



# PRECISE BIOMETRICS

## Annual Report 1999 Precise Biometrics





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# PRECISE BIOMETRICS



## *Vision*

Using its knowledge of biometrics and IT security, Precise Biometrics AB will actively contribute to creating sophisticated security solutions for businesses, organisations, authorities and private individuals wherever reliable identification is required. The same technology that makes it secure and convenient to use fixed and wireless Internet will be used to open doors into homes, offices, cars and other items of property. Precise Biometrics will be one of the leading international players in biometric security solutions.

## *Business concept*

Precise Biometrics AB will develop, sell and licence products and systems based on unique biometric technology that enhance security and convenience while reducing the cost of using computers, mobile phones and pass systems. The company will thereby create good, long-term growth for shareholders.

## *Objectives*

Precise Biometrics AB will be the leading supplier of biometric security solutions in Europe and one of the leading international players. The company will offer innovative products designed to enhance IT security and pass systems and be integrated into high-volume electronic products, such as telecom products.

# Annual General Meeting

The shareholders of Precise Biometrics AB are hereby invited to attend the Annual General Meeting on Thursday 27 April 2000 at 3 p.m. at Dag Hammarskjölds väg 2, Lund, Sweden.

## *Right to participate at the meeting*

Any shareholder has the right to participate at the meeting provided

*that they are registered in the stockholders' register kept by Värdepapperscentralen VPC AB (the Swedish Central Securities Depository) on Monday, 17 April 2000, and*

*that they have given notice of their intention to participate by letter to Precise Biometrics AB (publ), Dag Hammarskjölds väg 2, 224 64 Lund, or by telephone on +46 46 311 100 or by fax on 46 46 311 101, by 4 p.m. Wednesday 19 April 2000. The notification should state the name, address, social security or company registration number, shareholding and telephone number. Representatives, as well as proxy voters for legal entities, shall provide proof of authorisation before the Meeting.*

## *Financial reports for 2000*

Q1 report and AGM, 27 April

Interim report, 31 July

Q3 report, 17 October

## *Ordering financial information*

Please contact Precise Biometrics AB via telephone (46) 46 31 11 00 or via telefax (46) 46 31 11 01 or via our website: [www.precisebiometrics.com](http://www.precisebiometrics.com)

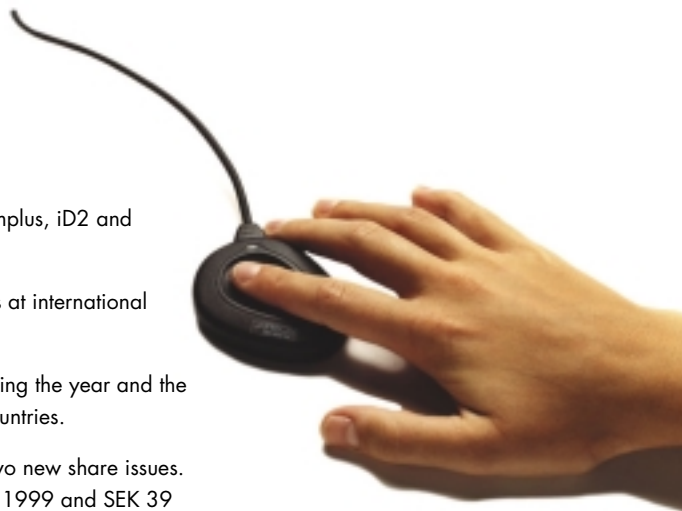
For further information, please contact the following people directly:

Jonas Källman, CFO tel (46) 46 31 11 24

Susanne Dahlman, CIO, tel (46) 46 31 11 26

## 1999 in brief

- At Cebit '99 the company introduced the Precise 100 SC, the world's first fingerprint reader featuring an integrated smart-card reader and silicon sensor.
- At Comdex in the US in November the company introduced the Precise 100 A, the world's smallest fingerprint reader.
- There are now over 200 pilot installations at customers around the world.
- Partnership agreements were signed with Gemplus, iD2 and Solid/ASSA ABLOY.
- The company received awards for its products at international exhibitions.
- The marketing organisation was extended during the year and the company is now represented in around 15 countries.
- Capital requirements were safeguarded via two new share issues. The company raised SEK 22.7 million in June 1999 and SEK 39 million in February 2000.
- The company was floated on the SBI list in December 1999.
- Sales in 1999 amounted to SEK 527,000.
- The company made a loss after financial items of SEK 14,742,000 (-2,164,000).



## CEO's statement

Talking about Precise Biometrics AB is like talking about a journey. Those of us involved in the company have experienced so many exciting challenges that no written text can adequately reflect the journey we have experienced. However, I would like to mention some of the key events of 1999 and describe our future as I see it.

During 1999, Precise Biometrics AB changed from being a pure development company into being an innovative, market-oriented business with a range of products designed for computer access, pass systems and e-commerce. Our technology puts us at the heart of the Internet explosion and provides something that has been missing – security.

The base for our operations are products that create security and convenience, and solutions that empower. Our clearly expressed aim is to be world class at everything we do. It is very satisfying for us to receive awards such as the British Secure Computing magazine's Editor's Choice and the prize at Smart Card 2000 – Europe's largest exhibition for smart cards – of "Best computer accessory 2000". The desire to maintain these high standards permeates throughout our organisation.

During the year we have chosen to meet customers and partners at exhibitions. This has proved to be a successful strategy. In March we were at CeBit '99 in Hanover for the premiere of a prototype of our Precise 100 SC fingerprint reader. We also displayed at CardTech/SecureTech and Comdex in the US and at Carte and InfoSecurity in Europe. As a result we were able to make pilot installations at over 200 companies and public authorities all over the world.

The company's shares were unofficially quoted via Matteus Fondkommission in June following a new share issue. In December the company was floated on the SBI-list. This listing means



increased interest from customers, shareholders and the media. We must ensure, therefore, that we are clear and consistent in our communication.

During the year we established our organisation for sales and marketing. We have created an international network of distributors who we are now training and with whom we are planning campaigns. The latest news about us and our products along with support for buying and using our products can be found on our website [www.precisebiometrics.com](http://www.precisebiometrics.com)

Launching a new high-tech solution such as ours cannot be done without support from others. We have therefore entered into partnerships with several leading companies. Gemplus, a world leader in smart cards with a global sales organisation, will sell our readers. Customers all over the world will thus be able to use smart cards without PIN codes. To offer secure business via the Internet we have also teamed up with the Swedish company, iD2, which offers unique encryption solutions and was voted Europe's best IT company in 1998. I would also like to mention Solid, a subsidiary of ASSA ABLOY, which has a very strong market position with its alarm and lock systems. Together with Solid we are developing a door opener that requires neither keys nor codes. The only thing you need for secure and convenient identification is your finger.

The large increase in our number of employees – up from 15 to 30 – meant that in December we moved into bigger premises next to the Ideon research village and Lund technical college.

