

# Annual Report 2002



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## AUTOMATING THE DEVELOPMENT LIFECYCLE

Telelogic provides tools for automating the development lifecycle of advanced systems and software. This enables customers to achieve more rapid development processes that demand fewer resources, thus resulting in lower development costs. With the tools, the management of the entire development process is improved so that changes and improvements can be easily implemented, monitored and documented. The tools also provide greater assurance that final products comply with established requirements and that correct versions or configurations are delivered.

Telelogic is a world-leading supplier of development tools and solutions for advanced systems and software development that help customers automate their development lifecycle. This makes development of systems and software faster, less labor-intensive, and more cost-effective and reliable.

Telelogic's core customer base is composed of leading companies within a number of sectors at the forefront of technological development. These customers conduct advanced development projects using the latest technology, thus placing considerable demands on Telelogic's products.

Telelogic is presently one of just three companies in the world that can provide tools and solutions for the entire development lifecycle. A distinguishing characteristic of Telelogic's tools is that they are especially well-suited for large-scale development projects for highly complex, advanced systems and software, often with geographically dispersed development teams.

Telelogic had sales of more than SEK 1.1 billion in 2002, and at year-end had 768 employees throughout the world, with its own sales offices in North America, Europe and Asia. The company was founded in 1983 and was listed on the Stockholm Stock Exchange in March 1999. It is included on the Attract-40 O-List.

## TELELOGIC'S OPERATIONS

### Products & services

*Telelogic DOORS*— The world's leading requirements management tool for capturing and managing all the requirements that define the developed product.

*Telelogic Tau*— A complete development environment for analysis, design, modeling and implementation of advanced systems and software.

*Telelogic Synergy*— A tool family for managing changes, various versions and configurations, and documentation of development projects.

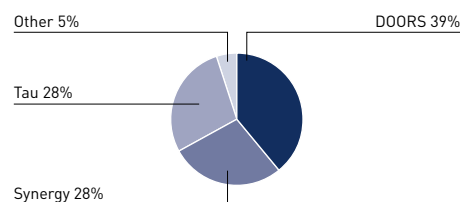
*Services*— Provided to make it easier for customers to quickly begin using the tools and implementing them in their development environments.

### Customers

Historically the majority of Telelogic's revenues have derived from the telecom sector. In recent years however, Telelogic has broadened its customer base to include industrial segments with similar demands for the development of complex systems and software, such as the aerospace/defense industry, the automotive industry, and the banking, finance and insurance industry.

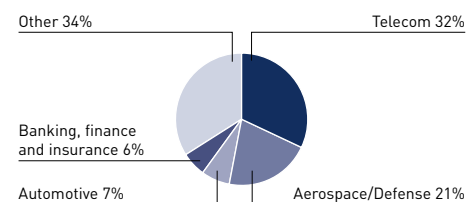


### PRODUCTS' PERCENTAGES OF SALES



Sales of Telelogic DOORS had a strong development in 2002, and DOORS is now Telelogic's leading product.

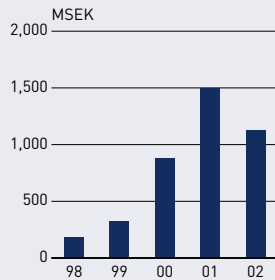
### CUSTOMER SEGMENTS, PERCENTAGES OF SALES



The percentage for the telecom sector further decreased during 2002, while the aerospace/defense percentage increased the most. Overall, dependence on individual segments continued to decline during the year.

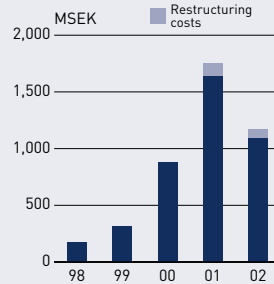


## REVENUE



During the years 1998 – 2000, Telelogic prioritized growth based on strong organic growth and a number of acquisitions. In 2001 and 2002 the market for Telelogic's products developed more slowly. As a result Telelogic has made temporary adaptations in response to the lower growth rate, and focused on profitability and positive cash flow.

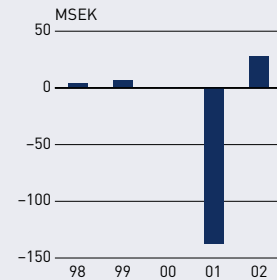
## EXPENSES



During the past two years, Telelogic has applied clear-cut cost controls to achieve positive operating income and cash flow even in a weakened market. The overall cost level has decreased each quarter since the second quarter of 2001. This action has laid a solid foundation for future profitability with an efficient and cost-conscious organization.

## INCOME

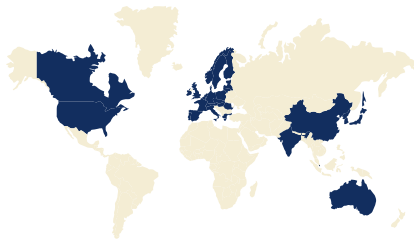
before goodwill and restructuring costs



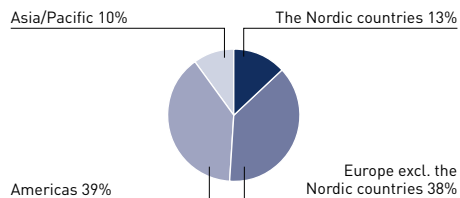
In 2002, Telelogic was, for the first time, able to report positive operating income before goodwill depreciation and restructuring costs for all the year's quarters. The goal is to attain an operating margin of 20% in 2004.

## Geographical markets

Telelogic has offices in 17 countries. Traditionally, Europe (including the Nordic countries) has generated the bulk of the revenues. Major expansion and strong growth in the US and Asia in recent years have reduced Telelogic's dependence on individual markets. Profit trends in the US and Asia were positive during 2002, with generally weaker trends in Europe.



## SALES PERCENTAGES BY GEOGRAPHICAL MARKET



The trend in America has been upward, and the American percentage of sales has increased.

## Market position

Telelogic is now one of three companies in the world that can provide a complete tool environment for the entire development process. There are also a number of companies that compete with tools designed for limited parts of the development process.



Telelogic is one of three global companies that provide tools for the entire development process.



Several companies compete with tools designed for parts of the development process.



**KEY NUMBERS**

	2002	2001	2000
Revenue, MSEK	1,121.0	1,495.0	881.2
Operating income, excluding goodwill and restructuring costs, MSEK	28.1	-137.6	0.7
Operating margin, excluding goodwill and restructuring costs, %	2.5	-9.2	0.1
Price per share at period-end, SEK	6.20	8.30	52.50
Market capitalization at period-end, MSEK	1,258	1,572	6,582
Cash and cash equivalents at period-end, MSEK	160.0	128.4	240.8
Stockholders' equity per share before dilution, SEK	3.09	3.78	18.64
Equity/Assets, %	55.3	49.5	76.0
No. of employees at period-end	768	1,010	1,260

## SIGNIFICANT EVENTS, 2002

### Improved earnings and margins

As a result of continued cost-cutting measures, with overall costs having been reduced by 33% in 2002 in comparison with 2001, earnings excluding goodwill and restructuring costs have significantly improved during the year, and totaled SEK 28.1 million for the full year. Additionally, the gross margin has been improved from 69.0% to 72.0%, primarily due to a higher proportion of license and maintenance sales.

### Major investment in new products

During 2002, Telelogic made one of its largest product investments ever. A number of new and, in some cases, totally unique products were launched during the year, including an entirely new generation of the Tau development tool, an Asian version of the DOORS requirements tool, a new-generation test tool and a new tool that simplifies configuration management.

### Continued strong position for the product line

At the end of the year, Synergy and DOORS were named as world-leading products within their respective areas by the industry analysis firm Yphise. This was based on the products' technical merits and superior functionality. Moreover, DOORS was named as the market-leading requirements management tool, based on market share, by the Standish Group, an American industry analysis firm.

### Focusing of operations on licensing sales

As a result of the generally weak consulting market, especially within the telecom sector, Telelogic made substantial cutbacks in its consulting operations during the year, primarily in the Nordic region. This resulted in Telelogic becoming a more focused product company at the close of 2002. During 2002, 76% of income derived from licensing and maintenance sales, compared to 65% for 2001.

### Strong new sales of licenses for DOORS

In a generally weak market for software during 2002, Telelogic's licensing and maintenance sales declined by 12%. The bulk of this decline is attributable to the Tau products, because of their heavy reliance on the telecom industry. On the other hand, Synergy and DOORS did much better. New sales of DOORS licenses increased by 12% during 2002.

### Positive cash flow

Cash flow was positive and totaled SEK 41.8 million for the full year. Liquid assets totaled SEK 160 million at year-end.



Telelogic is one of the world's leading suppliers of tools for development of advanced systems and software. Of Telelogic's sales, 39% are generated in the US, 10% in Asia and 51% in Europe, of which about 9% are in Sweden, where Telelogic has its origins. This position has been gradually established over the 20 years that Telelogic has been in this industry. Over the course of two decades, Telelogic has developed from an R&D department to a global, world-leading software company. The forces responsible for this transition are still evident and are becoming stronger each year.

- Increasing numbers of products are being defined and developed as systems. Development of the new Airbus 380 passenger plane is a good example of a typical project where a large amount of system components, software and hardware must be managed and coordinated.
- Software is becoming an increasingly important competitive advantage for many companies. The underlying software is becoming increasingly more complex due to continued efforts to simplify user interfaces. Within the financial sphere, Internet banking is an example of a software application that has become a competitive advantage. The interface must be simple enough to be used by all, but at the same time, new features must be constantly added.
- More and more products contain embedded software, and the proportion of software is continually increasing in many products, such as navigation systems in aircraft and software that controls safety systems in cars.
- New products must come to market faster than ever, and the development processes must be constantly made more streamlined and efficient.

Telelogic provides solutions for managing all of these areas in the form of development tools that create the conditions for improved control, shorter lead-times, lower costs and higher quality.

The market climate has been tough in recent years and continues to be challenging. Telelogic's customers must, however, continue to develop and sell products at the same time as they make their processes more efficient

in a market where competition is increasingly severe. For Telelogic, the tougher market climate has entailed that each contract takes more time to finalize, that decisions are being made higher up in customers' organizations and that customers are focusing on cutting costs, both by investing less and by distributing investments in areas that create opportunities for increased efficiency. Telelogic's solutions serve a function in this area that is as much in demand today as it was in the past, and will continue to be in demand to an increasing extent in coming years.

### **Role-based requirements**

From having been a company with a customer base dominated by telecom companies, Telelogic is now a company with customers in all areas where advanced system and software development is conducted. Telelogic has successfully implemented a segment strategy in which the company's focused customer segments have been successively expanded from telecom to include the aerospace/defense and automotive industries during 2001, and the financial sector and the medical technology industry during 2002. Customers' problems are becoming increasingly similar, regardless of whether they pertain to the development of a control system for an airplane or a multimedia system in a car. The need to support the product's entire development lifecycle, which is often referred to as application lifecycle management, is becoming increasingly strict. Instead of requirements being based on the industry segment to which a customer belongs, common requirements are arising among developers, testers, project managers and system architects, regardless of the industry they represent. Telelogic has responded to this by providing interfaces that give customers a customized, role-based environment in which to work – regardless of the Telelogic product family operating seamlessly and reliably in the background.

### **Telelogic gains new market shares**

At the beginning of 2003, Telelogic's products were named as market leaders by a number of independent industry analysts. These distinctions pertain not only to market shares, but also to technical functionality. DOORS,

Synergy and Tau have been named as best-in-class tools in their respective areas. DOORS is also the leading requirements management tool in the world, with a 32% market share according to the Standish Group. In a market where both Telelogic's and its competitors' sales have declined during 2002, Telelogic increased its market share in several areas – a proof that our strategy is successful.

### **New product generation**

During 2002, Telelogic also laid the foundation for future licensing revenues. Last year, a number of new products were launched, including the new generation of Tau products. This is the result of several years' work within standardization organizations, as well as product development in close collaboration with the company's key customers. The new generation of Tau has been well received by both customers and the media, and will significantly strengthen Telelogic's position in the area. The Synergy product family has been enhanced with a new intuitive interface, ActiveCM, which has been named by leading industry analysts as the most innovative in its field. During 2002, DOORS was translated into Asian characters. The Asian version of DOORS opens up entirely new opportunities in that part of the world. DOORS is already a world leader, even though only a very small percentage of sales to date derive from Asia. All the new products are based on the latest technology and are even better adapted for customers with large, complex projects and geographically dispersed development teams. At the same time, they build further on the technologies that have brought Telelogic to the position it occupies today.

### **Year 2003 – Focus on improving earnings**

During 2003, Telelogic will reap the benefits of the many product launches made last year. The focus is on increased productivity and improved earnings. For the market units that reached set profitability goals, there will be renewed demands for growth during 2003. It is also Telelogic's goal to achieve growth in licensing sales on a global basis over the full year. As Telelogic moved into 2003, the company underwent several restructurings. Operations have been adjusted to prevailing market climates, profitability

has returned and cash flow is positive. There is still work to be done before Telelogic reaches the goal of a 20% profit margin before goodwill amortization. But the path is clear, and the goal of achieving this in 2004 remains in place. The world around us continues to change, and Telelogic's market continues to consolidate. The world situation is anything but stable. Telelogic is, however, well-equipped for a continued tough market climate. The year 2003 will be yet another step on the road towards the long-term objective – building a major, world-leading software company with good profitability.

Malmö, Sweden  
February 2003



Anders Lidbeck  
*CEO and President*







## FOCUS ON PROFITABILITY

Since its initial public offering in 1999, Telelogic has had a clear-cut goal – to develop into a world-leading software company with a profit margin of 20% by 2004. Over these years, Telelogic has had a well-defined and focused strategy to successively develop and strengthen the company's position in the global marketplace.

Market conditions have changed since 1999, and Telelogic has continued to adapt new goals and strategies to weather those changes while keeping its fundamental strategies and core values firmly in place. This also applies to 2003, when the most significant strategic change is that Telelogic will continue to expand beyond the customer segments that previously were its focus. Telelogic's customers come

from a broad base of industry sectors, and Telelogic is no longer dependent on the telecom market as its primary customer base. This is reflected in the strategy that is now being refined based on the characteristics of Telelogic's current customers – companies involved in large-scale and distributed development of advanced systems and software.

**Mission**

We help each customer to succeed the first time by automating the systems and software development life-cycle, through proven, state-of-the-art tools that reduce time-to-market and improve quality.

**Vision**

To be the preferred choice of solutions for companies and engineers developing advanced systems and software.

**Strategies**

*To provide role based requirements driven solutions to help automate the development life-cycle.*

Telelogic provides tools that reduce lead-times and improve quality by automating routine tasks so that engineers can focus on the creative aspects of the development process. The goal is to create an all-encompassing tool platform that is based on the user's various roles, and requirements management as a firm, reliable foundation.

*To strengthen the respective positions of DOORS, Synergy and Tau as the leading and proven state-of-the-art tools in their respective fields.*

For a number of years, Telelogic's products have been named as market leaders by independent industry analysts. This is a result of responsiveness to customers' needs and effective utilization of the company's R&D resources. Telelogic will reinforce the market positions for DOORS, Synergy and Tau by continuing to conduct innovative product development in close collaboration with customers.

*To target customers requiring extended functionality for large-scale and distributed development challenges.*

Telelogic has a leading position as a supplier of solutions for the development of advanced systems and software. The goal is to further strengthen this position. Telelogic provides advanced products that solve complex problems for companies with large-scale development and development teams that are often geographically dispersed. It is in this type of environment that users can best utilize the products' functionality.

*To build strategic relationships with key accounts.*

Telelogic's customers are spread throughout the world and require global support. Long-term relationships have been established with Telelogic's key customers, in which these customers receive local support and global coordination. The company's key customers have previously been in the telecom, automotive and aerospace/defense industries. During 2003, key customers will be identified in other segments as well.

*To invest in strong partnerships to extend our offering and the channels to market.*

The proportion of software in products is increasing for most industries, and tools for advanced software development are increasing in demand. Through partnerships with other leading suppliers and system integrators, Telelogic can reach a larger target group while at the same time expanding its product line. During 2003, Telelogic will therefore increase its investments in developing partnerships with leading system integrators and technology suppliers.

*To improve the organization's productivity and implement concrete growth strategies in selected areas.*

Telelogic implemented a number of restructuring measures during 2001 and 2002 that drastically diminished cost levels. This process will continue during 2003, with the focus on all units achieving their established productivity goals. For the market units that achieve these goals, concrete growth strategies will be implemented during 2003, within the framework of pursuing the continuing ambitious demands for profitability.

*To attract and develop individuals with exceptional attitude and skills.*

In a company such as Telelogic, the individual employee represents a decisive competitive advantage. Priority is given to constantly improving Telelogic's position as an attractive and stimulating employer, and to retaining expertise and high energy levels throughout the company. This is necessary to safeguard Telelogic's competitive strengths in both the short and long term.

*To take an active part in the restructuring of the industry.*

The market for systems and software development tools has been subject to substantial consolidation during recent years. Telelogic has played an active part in this trend and will continue to constantly assess various collaborative forms in Europe, the US and Asia.

## **Financial goals**

### *Sales*

The company's goal is to achieve favourable growth in the US and Asian markets during 2003. It is also Telelogic's goal to achieve growth in licensing revenues on a global basis over the full year.

### *Operating margin*

The company will continue to focus on improved operating income during 2003. The forecast is that income before taxes for 2003 will be positive. The goal of achieving a profit margin of 20% for the year 2004 remains in place.

