264	1,673	—	—
Advance payments to suppliers	—	—	—	—
Work in progress on behalf of others (note 8)	72,263	71,044	—	—
Accounts receivable	171,658	128,750	67	—
Other receivables (note 9)	32,974	1,866	9,796	496
Accrued expenses and deferred income (note 10)	16,097	12,311	3,209	2,835
Cash and bank balances	12,542	66,073	29	—
Total current assets	306,798	281,717	130,076	117,746
Total assets	435,946	357,260	195,896	191,639

(SEK 000)	THE GROUP		PARENT COMPANY	
	31 Dec 00	31 Dec 99	31 Dec 00	31 Dec 99
SHAREHOLDERS' EQUITY AND LIABILITIES				
<i>Shareholders' equity (note 11)</i>				
<i>Restricted equity</i>				
Share capital (17,338,521 shares at a nom. SEK 1)	17,338	17,338	17,338	17,338
Restricted reserves	67,804	57,246	19,588	16,982
<i>Non-restricted equity</i>				
Profit brought forward	28,917	2,501	– 1,814	17,728
Profit for the year	34,578	58,642	57,092	39,310
Total shareholders' equity	148,637	135,727	92,204	91,358
<i>Minority shares</i>				
Minority shares in subsidiaries	297	297	—	—
Total minority shares	297	297	—	—
<i>Untaxed reserves</i>				
Accumulated excess depreciation	—	—	2,661	1,166
Tax allocation reserve	—	—	35,621	27,437
Total untaxed reserves	—	—	38,282	28,603
<i>Provisions</i>				
Deferred tax	39,780	36,812	—	—
Others	4,500	—	—	—
Total provisions	44,280	36,812	—	—
<i>Long-term liabilities</i>				
Bank overdraft facilities (note 12)	41,370	—	37,494	3,488
Liabilities to credit institutions	25,000	—	25,000	—
Total long-term liabilities	66,370	—	62,494	3,488
<i>Current liabilities</i>				
Accounts payable	30,995	27,691	1,003	3,016
Tax liabilities	—	11,362	—	27,897
Other liabilities	50,694	66,048	747	35,147
Accrued expenses and deferred income (note 13)	94,673	79,323	1,166	2,130
Total current liabilities	176,362	184,424	2,916	68,190
Total shareholders' equity and liabilities	435,946	357,260	195,896	191,639
MEMORANDUM ITEMS				
<i>Pledged assets</i>				
Floating charges	15,900	—	—	—
<i>Contingent liabilities</i>				
Guarantees for subsidiaries	—	—	47,502	10,136
Guarantees paid	1,636	—	—	—

Cash flow statement

(SEK 000)	THE GROUP		PARENT COMPANY	
	1 Jan 00– 31 Dec 00	1 Jan 99– 31 Dec 99	1 Jan 00– 31 Dec 00	1 Jan 99– 31 Dec 99
CURRENT ACTIVITIES				
Operating profit after depreciation	50,061	84,422	519	368
Depreciation	31,969	23,229	1,806	836
Share in associated companies profit/loss	– 1,184	—	—	—
Profit/loss on sale of machinery and equipment	1,304	132	—	—
	82,150	107,783	2,325	1,204
Interest received	771	735	1,591	1,357
Interest paid	– 1,286	– 719	– 2,328	– 296
Income tax paid	– 34,160	– 9,347	– 42,871	– 2,834
Cash flow from current activities				
before changes in working capital	47,475	98,452	– 41,283	– 569
CHANGES IN WORKING CAPITAL				
Increase/Decrease in current receivables	– 36,843	1,185	– 6,641	– 45,664
Increase/Decrease in work in progress and stock	1,462	– 15,898	—	—
Increase/Decrease in current liabilities	32,645	42,622	– 12,377	37,066
Total changes in working capital	– 2,736	27,909	– 19,018	– 8,598
Cash flow from current activities	44,739	126,361	– 60,301	– 9,167
INVESTMENT ACTIVITIES				
Investments in subsidiaries' shares (note 14)	– 41,120	– 30,722	—	– 40,633
Group contribution paid (note 11)	—	—	– 48,025	—
Investments in intangible assets	– 228	– 2,808	– 228	– 2,808
Investments in tangible assets	– 26,886	– 26,825	– 5,803	– 3,116
Investments in financial fixed assets	– 11,316	—	– 11,316	—
Proceeds from sales of machinery and equipment	2,948	318	—	—
Proceeds from sales of financial assets	—	—	23,614	—
Cash flow from investment activities	– 76,602	– 60,037	– 41,758	– 46,557
FINANCING ACTIVITIES				
Group contribution paid	—	—	89,750	67,744
Income from options scheme	2,606	—	2,606	—
Dividends paid	– 24,274	– 24,274	– 24,274	– 24,274
Cash flow from financing activities	– 21,668	– 24,274	68,082	43,470
Changes in liquid assets	– 53,531	42,050	– 33,977	– 12,254

Notes

CONSOLIDATED ACCOUNTING PRINCIPLES

These consolidated accounts have been prepared in accordance with the purchase method, which means that consolidated equity includes the parent company's own equity and the proportion of the subsidiaries' own capital earned after the time of acquisition. The difference arising due to the fact that the acquisition value is higher than the equity of the acquired company is allocated as goodwill. Negative goodwill has reduced the value of fixed tangible assets.