New challenges await us in 2000. With our existing products and new ones, and through stronger partnerships, we will be offering even simpler and more secure solutions within selected customer segments in several markets. The new products will include new computer accessories, solutions for pass systems and for integration in electronic products such as mobile phones and hand-held computers.

Our goal is to continue our strong expansion and be Europe's leading biometrics company. To help us to finance this goal the Board intends to make a large issue of new shares during the year. An official quotation is planned for the second half of 2000.

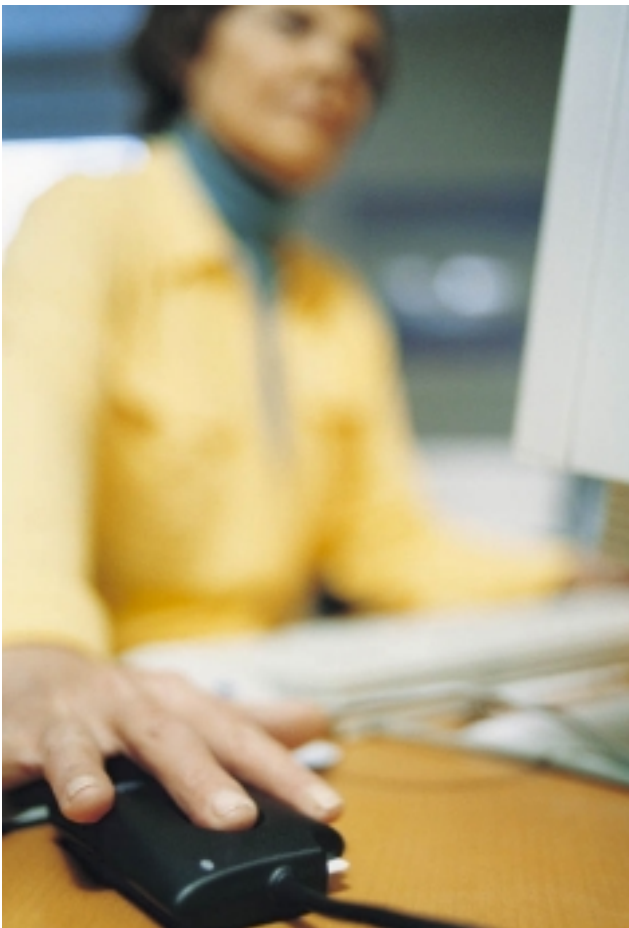
My colleagues and I take on these new challenges with great confidence. We have the competence, we know what we want to do and we enjoy doing it. Welcome along for the ride!

Lund  
28 February 2000

Peter Höjerback  
CEO  
Precise Biometrics AB

## People want to protect their property

The need to protect homes, computers and Internet activities has encouraged modern man to develop a wide range of protection strategies. PIN codes and passwords have become the most common, alongside the historically predominant key.



Interest in biometric verification solutions has been growing in recent years and there is now a global awareness of biometric based security products. The objects being discussed for use in biometric measurement are the human iris, voice, face, fingerprint and hand. Of these it is the fingerprint and the iris that ensure greatest security. It is currently very expensive to use the iris as a source of identification, however, and studies show that this method can be perceived as being unpleasant and intrusive. Precise Biometrics believes that the fingerprint is the best form of biometrics for combining high security, acceptance from the user, reliability and the right price. Several independent studies support this view.

Precise Biometrics has made a decisive contribution with its products to the field of biometric verification. The company's founders were engineers who thrived on the innovative environment around Lund university, Lund's technical college, the Ideon research village and the high-technology companies operating in Lund.

When the company was formed on 1 July 1997 in Lund, the market consisted of large and expensive fingerprint readers and a few simple versions. These products often had inadequate performance as the verification of fingerprints was not completely reliable. Precise Biometrics intended to develop a smaller and cheaper reader designed for the mass market and capable of meeting stringent security requirements.

Intensive development work led to the launch in the summer of 1999 of the Precise 100 product range, which has wide usability and a primary focus on computer security.



## Research and development

Precise Biometrics' products differ from competitors' products mainly because of the method of fingerprint verification. Most other methods are based on a system developed by the American FBI in the 1970s which uses points in the fingerprint to make an identification.

Precise Biometrics uses a completely new method for verifying fingerprints. This method reads the complete fingerprint, including the curve of the fingertip, in three dimensions. This information is quite unique, as are special information-intensive areas in the fingerprint. The amount of information measured is three to ten times greater than information measured by earlier readers. As well as significantly raising security, our method will work even if the finger is injured.

The reading is made using silicon sensors. Mathematical analysis is performed using a selection of algorithms that can be converted into a digital system. Irrelevant information is discarded. The level of accuracy in the reading would not have been possible ten years ago, but it can now be offered at a reasonable price thanks to rapid development in electronics. The reading is matched with a template stored on a smart card or on a hard disc.

### *Technology platform*

The technology platform that constitutes the base for the company's products has the following main elements:

- Image management and matching of fingerprints  
 The company is seeking a patent for advanced algorithms for real-time image management. Algorithms can match images of fingerprints in a completely new way by comparing complete pictures of fingerprints.
- Silicon sensors  
 Precise Biometrics uses a silicon sensor to read a fingerprint. These sensors are purchased from various partners and suppliers. The sensor detects an electric field in the finger top. It is impossible to deceive this system by using a picture of the fingerprint, as is the case with an optical sensor.
- Hardware integration  
 Precise Biometrics' products provide complete integration of a silicon sensor for fingerprint identification and a chip set for smart-card reading and printing. This integration forms a unique product, the only one of its type currently on the market.



#### Applications software

Using the Precise Biometrics log-in program you can log onto your work station or computer network with your fingerprint. This program, combined with the BioManager administration tool means that all passwords can be replaced by fingerprints to ensure greater security and easier use.

#### Communication protocol

The Precise 100 products are connected to the computer's parallel port or USB port. To achieve suitable transmission speeds, Precise Biometrics has developed its own drive procedures for all modern versions of the MS Windows operating system. Drive procedures for reading smart cards via standard PC/SC have also been developed by the company. Additional protocols for enhanced functionality are now being developed.

### *Security*

Security is given the highest priority at all stages of product development. All information is encrypted before it is stored or distributed. To guarantee that products can be integrated with existing and future systems, established procedures are followed very carefully.

Fingerprint information can be stored locally on a hard disc or on a server, which ensures adequate security in most cases. If an even higher level of security is required, the encrypted information can be stored on a smart card, which the user must then produce to complete identification.

### *Development unit*

Product development takes place at an intensive level at the company's headquarters in Lund and involves around 20 engineers. The current focus is on the verification of the fingerprint and security aspects.

### *Patent*

An application for a basic patent for the company's matching technology was made in the US in 1998. It was followed in April 1999 by an international application that provides protection in around 90 countries. Several other patents from the company are currently being processed. The company expects that a strong patent protection will be obtained. It takes around two years for a decision to be made after an application has been made. One patent was approved in February 2000, another is expected to be approved by the summer of 2000.