### *Equity/assets and debt/equity ratios*

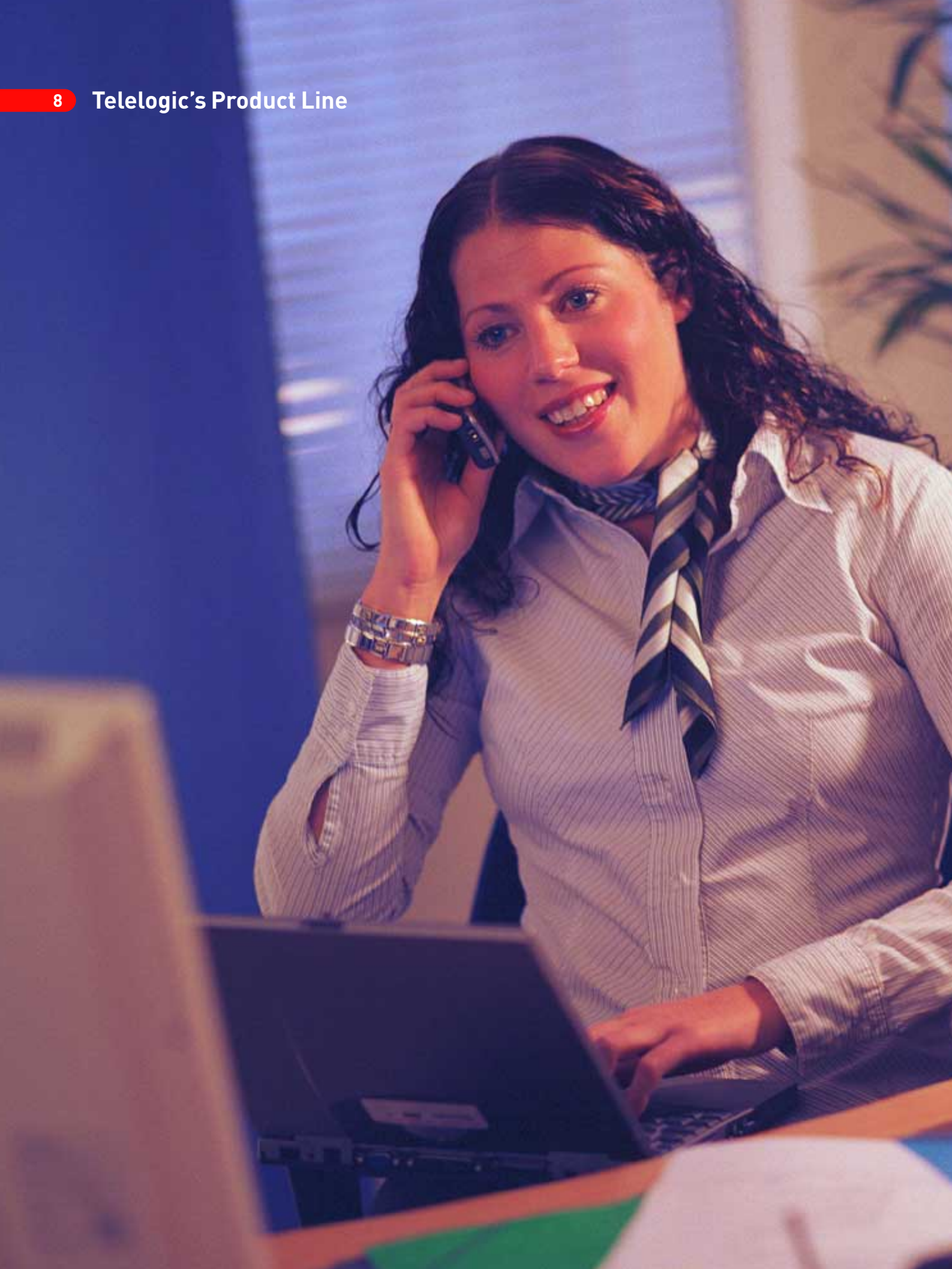
The goal is that the long-term equity/assets ratio will exceed 40%, and that the debt/equity ratio will remain below 0.5. In conjunction with acquisitions, the debt/equity ratio may temporally exceed this goal.

### *Dividend policy*

The dividend policy for the coming year will continue to be restrictive.

## **Achievement of goals, 2002**

During 2002, Telelogic achieved its established goals for strongly improved earnings and positive cash flow. The equity/assets ratio was 55.3%, while the debt/equity ratio was 0, i.e. clearly better than the established goals of 40% and 0.5.





## VALUE ADDED

Telelogic provides products and services for developing advanced systems and software. Telelogic's products complement one another and together constitute a total development solution, that independent industry analysts call Application Lifecycle Management.

Customers' experiences have proven that Telelogic's tools:

- Save time by accelerating or even fully automating, parts of the development process.
- Improve quality in the development process and the finished applications by reducing the need for manual intervention, which often results in errors.
- Reduce the applications lifecycle costs by shortening lead-times and simplifying maintenance of the developed products.

Even though the tools constitute a total development solution, they are designed to be open and flexible so that they can be easily integrated with tools from other suppliers. This open strategy provides customers the freedom to choose any desired combination of tools, and to utilize previous investments in tools and know-how.

Telelogic's range of services is intended to make it easier for customers to begin using the tools and to ensure successful product development. Services are available for training, prestudies, software installation and process improvements.



### Telelogic DOORS – gain control over the requirements

Telelogic DOORS is the world's leading requirements management tool, helping customers to capture, sort, communicate and follow up requirements within and between organizations throughout an entire development project. DOORS provides major flexibility in organizing users' information to optimally support users' work processes.

DOORS is integrated with Telelogic Synergy, the company's tool for change and configuration management. Together DOORS and Synergy, create a solution for managing the entire application lifecycle. Telelogic also provides integration between DOORS and Telelogic Tau, thus providing the capability to easily track a specific requirement, from concept all the way to the corresponding software feature. In keeping with Telelogic's policy of openness, DOORS is available in a wide range of integrations with various third-party tools.

### Telelogic Tau – accelerate software development

Telelogic Tau is a development environment for analysis, design, implementation and testing of advanced software. Tau is the world's leading tool for real-time development. Tau is unique in that it provides full visual modeling of software, which is an effective and quality-enhancing



method for designing software. Tau also automatically generates executable code – expressed in languages such as C, C++, Ada and Java – which leads to significant time saving for users. Other strengths include its integrated features for software testing and quality control. The tool is based on standardized languages for development and testing of software, i.e. UML, SDL and TTCN.

### Telelogic Synergy – manage changes efficiently

Telelogic Synergy is the company's suite of tools for managing changes, configurations and versions in development projects. Synergy enables users to subsequently see, in a readily comprehensible way, why a certain change was made, who made the change, the consequences it had and, if so desired, enable them to recreate conditions as they were before the change was made. In large-scale projects, groups often work in parallel on the same program and deliver versions in different languages, for example. Synergy automates the management of these versions.

Also in the Synergy family is Telelogic DocExpress, a documentation tool that enables customers to automatically create documentation in various formats for the systems under development. As with DOORS and Tau, Synergy and DocExpress can be integrated with various third-party tools.



### Customized projects

Telelogic has carried out several customer projects in recent years that resulted in customized versions of Telelogic's tools. This type of collaboration involves a combination of product development, license sales and services.

### Product launches during 2002

During the year Telelogic introduced a number of new, and in some cases, totally unique products that will further enhance Telelogic's international competitiveness in the company's primary markets.

ActiveCM is an innovative module for Telelogic Synergy that automates up to 90% of the manual tasks that developers must normally perform with a configuration tool. This opens up new opportunities for introducing configuration management to a broader target group among both new and existing customers. The Software Council in Southern California found ActiveCM to be so innovative that they honored Telelogic with the "Software Developer of the Year" award in early 2003.

Tau Tester is Telelogic's new test development solution based on the international standard TTCN-3, the market's first fully dedicated test language. Using Tau Tester, customers can develop a number of new tests in areas in which it was not previously possible to do so using earlier versions of the TTCN language. Moreover, the tool is not limited to a particular customer sector, in contrast to

TTCN Suite, which was oriented toward a particular type of testing within the telecom industry. Tau Tester has also been chosen as the reference tool within global industry association 1394TA for developing tests of multimedia products.

During the year, DOORS has been adapted to operate using Asian characters. Telelogic's sales in Asia – primarily Japan, China and Korea – had previously been largely limited to the products within the Telelogic Tau family, insofar as they were the only ones available in Asian versions. Telelogic DOORS has also been enhanced with support for electronic signatures, which is a functionality of great interest for the medical technology and pharmaceutical industries, among others.

In October, Telelogic launched an entirely new generation of Telelogic Tau. Tau Generation2 is one of the biggest product launches in the company's history, and represents the results of Telelogic's multiyear effort to merge the SDL and UML development languages. Tau Generation2 is the first tool from any of the leading companies on the global market to support the evolving UML2 standard. The new-generation Tau tools will successively replace previous Tau products. Because the new Tau generation of tools is based on a common platform, Telelogic will be able to reduce overall maintenance and development costs for the Tau product family in the years ahead.



### The customer's development process

Telelogic's customers are found within several sectors, and conduct development in many different ways. Some have extensive and detailed processes, while others work in less restricted formats. Regardless of the types of processes customers use, there are a number of typical roles in their development projects. Telelogic's goal is to provide product packages that are adapted to the most common roles in development projects in order to provide engineers with development environments that suit their particular needs.

The model outlined below is a simplified version of reality, but provides a schematic overview of a typical development project. In smaller projects, one person may play several roles, while on larger development projects there may be even more roles.

### The analyst

The analyst is responsible for gathering the requirements. All requirements must be compiled, defined and analyzed. To make our example easier to understand, we can compare it with another activity – building an extension to a house. Let's say that we have a single-story house and that an extension is desired to permit a larger living room. In many software development projects there is a base of existing program code that will be improved and refined. (Within the telecom sector, for example, up to 80% of program code can be inherited from a previous version of a product.) The analyst gathers the requirements for the extension to the house. A distinction must be drawn between user requirements, which might be “the extension must have a good roof,” and system requirements,

which are more precise, i.e. “the extension must have a concrete slab roof of type XYZ.” The compilation of requirements is critical to all projects. Incorrect or incomplete requirements often have costly consequences. Moreover, it is not uncommon for requirements to conflict with one another, or to require changes as the project progresses. The analyst's favorite tools are requirements management and change management programs, although the analyst also uses software to generate documentation.

### The architect

The architect refines the requirements and analyzes them more closely. The architect often illustrates solutions that fulfill the requirements by creating visual models, depicting various chains of events and the system's dependency on its surroundings. In the example of the house extension, these may pertain to how the homeowner will use the alarm system, or how the extension will function with the existing living room. The architect concludes his or her job by preparing drawings of the house. A software architect completes his or her job when the requirements are visualized in various models, which are comparable to the initial sketches of the house but not to the actual design drawings. The software architect's favorite tools are software for requirements management and for modeling in, for example, UML2. The software architect also uses tools for requirements management, and for documentation.

### The developer

The developer translates the requirements into program code, taking the project from documented design to con-

Analysis

Architecture

Project management

Development




 Testing

Maintenance

Refinement

crete product. The actual framework, which can be compared to the house's design drawings, is first created. The developer can also simulate the program's behavior to better understand how to comply with the established requirements, which, in the example of the house extension, would correspond to a three-dimensional model of the extension to enable the homeowner to explore a virtual reality and inspect the new living room before construction begins. The developer can choose to write code manually, i.e. build the addition stone by stone, or let the software he or she works with generate the code automatically, which is comparable to letting the house extension build itself based on the architect's drawings. The developer's favorite tools are development tools that use visual technologies such as SDL and UML2, or text-based technologies such as C and C++. Other tools for the developer are software for requirements management, which lets the developer see how the software is structured in accordance with the established requirements, and software for change and configuration management which ensure that the various developers do not overwrite one another's code, and that the various versions of the software do not conflict with one another.

### The tester

In the test phase, it is time to check that the system functions in accordance with the original requirements. The tester first checks the functions of the individual components separately – “Can all the windows be opened?” and “Does the TV jack work?” Next, checks are made that the system components work together – “What happens if I

open a window and then connect the TV antenna?” The tester also investigates how the software interacts with the hardware, i.e. with its surroundings, in our example with the house. The tester's favorite tools are software for testing and requirements management.

### The project manager

The project manager's job is to unify all development phases and coordinate the various roles. The project manager must ensure that new requirements are included in the project, and make sure that changes are justified and preceded by calculations of their impact. The project leader sets goals in the form of schedules for various parts of the project, and is responsible for the project's budget. In our example involving the house extension, the project manager might be the person who has primary contact with the homeowner. The project manager finds out what it would cost in terms of time and money when the homeowner suddenly decides that a broadband connection should be included in the extension, and makes sure that the total budget for the extension is not exceeded. The project manager's favorite tools are software for project management, requirements management and change management applications.

### Maintenance and refinement

Seldom is a product developed from concept to finished product and then abandoned without maintenance. On the contrary, most systems are maintained and refined in new versions. A large part of the costs over a product's lifecycle is attributable to post-delivery maintenance.



## SchlumbergerSema uses Telelogic Synergy to manage its global telecom development projects



SchlumbergerSema is an organization at the very forefront of telecommunications innovation. Over 350 emerging and mature network operators rely on the company to provide the industry's most extensive portfolio of communications products and services.

For these operators, SchlumbergerSema ensures that their infrastructures are as robust as possible. With so many of the industry's key players dependant on it for future success, SchlumbergerSema must ensure that it delivers the best possible quality software on time and within budget.

This can prove challenging though. Linda Richardson, Manager of the Telecom Technical Support Group at SchlumbergerSema explains why: "We regularly work on around 45 customer projects at a time each involving over 100 developers located around the world. Given the size of these projects and locations of the programmers, managing these projects centrally is a mammoth task." In such an environment, SchlumbergerSema must rigorously manage any changes that developers make to its software. If it doesn't, there is very real potential for duplicated or wasted development and even project failure.

SchlumbergerSema realized that the only way to avoid this was to implement a sophisticated change manage-

ment solution. The organization chose Telelogic's change management solution, Synergy. Telelogic's solution was selected primarily because it is ideal for supervising complex projects. Globally distributed organizations also benefit because it enables geographically disparate teams to work together on the same projects by enabling them to synchronize their efforts. Richardson describes how this is possible: "Programmers achieve immediate visibility and traceability of theirs and their colleagues work on a project, while build managers get the 'bigger picture' view reflecting all the different teams' development activity from a central location."

Such capability matched exactly the particular challenges facing SchlumbergerSema, "The distributed change management capability in Synergy met our exact requirements because it enables our remote project teams to work seamlessly together," says Richardson.

For SchlumbergerSema's Telecommunications Division, the advantage of using Synergy is obvious in its everyday activities. "As the internal tool provider to over 375 licensed users, we have a responsibility to prove that our choices enhance the efficiency and quality of development in the company," says Richardson. "In this regard, Telelogic has fulfilled our requirements."



## “Telelogic takes Saab higher”

Saab is one of the world's leading high-technology companies, with its main operations focusing on defense, aviation and space.

The Saab and NH Industries (NHI) signed a contract in 2002 for the development and production of a tactical mission system (TMS) for the new multi-role helicopter, the NH90. The NH90 is a new generation of helicopters for rescue and military operations, which will be able to carry out tactical troop transport missions and search-and-rescue undertakings, as well as anti-submarine warfare to the Swedish defense. When Saab initiated development of the new TMS for the new pioneering NH90 helicopters, it chose to make Telelogic DOORS an integral part of the efforts to keep track of customer requirements.

Jens-Peder Ekros, project quality manager at Saab Future products, explains the situation: “We’re using DOORS to process and refine requirements, for example generating the overall TMS specification based on the requirements from NHI. DOORS was an obvious choice for Saab since both NHI and the Swedish Defense Material Administration already use this tool for requirements management.”

There are about 5000 NHI requirements in DOORS for Saab to consider, including performance requirements

such as how quickly a new map sheet can be retrieved, and how to communicate within the helicopter as well as with other helicopters. “All requirements in our specification are linked to NHI’s requirements in DOORS, which means a much greater transparency and general overview of the whole project,” Ekros says. “When dressing the mission system, we can closely follow every requirement to target and match our customers’ needs.”

Saab is using DOORS at five sites in Sweden where TMS development and production is taking place. There are plans to integrate the requirements management among these sites since DOORS is especially adapted for conditions where project teams are geographically dispersed.

Ekros concludes: “We could have done this manually, which would have taken several days. However, after some initial work, DOORS did this while we were having lunch, and when we came back there was a 250-page specification draft. Moreover, one of the advantages of this tool is that it’s very user-friendly and really simple to start working with, without forcing users to learn a lot of special features.”





# FROM NICHE TO MAIN ARENA

Ever since its founding 20 years ago, Telelogic's fundamental focus has been the same – to create added value for customers by providing tools that facilitate, simplify, improve and automate the development of systems and software.

## **A broad customer base in a global market**

Telelogic's operations are highly global. More than 90% of revenue derives from customers outside of Sweden. In recent years, the customer base has been expanded beyond the previously dominant telecom industry. Other industry sectors now generate more than two-thirds of revenue. The core of Telelogic's customer base is composed of major leading companies in a number of sectors at the forefront of technological development. These customers conduct advanced development projects with the latest technology, thus placing heavy demands on Telelogic's products.

## **Driving forces**

Telelogic's product line is one of the market's most comprehensive for development tools that support the entire software development process. Moreover, several of Telelogic's products are also used in developing larger systems consisting of both software and hardware. This trend is expected to continue as software becomes an increasingly integral part of many different complex systems and applications. Telelogic's goal is to maintain and further strengthen its position as one of the leading players in this market.

There are several fundamental driving forces that shape today's market for software and system development. Some of the more important are:

#### **Increasing percentage of software in new products and services**

Demand for advanced software is constantly growing. Software is now used in a wide range of products – not just PCs or computer games. Many aspects of modern life are now dependent on software, with applications in cars, DVD players, elevators, airplanes, telephones, automatic tellers, etc. New demands for services and products are constantly arising, and they are often realized through software.