These consolidated accounts have been prepared in accordance with the principles set out in Recommendation RR01 of the Swedish Financial Accounting Standards. Untaxed reserves are divided into deferred tax liability (28%) and equity, which is included under restricted reserves.

As a result, the consolidated statements exclude all items that directly affect the value of untaxed reserves. The tax proportion of these items is included in this year's taxes in the profit and loss account, and the equity portion is entered together with net profit for the year.

The acquisition value is eliminated first against restricted equity including the equity of the untaxed reserves and after that against unrestricted equity. When calculating the profit and loss accounts and balance sheets of foreign subsidiaries, the rate of exchange applying on the day has been applied.

The accounted value of shares in subsidiaries is first written off against fixed equity inclusive of the proportion of capital for untaxed reserves and thereafter against non-restricted capital.

ACCOUNTING AND VALUATION PRINCIPLES

The regulations of the Swedish Annual Accounts Act for preparing the income statement, the balance sheet and its principles of valuation have been applied.

RECEIVABLES AND LIABILITIES

IN FOREIGN CURRENCIES

Receivables and liabilities in foreign currencies have been converted according to the exchange rate applying on the day.

STOCK

Stock has been valued according to the principle of the lowest value.

FIXED ASSETS

Machinery and equipment as well as investment in leased premises, have been valued at the purchase price with deductions for depreciation according to plan. Evaluation of capitalized development expenditure for computer programs has been done as an accrued expense from 1 January 1999. Accrued expenses have been activated from the time that it was decided that software was commercially viable, according to BF recommendation U88:15. Depreciation has not begun as development has not been completed.

Depreciation according to plan has been based on the item's estimated economic life as follows:

Machines and plant depreciated over 5 years

Computers depreciated over 3 years

Equipment depreciated over 5 years

Goodwill depreciated over 10 years

Property depreciated over 30 years

In-house developed software depreciated over 5 years

NOTE 1 DISTRIBUTION OF OPERATING INCOME

Operating income and operating profit are distributed as follows:

THE GROUP (SEK MILLION)	OPERATING INCOME		OPERATING PROFIT	
	2000	1999	2000	1999
Technology management	44.5	24.2	2.7	3.1
e-Design	416.9	323.7	51.7	39.9
Industrial Design	485.4	360.2	22.0	34.8
Competence Development	60.4	155.4	-45.1	6.6
SPP			19.6	
Group total	1,007.2	863.5	50.9*	84.4

Purchase/sales between Group companies amounts to SEK 281,596,000 (193,913,000)

* The minority interest share of the operating profit totals SEK 911,000.

NOTE 2 AVERAGE NUMBER OF EMPLOYEES

	2000		1999	
	AVERAGE NUMBER OF EMPLOYEES	OF WHICH MALE, %	AVERAGE NUMBER OF EMPLOYEES	OF WHICH MALE, %
Parent company	6	33	5	27
Subsidiaries	1,498	80	1,168	82
Group total	1,504	80	1,173	82

NOTE 3 SALARIES, OTHER REMUNERATION AND PAYROLL OVERHEADS

(SEK 000)	2000		1999	
	SALARIES AND OTHER REMUNERATION	PAYROLL OVERHEADS (OF WHICH PENSIONS)	SALARIES AND OTHER REMUNERATION	PAYROLL OVERHEADS (OF WHICH PENSIONS)
Parent company	4,603	3,624 (1,565)*	4,425	2,916 (1,121)*
Subsidiaries	457,812	186,673 (32,623)	349,929	141,845 (19,994)
Group total	462,415	190,297 (34,188)**	354,354	144,761 (21,115)**

* Parent company pension costs include SEK 886,000 (1,057,000) relating to the Board of Directors and the Managing Director. The company has no external pension obligations, except as described below.

** Group pension costs include SEK 1,927,000 (1,552,000) relating to the Board of Directors and the Managing Director. The Group has no external pension obligations, except as described below.