### *Technical agreements*

Partnership agreements were signed during 1999 with iD2 Technologies, a company that develops software for secure Internet identification based on Public Key Infrastructure (PKI) and smart cards. The purpose of the venture is to replace traditional PIN codes with fingerprints and thus enable secure and simple e-commerce on the Internet.

Co-operation between ASSA ABLOY's subsidiary, Solid, and Precise Biometrics has led to the development of a new solution for passer systems based on an electronic lock integrated with biometrics. The product increases security while remaining easy to use and is the first commercial product of its type in the world.

# The products

The Precise 100 product suite is a flexible and complete system, which efficiently combines ease of use with different requirements for security and without abusing the personal integrity of the user. The range consists of:

- Precise 100 A – the world's smallest fingerprint reader
- Precise 100 SC – a unique combination of fingerprint reader and smart-card reader
- Precise 100 SC SDK – a version for third-party developers
- Precise 100 SC integration kit – a version adapted for built-in applications

## Product launches during the year

Precise 100 A, Precise 100 SC and Precise 100 SC SDK – all introduced during 1999 – are the company's first generation of products. They are variants of a log-in system for the Microsoft Windows NT network. Support is now being extended to all modern versions of MS Windows.

Precise 100 SC and Precise 100 SC SDK are the world's first identification systems that combine a smart card with a silicon sensor for fingerprints. This combination ensures a very high level of security.

The system consists of a fingerprint reader connected to a PC running Precise Biometrics' unique software for fingerprint matching and an easy-to-use program for user administration. Once the software is installed on the computer the fingerprint can be stored in encrypted form on the computer's hard disc or on a smart card. This ensures that it is impossible to recreate the fingerprint.

The system also includes software that simplifies administration of user access while making it more efficient. Great savings are possible when traditional methods of managing passwords are abolished. Matching is performed in the computer or in the network's server. Data processing takes place in real time, which guarantees a response in less than one second.

Readers and software can be integrated in other applications. The Precise 100 SC SDK version includes software that is currently in demand from system integrators and OEM customers.

## Second and third generation products

The company's second generation of products will be based on a platform that, in addition to including a sensor, will also contain memory and a processor. This will open the door to new markets.

The third generation will feature a permanently programmed ASIC data chip. It will enable fingerprint technology to be integrated into a wide variety of electronic products such as mobile phones and hand-held computers.

# Production

Precise Biometrics's products are manufactured by specially selected sub-contractors. Rational and cost-effective production is vital in the pricing of the finished product. It also ensures high quality and the ability to quickly adapt to changes in market demand. All of our manufacturers must have ISO 9000 certification.

All electronics are taken care of by Vellinge Electronics, a leading Swedish company. Other sub-contractors work with mechanical aspects and their design.

The silicon sensor that does the actual reading of the fingerprint was until recently only available from a single supplier, Veridicom of California, USA. Recently, other producers began supplying this product, however.



## Markets

Precise Biometrics does not need to form a new market or build new infrastructure for its products. Identifying yourself has become a common everyday event.

For reasons of security, cost and comfort, it is highly probable that the demand for personal identification procedures is likely to expand globally. The markets for modern personal identification products using fingerprint recognition are considered to be extremely large and have considerable growth potential.



### *Three key markets*

Precise Biometrics is active in three key markets:

- Access to computers and networks – electronic commerce and payment transactions

Computer crime is on the increase and IT security among businesses and public authorities is generally poor. The number of computers in use is growing fast. In 1998 around 90 million personal computers were sold throughout the world. Unfortunately, surveys show that IT departments spend 40-60 per cent of their time solving password-related problems.

There is a great need for secure electronic user and personal identity procedures to facilitate commercial transactions on the Internet. In 1998 147 million people in the world had Internet access. This figure is expected to be 320 million for the year 2000.

The value of Internet commerce is also increasing. In 1999 the value of business-to-business trading on the Internet was worth USD 145 million. By 2004 this figure is forecast to soar to USD 7,300 million. Credit card companies and banks must therefore meet greater requirements for electronic personal identification.

During e-commerce procedures and accompanying payment transactions, advanced security systems are required for identification. This type of identification will be necessary when using Internet banks, trading in shares online and electronic commerce. It can provide protection for internal bank transactions and be used for cash dispensers and cashier desk terminals.

A system is required, therefore, that gives the right person access to a computer, network, file, website or intranet. Precise Biometrics' products provide access to personal digital signatures and encryption keys. Customers will thereby cut their administration costs for password management.

Alarm, lock and pass systems

The European market for security services and technology amounted to around SEK 195 million in 1999. The market for alarms designed for small companies and homes is assessed as relatively undeveloped and has a strong growth potential in coming years.

The lock market is expected to develop towards higher security levels than are currently the norm. According to assessments made by auditors and insurance companies, there is a great need among small to medium sized businesses for improved security. This can entail restricting access to stores, server rooms, archives, etc.

Precise Biometrics' technology enables personal identification via a physical access check. Authorisation is linked to an individual. The system can be linked to pass systems and time reporting systems. It provides access to individual high-security areas such as server rooms or bank vaults. It replaces building alarms and locks. On cars it can be used to open doors and start the engine. Lost cards, lost keys and forgotten codes can be a thing of the past.

Integration in high volume electronic goods

Precise Biometrics' technology also enables secure access to mobile phones and integrated Internet and telephony applications such as WAP. Laptop computers, computerised pocket diaries, TVs, satellite receivers, TV accessories, videos, etc, can be protected and function as platforms for e-commerce when linked with Precise Biometrics' technology.

## Sales

Precise Biometrics sells products and OEM integration kits, and it licences the company's identification software.

At present, the primary focus of the company is to establish contacts with internationally active businesses marketing products that require electronic personal identification. Precise Biometrics is also looking for IT companies with effective distribution channels, good integration knowledge or powerful software that can enhance the company's technology. During the year around 15 agreements were signed with distributors in several countries. In addition to sales and stock-holding, these distributors will also help with marketing the products and providing support to customers.