#### **Increased complexity**

Larger and more integrated applications within all areas of technology are increasing software complexity. With greater complexity, the ability to develop advanced software is increasingly becoming a competitive advantage for the companies that are able to supply the software. Telelogic provides tools that help customers manage complex projects, and structure and facilitate development processes.

#### **Shorter product cycles require faster development**

The challenges in the software market are intensified by product lifecycles becoming increasingly shorter. New break-through products must be supplied at an ever-increasing pace so as not to lose competitive advantages. This requires shorter development times, from concept to finished product. When resources are limited, further improvements are needed in efficiency and productivity. Tools of the type supplied by Telelogic shorten development time without compromising quality.

#### **Focus on cost-effectiveness**

Companies cannot produce increasingly complex and large-scale software with existing resources without changing their work methods. The key is using existing resources in a cost-effective manner, i.e. raising productivity. At the same time, the quality of the delivered systems cannot be sacrificed. This apparent paradox can most often be resolved with the help of improved development processes and the increased use of development tools.

#### **Reliability and quality of greatest importance**

Quality demands are rising as software-based systems are becoming vital to many people's lives, both on the job and at home. The software that controls our hospitals, homes and means of transportation simply cannot fail, or if it does, the failure must occur in a controlled manner. To ensure this, development processes for these systems must be predictable and of high quality. With Telelogic's tools, systems can be tested and assessed early in the process, which contributes to more reliable development at lower cost.

#### **Increased focus on the entire application lifecycle**

The development process is an important part of a product's lifecycle, but far from the only part. The step from concept to initial delivery normally constitutes the most creative part of the process, but it is in the maintenance phase that many of the costs arise and also where significant gains can be made. Companies are increasingly seeking development tools and processes that can manage the entire application lifecycle. In response to this, Telelogic launched a number of new products and improved integration capabilities during 2002 that complement its already broad product line.

## Customers

Telelogic's customers are characterized by:

- Development of complex software and systems.
- Normally large projects with many developers involved.
- Geographically dispersed development teams in various parts of the world, with demands for functionality that allow various project teams to share work with one another in the same tool environment.
- The tools used are increasingly utilized for more than software development alone. Development support for managing larger systems consisting both of software and hardware is a growing application area.

## Reduced dependence on individual sectors

As the degree of complexity in software increases within many different industry sectors, Telelogic's customer base has expanded in recent years. During 2002, Telelogic further reduced its dependence on individual customer sectors. The percentage of total sales to the single largest sector, telecom, fell from 48% to 32% in 2002. The aerospace/defense industry has secured and improved its position as the second-largest sector with 21% of sales. The automotive industry generates 7% of sales and the financial sector 6%. The sectors with just under 5% of sales include government agencies, the medical and pharmaceutical industries, the transportation sector and consumer electronics.

## Major customers comprise the base

Telelogic now has more than 5,000 active customers worldwide. The income base, however, is generated by a core of major companies, all among the leaders in their respective sectors. During 2002, Telelogic's 30 largest customers accounted for 33% of sales. No single customer generated more than 5% of sales.

Within the communications industry, all of the ten largest suppliers are Telelogic customers. Also, within the

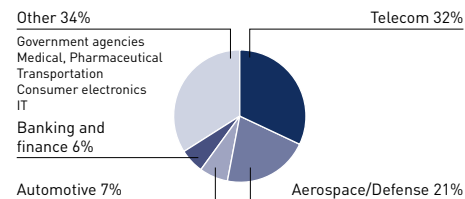
automotive and aerospace/defense industries, several of the leading manufacturers are Telelogic customers. This customer portfolio, with the biggest names in several sectors, represents one of Telelogic's greatest assets.

### A SELECTION OF TELELOGIC'S BIGGEST CUSTOMERS

Airbus	Lehman Brothers
Alcatel	Lockheed Martin
Astrium	NEC
AT&T	Nokia
Bank of America	Peugeot
BAE Systems	Philips
BMW	Postbank
Boeing	Raytheon
Citibank	Renault
DaimlerChrysler	Robert Bosch
Delphi Delco	Rolls-Royce
Deutsche Bank	Saab
Deutsche Telekom	Siemens
Dresdner Bank	Texas Instruments
Eastman Kodak	Thales
Ericsson	Thomson CSF
Fiat	UK Ministry of Defence
Ford	UBS
Friends Provident	Unisys
Fujitsu	Vodafone
General Motors	Volkswagen
Hughes	Volvo
Motorola	

Example of the customer base comprised of the leading companies within respective sectors.

### TELELOGIC'S LARGEST CUSTOMER GROUPS, 2002



Dependence on telecom has declined. This customer sector's percentage decreased from 48% to 32% in 2002.

### Market sizes and trends

Even if there is trend toward various types of development tools becoming increasingly integrated with each other, the market for development tools is usually divided into several sub-sectors based on the various products' characteristics and where in the customers' development cycle they are used. A number of industry analysts – such as Venture Development Corporation (VDC) and the Standish Group, both based in the US – regularly publish reports on market sizes and trends for the various sub-sectors.

### Configuration and change management tools (Telelogic Synergy)

Tools in this product category are used to manage different versions of developed software or systems, and to keep track of the changes that arise while projects are underway. The market for configuration and change management tools grew during 2000 by more than 25%, according to leading industry analysts. As a result of the past two years' economic downturn, growth during 2001 was slightly negative. The market was then estimated at about USD 750 million for sales of licenses and maintenance, i.e. excluding consulting services. Growth was also negative during 2002. The forecast is that the market will stabilize in 2003 and return to stronger growth beginning in 2004. The geographical distribution shows that North America accounts for over 60% of the market, Western Europe about 30% and Asia about 8%. Future growth is

generally expected to be slightly higher in Europe and Asia.

### Requirements management tools (Telelogic DOORS)

Requirements management tools capture, coordinate, trace and manage all project requirements. This is still a relatively immature sector, but usage has spread during recent years, and Telelogic shares industry analysts' opinion that this is an area of increasing importance. This viewpoint is quite clear in the Standish Group's latest report<sup>1</sup>. According to the report, 15% of all development projects fail and another 51% are delayed, have functionality that is not as good as expected or are more expensive than planned. Furthermore, it was found that only 54% of the originally defined functions are ever delivered, and of these, 45% are not used at all. Often this is a result of poorly defined requirements, and the fact that changes to requirements could not be managed properly during the development process. According to the Standish Group, the market for requirements management tools alone was USD 117 million in 2001 for licenses, maintenance and training, a significant increase from the previous report for 1999, when the market totaled USD 74 million.

### Analysis, modeling and design tools – AMD (Telelogic Tau SDL Suite and Tau Generation2)

These tools are used to analyze the problem areas that software or systems are to solve, to design systems and,



<sup>1</sup> The Standish Group: "What are your requirements? 2003", January 2003

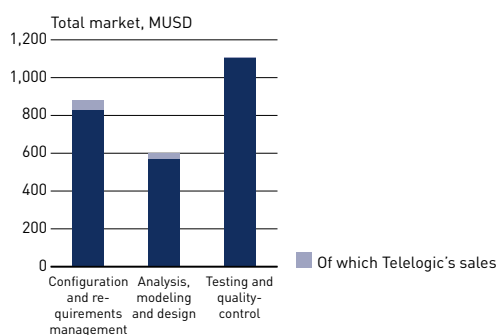


finally, to produce the actual software. With Telelogic's products, the software is produced with automatically generated, executable code.

The overall market for AMD tools was estimated in 2001 to be approximately USD 600 million for licenses and maintenance. During 2002, the market experienced negative growth. Many companies were unwilling to replace existing development methods with new tool solutions because of the weak state of the market. The forecast is that as soon as the market recovers, it will show major growth. Companies will then replace older development methods with new technology, including new tools based on the UML language, the technology on which Telelogic's new generation of Tau tools is based.

Telelogic's AMD tools within the Tau family have previously targeted mainly customers working on developing real-time applications and embedded systems.

#### MARKET SIZES, 2001



The market for embedded systems, which is included in the above AMD market, totaled USD 163.8 million in 2001 according to VDC<sup>1</sup>. Telecom accounted for more than 60% of this market, and aerospace/defense for about 13%. This market is expected to show stronger growth than the overall AMD market, although with a somewhat lower growth rate during 2002 and 2003. Thereafter, 15% annual growth is forecast as the telecom market recovers.

#### Testing and quality-control tools (Telelogic Tau TTCN Suite, Tau Tester and Tau Logiscope).

This category includes tools for testing software components, performing system tests and carrying out quality-control checks of software and its code.

Telelogic Tau TTCN Suite and Tau Tester are sold to a smaller portion of the overall market for testing tools, which totaled about USD 1.1 billion in 2001. Growth was expected to be slightly negative for 2002 but to become positive again and increase during 2003 and thereafter. Telelogic's test tools are primarily sold to customers who develop embedded systems, mainly the communications industry, but in recent times they have been sold to the aerospace/defense and automotive industries as well. The market for testing tools for embedded systems is expected to grow by more than 20% during the period 2001–2006, according to VDC<sup>1</sup>.



<sup>1</sup> VDC, "The Embedded Software Strategic Market Intelligence Program", January 2002

### Consolidation of the market

After a period, beginning in 2001, of relatively few structural changes in the market for development tools, consolidation gained new momentum during the second half of 2002.

The American software company Borland made three acquisitions during the autumn of 2002 – the smaller Swedish company Boldsoft and two American tool producers Starbase (configuration and requirements management) and TogetherSoft (analysis, design and modeling). With the acquisitions, Borland, which is a new competitor of Telelogic, created a product portfolio that covers the entire development process.

At the beginning of December, IBM made a bid for Telelogic's largest competitor, American Rational Software, which was accepted in February 2003. With this acquisition, IBM acquires a strong product line that, among other things, complements IBM's investments in the development of applications and services that are based on the Internet, so-called web services, an area where Telelogic's presence is low.

The acquisition confirms the importance of having a product line that encompasses several parts of the development process and also reinforces interest in the entire field. This benefits Telelogic which, since the acquisition of DOORS and the Synergy products in 2000, has had a product line that covers the entire development process. During the past two years, Telelogic has also successively and significantly improved integration capabilities between the various tools. Of the companies in the sector, Telelogic alone focuses on customers who are developing advanced systems and software. Telelogic has a very competitive product line and a well-established position in this field. Telelogic therefore believes that even if the competitive situation is heightened, these acquisitions will not negatively affect Telelogic's market position.

### Configuration and change management (Telelogic Synergy)

Telelogic is among the three largest global suppliers of configuration and change management systems – exclud-

ing suppliers of tools for the mainframe market, an area beyond Telelogic's focus. Rational ClearCase is the market leader and Merant's PVCS is another major competitor of Telelogic Synergy. Rational's SoDA competes with the documentation tool Telelogic DocExpress.

### Competing companies – product:

- IBM/Rational – “ClearCase”, “ClearQuest”, “SoDA”
- Merant – “PVCS Dimensions”
- Borland (formerly Starbase) – “StarTeam”
- Serena – “ChangeMan”

### Requirements management (Telelogic DOORS)

DOORS' market-leading position is based on, among other things, its advanced functionality in terms of its ability to structure information, and the traceability of requirements in large and complex projects. DOORS also provides the market's most comprehensive integration capabilities with third-party tools.

### Competing companies – product:

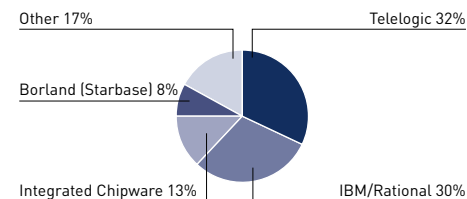
- IBM/Rational – “RequisitePro”
- Borland (formerly Starbase) – “Caliber RM”
- Integrated Chipware – “RTM Workshop”

### Analysis, modeling and design tools

#### (Telelogic Tau SDL Suite and Tau Generation2)

In the market for embedded systems, which is the Tau products' traditional focus, Telelogic is the second-largest supplier (after the leader IBM/Rational), with market share of over 37% according to VDC, 2002.

### MARKET SHARES, 2001, REQUIREMENTS MANAGEMENT TOOLS



Source: Standish Group, 2003.

**Competing companies – product:**

- IBM/Rational – “Rose/Rose RealTime”
- I-Logix – “Rhapsody”
- Artisan Software – “Real-time Studio”
- Borland (formerly TogetherSoft) – “Together ControlCenter”
- Embarcadero Technologies – “Describe”

*Testing and quality-control tools (Tau TTCN Suite, Tau Tester and Tau Logiscope)*

Within this general market, Telelogic competes mainly with tools intended for testing special types of embedded systems. Telelogic is the third-largest supplier, with over 13% of the market according to VDC, 2002.

**Competing companies – product:**

- IBM/Rational – “Test Real Time”
- DANET – “TTCN Tool Box”
- Testing Technologies – “TT Tool Series”
- McCabe – “IQ2”

**Summary**

It is primarily IBM/Rational, and to a certain extent, Borland that compete within all of the areas covered by Telelogic’s tools. For the respective product lines, there are also a number of other specific tools that compete with portions of Telelogic’s product line. Telelogic’s strong focus on advanced software development is a clear distinguishing factor in comparisons with IBM/Rational and Borland.



## DaimlerChrysler realizes significant savings thanks to re-usability

For a success story in the automotive industry, you need look no further than DaimlerChrysler. With revenues in recent years of EUR 152.9 billion (\$136.1 billion), and 372,500 employees, DaimlerChrysler is one of the world’s leading automotive, transportation and service companies.

To maintain this cutting-edge position DaimlerChrysler is continually developing the latest technologies, such as multimedia systems within its cars. Like many other electronic systems, multimedia technology has very quickly become extremely sophisticated – and there is little sign of a slow-down in development. In order to control and manage this rapid rate of change, DaimlerChrysler realized it needed to rely on advanced development tools.

Berthold Geck, Senior Manager Electric/Electronic at DaimlerChrysler, explains: “We needed a customized development and test framework that would enable us to control the design and implementation of our advanced multimedia systems.” To help create this framework, DaimlerChrysler is using Telelogic’s development tools. Initially, DaimlerChrysler chose to adopt Telelogic’s Tau SDL Suite. Today, however, DaimlerChrysler’s development and test framework also includes Telelogic DOORS and Tau UML Suite, and 3rd party tools for requirements management, analysis and modeling.

A key advantage of Telelogic’s development tools is that they allow all functions of the new multimedia environment to be simulated early in the development process. Doing so enables developers to identify any problem areas or defaults at a much earlier stage and saves DaimlerChrysler vital time and money. What’s more, extensive tests can be performed simulating a multitude of input and environments conditions. Geck explains “At a very early stage it helps to create an error-free requirements specification for the components to be developed.”

The development framework was originally designed for the recently launched Mercedes E class and is now continuously enhanced and adapted to support development of multimedia applications for new models, such as the new C class and the coming S class as well. “Thanks to Telelogic’s solution we can re-use major portions of the framework and are therefore able to realize significant savings in development time and resources,” says Geck.

The market for advanced software development is commonly divided into the three most important geographical regions: the US, Europe and Asia/Pacific. Telelogic's sales organization reflects this division with three comprehensive market divisions. Europe and Asia/Pacific are divided into a number of market operations, based on the most important individual countries in these regions. For a software company, high visibility is important, especially in the US, where a large part of technological development is conducted. During 2000 and 2001, Telelogic made a major investment to increase its presence in the US. The region has had a positive earning trend throughout 2002. During the year, the US generated 39% of Telelogic's sales. The trend for Europe was generally weaker during the year, largely because of higher exposure to the telecom market and a relatively high percentage of consulting operations. Europe accounted for 51% of sales, 13% of which derived from the Nordic countries. Asia/Pacific had a mixed sales trend for the various countries, but the region on the whole generated good profitability. In 2002, Asia/Pacific generated 10% of sales.

#### Local organizations

All sales-related activities occur as close to the customer as possible. The marketing divisions are responsible for all sales, marketing and basic customer support in their own divisions. This also includes supplying resources for sold consulting services and training. Certain general marketing functions, such as product launches and pricing and packaging issues, are handled by the corporate marketing organization.







### Sales model

Telelogic now has more than 25 sales offices in 17 countries. These constitute the foundation of the sales organization.

- Telelogic's sales teams normally consist of both account managers, with their own budget responsibilities, and technical support personnel. The sales teams are usually responsible for specific territories within which they handle all customer issues. The teams work from sales offices or from home offices, which is particularly common in North America.

- As a complement to the regular sales teams in some regions, there is also an inside sales organization.
- For a number of selected, larger customers there are special sales teams that only concentrate on their specific customers within the respective market divisions.
- For strategic, often global customers, each region has a special organization to handle issues pertaining to strategic partnerships and various types of distributors.

About 10% of Telelogic's sales occur through distributors and OEM partners. This is an area that is expected to increase in importance and will receive increased focus in 2003.



### Europe, including the Middle East and Africa

Europe is divided into four market operations:  
Nordic, WEEMEA, Central Europe and Southern Europe

The Nordic region includes subsidiaries in Sweden and Finland. Telelogic's operations in the Nordic region have traditionally generated a large portion of sales from the telecom industry and a large consulting organization. During the year, the organization has adapted itself to the decreased demand for consulting services by substantially reducing the number of consultants. Major contracts have been signed during the year with the region's two dominant telecom suppliers. In the aerospace/defense sector, Saab has signed a major contract for a number of different tools. Customers in the medical technology and pharmaceutical industry have shown interest in DOORS.