In 2000 the Board of Directors received SEK 550,000. The Chairman received SEK 220,000 and the other external members received SEK 110,000 each. One other member received SEK 614,200 in consultancy fees (575,000). Salary and benefits to the Managing Director amounted to SEK 1,970,681 (2,203,000) in 2000, of which SEK 590,681 (800,000) related to a performance based bonus for the 2000 financial year. The Managing Director's bonus scheme consists of a bonus to be paid if Semcon's profits exceed a certain level. The Managing Director is entitled to a retirement benefit in the form of a pension scheme. The premium for such a scheme is 35% of annual salary up to 20 basic amounts (the basic amount for Swedish social security purposes) and 25% of such salary in the range of 20 to 50 basic amounts. Semcon is required to give the Managing Director 12 months notice of termination of

employment and the Managing Director is required to give Semcon 6 months notice. If Semcon wishes to terminate his employment agreement, the Managing Director will receive final compensation amounting to 18 months salary. His employment agreement also includes a non-competition clause, according to which the Managing Director may not engage in any competitive business activities within 18 months from the time of termination of his employment. The Managing Director has the right to retire at 60 with continued compensation equivalent to 70% of annual salary and potential bonus up to 65.

Staff costs include the repayment from Alecta Pensions-försäkring of SEK 19,648,000. This will be utilised during 2001 and therefore no present value computation has been done.

NOTE 4 REMUNERATION TO THE AUDITORS

THE GROUP (SEK 000)	2000	1999
<i>For auditing and advice, plus other contributions resulting from observations made during auditing work.</i>		
Ernst&Young	1,008	927
BDO	—	40
<i>For independent advice given by:</i>		
Ernst&Young	2,951	1,319
BDO	—	154
Total	3,959	2,440

NOTE 5 TAX ON PROFIT FOR THE YEAR

THE GROUP (SEK 000)	2000	1999
Current tax	12,919	17,718
Deferred tax	2,960	8,077
Total	15,879	25,795
PARENT COMPANY (SEK 000)	2000	1999
Current tax	9,314	15,493
Tax on Group contribution paid	13,447	—
Total	22,761	15,493

NOTE 6 ASSETS

THE GROUP (SEK 000)	2000	1999
GOODWILL		
Opening acquisition value	20,165	0
Purchases	42,801	20,165
<i>Closing accumulated acquisition value</i>	<i>62,966</i>	<i>20,165</i>
Opening depreciation	513	0
Depreciation for the year	4,524	513
<i>Closing accumulated depreciation</i>	<i>5,037</i>	<i>513</i>
Closing residual value according to plan	57,929	19,652
CAPITALIZED DEVELOPMENT EXPENDITURE IN COMPUTER PROGRAMS		
Opening acquisition value	2,808	0
Purchases	2,083	2,808
<i>Closing accumulated acquisition value</i>	<i>4,891</i>	<i>2,808</i>
Opening depreciation	0	0
Depreciation for the year	562	0
<i>Closing accumulated depreciation</i>	<i>562</i>	<i>0</i>
Closing residual value according to plan	4,329	2,808
PLANT AND MACHINERY		
Opening acquisition value	12,102	11,207
Purchases	1,179	895
<i>Closing accumulated acquisition values</i>	<i>13,281</i>	<i>12,102</i>
Opening depreciation	6,478	4,303
Depreciation for the year	2,870	2,175
<i>Closing accumulated depreciation</i>	<i>9,348</i>	<i>6,478</i>
Closing residual value according to plan	3,933	5,624
EQUIPMENT		
Opening acquisition value	24,856	16,054
Purchases	11,210	8,859
Sales/disposals	– 2,790	– 57
<i>Closing accumulated acquisition value</i>	<i>33,276</i>	<i>24,856</i>
Opening depreciation	11,288	7,726
Sales/disposals	– 1,622	– 25
Depreciation for the year	4,119	3,587
<i>Closing accumulated depreciation</i>	<i>13,785</i>	<i>11,288</i>
Opening write-down	3,513	3,513
<i>Closing accumulated write-downs</i>	<i>3,513</i>	<i>3,513</i>
Closing residual value according to plan	15,978	10,055
COMPUTERS		
Opening acquisition value	83,959	72,041
Purchases	20,405	18,355
Sales/disposals	– 14,099	– 6,437
<i>Closing accumulated acquisition value</i>	<i>90,265</i>	<i>83,959</i>
Opening depreciation	55,293	44,420
Sales/disposals	– 11,113	– 6,020
Depreciation for the year	19,650	16,893
<i>Closing accumulated depreciation</i>	<i>63,830</i>	<i>55,293</i>
Closing residual value according to plan	26,435	28,666