## Competitors

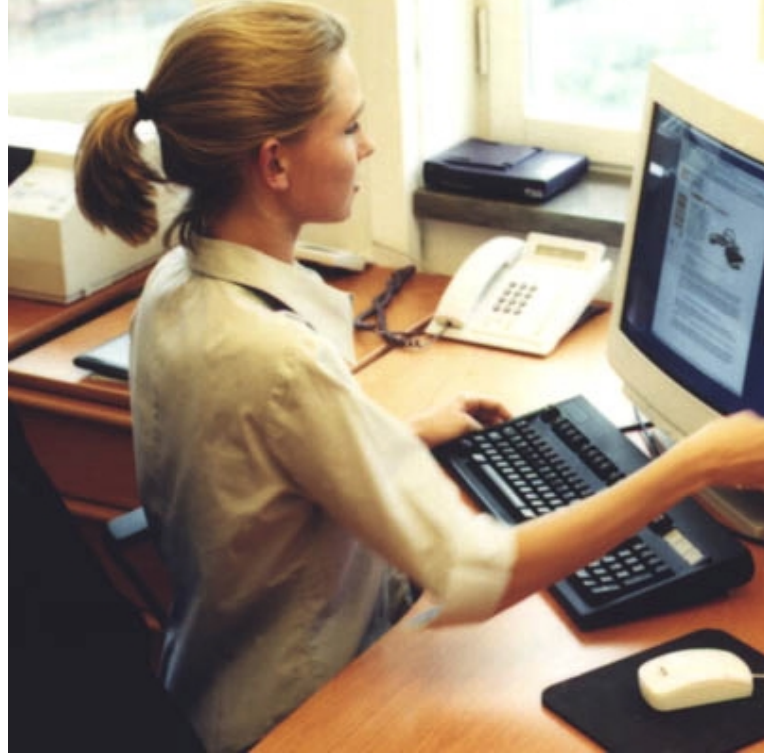
The biometrics industry consists mainly of relatively young companies. There are an estimated 100 companies active in this field, of which around 70 use fingerprint technology. Many of these companies, however, are integrators, buying products and technology from companies such as Precise Biometrics. The number of direct competitors, therefore, is much smaller. Most of them are in the US. These competitors use different biometric identification methods. The Precise Biometrics method, pattern recognition, differs from competing methods by using a larger amount of the information contained in a fingerprint. This enables a higher level of security than was previously possible. Nearly all other commercially available systems use the feature extraction method that was developed in the 1970s and is still used today by the American FBI, for example.

One company that is similar to Precise Biometrics is the American company, Biometric Identification, which specialises in image management of a part of the fingerprint and uses a technology similar to Precise Biometrics'. Biometric Identification focuses on products within the physical access segment.

Other major competitors include Identix/Identicator (USA), ABC, American Biometric Corporation (USA), and Sony (Japan). Certain sensor manufacturers have announced partly similar products. In Sweden there is a development company called Fingerprint Cards that is unofficially quoted on the stock exchange.



# Strategies



## Summary

The company will sell its technology in the form of its own finished products, as components that can be built into other companies' products, as systems and as licensed technology.

## Products

Precise Biometrics' products and technology must have the best performance on the market in terms of security and ease of use for fingerprint identification while never intruding on the user's personal integrity. It must be possible to adapt the level of security to the application. We will also develop technology so that products can be produced at low cost, in small sizes and with optimum user-friendliness.

## Marketing and sales

Established channels will be used for marketing. In its marketing work the company will co-operate with distributors who have suitable geographic coverage and segment specific knowledge and contacts. This co-operation will primarily focus on IT security solutions. The three areas of top priority are banking and finance, healthcare and public authorities.

Precise Biometrics also works together with system integrators who create complete solutions in direct co-operation with end users. We also want to co-operate with OEM customers, i.e. those businesses that wish to integrate our products into their own products.

## Technical development and competence assurance

The company's development work focuses on the company's core competencies in order to maintain the technological advantage. Core competencies consist of methods for describing and comparing fingerprints, hardware integration and the development of silicon boards.

Precise Biometrics aims to provide a stimulating environment for the development of cutting-edge technology. We operate various reward schemes such as share options in order to recruit and maintain staff with core competence. The company also wishes to foster a good working environment with a good mix of young and old, men and women.

## Cost efficiency and large volumes

The company seeks optimum cost efficiency in order to serve high-volume international markets.

## Partnerships

The company's identification software can be licensed to international businesses that market products and systems that can use electronic personal identification. Precise Biometrics can create complete software solutions for customers and ensure full integration. Through technical co-operation in hardware, combinations can be created that mean greater added value. Partnerships with suppliers of sensors are especially important.

## Production

The company does not operate its own production lines. All manufacturing is performed by established sub-contractors and partners.

## Patents

The company will continue to pursue an aggressive patents strategy. The opportunities that arise from development will be protected by patent as far as possible.



## Key events in 1999

Precise Biometrics entered a fresh phase of development in 1999. The company introduced its first commercial range of products, the Precise 100 series. The range comprises the Precise 100 SC – the world's first fingerprint reader with integrated smart card and silicon sensor – and the Precise 100 A – the world's smallest fingerprint reader. A version of the Precise 100 SC for USB ports was presented in November. When the first product launches were made in 1999, support was only available for Windows NT. Today all modern versions of the Microsoft Windows operating system are supported – 95/98/NT/2000.

### *Marketing and sales*

During the year the company focused its marketing activities on signing agreements with important distributors and strategic partners. Precise Biometrics was represented in 15 countries by the end of 1999.

Pilot installations have been made at over 200 businesses. These businesses are expecting to reduce costs for password administration while enhancing their security. Customers are to be found all over the world, and they receive support from various distributors or system integrators. Reference customers and market education are important for future success because modern biometrics is a relatively rare phenomenon.

### *Strategic agreements*

Three important agreements were signed in 1999:

- In October Precise Biometrics and iD2 Technologies entered into an agreement concerning e-commerce.
- A partnership was started with Gemplus, the world-leading French manufacturer of smart cards, who introduced a fingerprint reader with an integrated reader for smart cards from Precise Biometrics.
- In December Precise Biometrics announced an agreement with security company Solid, a subsidiary of the Swedish company, ASSA ABLOY, concerning a pass system combined with biometrics.



### *Exhibitions*

The company participated with great success at exhibitions such as RSA in San José, CeBIT in Hanover, IT-EXPO in Malmö, Cardtech/Securetech in Chicago, Carte '99 in Paris and Comdex Fall '99 in Las Vegas.

Several of these exhibitions were well attended by the Swedish trade press, who gave positive coverage of the company's products.

Prizes were awarded for the company's products on several occasions. They included Secure Computing's "The pick of '99", which was awarded to Precise 100 SC.

### *Expansion*

Peter Höjeback, from Axis Communications, was appointed CEO of Precise Biometrics on 1 January 1999.

In November, due to rapid expansion, the company moved into new premises located in Lund near the city's high technology institutions.

The number of employees increased from 15 to over 30 during the year.

### *Raising of capital: quotation*

In May at the Annual General Meeting it was decided to implement a new share issue, which was carried out in June. The sale of 720,000 shares at a price of SEK 35 per share raised SEK 22.7 million after costs. The capital injection was used during the launch of the company's first products and for product development.

During the summer a loan worth SEK 6 million was granted by Sweden's Industrifonden. The loan is linked to detachable warrants to subscribe for 80,000 shares. Sweden's National Board for Industrial and Technical Development approved a loan worth SEK 1.7 million.

A decision was made in December to increase the company's share capital via a new share issue. The issue, which was carried out on 2 February 2000, was directed towards SEB Funds and the founders of Icon Medialab. It raised SEK 39 million after costs.

Precise Biometrics' shares were quoted unofficially in June by Matteus Fondkommission. As of 13 December 1999 the shares have been quoted on the SBI-list.