WEEMEA (Western & Eastern Europe, Middle East & Africa) includes subsidiaries in the United Kingdom and the Netherlands, as well as distributors in Eastern Europe, the Middle East and South Africa. In a weak market climate, WEEMEA noted a marginal reduction of sales, primarily because of weak consulting sales during the second half of the year. Consolidation of the organization in 2001 and at the beginning of 2002 led to strong profitability increases during the year. The largest sector was aerospace/defense, in which existing major customers such as BAE SYSTEMS and the British Ministry of Defence strengthened their relations with Telelogic, largely with respect to broader use of the DOORS product. Telecom is the other significant sector in which the Tau product dominates. A major contract for DOORS was also signed in this sector. In the financial, banking and insurance sectors, a major contract was signed with Friends Provident for several of Telelogic's tools. New operations were initiated in Russia and the Middle East through distributors. Eastern Europe, however, was generally weak in 2002, with the exception of DOORS, which was in demand in several countries.

Central Europe includes subsidiaries in Germany, which are also active in Austria and Switzerland. The weak state of the market in Germany had a negative effect on Telelogic's sales, with a substantial reduction in sales

revenue. An adaptation of the organization to the market situation during the first half of the year resulted in greatly improved earnings during the second half of the year. The automotive industry is the single largest customer sector in Central Europe, followed by telecom, and the banking and financial sector. In principle, all of the leading automakers and several of their subcontractors are now Telelogic customers. In 2002, a large portion of automakers invested in DOORS in order to be able to manage requirement specifications in the supply chain, among other reasons. Consulting operations for the automotive industry are also relatively large; the single largest contract was valued at about SEK 15 million. Telecom maintained its position based on a high percentage of renewed maintenance contracts and a few major DOORS contracts. Several leading German banks now use Synergy, and most of them ordered more licenses during the year.

Southern Europe includes subsidiaries in France, Spain and Italy. The trend in the region resembled that in Central Europe, with lower revenues and an adaptation of the organization during the year. Telecom and aerospace/defense are the two largest sectors, with the automotive industry as the third-largest customer sector. Of the largest customers, Thales and PSA in France have made major investments during the year in all product families. Fiat in Italy has purchased the requirements management tool DOORS. Towards the end of the year, activity in the telecom sector increased, and French Cellon made the first large investment in the new Tau Generation2 product.

#### EUROPE

	2002	2001	2000
Sales, MSEK	575.0	826.5	556.7
Percentage of Group sales	51%	55%	63%
Total employees, sales related*	142	173	191
Total employees*	479	727	888

\* At year-end



## Americas

Market Division Americas comprises subsidiaries in the United States, and distributors in Canada and South America.

The US has generated good profitability since mid-2001. This has been achieved despite a challenging market climate. In this important market, Telelogic has increased license sales while expenses have decreased. However, a restructuring of consulting operations in line with the Group's overall strategy of focusing on product sales has resulted in a decline in consulting income.

Aerospace/defense is the largest sector, with telecom in second place. A strong upward trend in aerospace/defense and an expansion of sales in other sectors (partially new sectors such as the automotive industry, the financial industry and the medical technology and pharmaceutical industry) compensated for the generally weak growth in the communications industry during the year.

During the year, a special sales unit based in Washington D.C. was started to concentrate on government agencies – a customer group that is increasing in importance. The sales unit that handles major customers and partnerships has strengthened collaboration with technology partners such as Mercury Interactive and Primavera Systems, and system integrators such as Accenture and Cap Gemini Ernst & Young. Larger customers during the year included Lockheed Martin, which increased its usage of DOORS at the same time as the consortium for the new American aircraft project, the Joint Strike Fighter, decided to implement DOORS for all requirements management in the project.

During 2002, Telelogic's market position and visibility have been significantly improved through a successful investment in marketing. Improved relations with the leading industry analysts who monitor Telelogic's market have resulted in Telelogic being invited to participate in procurement activities for major tool solutions to a greater extent than previously.



## Asia/Pacific

The market division for Asia and the Pacific comprises subsidiaries in Japan, India, China, Korea, Singapore and Australia, and distributors in Taiwan and Thailand.

The Asian/Pacific market division has been affected by the general economic downturn in the field. This has been exacerbated by the fact that Telelogic's single biggest customer sector in Asia is the telecom industry. A large part of the decrease can be attributed to the sale of the component division for 3G protocol stacks, which was completed in August. The cost level has fallen, enabling substantially increased profitability.

Japan generates the highest revenue in the region, and is also the country that is most affected by the weak telecom market. On the other hand, India, Korea and Australia showed positive growth. In June, for example, a seven-year contract valued at about SEK 32 million was signed with the Australian Department of Defence for several of Telelogic's products.

Just before summer, Telelogic launched a version of DOORS that can accommodate Asian characters. For the first time, DOORS can also be used on a large scale by customers in China, Japan, Korea and Taiwan.

### ASIA/PACIFIC

	2002	2001	2000
Sales, MSEK	112.8	173.7	83.4
Percentage of Group sales	10%	12%	9%
Total employees, sales related*	38	36	18
Total employees*	89	70	48

\* At year-end

### AMERICAS

	2002	2001	2000
Sales, MSEK	433.3	494.8	241.1
Percentage of Group sales	39%	33%	27%
Total employees, sales related*	80	84	121
Total employees*	200	213	324

\* At year-end

### Risk management and factors that affect Telelogic's operations<sup>1</sup>

Telelogic's global operations, with offices in 17 countries and a large number of customers within a broad mix of various industry sectors, ensure that risks are well spread. The risks that Telelogic faces in operations can be categorized by external environment risks and financial risks.

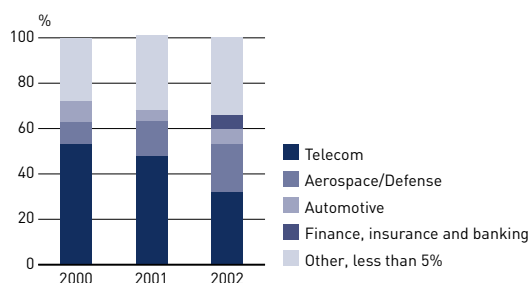
### External environment risks

#### *The general economic situation*

Telelogic provides tools that rationalize development processes for the development of advanced systems and software. The need for development tools is constant, even in times of downsizing and shortages of resources. Despite this, Telelogic has also been affected by the economic downturn because of a generally reduced willingness to invest, and greater uncertainty among the Company's customers.

The broadening of the customer base in recent years has been shown to spread risks well, since individual customer sectors evolve differently during a business cycle. This has proven especially true during 2001 and 2002, when growth in the telecom sector was very weak. This was partially offset by better growth in other customer sectors.

**SECTORS' EVOLUTION IN TERMS OF % OF TOTAL SALES**



Reduced dependence on individual sectors spread risk more effectively.

<sup>1</sup> It should be noted that all the risk factors that affect Telelogic's operations cannot be described here; a comprehensive assessment must also include other information in the Annual Report, other material on Telelogic and general monitoring of the external environment.

### *Market's driving forces*

Telelogic's success is based on a number of fundamental forces driving the use and development of advanced software. For a more detailed description of these forces, please refer to the previous market section. Significant changes in the market's driving forces will naturally affect Telelogic's operations.

### *Customer structure*

During 2001, Telelogic's seven largest customers, all leading telecom providers, accounted for 25% of sales. Ericsson, the single largest customer, generated more than 10% of sales. During 2002, Telelogic reduced its dependence on individual customers. In 2002, the seven largest customers generated 17% of sales. The 30 largest customers accounted for 33% of sales, and no single customer generated more than 5% of revenue.

### *Changed revenue distribution*

In 2001, Telelogic's license and maintenance income accounted for 65% of sales, and income from services for the remaining 35%. After restructuring of consulting operations in 2002, license and maintenance income account for 76% of sales. Because the gross margin for licenses and maintenance is much higher than for services, a changed revenue distribution has a direct impact on the company's earnings.

### *Products and technology*

In a market characterized by rapid technological change, Telelogic's competitive strength and market position are to a great extent dependent on the company's ability to develop new innovative products and refine existing products. Telelogic's products have a very high technology content, and the company has historically been able to supply products that in many cases are considered to be among the most advanced in their respective fields. Telelogic is also working actively with various standardization organs to ensure that the products are constantly at the cutting edge. In 2002, 22% of revenue was invested in product development, and more new products were launched during the year than ever before.



## Financial risk management

The Telelogic Group's financial functions are centralized, and are managed from the main office. The local financial units report directly to the corporate finance function, which enables good control of the Group's financial exposure while also offering cost advantages. The Group's financial policy sets guidelines and rules for managing financial risks and for general financial operations.

### Currency risks

91% of Telelogic's sales are in currencies other than SEK. Revenues are thus exposed to exchange rate fluctuations to a considerable degree.

Net income is not subject to the same level of exposure because the sales offices' sales revenues are most often denominated in the same local currencies as the costs generated by the offices. The greatest portion of sales is in the following currencies: Over 40% in USD, 30% in EUR and 15% in GBP. The net exposure consists of the sales organizations' surplus revenues. This is partially limited by the fact that the Group's development centers are geographically dispersed in four major markets – Sweden, the United Kingdom, France and the United States. The Group's expenses are thus to a large extent geographically tied to these revenues. The Company's policy is for 40 - 80% of the Group's net exposure of contracted flow and, to a certain extent, budgeted flow during the year to normally be hedged with various types of foreign currency instruments.

### Financial situation and liquidity

Cash on hand as of December 31, 2002 totaled SEK 160 million. Interest-bearing debt totaled SEK 55 million, of which a convertible loan accounted for SEK 47 million. Net cash totaled SEK 105 million. Telelogic has an unused credit line totaling SEK 135 million. Despite a weak market climate during 2002, Telelogic generated positive cash flow of SEK 41.8 million. Cash on hand increased by SEK 31.6 million after negative exchange

impact. The assessment is that a limited need for outside financing for current operations exists in view of the Company's goal of achieving positive income before taxes for 2003.

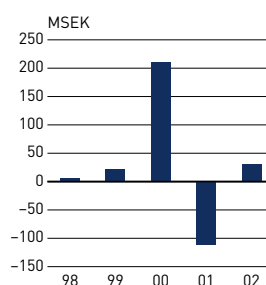
### Interest risks

As of December 31, 2002, Telelogic had SEK 55 million in outstanding interest-bearing debts, SEK 47 million of which pertain to a convertible loan (not yet converted convertible loans fall due payable December 30, 2005). The convertible loan is running at a fixed annual interest rate of 3.5%. For other interest-bearing debts, a 1 percentage point increase in the interest rate would increase Telelogic's interest costs only marginally, by about 2% or SEK 0.1 million.

### Credit losses

Traditionally, Telelogic has had few problems with outstanding accounts receivable because most of the customers are major, payment-reliable companies. Credit losses during 2002 totaled SEK 8 million, corresponding to about 0.7% of net sales. During the past year, outstanding accounts receivable have significantly declined, mainly as a result of active collection on accounts receivable. In 2002, these had an average time for payment of 71 days, a decrease of 19 days in comparison with 2001.

## CASH FLOW



Substantially improved cash flow despite weak market climate during 2002.



## SOLID R&D

Telelogic has always followed the strategy of investing strongly in research and development, a strategy that has proven to be successful. At the beginning of 2003, Telelogic's products were named as the market-leaders by several independent industry analysts.

These distinctions are not just for market shares, but for technical functionality as well. DOORS, Synergy and Tau have been named as the best products in their respective fields.

During 2002, Telelogic invested SEK 245 million in product development, corresponding to 22% of sales<sup>1</sup>. In a survey conducted by the Swedish magazine "Ny Teknik" in 2002, Telelogic ranked third among Swedish companies that invest most in product development relative to sales.

Successful product development requires responsiveness to customers' needs and wishes. Telelogic has worked with a group of key customers for many years, discussing future versions of products at an early stage. Several meetings with these key customers are held each year, where they are given the opportunity to comment on existing versions, planned versions and their wishes pertaining to product functionality.

<sup>1</sup> This figure also includes capitalized product development costs reported in the Balance Sheet for accounting reasons.



Telelogic is also active in various standardization organizations, including ITU (International Telecommunications Union), ETSI (the European Union's body for telecom standardization) and OMG (the body that, among other things, is standardizing the UML development language). Through active participation in standardization organizations, where Telelogic's customers are also represented, Telelogic gains advanced knowledge of new technologies and shapes the new technologies and standards. This enables Telelogic to develop not only products based on customers' demands, but also products that are adapted to new standards early on.

### **Employees and development centers**

Successful product development also requires innovative, goal-oriented employees who make quality their priority. One-fifth of Telelogic's employees work in product development. Nearly all have university degrees, mainly master's degrees in software or electrical engineering. Product development at the close of 2002 was distributed among four development centers: Synergy is developed in California, DOORS in Edinburgh, Scotland, and Tau in Toulouse, France and Malmö, Sweden. Telelogic also has subcontractors in Russia, Bulgaria and India, conducting various projects on assignment from Telelogic. Having

development centers all over the world places heavy demands on coordination and communication. The products not only must be the best within their particular fields, but also work together as a whole. Certain product components are developed at one location and then reused by other units. This requires employees who are good at communicating with developers in other parts of the world, and who can work across team boundaries. Creating a sense of belonging within Telelogic is vital to successful product development.

A software developer at Telelogic belongs to a smaller group that is often responsible for a specific technology area, such as "front-end", which can be described as the user interface visible to the customer. The group actively participates in developing the functionality that will be included in the next product version, and it is the group leader's responsibility to ensure that the group delivers on time. Work is divided among the group's members, and a developer often has program code that he or she continually develops. This produces developers who are very familiar with their modules and who can make suggestions for improvements.

Telelogic collaborates with universities and colleges all over the world to ensure that Telelogic can continue to attract skilled personnel, and that customers have access





to engineers who are knowledgeable about Telelogic's technology. The universities are given access to Telelogic's products for use in education. Telelogic's products are currently being used at hundreds of universities worldwide.

### **Telelogic and global standards**

Telelogic actively participates in a number of non-profit standardization and collaborative organizations, mainly within three areas: software standards, communications technology (not just telecom) and system development methods.

Within the field for standards for graphical development languages, ITU is a global telecom organization involved in many tasks. One is the standardization of SDL, where Telelogic is actively involved. In the European counterpart, ETSI, Telelogic is a driving force in the development of the TTCN testing language. Another important organization in which Telelogic is an active member, holding several chair positions, is OMG (Object Management Group), where the UML language is being standardized. A core issue that Telelogic is promoting both within the ITU and the OMG is the merging of SDL and UML into a new global standard for graphical software development. The new standard is expected to be ready sometime in 2003, under the name UML2.



Computer manufacturers, representatives from the consumer electronics industry and circuit board manufacturers are working together to refine and spread the use of IEEE 1394. This is a standard for the digital transfer of information between different devices in the home, also known as FireWire® or i.LINK®.

In the automotive industry and the collaborative organization OSEK/VDX, standardization is motivated by the high recurring costs that the automotive industry encounters in developing software for controlling vehicle electronics. Europe's leading vehicle manufacturers and their subcontractors are now united in support of an open standard for communications between various components in cars. Participation in these development efforts provides significant opportunities for monitoring and influencing the development of new communication technologies.

In the systems field, Telelogic is an honorary member of INCOSE (International Council on Systems Engineering), a group working with issues relating to how system development, in the general sense of the term, is best performed.

Telelogic believes that people make the company. Maintaining expertise and a high level of motivation throughout the organization will, just as before, be a determining factor in strengthening Telelogic's position in the marketplace. To maintain a high level of motivation among the staff and ensure internal efficiency, all employees must understand and accept the mission and strategy.

Telelogic strives for:

- Common objectives – everyone striving towards the same goals.
- Individual enrichment – continual, personal growth.
- Teamwork – utilizing the group's expertise in solving problems.
- External focus – basing decisions on changes in the marketplace.
- System-oriented thinking – seeing the whole picture.

Because Telelogic's industry is characterized by rapid change, it is especially important to have a common and concrete foundation of values. Telelogic's corporate culture is characterized by five core values:

#### *Execution is passion*

We do everything to a high quality, and we like what we do. We take full responsibility and deliver what we have promised, on time. Our definition of efficiency is – the solution works, it's faster than yesterday's and it's better than the competition.

#### *Sense of urgency*

Our business environment is changing rapidly, and we must change with it. Accordingly, we work with a sense of urgency in everything we do. Speed is essential.

#### *The right thing*

We do the right things. Doing the right things is about survival. Our definition of the right things is – that which gives added value to our customers and generates business.

#### *Excellence & fun*

We constantly look for that which is fun and unique. Creating an environment that stimulates creativity and job satisfaction is one of our greatest challenges.

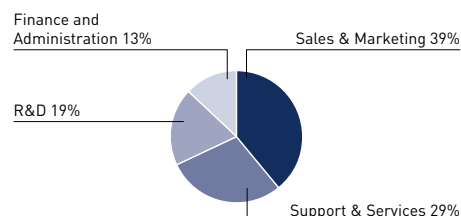
#### *Customer first*

We always prioritize our customers and our business operations. Nothing is more important than continually exceeding customers' expectations and winning new business.

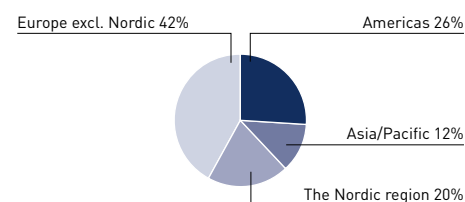
### **Personnel profile**

Telelogic had 768 employees at year-end. The level of education at the Group is high, and a majority of employees hold university degrees. The largest group is made up of those with master's degrees in software or electrical engineering. This is also reflected in the breakdown by function. Product developers, salespersons and consultants are the largest groups. These positions require technical expertise and strong product knowledge.

#### **PERSONNEL BY FUNCTION**



#### **PERSONNEL BY MARKET\***



\* Operationally, not legally.