THE GROUP (SEK 000)	2000	1999
PROPERTY		
<i>Buildings</i>		
Opening accumulated acquisition value	5,400	0
Purchases	0	5,400
Closing accumulated acquisition value	5,400	5,400
Opening depreciation	62	0
Depreciation for the year	244	62
Closing accumulated depreciation	306	62
Closing residual value according to plan	5,094	5,338
<i>Land</i>		
Opening acquisition value	3,400	0
Purchases	0	3,400
Closing accumulated acquisition value	3,400	3,400
Closing residual value according to plan	3,400	3,400
Assessed value for buildings	5,800	5,800
Assessed value for land	480	480
Assessed value total	6,280	6,280
LEASES AND TENANCY AGREEMENTS		
The Group has a number of leasing agreements, mainly relating to private cars. The cost of these for the year was SEK 3,891,000 (2,069,000). Existing leasing agreements are based on market conditions with remaining leasing agreements due to mature within 1 to 3 years. Furthermore the Group rents office space at around 20 locations in Sweden. All of these tenancy agreements were signed under market conditions and for normal periods of time.		
PARENT COMPANY (SEK 000)	2000	1999
CAPITALIZED DEVELOPMENT EXPENDITURE IN COMPUTER PROGRAMS		
Opening acquisition value	2,808	0
Purchases	228	2,808
Closing accumulated acquisition value	3,036	2,808
Opening depreciation	0	0
Depreciation for the year	562	0
Closing accumulated depreciation	562	0
Closing residual value according to plan	2,474	2,808
EQUIPMENT		
Opening acquisition value	4,942	2,092
Purchases	5,648	2,850
Closing accumulated acquisition value	10,590	4,942
Opening depreciation	805	0
Depreciation for the year	1,112	805
Closing accumulated depreciation	1,917	805
Closing residual value according to plan	8,673	4,137
COMPUTERS		
Opening acquisition value	265	0
Purchases	155	265
Closing accumulated acquisition value	420	265
Opening depreciation	31	0
Depreciation for the year	132	31
Closing accumulated depreciation	163	31
Closing residual value according to plan	257	234

NOTE 7 FINANCIAL FIXED ASSETS

PARENT COMPANY (SEK 000)	SHARE OWNERSHIP	VOTING RIGHTS	BOOK VALUE	CO. REG. NO.	REGISTERED OFFICE
SUBSIDIARY					
Semcon Förvaltnings AB	100%	100%	26,080,630	556530-6403	Göteborg
Semcon Research and Development AB	100%	100%	300,000	556534-4651	Göteborg
Semcon North AB	100%	100%	300,000	556581-8613	Göteborg
Semcon TimelT AB	100%	100%	16,418,974	556436-0831	Göteborg
Total			43,099,604		
SUB-SUBSIDIARIES					
Semcon Förvaltnings AB					
Semcon Engineering AB	100%	100%		556213-1762	Göteborg
Semcon Competence Development AB	100%	100%		556241-0638	Göteborg
Semcon Industrial Management AB	100%	100%		556535-2332	Göteborg
Semcon Engineering AB					
Semcon Engineering West AB	100%	100%		556555-8193	Göteborg
Semcon Engineering West AB					
Semcon Extern Engineering AB	98%	98%		556369-6755	Göteborg
Semcon Engineering East AB	100%	100%		556559-0337	Göteborg
Semcon IT Consulting AB	100%	100%		556581-8621	Göteborg
Semcon Engineering South AB	100%	100%		556204-1433	Karlskrona
Semcon Extern Engineering AB					
Semcon IT Solutions AB	100%	100%		556271-9129	Göteborg
Semcon IT Solutions AB					
Semcon Project Management AB	100%	100%		556568-6408	Göteborg
Semcon Project Management AB					
Semcon Informatic Production AB	100%	100%		556563-6692	Göteborg
Semcon Research and Development AB					
Semcon Engineering UK Ltd.	100%	100%		2993766	Grantham, UK
Semcon AS	100%	100%		980500624	Billingstad, Norway
Pelmatic Knud E. Hansen A/S	100%	100%		110338	Copenhagen, Denmark
Semcon North AB					
Semcon Informatic Consulting AB	100%	100%		556581-8639	Göteborg
Zipper AB	100%	100%		556583-0170	Göteborg
Semcon Sports Technology AB	100%	100%		556542-5419	Göteborg
Semcon TimelT AB					
Pelmatic AB	100%	100%		556410-9832	Göteborg
SHARES IN ASSOCIATED COMPANIES					
Euomation AB	20%		11,170,109	556232-0134	Skövde
THE GROUP (SEK 000)					
SHARES IN ASSOCIATED COMPANIES					
Euomation AB	20%		11,904,000	556232-0134	Skövde



GROUP COMPANIES' ACTIVITIES

Semcon AB is responsible for Group-wide issues such as strategy, information and marketing. Semcon Förvaltnings AB is responsible for Group-wide issues such as accounting, finance and human resources.

Semcon Engineering West, Semcon Engineering East, Semcon Engineering South, Semcon North and Semcon Engineering AB mainly provide consultancy services in industrial technology.

Semcon Research and Development AB carries out analyses and tests. The company has a subsidiary, Semcon Engineering

UK Ltd., which is active when Semcon is involved in projects in the UK.