### *Sales and results*

Sales in 1999 amounted to SEK 527,000 (0). The company made a loss after net financial items of SEK 14,742,000 (-2,164,000).

## Human resources

There is a shortage of people with high levels of competence in the areas where Precise Biometrics is active. Even so, the company managed to double its workforce in 1999, from 15 employees to 30.

Precise Biometrics continues to successfully recruit employees with high levels of competence, including recently qualified engineers, doctoral candidates with cutting-edge knowledge and people with extensive experience of the IT and electronics industries. The sales and marketing department has been strengthened with the recruitment of several highly qualified employees as the pace of commercialisation intensifies. The finance department, too, has expanded its team to meet increased demands from shareholders and analysts in connection with the quotation of the company's shares.

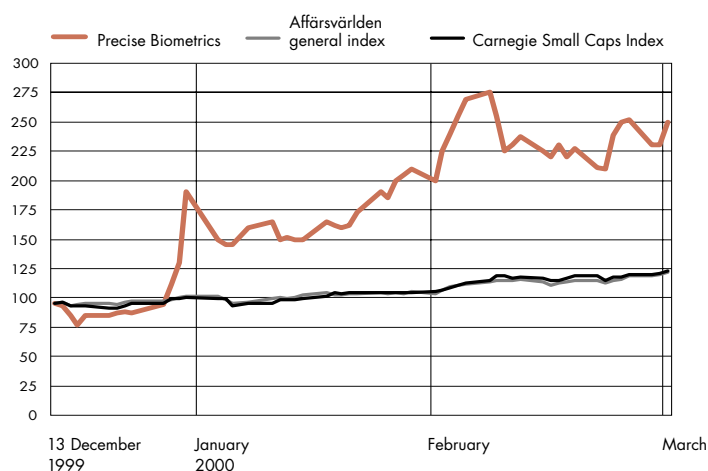


Market-based salaries have been boosted with the addition of a share options programme for all employees. In order to attract new employees, as well as retaining existing ones, the company has issued a promissory note with accompanying share warrants for all existing employees. The intention is to extend this scheme to new recruits.

The company's new premises next to Lund's technical college, university and the Ideon research village facilitate recruitment of highly qualified employees.

## Shares

In June Precise Biometrics carried out a new share issue that raised SEK 22.7 million after costs. The company's shares were unofficially quoted by Matteus Fondkommission at the same time. In December the shares were floated on SBI list. The diagram on this page shows how the shares have performed since then.



### The five largest owners

As of 31 December 1999, the five largest owners were:

Christer Fåhraeus	438 667 shares
Nils Bernhard, in companies	250 000 shares
Länsförsäkringar Skåne	100 000 shares
Mårten Öbrink	83 070 shares
Teknoseed AB	67 000 shares

The number of outstanding shares on 31 December 1999 was 2,343,700.

The company has issued 423,000 warrants to employees and the major owners have issued 74,500 options to the employees.

At the end of January 2000 the company carried out a new share issue to SEB Funds (175,000 shares) and the founders of Icon Medialab (75,000 shares). A total of 250,000 shares were issued, raising SEK 39 million after costs.

The Annual General Meeting has authorised the Board to make a decision regarding the issue of a further 921,850 shares with and without preferential rights for existing shareholders. The Board intends to use this authorisation in order to finance the continued growth of the company.

The company also intends to officially quote its shares during the second half of 2000.





## Directors' report

The Board of Directors and CEO of Precise Biometrics AB (publ), company registration number 556545-6596, located in Lund, Sweden, hereby present the Annual Report for the 1999 financial year, the second year of the company's operations.

### *Operations in general*

Precise Biometrics AB develops and markets products for biometric identification, primarily in the field of fingerprint identification.

Precise Biometrics' products have had a major impact in the field of biometric verification. Precise Biometrics' products differ from competitors' products in the method used to verify the fingerprint. The Precise Biometrics method uses all of the fingerprint information, unlike traditional methods in which identification is confirmed from specific points in the fingerprint.

The market segment that Precise Biometrics is currently targeting with its products and solutions is the computer security and pass systems market. Other top priority areas are solutions for secure e-commerce, where the company works together with partners, and integration with high-volume electronics products.

### *Key events during 1999*

#### New share issue

In June the company carried out a new share issue, issuing 720,000 shares at a price of SEK 35 per share and raising SEK 22.7 million in equity after costs.

The costs of the issue have been recorded in the income statement.

#### Introduction of new products

During the autumn Precise Biometrics AB launched its first commercial product line, the Precise 100 series, which includes products for convenient and secure entry to all modern versions of the Microsoft



Windows operating system, with or without support for smart cards. One of the products, the Precise 100 A was launched in the autumn as the world's smallest fingerprint reader.

#### Financing

During the summer a loan worth SEK 6 million was granted by Sweden's Industrifonden. The loan is linked to detachable warrants giving the right to subscribe for 80,000 shares. Sweden's National Board for Industrial and Technical Development approved a loan worth SEK 1.7 million.

#### Partnership agreements

Precise Biometrics and iD2 Technologies have signed an agreement aimed at enhancing security levels and easier use concerning e-commerce.

A partnership was started with Gemplus, the world-leading French manufacturer of smart cards. Gemplus extended its product portfolio with a fingerprint reader with an integrated reader for smart cards from Precise Biometrics.

In December Precise Biometrics announced an agreement with the security company, Solid, a subsidiary of the Swedish company, ASSA ABLOY, concerning a pass system combined with biometrics. The partnership and first prototypes were the main item of news when Precise Biometrics inaugurated its new premises.

#### New premises

The company moved into new premises in November. The new site is next to Lund's technical college, university and the Ideon research village – ideal for ongoing recruitment of highly qualified employees.

#### *Important events after the end of the year*

In accordance with the authorisation agreed at an Extraordinary General Meeting on 9 December 1999, the company carried out a new share issue on 2 February 2000 comprising a total of 250,000 shares. The issue was directed towards SEB Fonder and the founders of Icon Medialab, and raised SEK 39 million after costs.

#### *Research and development*

Intensive product development takes place at the company's headquarters in Lund, Sweden, and involves around 20 engineers. Verification of fingerprints and total security is the focus of the work. Considerable resources are being invested in development work on the next generations of the company's products.

#### *Financial overview*

	31 Dec 1999	31 Dec 1998
No. of employees	30	15
Working capital, SEK 000	7,246	4,551
Liquid ratio	274%	424%
Equity/assets ratio	70%	89%

#### *Future developments*

The company will continue to invest in marketing and sales in its selected segments. There is a sharply growing demand for secure IT solutions as businesses and organisations increasingly integrate Internet transactions into their operations. Together with the market's growing interest in the security and convenient that biometrics offers, this will place higher demands on the speed with which we develop products and security solutions for our customers and partners.

We believe that we are very well equipped to not only maintain, but significantly strengthen our position as the leading biometrics company on the global stage.