Both staff turnover (defined as voluntary termination of employment) and absences due to illness are low at Telelogic. During 2003, both of these key numbers will be monitored in detail.

### Salaries and incentive programs

Salary levels at Telelogic are competitive, while reflecting market conditions. The majority of employees have a combination of fixed and variable salary. For senior management, salespersons and consultants, the variable component is tied to sales goals. Variable salary is also found in product development and administration, where the variable component is mainly related to the fulfillment of goals in accordance with established schedules and quality requirements.

To further motivate personnel, Telelogic regularly introduces stock option programs. It is Telelogic's policy to offer stock options to all employees, not just those who hold management positions.

During the autumn of 2001, Telelogic implemented a program of streamlining measures, which also included voluntary salary reductions. Over 70% of Telelogic's employees participated in the program. Salaries returned to original levels when Telelogic reached specific, predetermined profitability goals. The program concluded on October 1, 2002.

### Organization

Telelogic's personnel are spread over three continents. Decentralized control and local responsibility are key

factors in Telelogic's organizational model which places heavy demands on management, both centrally and locally, but also provides room for individual initiative.

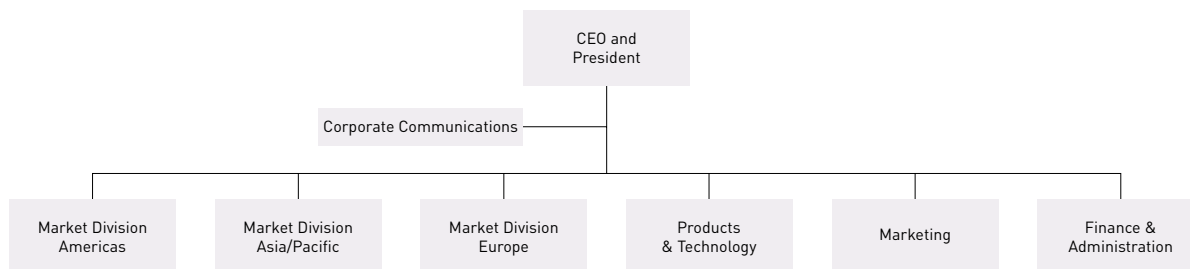
Telelogic's operations are divided into three major groups: Market divisions, Products & Technology, and Corporate functions.

*Market divisions* work in close proximity to customers, and the three regions – Europe, Americas and Asia/Pacific – coordinate activities. The market divisions work in geographically limited markets, supplying the markets with sales, consulting and training resources. Key account teams work exclusively with a single customer and are in charge of business with that customer worldwide.

*Products & Technology group* is the foundation of Telelogic's product line and consists of the product organization and the service organization. The product division is responsible for continued development and maintenance of products, as well as more advanced customer support. The service division is responsible for developing and structuring Telelogic's service offerings and close customer support. Resources for consulting services and training are found in the market divisions.

*Administrative functions* consist of sections for Marketing, Information, Finances and Administration. Telelogic has created a Group-wide network and a decentralized organization for these functions. Common to all administrative functions is that they have only limited resources for working on a global basis. The majority of resources are sited close to the customers, out at the market divisions.

#### TELELOGIC'S ORGANIZATION



Telelogic shares were initially offered on the Stockholm Stock Exchange's O-list on March 8, 1999. The initial offering price was SEK 5.00, recalculated after splits. The Telelogic share is now traded on the Attract 40 list. A regular block is 1,000 shares.

### Capital stock

Capital stock in Telelogic AB totaled SEK 2,028,370 as of December 31, 2002, distributed among 202,837,052 shares at a face value of SEK 0.01. All Telelogic shares entitle the holder to one vote per share at the Annual General Meeting, and all shares confer equal rights to shares in the Company's profits and assets.

### Stock options programs

Telelogic has a number of outstanding stock option programs for employees, in keeping with the company's stock option policy.

The following table shows outstanding stock option programs as of December 31, 2002. For a more detailed description of the individual programs, please refer to Note 14 on page 55.

#### OUTSTANDING DEBENTURES WITH ASSOCIATED WARRANTS FOR SUBSCRIPTION OF SHARES

Program	Subscription price, SEK	Final date for subscription	Corresponding total shares	Estimated dilutive effect upon full subscription (%)
TO 4 (2000/2005)	62.92	May 31, 2005	72,275	0.04
TO 5 (2001/2005)	40.82	May 31, 2005	298,474	0.1
TO 6 (2001/2005)	22.10	October 31, 2005	36,757	0.02
TO 7 (2001/2006)	6.30	April 30, 2006	692,200	0.3
TO 8 (2001/2006)	8.40	April 30, 2006	2,769,425	1.3
TO 9 (2001/2006)	8.50	April 30, 2006	3,441,287	1.7
<b>Total</b>			<b>7,310,418</b>	<b>3.5</b>

### Dilution

The outstanding stock option programs can result in no more than 3.5% dilution (computed as the net increase of

shares in the company as a result of options, divided by the total number of shares and options.) According to the method recommended by FASC (Swedish Financial Accounting Standards Council) for computing dilution – where only the stock option programs having share prices that exceeded the discounted strike price as of December 31, 2002 are considered – total dilution was 0.05%. In addition, there is an outstanding convertible loan corresponding to 14,007,878 shares upon full conversion to shares. The total number of shares after full dilution according to the calculation method recommended by FASC, taking into account both outstanding stock option programs and convertible loans, is therefore 216,939,242.

### Ownership structure

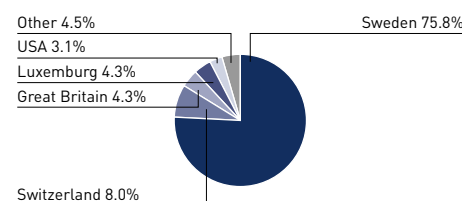
#### DISTRIBUTION OF OWNERSHIP PER HOLDING

Holdings	Total shares	%	Total owners	%
1–10,000	40,925,982	20.2%	26,688	95.4%
10,001–50,000	22,425,327	11.1%	1,051	3.8%
50,001–100,000	8,066,748	4.0%	111	0.4%
100,001–1,000,000	29,305,525	14.4%	93	0.3%
1,000,001–5,000,000	68,527,920	33.8%	35	0.1%
5,000,001–	33,585,550	16.6%	4	0.0%
	<b>202,837,052</b>		<b>27,982</b>	

#### BREAKDOWN BETWEEN INSTITUTIONS AND PRIVATE PERSONS

	Total shareholders, %	Holdings, %
Legal persons	8.57%	67.16%
Physical persons	91.43%	32.84%

#### GEOGRAPHICAL DISTRIBUTION OF OWNERS



Source: VPC AB, as of December 30, 2002

## Telelogic's 10 largest shareholders

According to the VPC AB public share register for direct and nominee registered shareholders, the 10 largest shareholders in Telelogic AB as of December 30, 2002 were as follows:

Name	Total shares	Percentage of votes and equity, %
Intertech Development Ltd	13,416,000	6.6%
Livförsäkringsaktiebolaget Skandia	7,419,550	3.7%
Fjärde AP-fonden	7,000,000	3.5%
Svolder AB	5,750,000	2.8%
Carlson Småbolagsfond	4,665,000	2.3%
Lannebo Småbolag	4,100,000	2.0%
Handelsbankens Småbolagsfond	4,080,000	2.0%
Lannebo Småbolag Select	3,441,000	1.7%
JP Morgan Chase Bank	2,919,851	1.4%
SEB Sverige Aktiefond 1	2,637,000	1.3%

## LARGEST OWNERS, BY CATEGORY\*

Name	Total shares	Percentage of votes and equity, %
Intertech Development Ltd	13,416,000	6.6%
Handelsbanken Fonder	9,753,033	4.8%
SEB Fonder	9,176,265	4.5%
Lannebo Fonder	8,241,000	4.1%
Skandia Liv	7,758,550	3.8%
Nordea Fonder	7,112,250	3.5%
Fjärde AP-fonden	7,000,000	3.5%
Svolder AB	5,750,000	2.8%
DnB Fonder	4,942,600	2.4%
Robur Fonder	3,855,000	1.9%

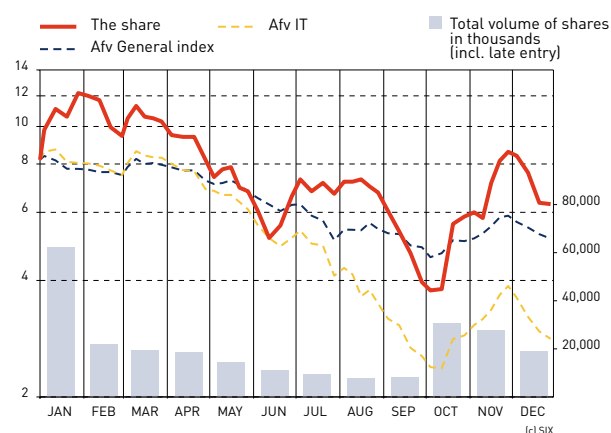
\* Including funds and institutions according to assessment made by Telelogic based on the VPC AB public share register for direct and nominee registered shareholders as of December 30, 2002.

## Evolution of share price and transaction volume

During 2002, the growth of the Telelogic share, as with many other technology company shares, was weak. The price of the Telelogic share fell during the year by 25%, which is, however, better than the Affärsvärlden IT index, which fell 65%, or the Stockholm Stock Exchange's general index, which declined by 37%. The last-paid price for the Telelogic share on December 27 was SEK 6.20. This price corresponds to a market cap of about SEK 1,260

million. The lowest price during the year was SEK 3.20, and the highest paid price was SEK 12.90. Total volume of traded shares was about 249 million shares during 2002, corresponding to a value of about SEK 2,100 million. During the year, an average of about 998,000 shares daily were bought and sold at an average value of about SEK 8.4 million.

## SHARE PRICE EVOLUTION 2002



Share data are provided in the key numbers information on page 60. Information on the evolution of the capital stock is presented in Note 14, page 55.

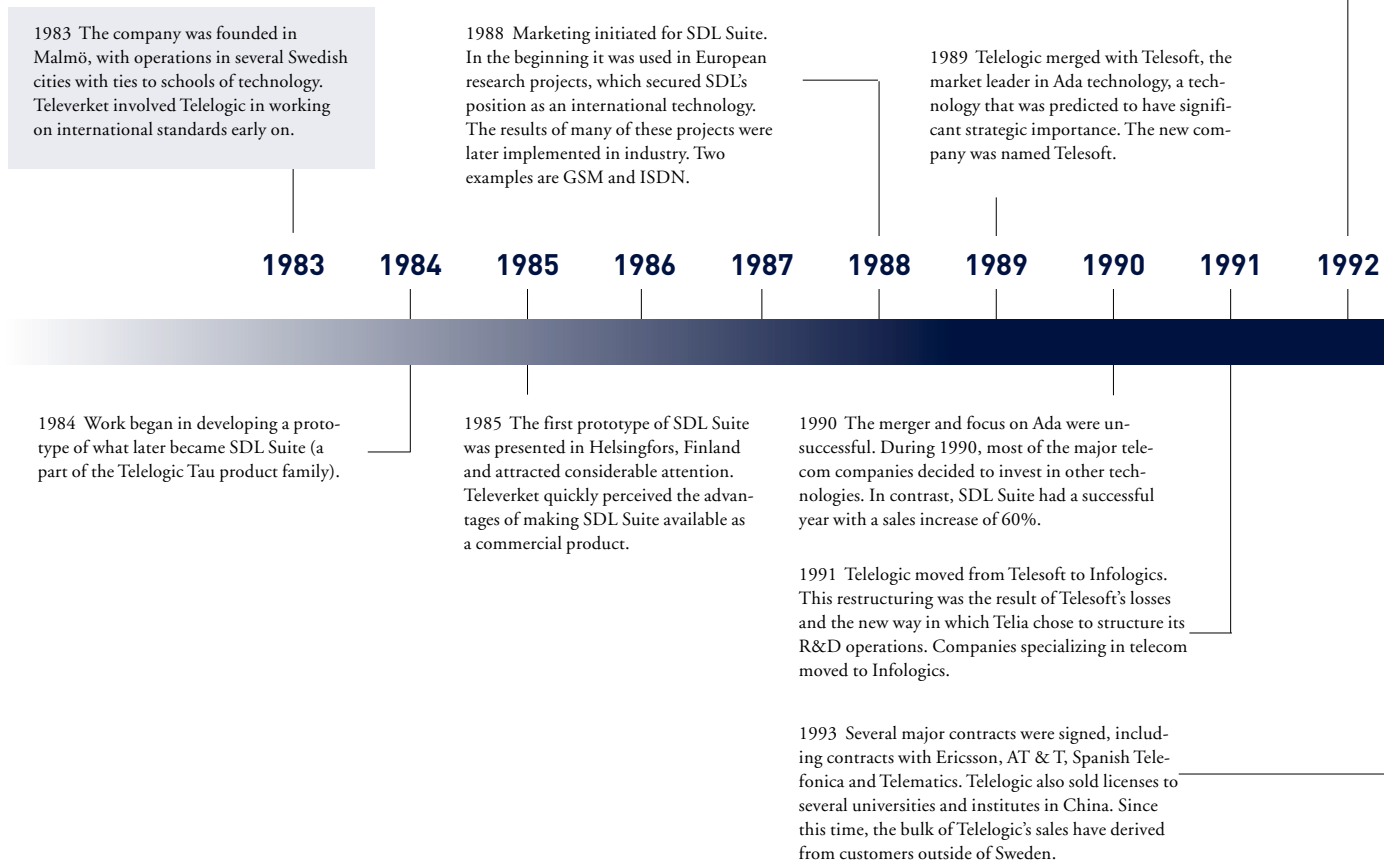
## Analysts who monitor Telelogic

Companies	Analysts
Alfred Berg Fondkommission	Patrick Clase
Bankaktiebolaget JP Nordiska	Daniel Djurberg
CAI Cheuvreux	Johan Eliason
D. Carnegie	Fredrik Lithell
Deutsche Bank	Karl Berglund
Enskilda Securities	Lars Sveder & Andreas Joelsson
H&Q Technology	Hampus Brodén
Handelsbanken Securities	Peter Trigarszky
HSBC Investment Bank	Stellan Hellström
Lehman Brothers	Coleen Kaiser & Peter McNally
Nordea	Greger Johansson
Redeye	Roger Jansson & Stefan Nelson
Remium Securities	Robert Ahldin



Telelogic began operations in 1983. The former state-owned Televerket (which later evolved into Telia) forecast rising costs for software development and created a department to conduct research related to the development of software for the telecom industry. The department was eventually spun off into a subsidiary and named Telelogic.

Telelogic's products now support all customer processes for developing advanced software. Telelogic has gone from being a Swedish R&D department to an international software company with a world-leading position.



1992 Telelogic became completely independent, and operations were streamlined for specialization in SDL Suite. Telelogic became the leading supplier of SDL tools, a position the Company still holds today. Two of the customers at this time were British Telecom and GPT.

1994 Communicator, one of Scandinavia's leading IT companies, became Telelogic's majority owner. As a part of restructuring, Telelogic acquired the product rights to the TTCN Suite testing tool. Telelogic signed a contract for the single largest installation of SDL Suite with Northern Telecom, for 1000 licenses.

1996 Examples of successful contracts in this year include an initial order from Daewoo in Korea, a long-term cooperative agreement with Ericsson, large subsequent orders from Sprint in the US, and the first sale to Siemens in Germany. New offices were established in France and in San Jose on the American west coast.

1998 Telelogic continued to expand, growing 69% during the year. In May, the German distributor S&P Media was acquired, giving Telelogic a subsidiary in Germany. The sale from Saab Combitech to a consortium of private investors represented an important step in Telelogic's aggressive expansion plans. Anders Lidbeck was appointed Telelogic CEO in October.

2000 This was a record year for Telelogic. Sales increased 177% and, for the fourth year in a row, positive net income was reported before goodwill amortization. With the acquisition of QSS, Continuus and ATA Telelogic created a comprehensive product portfolio. The acquisitions enabled an expansion of operations beyond the telecom sector to also include the automotive and aerospace/defense industries.

2002 The global market for software continued to be weak during 2002. This also affected Telelogic's sales. The previous years' broadening of customer sectors continued in 2002, substantially offsetting the decline in the telecom sector. The aerospace/defense and automotive sectors in particular showed positive growth. In combination with continued strong cost controls and downsizing of consulting operations in the Nordic region, this resulted in a considerable improvement in earnings. 2002 was also the year when Telelogic made its largest product investments ever, launching several new products, many of which are entirely unique.

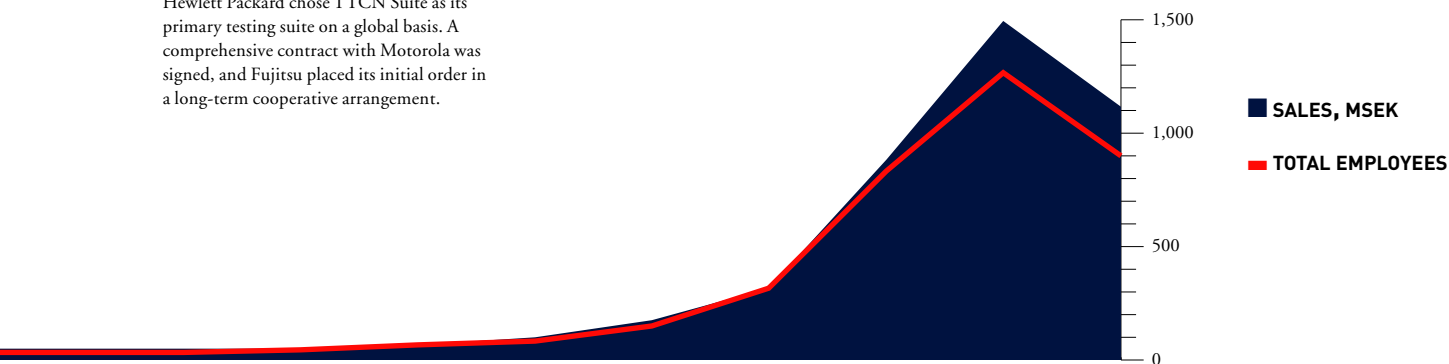
1993 1994 1995 1996 1997 1998 1999 2000 2001 2002

1995 Saab Combitech bought out Telelogic from Communicator. The acquisition gave Telelogic a broad international network and resources from a leading high-tech company. Early in the year, Tau TTCN Suite was launched along with SDL Suite as an integrated product. This gave Telelogic a unique product in the global market. Telelogic opened its first US office on the east coast (Princeton), and the Asian market grew to account for 20% of sales.