Semcon IT-Solutions AB, Semcon TimeIT AB and Semcon IT-Consulting AB provide consultancy services in information technology and computers as well as selling hardware and software. Semcon Informatic Production AB and Semcon Informatic Consulting work with technical information. Semcon Industrial Management AB and Semcon Project Management AB provide management consultancy services. Pelmatic Knud E. Hansen A/S is active in marine design. Zipper AB works with IT infrastructure and IT strategy.

NOTE 8 WORK IN PROGRESS

Work in progress has been accounted for in the consolidated accounts using the current accounting method, at invoice value (2000: SEK 67,948,000 1999: SEK 65,763,000) that is related to the proportion completed. Work in progress for fixed-price pro-

jects, which represents a minor share of total work in progress, has been entered as per actual direct project costs plus a reasonable share of the overheads. In the case of subsidiaries, no value has been accounted for on-going work in progress. Instead these have been entered as income to match invoicing.

NOTE 9 OTHER RECEIVABLES

(SEK 000)

	THE GROUP	PARENT COMPANY
Tax receivable of	10,338	5,660

NOTE 10 PREPAID EXPENSES AND ACCRUED INCOME

THE GROUP (SEK 000)

	2000	1999
Accrued income	2,897	2,655
Other items	13,200	9,656
Total	16,097	12,311

NOTE 11 CHANGES IN SHAREHOLDERS' EQUITY

THE GROUP (SEK 000)	SHARE CAPITAL	RESTRICTED RESERVES	UNRESTRICTED RESERVES
Opening balance	17,338	57,246	61,143
Allocation to statutory reserve	—	200	— 200
Transfers between restricted and unrestricted reserves	—	7,752	— 7,752
Dividends	—	—	— 24 274
Options scheme	—	2,606	—
Profit for the year	—	—	34,578
Closing balance	17,338	67,804	63,495
THE PARENT COMPANY			
Opening balance	17,388	16,982	57,038
Dividends	—	—	— 24,274
Options scheme*	—	2,606	—
Group contribution	—	—	— 34,578
Profit for the year	—	—	57,092
Closing balance	17,338	19,588	55,278

* In the options scheme 163,900 options were subscribed for at SEK 25 each. The total paid in was SEK 4,098,000. The cost of the options scheme was SEK 1,492,000. A Group contribution of SEK 34,578,000 concerns a paid Group contribution of SEK 48,025,000 with a deduction of SEK 13,447,000 for the estimated tax effect.

NOTE 12 BANK OVERDRAFT FACILITY

The approved bank overdraft facility amounts to SEK 45,000,000 (45,000,000), of which SEK 41,370,000 (0) has been utilised.

NOTE 13 ACCRUED EXPENSES AND DEFERRED INCOME

THE GROUP (SEK 000)	2000	1999
Staff-related costs	75,698	69,817
Other items	18,975	9,506
Total accrued expenses and prepaid income	94,673	79,323
THE PARENT COMPANY (SEK 000)		
Staff-related costs	852	1,840
Other items	314	290
Total accrued expenses and prepaid income	1,166	2,130

NOTE 14 INVESTMENTS IN SHARES IN SUBSIDIARIES

The company acquired Pelmatic AB and Zipper AB in 2000.

The value of assets and liabilities is in accordance with the following acquisition balance.

THE GROUP (SEK 000)	
Intangible fixed assets	44,656
Tangible fixed assets	6,007
Work in progress	2,274
Current receivables	30,621
Bank overdraft facility	– 415
Current liabilities	– 43,349
Minority interest	911
Purchase price paid	40,705
Liquid assets in acquired company	415
Affect on the Group of liquid funds	41,120

Göteborg, February 2001.

Christian W Jansson
Chairman of the Board

Pia Gideon

Göran Lundberg

Carl-Åke Jansson

Hans Johansson
Managing Director

Our audit was issued on 26 February, 2001.

Göran Ekström
Authorized Public Accountant
Ernst & Young AB

Björn Grundvall
Authorized Public Accountant
Ernst & Young AB

Auditor's Report

To the Annual General Meeting of Semcon AB (Publ)
Company Reg. No. 556539-9549

We have audited the annual accounts, the consolidated accounts, the accounting records and the administration of the Board of Directors and the Managing Director of Semcon AB for the 2000 financial year. These accounts and the administration of the Company are the responsibility of the Board of Directors and the Managing Director. Our responsibility is to express an opinion on the annual accounts, the consolidated accounts, and the administration, based on our audit.

We conducted our audit in accordance with Generally Accepted Auditing Standards in Sweden. Those Standards require that we plan and perform the audit to obtain reasonable assurance that the annual accounts and consolidated accounts are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the accounts. An audit also includes assessing the accounting principles used and their application by the Board of Directors and the Managing Director as well as evaluating the overall presentation of information in the annual

accounts and consolidated accounts. We examined significant decisions, actions taken and circumstances of the Company in order to be able to determine the liability, if any, to the Company by any Board Member or the Managing Director, or whether they have in any other way acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association. We believe that our audit provides a reasonable basis for our opinion set out below. The annual accounts and the consolidated accounts have been prepared in accordance with the Swedish Annual Accounts Act and, thereby, give a true and fair view of the company's and the Group's financial position and results of operations, in accordance with generally accepted accounting principles in Sweden.