#### *Proposed allocation of accumulated deficit*

The Board and CEO propose that the accumulated deficit for the year of SEK 14,741,788, together with the loss carried forward of SEK 2,164,319, totalling SEK 16,906,107, be carried forward.

# Income statement

Amounts in SEK 000	Note	1999	1998*
	1		
<b>Operating income, etc.</b>			
Net sales		527	0
Other operating income		0	200
Capitalised development work	4	8,554	3,639
<b>Total income, etc.</b>		<b>9,081</b>	<b>3,839</b>
<b>Operating expenses</b>			
Goods for resale		-947	0
Other external expenses	2	-6,456	-1,658
Personnel costs	3	-11,109	-4,043
Depreciation according to plan	4, 5	-1,725	-340
Other operating expenses	6	-1,200	0
<b>Total operating expenses</b>		<b>-21,437</b>	<b>-6,041</b>
<b>Operating loss</b>		<b>-12,356</b>	<b>-2,202</b>
<b>Profit/Loss from financial investments</b>			
Interest income	7	248	42
Interest expenses		-134	-4
Expenses for new share issue		-2,500	0
<b>Total profit/loss from financial investments</b>		<b>-2,386</b>	<b>38</b>
<b>Net loss for the year</b>		<b>-14,742</b>	<b>-2,164</b>

\* 4 Sept. 1997 – 31 Dec. 1998

## Balance Sheet

Assets (Amounts in SEK 000)		1999	1998
Fixed assets			
Intangible fixed assets	4	18,934	5,906
Tangible fixed assets	5	1,711	854
<b>Total fixed assets</b>		<b>20,645</b>	<b>6,760</b>
Current assets			
<b>Inventories</b>			
Goods for resale		1,231	0
<b>Current receivables</b>			
Accounts receivable – trade		454	0
Other receivables	8	1,105	396
<b>Short-term investments</b>		6,000	0
<b>Cash and bank balances</b>		1,913	5,559
<b>Total current assets</b>		<b>10,703</b>	<b>5,955</b>
<b>Total assets</b>		<b>31,348</b>	<b>12,715</b>

Shareholders' equity and liabilities (Amounts in SEK 000)		1999	1998
Shareholders' equity			
<b>Restricted equity</b>	9		
Share capital		937	140
Share premium reserve		37,460	6,224
Current new share issue		0	6,711
		<b>38,397</b>	<b>13,075</b>
<b>Accrued losses</b>			
Unconditional shareholders contribution received		400	400
Loss brought forward		-2,164	0
Net loss for the year		-14,742	-2,164
		<b>-16,506</b>	<b>-1,764</b>
<b>Total equity</b>		<b>21,891</b>	<b>11,311</b>
Liabilities			
<b>Long-term liabilities</b>			
Loan from Industrifonden	10	6,000	0
<b>Total long-term liabilities</b>		<b>6,000</b>	
<b>Short-term liabilities</b>			
Accounts payable – trade		1,320	753
Other short-term liabilities	11	775	380
Accrued expenses	12	1,362	271
<b>Total current liabilities</b>		<b>3,457</b>	<b>1,404</b>
<b>Total equity and liabilities</b>		<b>31,348</b>	<b>12,715</b>
<b>Pledged assets</b>			
Floating charges		1,000	0
<b>Contingent liabilities</b>		None	None

## Cash flow statement

Amounts in SEK 000	1999	1998*
Current activities		
Loss after financial items	-14 742	-2 164
Adjustments for items not included in cash flow	-12 300	-5 566
	<b>-27 042</b>	<b>-7 730</b>
Paid taxes	0	0
<b>Cash flow from current activities before changes in working capital</b>	<b>-27 042</b>	<b>-7 730</b>
Cash flow from changes in working capital		
Increase in inventories	-1 231	0
Increase in receivables	-1 163	-396
Increase in current liabilities	2 053	1 404
<b>Cash flow from current activities</b>	<b>-27 383</b>	<b>-6 722</b>
Investment activities		
Acquisitions of tangible fixed assets	-1 585	-1 194
<b>Cash flow from investing activities</b>	<b>-1 585</b>	<b>-1 194</b>
Financing activities		
New share issue	25 322	13 075
Loans raised	6 000	0
Unconditional shareholders contribution	0	400
<b>Cash flow from financing activities</b>	<b>31 322</b>	<b>13 475</b>
<b>Cash flow for the year</b>	<b>2 354</b>	<b>5 559</b>
<b>Liquid funds at the beginning of the year</b>	<b>5 559</b>	<b>0</b>
<b>Liquid funds at the end of the year</b>	<b>7 913</b>	<b>5 559</b>

\*4 Sept. 1997 – 31 Dec. 1998

Liquid funds means cash balances and bank balances as well as current investments. Interest paid during the year amounted to KSEK 134.

# Notes (Amounts in KSEK unless otherwise stated)

## Note 1 Accounting and valuation principles

The accounting and valuation principals applied are consistent with the provisions of the Annual Accounts Act and generally accepted accounting principles. Unless otherwise stated the principles are unchanged in comparison with the previous year.

### Depreciation according to plan

Depreciation according to plan is charged against income for capitalised development work, computers and equipment. The depreciation according to plan is based on the acquisition value of the assets and is calculated on their expected economic lifetime.

The following assumptions regarding economic lifetimes have been applied:

Capitalised development work:	5 years
Computers:	3 years
Equipment:	5 years

### Capitalisation of development work

During 1999 extensive development work has taken place. The capitalised expenses consist of costs for the continued development of equipment for biometric fingerprint identification. The company has directly and indirectly capitalised salary expenses as fixed expenses relating to the development department.

These development projects are focused on producing new products, new processes, new systems or important improvements to existing products with the aim of generating end products to be introduced on to and sold in the market. Expenses for development work are charged as they occur, but are later directly capitalised in accordance with the conditions in BFN R1.

The capitalised development work is depreciated according to plan during five years, which is equivalent to the estimated utilisation period, with reference to the ageing of the technology and estimated product life cycle.

During the later part of 1999 the company's first product group for finger print identification was introduced onto the market and, consequently, depreciation of development work began to be reported during the last quarter of 1999.

### Inventories

Goods for resale are valued at the lowest of acquisition value and realisable value as at closing day date.

### Receivables

Receivables have been reported at the amount at which they are expected to be received, on the basis of individual assessment.

### Receivables and liabilities in foreign currency

Receivables and liabilities in foreign currency are translated at closing day rate in the balance sheet. Translation differences are reported in the income statement during the period of their occurrence.

## Note 2 Remuneration to auditors

During the year the following compensation has been paid to the auditors chosen by the AGM.

	Audit	Consulting services
Öhrlings PricewaterhouseCoopers	65	39



**Note 3 Salaries, other remuneration and payroll**

Salaries, emoluments and social security contributions amount to:

	1999	1997/1998
Salaries and emoluments	7,604	2,768
CEO	642	486
Other employees	6,962	2,282
Social security contributions	2,957	996
(of which pension costs)	419	122

Pension premiums equivalents to those of the ITP plan have been paid to the managing director. Compensation to the members of the board of directors who are not employed in the company amount to SEK 20,000 per person.