1997 Growth accelerated, and Telelogic grew organically by 59%. A new office was established in Chicago, Illinois and total employees increased to over 100 persons. Hewlett Packard chose TTCN Suite as its primary testing suite on a global basis. A comprehensive contract with Motorola was signed, and Fujitsu placed its initial order in a long-term cooperative arrangement.

1999 Telelogic was initially offered on the OM Stockholm Stock Exchange's O-list on March 8. Growth continued throughout 1999, resulting in a growth rate of 78% for the full year. With the acquisition of source code rights to Sterling's UML tool in June, Telelogic took an important step towards an integrated product family that covers the entire development process. In December, Telelogic acquired what was then its biggest competitor, the French software vendor Verilog.

2001 The market situation gradually deteriorated during the year but, despite this, Telelogic grew by 70%. Weakened demand resulted in Telelogic implementing a program to reduce costs and, for the first time, Telelogic was forced to reduce employee totals. The broadening of operations in 2000 paid off in a strengthened market position. It was also evident that several customers were showing interest in the entire Telelogic product line.



The Board of Directors and the CEO of Telelogic AB (a publicly held corporation), corporate registration number 556049-9690, submit herewith the Annual Report for fiscal 2002.

### **Market**

2002 has been a year with generally weak demand for software, which has also affected Telelogic's market.

Growth in the American market during the year has been stable with good profitability. This market division, which during 2002 accounted for 39% of Telelogic's total sales, has achieved contribution margins in line with the Company's long-term profitability goals for six consecutive quarters.

Telelogic's market units in Europe have experienced mixed growth during the year, with a weak first half followed by some signs of stabilization during the second half of the year. The trend in Western Europe has been positive while Central and Southern Europe have had weaker years because of factors including high vulnerability to the telecom market and a relatively high proportion of consulting operations. The market unit in the Nordic region has implemented major restructuring measures during the year pertaining to its consulting operations in order to adapt the organization to the lower demand for consulting services, with weak earnings as a result.

The subsidiaries in Asia had a relatively high percentage of sales to the telecom market and were negatively affected by the weak market in this sector. During 2002 however, the customer base was broadened to include more sectors. Results were good with the aerospace/defense and automotive sectors in particular showing very positive growth. Profitability for the region on the whole has been good.

### **Sales**

For the full year 2002, Telelogic had sales of SEK 1,121 million, compared with SEK 1,495 million for 2001. The decline in sales is the result of several factors. During 2002, the Company more than halved the consulting organization to adapt its consulting operations to lower demand for services for general product development. In 2001 and 2002, several operations outside of the Company's focus were phased out, including the component division in August 2002, and the products Scade and Blue-tooth Prequal at the end of 2001. Moreover, currency exchange rate fluctuations in 2002 affected sales in SEK negatively by about 5%.

License sales and maintenance totaled SEK 856.2 million during the year, a decline of 12% compared to 2001. Sales of licenses and maintenance accounted for 76% of total sales for the year.

Consulting sales totaled SEK 264.8 million in 2002, which is 50% lower than 2001. This is a result of Telelogic's strategy of

reducing consulting sales and clearly focusing the organization on license sales.

### **Customer sectors**

During the year, the broadening of the customer structure continued with reduced dependence on single customer sectors as a result.

The telecom industry had another year of low demand. The telecom sector's share of Telelogic's sales fell from 48% in 2001 to 32% in 2002. Nevertheless, a number of major contracts were signed, mainly towards the end of the year. A Nordic telecom supplier ordered several of Telelogic's Tau products worth SEK 5.8 million. Additionally, Telelogic signed a major licensing contract with a Scandinavian telecom supplier, plus a SEK 12.7 million contract with an American telecom operator. Both companies chose Telelogic Synergy as their standard for all change and configuration management in their software development operations.

Telelogic's sales to the aerospace/defense industry grew during the year, and the sector increased its share of total sales to 21% (15%) in 2002. Two of Europe's leading aerospace/defense firms, Astrium and BAE SYSTEMS Avionics, chose to continue standardizing on Telelogic DOORS by extending and expanding previous license agreements. Lockheed Martin also increased its usage of DOORS at the same time as the consortium for the new American aircraft project, the Joint Strike Fighter, decided to implement DOORS for all requirements management in the project. A seven-year contract valued at about SEK 32 million was signed with the Australian Department of Defence for several of Telelogic's products.

Sales to the automotive industry grew to 7% (5%) of revenue in 2002. Sales remain concentrated in Germany. Operations for the sector in the US and Japan are still being established, but the automotive industry still accounts for less than 5% of sales in these countries. Telelogic's goal is to significantly strengthen its position within this sector during 2003.

The finance, banking and insurance sector developed well, accounting for 6% of total sales for 2002. An American financial institution chose to standardize on Telelogic Synergy in major parts of its organization during the year. At the end of the year, a contract was signed with British Friends Provident that covered all of Telelogic's products.

During the year several other customer sectors increased in importance. The medical technology/pharmaceutical industry is a sector in which Telelogic has had a few isolated customers for quite some time, but this area is now becoming increasingly attractive. A major contract was signed with American St. Jude Medical during the year.

<sup>1</sup> The Management Report includes, in addition to these pages, the comments provided in conjunction with the Income Statement, the Balance Sheet and the Cash Flow Analysis (pages 43 and 46).

### Income

Because of the restructuring measures implemented during the year, the overall cost level in the Group, including restructuring costs, declined during 2002 by 33% in comparison to 2001.

Net income excluding goodwill amortization and restructuring costs totaled SEK 28.1 million in 2002, which is a major improvement in comparison with 2001.

Telelogic successively improved its gross margin during the year, reaching 72% (69%) in 2002. The gross margin for licensing and maintenance sales also increased to 90.1% (88.4%), although the improvement in the total gross margin is mainly attributable to the fact that sales of licenses and maintenance are accounting for an increasingly greater share of total sales. The gross margin for consulting operations was 13.5% (33.1%) for the year. This is a result of low utilization because of weak demand for consulting services for general application development. Telelogic's long-term goal is a consulting margin above 30%.

### Products

During 2002 earlier product acquisitions began to produce tangible results in the form of several new, and in some cases totally unique, products that will further enhance Telelogic's international competitiveness. New products have been launched within all of Telelogic's product families. For descriptions of the new products, please refer to the product section on pages 8–11.

Customer benefits from an integrated product environment have been borne out by the continued increase in cross-sales during the year. Approximately 15% of all license contracts signed during the year have resulted in customers thereafter using at least two of Telelogic's product families, which is a major increase in comparison with 2001.

### Employees

As a part of the cost-cutting program, a voluntary salary reduction program was introduced in the fourth quarter of 2001 that temporarily cut salaries by 10%. More than 70% of Telelogic's employees temporarily reduced their salaries. Salaries successively returned to original levels during the year as defined earnings goals were reached. October 1, 2002 was the final day of the salary reduction program, and all salaries returned to their previous levels.

The number of employees totaled 768 at year-end, a decrease from 1,010 at the beginning of the year. This is a result of the program for streamlining operations, which was intended to cut costs and focus operations on sales of licenses and maintenance. This entailed a 65% reduction in consulting personnel during 2002.

### Financial position and investments

Cash flow from current operations for 2002 totaled SEK 122.4 million. Of investments of SEK 92.1 million, SEK 83.7 million were for product development of the second generation of Tau products, which began to be sold during the fourth quarter. Financing activities generated SEK 11.5 million, SEK 14.0 million of which derived from the employee stock options program and amortization of loans by SEK 2.5 million. In combination, this yielded positive cash flow of SEK 41.8 million during 2002. Liquid assets as of December 31, 2002 totaled SEK 160 million.

### Outlook for 2003

In 2002, the company's market underwent considerable consolidation. However, during 2003 it is forecasted that growth will return.

Telelogic is well positioned to meet an increasing demand. During 2003, Telelogic will take measures to return to positive growth. The company's goal is to achieve good growth in the US and Asian markets during 2003 and to increase license sales globally for fiscal 2003.

During 2003, Telelogic will continue to focus on improved earnings in order to achieve the goal of 20 percent operating margins during 2004, set in 1999. The forecast is that earnings before taxes for fiscal 2003 will be positive.

During 2003, Telelogic will report any restructuring costs as operating costs. The forecast, however, is that further actions that would require significant restructuring charges will not be necessary during 2003.

### Parent Company

The Parent Company runs the Group's management functions. Moreover, the Parent Company owns the rights to the Tau products. Royalty income from these products declined in 2002 as a result of lower sales to the telecom sector. Costs associated with product rights have, however, increased during the year, due to the fact that major investments were made in developing and launching the new generation of Tau products. Net income thus totaled SEK –89.6 million. Net income before taxes totaled SEK –243.5 million as a result of negative operating income in the Parent Company, write-downs of shares in subsidiaries and depreciation of intellectual property rights.

### Proposal for appropriation of the Company's cumulative loss

The Board of Directors and the CEO propose that the year's cumulative loss of SEK 256,727,282 be appropriated as follows:

Premium fund claims of	SEK 256,727,282
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The Group has no unrestricted unappropriated earnings.

## 42 Income Statement

Amounts in TSEK	Note	Group			Parent Company	
		2002	2001	2000	2002	2001
Licensing and maintenance revenues		856,160	970,472	569,568	106,739	186,511
Consulting and other revenues		264,874	524,550	311,582	11,767	14,374
<b>Net Sales</b>	<b>1</b>	<b>1,121,034</b>	<b>1,495,022</b>	<b>881,150</b>	<b>118,506</b>	<b>200,885</b>
Licensing and maintenance expenses		-84,974	-113,015	-57,501	-999	-5,649
Consulting and other expenses		-229,027	-350,985	-196,488	-494	-162
<b>Gross income</b>		<b>807,033</b>	<b>1,031,022</b>	<b>627,161</b>	<b>117,013</b>	<b>195,074</b>
Sales expenses		-494,345	-739,703	-362,816	-29,528	-96,389
Administrative expenses		-111,419	-167,975	-92,162	-38,109	-43,245
Product development expenses		-173,236	-260,900	-171,498	-114,139	-100,697
<b>Operating income, excluding restructuring costs &amp; goodwill</b>		<b>28,033</b>	<b>-137,556</b>	<b>685</b>	<b>-64,763</b>	<b>-45,257</b>
Amortization of goodwill and other intangible fixed assets		-19,901	-126,348	-50,415	-19,096	-24,382
Goodwill write-down		-	-1,737,636	-	-	-50,489
Restructuring costs	16	-74,066	-120,025	-	-5,790	-3,368
<b>Operating income</b>	<b>2, 3, 4, 5</b>	<b>-65,934</b>	<b>-2,121,565</b>	<b>-49,730</b>	<b>-89,649</b>	<b>-123,496</b>
<b>Net income from financial items</b>						
Write-downs of shares in subsidiaries	11	-	-	-	-164,592	-1,725,830
Other interest income and similar income items		3,045	4,552	10,389	24,985	23,460
Interest expenses and similar charges		-4,745	-6,518	-2,282	-14,277	-11,322
<b>Net income after financial items</b>		<b>-67,634</b>	<b>-2,123,531</b>	<b>-41,623</b>	<b>-243,533</b>	<b>-1,837,188</b>
Tax on income for the year	6	-33,931	72,357	-7,118	-4,447	30,332
<b>Net income for the year</b>		<b>-101,565</b>	<b>-2,051,174</b>	<b>-48,741</b>	<b>-247,980</b>	<b>-1,806,856</b>
Earnings per share before dilution, SEK		-0.51	-13.82	-0.45		
Earnings per share after dilution, SEK		-0.51	-13.82	-0.45		



## Sales

For 2002, Telelogic had sales of SEK 1,121 million compared with SEK 1,495 million for 2001.

License and maintenance sales totaled SEK 856.2 million during the year, which is a reduction of 12% compared to 2001. Discounting currency exchange effects, the decline was only about 7% because of the increase in the exchange rate on the SEK against many of the major currencies in which Telelogic invoices. Sales of licenses and maintenance accounted for 76% of total sales during 2002.

Consulting sales totaled SEK 264.8 million in 2002, which is 50% lower than in 2001. This is a result of Telelogic's strategy of reducing consulting sales and clearly focusing the organization on license sales. During the past year, Telelogic has more than halved its consulting organization, and consulting activities have been successively channeled towards product-related services in the form of preliminary studies, installation of software and process improvements. 69% of Telelogic's decline in sales for 2002 is related to decreased consulting revenue.

## Expenses

Because of the restructuring measures implemented during the year, all expense items decreased and the overall cost level in the Group, including restructuring costs, declined during 2002 by 33% in comparison to 2001. As a result of the measures implemented at the end of 2002, the forecast is that expenses will continue to decline during the first and second quarters of 2003, followed by stabilization.

Restructuring costs totaled SEK 74.1 million in 2002. During 2003 Telelogic will report any restructuring costs as a part of current expenses. The forecast, however, is that additional measures that could lead to significant restructuring costs will not be required in 2003.

In October, Telelogic began depreciating capitalized product development costs for Telelogic Tau. Salaries have also been restored to original levels during the year after the temporary salary reduction program initiated in the autumn of 2001.

## Operating income

Operating income excluding goodwill amortization and restructuring costs was SEK 28.1 million for 2002, which is a major improvement in comparison with 2001 (SEK -137.6 million). Operating income prior to net financial items totaled SEK -65.9 million (SEK -2,121.6 million).

## Net income for the year

Net interest income totaled SEK -1.7 million. Interest expenses for accounting purposes on the convertible loan accounted for the bulk of the interest expenses, which totaled SEK 2.3 million. The cash-impacting net interest income totaled SEK 0.6 million.

The Group had posted a substantial deduction for loss, which entailed that practically no cash-flow-impacted tax was paid in 2002. Because the Group decided not to capitalize additional loss deductions as assets from beginning of 2002, the Group reported a tax expense for accounting purposes of SEK -33.9 million for 2002. This is a result of certain segments of the Group showing a surplus where loss deductions were utilized. These are not offset by additional loss deductions being filed in other segments of the Group because they were not capitalized. The Group's capitalized loss deductions totaled SEK 140.0 million (163.6) at year-end.

Net income after tax thus totaled SEK -101.5 million, compared to SEK -2,051.2 million for 2001.

## 44 Balance Sheet

Amounts in TSEK	Note	Group			Parent Company	
		021231	011231	001231	021231	011231
ASSETS						
Fixed assets						
Intangible fixed assets						
Source code rights and other intangible assets	7	4,293	7,081	8,793	35,144	53,344
Goodwill	8	238,758	301,313	1,951,126	–	–
Capitalized development costs	9	146,425	75,000	–	–	–
Tangible assets						
Equipment, fixtures and fittings	10	63,669	124,894	133,835	–	–
Financial fixed assets						
Participations in Group companies	11	–	–	–	449,068	425,012
Other long-term receivables	12	151,978	183,518	102,013	85,370	88,048
Receivables from Group companies		–	–	–	–	–
Total fixed assets		605,123	691,806	2,195,767	569,582	566,404
Current assets						
Current receivables						
Accounts receivable		290,710	486,328	537,613	5,141	6,024
Receivables from Group companies		–	–	–	590,616	368,456
Tax claims		3,661	3,570	792	1,966	1,171
Other receivables		27,568	87,642	42,783	13,057	45,237
Prepaid expenses and accrued income	13	47,759	48,070	57,392	3,500	6,297
		369,698	625,610	638,580	614,280	427,185
Cash and bank accounts		159,954	128,366	240,796	22,685	43,054
Total current assets		529,652	753,976	879,376	636,965	470,239
TOTAL ASSETS		1,134,775	1,445,782	3,075,143	1,206,547	1,036,643

Amounts in TSEK	Note	Group			Parent Company	
		021231	011231	001231	021231	011231
EQUITY AND LIABILITIES						
Shareholders' equity	14					
Restricted equity						
Capital stock		2,028	1,894	1,254	2,028	1,894
Restricted reserves		850,107	2,582,909	2,031,915	–	–
Legal reserves		–	–	–	120	120
Premium fund		–	–	–	777,614	2,513,575
Current new share issue		–	24,132	426,401	–	24,132
		852,135	2,608,935	2,459,570	779,762	2,539,721
Unrestricted equity						
Profit/losses brought forward		–123,346	158,393	–73,663	–8,747	–31,521
Net income for the year		–101,565	–2,051,174	–48,741	–247,980	–1,806,856
		–224,911	–1,892,781	–122,404	–256,727	–1,838,377
Total equity		627,224	716,154	2,337,166	523,035	701,344
Allocations						
Allocations for pensions		2,280	3,082	2,158	–	–
Deferred tax liabilities	15	768	–	112	–	–
Other allocations	16	22,019	15,200	32,000	1,250	–
Total allocations		25,067	18,282	34,270	1,250	–
Long-term debts						
Convertible loans	17	46,439	50,232	–	46,439	50,232
Bank overdraft facility	18	8,128	7,788	4,353	–	–
Other debts	19	2,135	78,696	67,071	–	72,454
Total long-term debts		56,702	136,716	71,424	46,439	122,686
Current liabilities						
Interest-bearing debts to credit institutions		–	–	44	–	–
Due to suppliers		45,809	46,793	79,735	6,906	1,256
Due to Group companies		–	–	–	612,733	193,350
Tax liability		–	4,125	8,358	–	–
Other interest-bearing debts		715	2,103	–	–	–
Other current liabilities		47,011	110,015	103,712	2,542	3,566
Accrued expenses and prepaid income	20	332,247	411,594	440,434	13,642	14,441
Total current liabilities		425,782	574,630	632,283	635,823	212,613
TOTAL EQUITY AND LIABILITIES		1,134,775	1,445,782	3,075,143	1,206,547	1,036,643
Assets pledged	21	47,956	51,853	124,422	45,000	45,000
Contingent liabilities	21	6,711	2,795	57	25,354	25,439

**Assets**

During 2002, capitalized development costs totaled SEK 71.4 million after deductions for amortization that began when the respective products were launched at the end of the year.