We recommend to the general meeting of shareholders that the income statements and balance sheets of the parent company and the Group be adopted, that the profit of the parent company be dealt with in accordance with the proposal in the administration report and that the members of the Board of Directors and the Managing Director be discharged from liability for the financial year.

Göteborg, 26 February 2001

Göran Ekström
Authorized Public Accountant

Björn Grundvall
Authorized Public Accountant

The Board of Directors

CHRISTIAN W JANSSON

Born 1949. Chairman of the Board since 2000. Chairman of the Boards of Föreningssparbanken Sjuhärad AB, MQ Sweden AB, Balton AB, Global Act AB and Hanssons Fyverkeri AB. Board member of Carmel Pharma AB, Bibliotekstjänst AB and Svedese Möbel AB. Shareholding, own and affiliated: 7,000 shares.

PIA GIDEON

Born 1954. Board member since 2000. Vice President External Relations, Corporate Communications, the Ericsson Group.

CARL-ÅKE JANSSON

Born 1943. Board member since 1987. Managing Director of Lindås Invest AB. Chairman of Precision Products Ltd. and P.E.S Ltd., both in Chesterfield, UK. Shareholding, own and affiliated: 65,000 shares.

GÖRAN LUNDBERG

Born 1940. Board member since 1997. Partner and board member of Industrial Development and Investment AB. Chairman of TAC AB, Pharamdule AB and U:son marin AB. Board member of

Studsvik AB, Biosensor Applications AB and the BOC Group. Shareholding, own and affiliated: 84,177 shares.

HANS JOHANSSON

Born 1955. Chief Executive and Managing Director of Semcon AB. Employed since 1983. Shareholding, own and affiliated: 450,000 shares plus 7,600 warrants.

STAFF REPRESENTATIVES

MIKAEL ISBERG

Born 1953. Consultant at Industrial Design. Employed since 1989. Shareholding, own and affiliated: 400 shares plus 1,000 warrants.

PER-YNGVE NYGREN

Born 1966. Consultant at Technology Management. Employed since 1995. Shareholding, own and affiliated: 600 shares.

For Board remuneration and other payments to the Board and Managing Director, see Note 3.



CHRISTIAN W JANSSON

GÖRAN LUNDBERG

CARL-ÅKE JANSSON

HANS JOHANSSON

MIKAEL ISBERG

PIA GIDEON

Senior Management

HANS JOHANSSON

Born 1955. Chief Executive and Managing Director of Semcon AB. Employed since 1983. Shareholding, own and affiliated: 450,000 shares plus 7,600 warrants.

BENGT NILSSON

Born 1957. Chief Finance Officer of Semcon AB. Employed since 1992. Shareholding, own and affiliated: 126,000 shares plus 3,500 warrants.

CAROLINE KRENSLER

Born 1967. Investor relations, business development Semcon AB. Employed since 1995. Shareholding, own and affiliated: 6,500 shares plus 3,000 warrants.

BO AXELSSON

Born 1961. MD Semcon Engineering West AB. Employed since 1998. Shareholding, own and affiliated: 34,800 shares.

CATHARINA SJÖGREN

Born 1967. MD Semcon Industrial Management AB. Employed since 1992. Shareholding, own and affiliated: 5,100 shares plus 8,200 warrants.

MATS LINDELÖF

Born 1958. MD Semcon Engineering East AB. Employed since 1990. Shareholding, own and affiliated: 40,000 shares.

LARS-INGE SJÖQUIST

Born 1958. MD Semcon Informatic AB. Employed since 1995. Shareholding, own and affiliated: 65,000 shares plus 4,200 warrants.

HANS KRONDAHL

Born 1955. MD Semcon Competence Development. Employed since 2000.

AUDITORS

GÖRAN EKSTRÖM

Born 1943. Authorized Public Accountant, Ernst & Young AB.

BJÖRN GRUNDVALL

Born 1955. Authorized Public Accountant, Ernst & Young AB.