Average number of employees during 1999 amounted to 22.

	1999	1997/1998
Total number of employees	22	9
(of which men)	21	8

For the executive management, including the managing director, the following rules apply as regards severance pay.

The managing director receives 6, alternatively 9 months' salary if the termination of employment is on behalf of the managing director or if it is on behalf of the company. The other members of the executive management receive 2 to 6 months' salaries upon termination of employment, regardless if the employee or the company instigates such termination.

**Note 4 Intangible fixed assets**

Intangible fixed assets consist only of capitalised development work.

Depreciation reported during the last quarter of 1999.

	1999	1997/1998
Capitalised development work		
Opening acquisition value	5,906	0
The year's acquisitions – Own work	8,554	3,639
The year's acquisitions – External expenses	5,471	2,267
<b>Closing acquisition value</b>	<b>19,931</b>	<b>5,906</b>
Opening depreciation	0	0
The year's depreciation	-997	0
<b>Closing depreciation according to plan</b>	<b>-997</b>	<b>0</b>
<b>Closing residual value according to plan</b>	<b>18,934</b>	<b>5,906</b>

**Note 5 Tangible fixed assets**

	1999	1997/1998
Opening acquisition value	1,194	0
The year's acquisitions	1,580	1,194
<b>Closing acquisition value</b>	<b>2,774</b>	<b>1,194</b>
Opening depreciation	-340	0
The year's acquisitions	-723	-340
<b>Closing acquisitions</b>	<b>-1,063</b>	<b>-340</b>
<b>Closing residual value according to plan</b>	<b>1,711</b>	<b>854</b>

**Note 6 Other operating expenses**

Refers to royalty charges for the co-operation agreement with C-Technologies AB.

**Note 7 Interest income**

Interest income from short-term investments.

**Note 8 Other receivables**

	1999	1997/1998
Prepaid expenses and accrued revenue	240	65
Other receivables	865	331
<b>Total other receivables</b>	<b>1,105</b>	<b>396</b>

Included in receivables is a VAT receivable of KSEK 825 (previous year KSEK 291).

**Note 9 Equity**

	Share capital	Share premium reserve	Current new share issue	Shareholder contribution	Profit/loss brought forward	Net loss for the year
<b>1 Jan. 1999</b>	<b>140</b>	<b>6,224</b>	<b>6,711</b>	<b>400</b>	<b>-2,164</b>	
New share issue reg. Feb.	22	6,202				
Bonus issue reg. May	487		-6,711			
New share issue reg. Sept.	288	24,912				
Warrant premiums		122				
Net income for the year						-14,742
<b>31 Dec. 1999</b>	<b>937</b>	<b>37,460</b>	<b>0</b>	<b>400</b>	<b>-2,164</b>	<b>-14,742</b>

During the year 943,700 new shares have been issued with a premium of KSEK 31,114.

The share capital at year-end was comprised of 2,343,700 class A shares à SEK 0.40 per share (previous year 1,400,000 shares à SEK 0.10 per share).

**Note 10 Loan from Industrifonden**

The entire amount matures within five years.

**Note 11 Loan with an attached warrants for the purchase of new shares**

A loan, with attached warrants for the purchase of new shares, totalling SEK 5,700, was subscribed by a number of the members of the board of directors in 1998. The loan became due for payment in September of 1998. The promissory note included the right, according to the attached warrants, to purchase a total of 19,000 shares in the company at a share price of SEK 39. Holders of the warrants own the right to purchase new shares in the company until 31 Dec. 2000. The difference between the nominal value of the shares and the issue price of the promissory note, a total of SEK 190,000, has been included in the share premium reserve.

A further four loans with warrants totalling SEK 640, SEK 1,050, SEK 630, and SEK 33,000 respectively, in nominal value, have been subscribed by key individuals and employees in the company. The subscription period terminates on 31 Dec. 2000 for the first three loans and on 1 Oct. 2001 for the fourth loan. The promissory notes mentioned here include the right, on the basis of the attached warrant, to purchase a total of 153,000 shares in the company at a share price of SEK 50, SEK 39, SEK 43 per share for the first three loans and SEK 55 for the fourth loan. The difference between the nominal value of the shares and the issue price of the promissory notes, a total of SEK 206,530, has been reported in the share premium reserve.

A further loan with attached warrants totalling SEK 100,000 was subscribed by Industrifonden in conjunction with a substantial financing commitment from Industrifonden. (See Note 10).

Of other liabilities, SEK 8,020 comprises a loan with attached warrants for the purchase of new shares.

**Note 12 Accrued expenses**

Included in this item are personnel-related expenses totalling KSEK 631 (previous year KSEK 271).

**Note 13 Leasing**

The company has no financial leasing contract and only a few smaller operational leasing contracts.

Lund, 28 February 2000

Christer Lindberg  
*Chairman of the Board*

Nils Bernhard

Christer Fåhraeus

Nils Ljung

Peter Höjerback  
*Chief Executive Officer*

Our audit report was presented on 3 March 2000

Per Wardhammar  
*Authorised Public Accountant*

Dan Andersson  
*Authorised Public Accountant*



## Audit report

*To the Annual General Meeting of shareholders of Precise Biometrics AB. Co.reg.no. 556545-6596*

We have audited the annual accounts, the accounting records and the administration of the board of directors and the managing director of Precise Biometrics AB for the year 1999. These accounts and the administration of the company are the responsibility of the Board of Directors and the CEO. Our responsibility is to express an opinion on the annual 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 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 CEO, as well as evaluating the overall presentation of information in the annual accounts. As a basis for our opinion concerning discharge from liability, 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 of any board member or CEO. We also examined whether any board member or CEO has, 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 have been prepared in accordance with the Annual Accounts Act and, thereby, give a true and fair view of the company's financial position and results of operations in accordance with generally accepted accounting principles in Sweden.

We recommend to the Annual General Meeting of shareholders that the income statement and balance sheet be adopted, that the loss be dealt with in accordance with the proposal in the administration report and that the members of the Board of Directors and the CEO be discharged from liability for the financial year.

Lund, 3 March 2000

Öhrlings PricewaterhouseCoopers AB

Per Wardhammar  
*Authorised Public Accountant*

Dan Andersson  
*Authorised Public Accountant*

## Executive management



**Peter Höjerback,**  
CEO, born 1966.  
Master of Science Degree in Engineering Physics. He has previous experience in major managerial positions, amongst others, for Axis Communications and within the Celsius group. Holdings: 21,000 warrants and 15,000 call options.



**Märten Öbrink,**  
Vice President, born 1968.  
Master of Science Degree in Engineering Physics. Previous experience with a number of positions within Ericsson Mobile Communications. He is one of the founders of Precise Biometrics. Holdings: 83,000 shares and 35,000 warrants.