The tangible fixed assets consist mainly of office and IT equipment. The Group had low investment requirements in 2002 because large quantities of IT equipment were leased under a global framework agreement.

Financial fixed assets are composed of capitalized tax losses brought forward and deposits on rental agreements. During the year, SEK 20.1 million of capitalized loss deductions were used to offset profits in individual subsidiaries. Outstanding unutilized loss deductions totaled SEK 963.6 million, SEK 499.4 million of which were posted to the Balance Sheet as deferred tax assets. It is the Board of Directors' assessment that there are convincing reasons to believe that the Company will be able to utilize reported deferred tax assets by reducing future tax payments.

Accounts receivable declined substantially during the year, mainly as a result of the successful collection of outstanding accounts receivable, which resulted in the average outstanding payment time during the year being reduced by 19 days to 71 days for 2002.

**Liabilities**

Interest-bearing long-term debts declined by SEK 3.4 million, mainly because of the conversion of outstanding convertibles to shares during the year. Non-interest-bearing long-term debts declined by SEK 79.7 million. This is mainly a result of a final settlement regarding the purchase price for the companies acquired in 2000 (Certeam and ATA Inc.) having been reached during the year.

Accrued expenses and deferred income consist mainly of deferred income for maintenance contracts, but also assorted employee-related costs. These have declined during the year as a result of the somewhat lower maintenance volume and a reduced number of employees in the Group.

Other non-interest-bearing current liabilities declined by SEK 66.3 million, mainly as a result of reduced VAT liabilities.

**Shareholders' equity**

Shareholders' equity totaled SEK 627.2 million at year-end, which corresponds to an equity/assets ratio of 55.3%, up from 49.5% for 2001.

**Cash flow**

Cash flow from current operations for 2002 totaled SEK 122.4 million.

Of investments of SEK 92.1 million, SEK 83.7 million were for capitalized product development, mainly of the second generation of Tau products, which began to be sold during the fourth quarter.

Financing activities generated SEK 11.5 million, SEK 14.0 million of which derived from the employee stock options program and amortization of loans in the amount of SEK 2.5 million. In combination, this yielded positive cash flow of SEK 41.8 million during 2002. This was negatively affected by a currency exchange rate difference totaling SEK -10.2 million.

Liquid assets thus increased by SEK 31.6 million during the year, totaling SEK 160.0 million as of December 31, 2002.

# Cash Flow Statement

Amounts in TSEK	Group			Parent Company	
	2002	2001	2000	2002	2001
<i>Cash flow from current operations</i>					
Operating income	-65,934	-2,121,565	-49,730	-254,241	-123,496
+ Depreciation and write-downs charged against income	86,898	1,924,406	76,644	184,532	74,871
+/- Change in non-interest bearing allocations	6,764	-16,023	-8,137	1,250	-
Unrealized exchange gains/losses	1,466	-	-	-	-
+/- Net gain or loss from sold fixed assets	7,016	15,706	1,490	-	6
	<b>36,210</b>	<b>-197,476</b>	<b>20,267</b>	<b>-68,459</b>	<b>-48,619</b>
Interest received	3,045	4,552	10,389	24,985	23,460
Interest paid	-3,208	-5,585	-2,558	-12,740	-10,220
Income tax paid	-346	-11,296	-7,019	-1,840	-644
<b>Cash flow from operations before changes in working capital</b>	<b>35,701</b>	<b>-209,805</b>	<b>21,079</b>	<b>-58,054</b>	<b>-36,023</b>
<i>Change to working capital (excluding liquid assets)</i>					
Increase (-)/decrease (+) in current receivables	189,500	71,834	-281,086	-199,339	-166,043
Increase (+)/decrease (-) in current liabilities	-102,767	-81,462	113,188	223,014	-11,575
<b>Cash flow from current activities</b>	<b>122,434</b>	<b>-219,433</b>	<b>-146,819</b>	<b>-34,379</b>	<b>-213,641</b>
<i>Investment activities</i>					
Acquisition of intangible fixed assets	-83,683	-75,718	-70,278	-	-13,127
Acquisition of tangible fixed assets	-9,753	-60,643	-61,464	-	-
Acquisition of subsidiaries, including capital contributions	-	-23,922	-517,312	-	-17,964
Acquisition of financial tangible assets	-	-2,678	-	-	-2,678
Sales of equipment	1,331	2,290	416	-	-
<b>Cash flow from investment activities</b>	<b>-92,105</b>	<b>-160,671</b>	<b>-648,638</b>	<b>0</b>	<b>-33,769</b>
<b>Cash flow after investments</b>	<b>30,329</b>	<b>-380,104</b>	<b>-795,457</b>	<b>-34,379</b>	<b>-247,410</b>
<i>Financing activities</i>					
New share issues	14,010	207,627	1,083,572	14,010	207,627
Loans raised	-	50,491	-	-	47,053
Amortization of loans	-2,508	-896	-88,377	-	-3,451
Amortization of debenture loans with warrants	-	-	9,087	-	-
Received Group contributions	-	-	-	-	-43,779
<b>Cash flow from financing activities</b>	<b>11,502</b>	<b>257,222</b>	<b>1,004,282</b>	<b>14,010</b>	<b>207,450</b>
<b>Net cash flow for the year</b>	<b>41,831</b>	<b>-122,882</b>	<b>208,825</b>	<b>-20,369</b>	<b>-39,960</b>
<b>Liquid assets at year-start</b>	<b>128,366</b>	<b>240,796</b>	<b>30,899</b>	<b>43,054</b>	<b>83,014</b>
<b>Exchange rate difference in liquid assets</b>	<b>-10,243</b>	<b>10,452</b>	<b>1,072</b>	<b>-</b>	<b>-</b>
<b>Liquid assets at year-end</b>	<b>159,954</b>	<b>128,366</b>	<b>240,796</b>	<b>22,685</b>	<b>43,054</b>
<b>Additional information for Cash Flow Analysis:</b>					
<i>Acquisition of subsidiaries, including shareholder's contributions</i>					
<b>Acquired assets and liabilities</b>					
Goodwill			1,765,325		
Tangible fixed assets			71,345		
Receivables			214,152		
Liquid assets			93,874		
Allocations			-34,400		
Long-term debts			-70,573		
Current liabilities			-323,907		
Purchase price, including shareholders' contributions	-	-	1,715,816	-	310,064
Added: Final adjustment of previous year's acquisitions	73,073	-23,922	172,547	73,073	17,672
Subtracted: Unpaid purchase price	-	-	-84,124	-	-309,772
Subtracted: Payment with own shares	-73,073	-	-1,193,053	-73,073	-
Paid purchase price	-	-23,922	611,186	-	17,964
Deducted: Liquid assets in the acquired entity	-	-	-93,874	-	-
<b>Effect on liquid assets</b>	<b>-</b>	<b>-23,922</b>	<b>517,312</b>	<b>-</b>	<b>17,964</b>



**General**

The Company follows the recommendations of the FASC (Swedish Financial Accounting Standards Council).

**Consolidated financial statements**

The consolidated financial statements include the companies in which the Parent Company holds, directly or indirectly, shares corresponding to more than 50 percent of the voting rights or over which the company exercises a deciding influence by virtue of agreement or other means. The consolidated financial statements have been prepared using the purchase method. The Group's foreign operations constitute independent operations that have been translated using the current rate method. The method entails that income statements have been translated at the average exchange rate, and that Balance Sheets and consolidated goodwill attributable to the respective subsidiaries were translated at the rate as of the Balance Sheet date.

**Reporting of revenues***Software*

Revenues from conveyed software rights are reported when a written purchase order/agreement is received and delivery to the customer has taken place.

*Maintenance*

Maintenance agreements are generally billed one year in advance, and posted as income on a current basis over the term of the maintenance agreement.

*Service Assignments*

Service assignments in progress are posted as income based on the percentage of completion method. Of the estimated total revenue for an assignment, a portion equal to the share of expenses incurred of total estimated expenses is posted during each period. Amounts posted as income but not yet invoiced are reported as accrued income.

**Product development expenses**

Expenses for product development consist mainly of costs for personnel, computers and premises.

**Depreciation**

Scheduled depreciation is based on the purchase value and estimated useful life of the asset.

*Source code rights*

Rights are depreciated at a rate of 20% per year. Rights refer to the source code rights to Sterling's UML tool COOL:Jex. The Parent Company has during 2000 acquired rights of use to source code for Object-Geode from the subsidiary Telelogic Technologies Toulouse SA.

*Goodwill*

The difference between the purchase value of shares in subsidiaries and the estimated value of acquired net assets according to the purchase estimate is reported as consolidated goodwill.

Consolidated goodwill that is associated with strategic acquisitions is amortized at 5%. Consolidated goodwill that is associated with acquisitions that strengthen market positions is amortized at 10%. Telelogic determines the current value of goodwill using the so-called "impairment test". As a result of this, goodwill in the financial statements for 2001 has been written-down. Outstanding purchase value is amortized as originally scheduled.

*Capitalized development costs*

Capitalized development costs are amortized at a rate of 20% per year.

*Furniture and fittings*

Furniture and fittings are depreciated at a rate of 20% per year. Computers and similar equipment are depreciated at 33.3% per year.

**Taxes**

The company follows FASC recommendation RR 09 on reporting of income tax for both the consolidated and the Parent Company accounts.

Deferred tax assets are capitalized to the extent that they are considered likely to be utilizable. Deferred tax assets have been estimated at a value corresponding to estimated reduced tax payments in the future. Deferred tax liabilities were entered at the current tax rates in each Group company's country of domicile.

**Receivables and debts**

Based on individual assessment, receivables were entered at the amounts at which they are expected to be paid. Receivables and liabilities in foreign currency were valued at the rate as of the Balance Sheet date. If the settlement rate for a receivable or liability was hedged through a forward contract, the forward contract rate was used. Exchange rate differences in current receivables and liabilities are included in operating income, while differences in financial receivables and liabilities are reported as financial items. The Group hedges a portion of expected sales in foreign currencies through forward contracts. Such forward contracts are recognized in income simultaneously with the hedged sales revenues.

**Impairment**

If Telelogic has reason to believe that a fixed asset has declined in value, a calculation is made of the asset's recoverable amount, which is the higher of the net sales value and the expected future discounted cash flow. If the calculated recoverable amount of the asset or its cash-generating unit is less than the reported value, the asset's recoverable amount is written-down. A write-down is brought back if a change in the recoverable amount has occurred, with the exception of write-down of goodwill.

**Intangible fixed assets**

Telelogic complies with FASC's recommendation on reporting of intangible assets, RR 15. For Telelogic, this means that expenses for software development of new program versions are capitalized in the Balance Sheet and transferred to the asset's period of utilization, which is calculated as 5 years. In accordance with the recommendation, no translations of comparative figures are made for previous years. Amortization and write-downs of capitalized development costs are reported under product development costs in the Income Statement.

**Convertible debenture loans**

The loan's face amount, SEK 37 per convertible promissory note, runs at an annual rate of 3.5% which, because the loan is subordinate to other debts and in view of the Group's financial position, is not considered to reflect market interest rates. The market interest rate for this loan has been assessed at 10.25%. A loan that runs with interest deviating from market interest rates is reported at its fair market value, and the difference is transferred to the Company's restricted equity, and income over the term of the loan is encumbered by market interest rates.

In Telelogic's accounts, this means that for each subscribed unit of the convertible debenture loan, income during the period will be encumbered by SEK 5.67 as a financial expense, corresponding to the difference between the loan's face value and its estimated fair market value during the period. Additionally, there are issue expenses of SEK 2.66 per subscribed unit of the convertible debenture loan during its period. The issue costs are distributed proportionally between subscribed shares and subscribed convertible loan promissory notes.

**Share-related reimbursement**

Telelogic has six outstanding employee stock option programs, three of which are for employee options and three are for warrants; see Note 14. During 2002, no new employee stock option programs were created, and no employee-related stock option programs were redeemed. For the employee options, any social welfare contributions associated with the issue are reported in the Income Statement. For subscription warrants, retained option premiums are reported as an increase in the premium fund.

No rights of disposal restrictions apply with respect to the subscription warrant programs.

**NOTE 1. NET SALES PER GEOGRAPHICAL MARKET**

TSEK	Group			Parent Company	
	2002	2001	2000	2002	2001
Sweden	100,161	191,484	130,712	18,432	26,489
Nordic, other	44,567	67,607	57,048	9,184	12,363
Europe, other	430,232	567,454	368,947	45,923	73,378
North America	433,309	494,780	241,082	16,859	35,869
Global, other	112,765	173,697	83,361	28,108	52,786
<b>Net Sales</b>	<b>1,121,034</b>	<b>1,495,022</b>	<b>881,150</b>	<b>118,506</b>	<b>200,885</b>

Of the Parent Company's revenues, SEK 106,739 thousand (157,853) pertain to revenues from subsidiaries, mainly royalty income.

Of the Parent Company's expenses, SEK 125,453 thousand (157,341) pertain to billing from subsidiaries, mainly for sales commissions and development projects.

**NOTE 2. EMPLOYEES AND PERSONNEL EXPENSES**

Average number of employees	Group						Parent Company			
	2002	of which men	2001	of which men	2000	of which men	2002	of which men	2001	of which men
Sweden	223	81%	317	75%	269	80%	41	61%	55	64%
Germany	88	81%	141	80%	84	74%	–	–	–	–
England	127	72%	153	71%	113	55%	–	–	–	–
USA	221	68%	336	68%	171	44%	–	–	–	–
France	99	75%	135	74%	101	66%	–	–	–	–
Italy	11	82%	16	82%	6	83%	–	–	–	–
Japan	22	82%	24	79%	13	77%	–	–	–	–
Ireland	11	73%	14	71%	12	83%	–	–	–	–
Australia	5	80%	13	62%	6	33%	–	–	–	–
The Netherlands	6	83%	5	80%	–	–	–	–	–	–
Finland	15	80%	23	78%	21	90%	–	–	–	–
Norway	24	83%	42	83%	39	87%	–	–	–	–
Spain	8	63%	8	63%	–	–	–	–	–	–
India	24	67%	14	79%	–	–	–	–	–	–
Korea	9	78%	6	83%	–	–	–	–	–	–
China	8	75%	6	83%	–	–	–	–	–	–
Singapore	7	71%	9	78%	–	–	–	–	–	–
<b>Total</b>	<b>908</b>	<b>75%</b>	<b>1,262</b>	<b>74%</b>	<b>835</b>	<b>67%</b>	<b>41</b>	<b>61%</b>	<b>55</b>	<b>64%</b>

**Salaries, social welfare expenses and other compensation**

TSEK	Group			Parent Company	
	2002	2001	2000	2002	2001
Board of Directors and CEO	42,531	39,381	26,337	3,396	3,305
(of which bonuses)	7,843	6,161	3,566	996	1,000
Other employees	561,438	771,570	380,931	20,759	25,948
Social welfare expenses	145,552	180,381	114,368	8,182	11,821
(of which pension expenses)	27,270	28,226	22,280	4,716	2,794

## Note 2. Continued

## Salaries and other compensation broken down by country

TSEK	Group			Parent Company	
	2002	2001	2000	2002	2001
<i>Sweden</i>					
Board of Directors and CEO	6,295	8,192	7,179	3,396	3,305
(of which bonuses)	1,589	2,050	400	996	1,000
Other employees	114,517	151,124	124,443	20,759	25,948
<i>International</i>					
Board of Directors and CEO	39,743	31,189	19,158		
(of which bonuses)	6,792	4,111	3,166		
Other employees	443,414	620,446	256,488		
<b>Total</b>	<b>603,970</b>	<b>810,951</b>	<b>407,268</b>	<b>24,155</b>	<b>29,253</b>

## Compensation of senior executives

## Principles

Compensation paid to the Chairman of the Board and board members is as decided by the Annual General Meeting. Employee representatives do not receive board compensation. Compensation paid to the Chief Executive Officer and other senior executives consists of base salary, variable salary, other benefits, pensions and stock options.

"Other senior executives" refers to seven individuals who, together with the Chief Executive Officer, comprise the Executive management. See pages 64 – 65 for Executive management composition. Distribution between base salary and variable salary is commensurate with the executive's duties and authority. Variable salary is based on results in relation to individually set goals. Pension benefits and compensation in the form of stock options and other benefits paid to the Chief Executive Officer and other senior executives constitute a portion of the total compensation.

Compensation paid to the Chief Executive Officer for the fiscal year 2002 has been decided by the Board of Directors. Compensation paid to other senior executives has been decided by the Chief Executive Officer in consultation with the Chairman of the Board.