HANS JOHANSSON



BENGT NILSSON



CAROLINE KRENSLER



BO AXELSSON



CATHARINA SJÖGREN



MATS LINDELÖF



LARS-INGE SJÖQUIST



HANS KRONDAHL



Addresses

Head Office

Semcon AB
Box 14262
400 20 Göteborg
Visiting address:
Vasagatan 45
Tel +46 31 721 00 00
Fax +46 31 721 03 33

SEMCON SWEDEN AB

Borlänge

Forskargatan 3
781 70 Borlänge
Tel +46 243 736 60
Fax +46 243 736 61
Business areas: ID

Göteborg

Box 14262
400 20 Göteborg
Visiting address:
Mölnålsvägen 24
Tel +46 31 721 00 00
Fax +46 31 335 81 75
Business areas: ED, ID, TM

Research & Development
Norra Långebergsgatan 4
421 32 Västra Frölunda
Tel +46 31 721 06 00
Fax +46 31 721 06 49
Business areas: ID

PVB
405 31 Göteborg
Visiting address:
Gustaf Larsons väg 1
Tel +46 31 721 04 00
Fax +46 31 721 04 19
Business areas: ED, ID

Arendal
Box 8733
402 75 Göteborg
Visiting address:
Arendal
Tel +46 31 50 35 50
Fax +46 31 50 35 59
Business areas: ID

Extern Engineering
Ruskvädersgatan 6
418 34 Göteborg
Tel +46 31 64 84 00
Fax +46 31 53 21 24
Business areas: ID

IT Consulting
Box 8994
402 74 Göteborg
Visiting address:
Götaverksgr 10, 7th floor
Tel +46 31 721 01 00
Fax +46 31 721 01 99
Business areas: ED

Helsingborg

Drottninggatan 7
252 21 Helsingborg
Tel +46 42 12 75 90
Fax +46 42 13 34 70
Business areas: ID, TM

Johanneshov

Box 5028
121 05 Johanneshov
Visiting address:
Veterinärgränd 6, 1tr
Tel +46 8 522 250 00
Fax +46 8 522 250 25
Business areas: ID, TM, ED

Karlskrona

Thore Christoffersgatan 6
371 33 Karlskrona
Tel +46 455 30 75 50
Fax +46 455 31 15 91
Business areas: ED, ID

Karlstad

Östra Torggatan 2 C
652 24 Karlstad
Tel +46 54 14 03 00
Fax +46 54 15 61 24
Business areas: ED, ID

Katrineholm

Mejerigatan 11
641 39 Katrineholm
Tel +46 150 59910
Fax +46 150 19910
Business areas: ID

Kista

Box 1099
164 25 Kista
Visiting address:
Färögatan 3
Tel +46 8 562 929 00
Fax +46 8 793 91 40
Business areas: ED, ID

Linköping

Box 407
581 04 Linköping
Visiting address:
Klostergatan 19 B
Tel +46 13 31 46 30
Fax +46 13 31 23 46
Business areas: ED, ID

Ludvika

Box 296
771 26 Ludvika
Visiting address:
Valhallavägen 2
Tel +46 240 141 24
Fax +46 240 183 03
Business areas: ID

Lund

Kaprifolievägen 1
227 38 Lund
Tel +46 46 38 61 00
Fax +46 46 14 53 70
Business areas: ED, ID, TM

Malmö

Nordenskiöldsgatan 6
211 19 Malmö
Tel +46 40 600 02 00
Fax +46 40 600 02 99
Business areas: ID

Oskarshamn

Forum
Box 31
572 21 Oskarshamn
Visiting address:
Södra Långgatan 15-17
Tel +46 491 124 00
Fax +46 491 124 90
Business areas: ED

Oxelösund

Sjögatan 28
613 33 Oxelösund
Tel +46 155 25 56 04
Fax +46 155 25 56 06
Business areas: ID

Stenungsund

Box 51
444 21 Stenungsund
Visiting address:
Ängsvägen 7
Tel +46 303 37 80 40
Fax +46 303 37 80 41
Business areas: ID

Stockholm City

St. Göransgatan 66
Box 49166
100 29 Stockholm
Tel +46 8 562 90 600
Fax +46 8 562 90 640
Business areas: TM

Sundsvall

Box 79
851 02 Sundsvall
Visiting address:
Södra Järnvägsgatan 37
Tel +46 60 744 99 40
Fax +46 60 744 99 99
Business areas: ED, ID

Södertälje

Box 59
151 21 Södertälje
Visiting address:
Turingegatan 26, 3 tr
Tel +46 8 554 224 50
Fax +46 8 554 224 60
Business areas: ID

BUSINESS AREAS

Semcon Industrial Design (ID)

Semcon e-Design (ED)

Semcon Technology Management (TM)



Trollhättan

Kardanvägen 37
461 38 Trollhättan
Tel +46 520 40 08 00
Fax +46 520 40 08 99
Business areas: ED, ID

Uppsala

Box 6385
751 36 Uppsala
Visiting address:
Fyrisborgsgatan 4
Tel +46 18 472 50 00
Fax +46 18 472 50 01
Business areas: ID

Varberg

Kungsgatan 3
432 40 Varberg
Tel +46 340 140 10
Fax +46 340 67 65 05
Business areas: ID