**Ola Svedin,**  
Development Manager, born 1965.  
Master of Science Degree in Electronics. He has worked with Ericsson Mobile Communications and SAAB Ericsson Space. Holdings: 12,000 warrants and 2,500 call options.



**Susanne Dahlman,**  
Marketing and Communication Manager, born 1964.  
Marketing DIHM, Bachelors Degree. Previous experience with Perstorp AB, AB Volvo and British Airways. Holding: 3,500 call options.



**Johan Oltegen,**  
Business Development Manager, born 1964.  
Master of Science in Engineering. Previously Commercial Manager for Tetra Pak in Lithuania. Holdings: 4,000 shares, 1,500 warrants and 2,500 call options.



**Jonas Källmén,**  
CFO, born 1965.  
Masters Degree in Economics, Previously Managing Director for Tetra Pak Nordic Treasury. Holdings 17,500 warrants and 2,500 call options.

## Board of directors, auditors



**Christer Lindberg**, born 1948. Chairman of the Board. Masters Degree in Economics and Masters in Business Administration. Managing Director of ALMI Företagspartner Stockholm since 1997. Chairman of the Board of Östergren Elmotor AB. Holding in Precise Biometrics: 60,000 warrants.



**Nils Bernhard**, born 1947. Master of Science Degree in Engineering and Masters Degree in Economics. Nils Bernhard is one of the founders of Precise Biometrics. He is a Chairman of the board of directors of Pajeb Kvarts AB, and Member of the boards of directors of Array Printers AB, C Technologies AB, CAP-PME/PMI S.A., Imsys AB, Pacta Copyrights S.A. and Schweden Splitt AB. Holdings in Precise Biometrics: On the basis of beneficiary of endowment insurance, 250,000 shares and 20,000 options. He has issued 30,000 options as collateral to employees in the company.



**Christer Fåhraeus**, born 1965. Bachelor of Science Degree, Master of Science Degree in Bioengineering and Doctoral Candidate in Neurophysiology. Christer Fåhraeus is one of the founders of Precise Biometrics. Holdings in Precise Biometrics: 438,667 shares and 20,000 warrants. He has issued 44,500 options as collateral to employees in the company.



**Nils Ljung**, born 1948. Master of Science Degree in Engineering. Nils Ljung is Chairman of the Board of C Technologies AB, Avantego AB ComMet and Radio Design. Holding in Precise Biometrics: 55,000 warrants.

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**Auditors:** Per Wardhammar and Dan Andersson, Öhrlings PricewaterhouseCoopers AB

# Glossary

**Algorithm**

Mathematical calculation model.

**ASIC**

Application Specific Integrated Circuit, application-specific integrated circuits.

**Image processing**

Electronic analysis of patterns, often with the help of advanced algorithms.

**Biometry**

A technical analysis of biological data to insure identification of an individual.

**Feature extraction**

A method whereby characteristic features are identified and their position determined in relationship to each other.

**OEM**

Original Equipment Manufacturing, that is, the selling of products to manufacturers, in which the OEM products are only a part of the final, end product.

**Pattern recognition**

Modern method of verifying fingerprints. The entire fingerprint is registered in three dimensions. The volume of information, which is registered, is 3-10 times greater than with the older methods.

**PIN-code**

Personal Identity Number, personal, numerical code.

**Protocol**

Form of communication.

**Smart card**

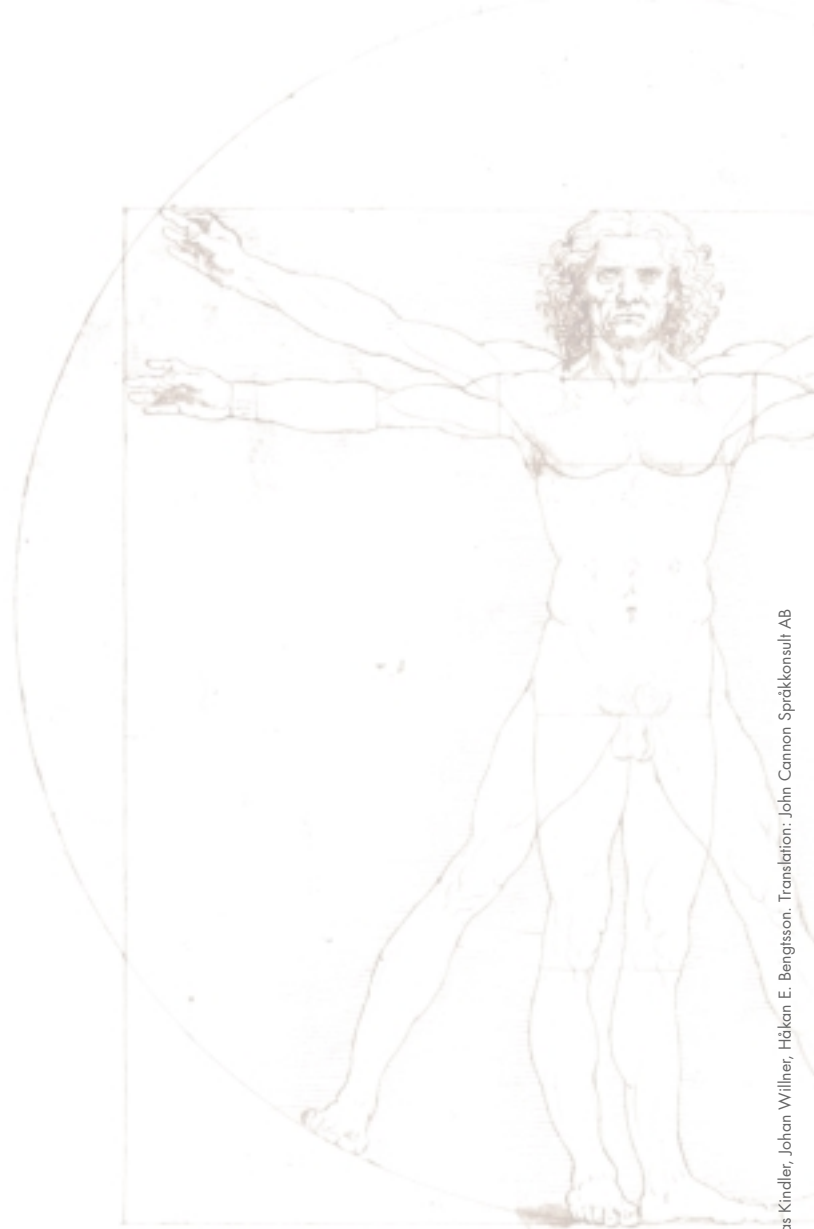
This is a card the size of a credit card containing microelectronics with a memory. This card can store data and, with the help of a built-in microprocessor communicate, and execute transactions.

**USB**

Contact or connector on the computer, which simplifies the connection of computer accessories such as "mouse", keyboard, loud speaker, smart card or biometrics scanner. USB means Universal System Bus.

**WAP**

Wireless Application Protocol.



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