Västerås

Box 37
721 04 Västerås
Visiting address:
Nygårdsgatan 12
Tel +46 21 17 90 00
Fax +46 21 12 22 76
Business areas: ED, ID

Växjö

V:a Esplanaden 9 B
352 31 Växjö
Tel +46 470 78 09 00
Fax +46 470 78 09 29
Business areas: ID

**OTHER
SEMCON COMPANIES****Göteborg**

Zipper by Semcon
Box 8994
402 74 Göteborg
Visiting address:
Götavergsg 10, vån 7
Tel +46 31 721 01 00
Fax +46 31 721 01 99
Business areas: TM

**SEMCON
INTERNATIONAL****Denmark**

Semcon AB
Frederiksborggade 15
DK-1360 Köpenhamn
Denmark
Tel +45 339 140 00
Fax +45 339 140 13

Knud E. Hansen A/S
Islands Brygge 41
DK-2300 Köpenhamn S
Denmark
Tel +45 32 83 13 91
Fax +45 32 83 13 94

United Kingdom

Semcon UK Ltd.
19 ST Catherine's Road
Grantham,
Lincs NG31 6TT
England

**SEMCON TECHNOLOGY
TREND OFFICES****Japan**

Semcon Technology Trend Office
5-2-39 Akasaka
Minato-ku
Tokyo 107-8302
Japan
Visiting address:
Entuji Gadelius Building
Telephone +81 3 3224 3486
Fax +81 3 5549 7477

USA

Semcon Technology Trend Office
Semcon Inc.
800 El Camino Real Suite 200
Menlo Parc, CA, 94025
USA
Telephone +1 650 327 1244
Fax +1 650 327 4598



The Annual General Meeting

The Annual General Meeting of Semcon AB (publ) will be held on Wednesday 21 March 2001 at 6 p.m. in Semcon's HQ at Vasagatan 45, 4th floor. The premises will be open for registration from 5 p.m. Registration must have been carried out by 6 p.m. for shareholders to be included on the voting list.

PARTICIPATION

Shareholders wishing to take part in the AGM should:

- be registered in the Shareholders' Register held by VPC AB (the Swedish Central Securities Depository) by Friday 9 March 2001, at the latest.
- have notified the company of their intention to attend by 4 p.m. Thursday 15 March 2000 at the latest.

NOTIFICATION OF ATTENDANCE

Notification of attending the meeting can be made by post to: Semcon AB, Box 14262, 400 20 Göteborg, by fax to: +46 31 721 03 33, by telephone to: +46 31 721 03 07, or by e-mail to: elisabeth.batelson@semcon.se. Notification should include name, address and telephone number, as well as personal identity number or corporate registration number and any proxy details if relevant.

NOMINEE SHAREHOLDERS

Shareholders who have their shares registered with a nominee must temporarily re-register their shares in their own name with VPC to have the

right to apply to attend the meeting. Shareholders wishing to re-register their shareholding should inform their nominee in good time before Friday 9 March 2000.

DIVIDENDS

The Board of Semcon AB will propose to shareholders a dividend of SEK 0.50 (1.40) per share, amounting to SEK 8.7 million (24.3 m). Monday 26 March will be proposed as record day for the dividends. If the AGM approves the proposal, dividends are expected to be sent out by VPC on Thursday 29 March 2000.

IMPORTANT DATES

Annual General Meeting

21 March 2001

Q1 report

9 May 2001

Q2 (half-year) report

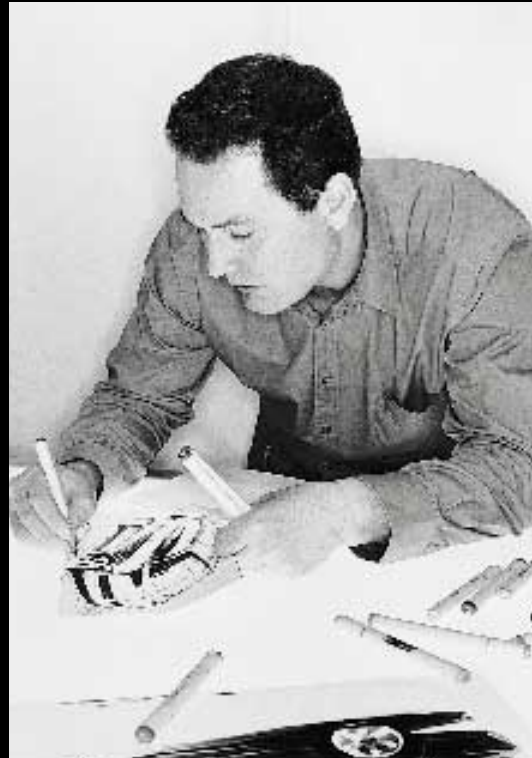
22 August 2001

Q3 report

24 October 2001

Vision: Semcon will be

a global leader in design and development



semcon

www.semcon.se