## Board of Directors:

The Chairman of the Board received compensation of SEK 450 thousand (SEK 250 thousand) for 2002. The Chairman of the Board has not received compensation above and beyond the board compensation. Three other outside board members received compensation for 2002 totaling SEK 270 thousand (SEK 300 thousand previous year to six outside members).

## Chief Executive Officer:

SEK 1,680 thousand (1,755) were paid to the Chief Executive Officer as salary, plus a bonus of SEK 996 thousand (585) corresponding to 59% (33%) of base salary. Pension benefits totaled SEK 718 thousand (293). The retirement age for the Chief Executive Officer is 65. The pension is fee-based and totals 26% of the pensionable salary. The Chief Executive Officer's employment contract includes a provision requiring six months notice of resignation. Termination at the volition of the employer requires a period of notice of twelve months. The Chief Executive Officer is not entitled to severance pay. The Chief Executive Officer held 200,000 subscription warrants from program TO 8 as of December 31, 2002.

## Other individuals in the Executive management:

Seven other persons in the Executive management received SEK 7,576 thousand in salary and SEK 3,494 thousand in bonuses, corresponding to 46% of base salary. There is no special pension agreement for senior executives. Termination at the volition of the employer normally requires a period of notice of six months. For one senior executive, 12 months advance notice is required. Additionally, there is no severance pay.

Other senior executives held 782,500 subscription warrants from programs TO 7, TO 8 and TO 9 as of December 31, 2002.

## NOTE 3. COMPENSATION TO AUDITORS

TSEK	Group			Parent Company	
	2002	2001	2000	2002	2001
<i>KPMG</i>					
Auditing assignment	4,188	5,066	2,665	896	1,140
Other work	2,428	5,017	2,551	678	2,167
<i>Other auditors</i>					
Auditing assignment	296	233	201	–	–
	<b>6,913</b>	<b>10,316</b>	<b>5,417</b>	<b>1,574</b>	<b>3,307</b>

**NOTE 4. DEPRECIATION OF FIXED ASSETS**

TSEK	Group			Parent Company	
	2002	2001	2000	2002	2001
<i>Write-downs and scheduled depreciation, itemized by asset</i>					
Source code rights	2,483	2,872	2,512	18,200	18,200
Goodwill	17,418	123,476	47,903	19,096	6,182
Capitalized development costs	12,175	–	–	–	–
Equipment, fixtures and fittings	53,082	60,422	26,229	–	–
Convertible debenture loans	1,740	–	–	–	–
	<b>86,898</b>	<b>186,770</b>	<b>76,644</b>	<b>37,296</b>	<b>24,382</b>
<i>Write-downs and scheduled depreciation, itemized by function</i>					
Sales expenses	33,817	38,203	15,190	–	–
Administrative expenses	9,281	8,701	3,859	–	–
Product development expenses	23,899	13,518	7,180	–	–
Amortization of goodwill and other intangible fixed assets	19,901	126,348	50,415	37,296	24,382
	<b>86,898</b>	<b>186,770</b>	<b>76,644</b>	<b>37,296</b>	<b>24,382</b>

**NOTE 5. RENTAL AND LEASING EXPENSES**

The company leases certain of its facilities and equipment under contracts that will expire within nine years. Future contracted rental obligations (excluding property taxes and other expenses) according to current leases including original or remaining non-cancelable terms in excess of one year are itemized below. All lease agreements in the Group are classed as operational.

TSEK	Group		Parent Company	
	Premises	Equipment	Premises	Equipment
Fiscal year's paid charges	67,166	15,723	1,673	1,095
<i>Future contracted rent obligations :</i>				
2003	75,230	11,386	5,852	1,442
2004	42,307	6,744	5,764	1,309
2005	29,956	2,373	3,346	405
2006	12,158	93	–	–
2007	18,741	–	–	–
<b>Total contracted charges</b>	<b>178,392</b>	<b>20,597</b>	<b>14,962</b>	<b>3,156</b>

**NOTE 6. TAX ON INCOME FOR THE YEAR**

TSEK	Group			Parent Company	
	2002	2001	2000	2002	2001
<i>Current tax:</i>					
Parent Company	–4,447	–12,668	–113	–4,447	–12,668
Subsidiaries	3,908	9,026	–8,606	–	–
<b>Total</b>	<b>–539</b>	<b>–3,642</b>	<b>–8,719</b>	<b>–4,447</b>	<b>–12,668</b>
<i>Deferred tax:</i>					
Parent Company	–	43,000	27,350	–	43,000
Subsidiaries	–33,392	32,999	–25,749	–	–
<b>Total</b>	<b>–33,392</b>	<b>75,999</b>	<b>1,601</b>	<b>0</b>	<b>43,000</b>
<b>Total tax expense</b>	<b>–33,931</b>	<b>72,357</b>	<b>–7,118</b>	<b>–4,447</b>	<b>30,332</b>

TSEK	Group			Parent Company	
	2002	2001	2000	2002	2001
<b>A reconciliation of expected nominal tax of 28 percent compared with the Company's effective tax is shown below:</b>					
Net income before tax	–67,634	–2,123,531	–41,623	–243,533	–1,837,188
Tax according to applicable tax rate for Parent Company (28%)	18,938	594,589	11,654	68,189	514,413
<i>Effects of:</i>					
Differences in tax rates for international subsidiaries	–1,984	–1,669	–6,597	–	–
Adjustment of previous year's income tax	–1,859	70	–154	–	–368
International taxes	–1,045	–411	–74	–1,045	–411
Increase in non-capitalized deductible deficit	–43,673	–2,444	–	–25,448	–
Non-deductible items	–4,308	–517,778	–11,947	–46,143	–483,302
<b>Tax according to Income Statement</b>	<b>–33,931</b>	<b>72,357</b>	<b>–7,118</b>	<b>–4,447</b>	<b>30,332</b>

**NOTE 7. SOURCE CODE RIGHTS AND OTHER INTANGIBLE ASSETS**

TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
Acquisition value brought forward	14,367	12,561	12,561	91,000	91,000
New acquisitions	83	718	–	–	–
Reclassifications	–	1,024	–	–	–
Exchange rate differences	–50	64	–	–	–
<b>Accumulated acquisition value carried forward</b>	<b>14,400</b>	<b>14,367</b>	<b>12,561</b>	<b>91,000</b>	<b>91,000</b>
Amortization brought forward	–7,286	–3,768	–1,256	–37,656	–19,456
Scheduled amortization for the year	–2,483	–2,872	–2,512	–18,200	–18,200
Reclassification	–362	–603	–	–	–
Exchange rate differences	24	–43	–	–	–
<b>Accumulated amortization carried forward</b>	<b>–10,107</b>	<b>–7,286</b>	<b>–3,768</b>	<b>–55,856</b>	<b>–37,656</b>
<b>Planned residual value carried forward</b>	<b>4,293</b>	<b>7,081</b>	<b>8,793</b>	<b>35,144</b>	<b>53,344</b>

**NOTE 8. GOODWILL**

TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
Acquisition value brought forward	2,221,019	2,003,970	178,394	60,629	47,502
New acquisitions	–	17,732	1,835,603	–	13,127
Sales	–	–4,934	–	–	–
Exchange rate differences	–46,129	204,251	–10,027	–	–
<b>Accumulated acquisition value carried forward</b>	<b>2,174,890</b>	<b>2,221,019</b>	<b>2,003,970</b>	<b>60,629</b>	<b>60,629</b>
Amortization brought forward	–1,919,706	–52,844	–4,594	–60,629	–3,958
Scheduled amortization for the year	–17,418	–123,476	–47,903	–	–6,182
Sales	–	491	–	–	–
Write-downs	–	–1,737,636	–	–	–50,489
Exchange rate differences	992	–6,241	–347	–	–
<b>Accumulated amortization carried forward</b>	<b>–1,936,132</b>	<b>–1,919,706</b>	<b>–52,844</b>	<b>–60,629</b>	<b>–60,629</b>
<b>Planned residual value carried forward</b>	<b>238,758</b>	<b>301,313</b>	<b>1,951,126</b>	<b>0</b>	<b>0</b>

**NOTE 9. CAPITALIZED DEVELOPMENT COSTS**

TSEK	Group		Parent Company	
	021231	011231	021231	011231
Acquisition value brought forward	75,000			
New acquisitions	83,600	75,000	–	–
<b>Accumulated amortization carried forward</b>	<b>158,600</b>	<b>75,000</b>	<b>–</b>	<b>–</b>
Write-downs	–5,900	–		
Amortization	–6,275	–		
<b>Planned residual value carried forward</b>	<b>146,425</b>	<b>75,000</b>	<b>–</b>	<b>–</b>

The year's new acquisitions consist of the new generations of Tau and DOORS. Depreciation for the second generation of Tau began in the fourth quarter, 2002. A project that was capitalized in 2001 has been written down to zero after impairment testing. Outgoing purchase value consists of SEK 33,100 thousand pertaining to ongoing development work and SEK 125,500 thousand for completed development work.

**NOTE 10. EQUIPMENT, FIXTURES AND FITTINGS**

TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
Acquisition value brought forward	276,544	262,103	74,332	–	6
Acquisition value brought forward in companies acquired during the year	–	–	140,491	–	–
New acquisitions	9,753	60,643	61,464	–	–
Sales/discards	–27,207	–65,576	–15,960	–	–6
Reclassifications	–	–1,024	–	–	–
Exchange rate differences	–25,557	20,398	1,776	–	–
<b>Accumulated acquisition value carried forward</b>	<b>233,533</b>	<b>276,544</b>	<b>262,103</b>	<b>0</b>	<b>0</b>



TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
Depreciation brought forward	-151,650	-128,268	-45,246	-	-
Depreciation brought forward in companies acquired during the year	-	-	-69,146	-	-
Sales/discards	18,872	47,580	14,054	-	-
Reclassifications	-	603	-	-	-
Depreciation for the year	-52,724	-60,422	-26,229	-	-
Exchange rate differences	15,638	-11,143	-1,701	-	-
<b>Accumulated depreciation carried forward</b>	<b>-169,864</b>	<b>-151,650</b>	<b>-128,268</b>	<b>0</b>	<b>0</b>
<b>Planned residual value carried forward</b>	<b>63,669</b>	<b>124,894</b>	<b>133,835</b>	<b>0</b>	<b>0</b>

**NOTE 11. PARTICIPATIONS IN GROUP COMPANIES**

Parent Company's holdings as of December 31, 2002	Registration no.	Capital share	Voting rights percentage	Total value	Book value, TSEK
Telelogic Sverige Holding AB, Malmö, Sweden	556575-0311	100%	100%	1,000	6,100
Telelogic Sverige AB, Malmö, Sweden	556510-7389	100%	100%		
Telelogic-Certeam Infocom AB, Malmö, Sweden	556554-7717	100%	100%		
Telelogic-Certeam, Konsult, AB, Malmö, Sweden	556558-8869	100%	100%		
Telelogic Components AB, Malmö, Sweden	556560-6596	100%	100%	1,000	100
Telelogic Technologies Malmö AB, Malmö, Sweden	556592-9568	100%	100%	1,000	300
Prequal Test AB, Stockholm, Sweden	556592-9576	100%	100%	1,000	100
Telelogic Options AB, Malmö, Sweden	556558-9149	100%	100%	1,000	100
Telelogic Academy AB, Göteborg, Sweden	556597-9399	100%	100%		
Telelogic Finland Oy, Helsinki, Finland	1549433-0	100%	100%	200	
Telelogic Norge AS, Trondheim, Norway	979465289	100%	100%	321,162	
Telelogic UK Ltd, Maidenhead, Great Britain	1832150	100%	100%	10,000	
Telelogic Doors Ltd, Cardiff, Great Britain	2936647	100%	100%		
Real Time Products Ltd, Birmingham, Great Britain	2139638	100%	100%	22,000	
Telelogic Ireland Ltd, Dublin, Ireland	255214	100%	100%	1	
Telelogic Continuus Ireland Ltd, Dublin, Ireland	274232	100%	100%	9,000	104
Telelogic Deutschland GmbH, Bielefeld, Germany	34265	100%	100%	1	24,676
Telelogic France SA, Nanterre, France	351994736	100%	100%	15,200	15,607
Telelogic Technologies Toulouse SA, Toulouse, France	33057570500034	100%	100%	25,000	100,000
Telelogic Netherlands B.V., Utrecht, Netherlands	30168519	100%	100%	182	
Telelogic Iberica S.L., Madrid, Spain	B-82855,59,66	100%	100%	301	27
Telelogic Italia Srl, Milano, Italy	194219	100%	100%	20,000	
Nippon Telelogic KK, Tokyo, Japan	0104-01-035618	100%	100%	200	562
Continuus Software Pty Ltd, Victoria, Australia	31,091,267,097	100%	100%	18,000	
Telelogic Australia Pty Ltd, New South Wales, Australia	34,089,339,711	100%	100%	2	102
Telelogic Korea Ltd, Seoul, Korea	110111-2127896	100%	100%	10,000	415
Telelogic Co Ltd, Beijing, China	015250	100%	100%	1	875
Telelogic India Pte Ltd, Bangalore, India	CIN7220KA2000PTC028119	100%	100%	49,517	
Telelogic Software Singapore Pte Ltd, Singapore	200008786W	100%	100%	50,000	
Telelogic Holding North America Inc, Delaware, USA	3361889	100%	100%	10	300,000
Telelogic Requirements Management Inc, Delaware, USA	2680280	100%	100%		
Telelogic Canada Inc, Ontario, Canada	359017-8	100%	100%		
Telelogic North America Inc, Delaware, USA	2569989	60%	60%		
Telelogic Doors UK Holdings Ltd, Oxford, Great Britain	2706134	100%	100%		
Telelogic North America Inc, Delaware, USA	2569989	40%	40%		
Telelogic Technologies UK Ltd, Oxford, Great Britain	3951808	100%	100%		
Requirements Engineering Ltd, Oxford, Great Britain	2288111	100%	100%		
Eurocom Software Ltd, Cardiff, Great Britain	2497516	100%	100%		
Visual Software Engineering Ltd, Oxford, Great Britain	2861478	100%	100%		
Telelogic Technologies North America Inc, Delaware, USA	3028840	100%	100%		
Telelogic Doc Express Inc, California, USA	148440	100%	100%		
<b>Total</b>					<b>449,068</b>

The following companies have received shareholders' contributions during the year: Telelogic Sverige Holding AB, SEK 51,000 thousand; Telelogic Technologies Malmö AB, SEK 1,000 thousand; Telelogic UK Ltd, SEK 44,725 thousand; Telelogic Deutschland GmbH, SEK 22 676 thousand; Telelogic France SA, SEK 61,607 thousand; and Telelogic Italia Srl, SEK 7,640 thousand.

Shares in subsidiaries have been written down in the following amounts: Telelogic Sverige Holding AB, SEK 45,000 thousand; Telelogic Technologies Malmö AB, SEK 800 thousand; Telelogic Options AB, SEK 2,149 thousand; Telelogic UK Ltd, SEK 44,725 thousand; Telelogic Deutschland GmbH, SEK 18,000 thousand; Telelogic France SA, SEK 46,000 thousand; Telelogic Italia Srl, SEK 7,640 thousand; and Telelogic Singapore Pte Ltd, SEK 278 thousand.

**NOTE 12. OTHER LONG-TERM RECEIVABLES**

TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
Deferred tax assets	141,022	181,093	102,266	85,370	85,370
Deferred tax liabilities on untaxed reserves	-195	-253	-253	-	-
	<b>140,827</b>	<b>180,840</b>	<b>102,013</b>	<b>85,370</b>	<b>85,370</b>
Convertible debenture loans	-	1,740	-	-	1,740
Deposits	11,151	938	-	-	938
	<b>151,978</b>	<b>183,518</b>	<b>102,013</b>	<b>85,370</b>	<b>88,048</b>

Of deferred tax assets, SEK 140.0 million [163.6] is for loss deductions and SEK 1.0 million [17.2] is for temporary differences. Of deferred tax assets for the Parent Company, SEK 71.3 million [71.3] is for loss deductions and SEK 14.1 million [14.1] is for temporary differences. Deferred tax assets for non-valued loss deductions totaled SEK 127.4 million as of December 31, 2002.

Deposits for rents have been reclassified as long-term receivables.

**NOTE 13. PREPAID INCOME AND ACCRUED EXPENSES**

TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
Prepaid rental and leasing expenses	7,860	11,054	16,936	1,500	1,870
Accrued income	28,776	16,540	20,934	-	-
Prepaid expenses, development projects	-	16,906	16,006	-	-
Misc.	11,123	3,570	3,516	2,000	4,427
	<b>47,759</b>	<b>48,070</b>	<b>57,392</b>	<b>3,500</b>	<b>6,297</b>

**NOTE 14. SHAREHOLDERS' EQUITY**

TSEK	Total shares	Share equity	Restricted reserves	Current new issue	Non-restricted equity	Total
<i>Group</i>						
<b>Opening balance as of January 1, 2002</b>	<b>189,406,634</b>	<b>1,894</b>	<b>2,582,909</b>	<b>24,132</b>	<b>-1,892,781</b>	<b>716,154</b>
Redemption of warrants	4,492,217	45	24,573	-24,132		486
New issue of shares	7,281,551	73	73,000			73,073
Conversion loans	1,656,650	16	4,843			4,859
Loss coverage as per Annual General Meeting decision			-1,838,377		1,838,377	0
Transfer item			135,374		-135,374	0
Translation difference			-132,215		66,432	-65,783
Net income for the year					-101,565	-101,565
<b>Closing balance as of December 31, 2002</b>	<b>202,837,052</b>	<b>2,028</b>	<b>850,107</b>	<b>-</b>	<b>-224,911</b>	<b>627,224</b>

The cumulative translation difference is SEK 131,548 thousand [197,330].

TSEK	Total shares	Share equity	Reserve fund	Premium fund	Current new issue	Non-restricted equity	Total
<i>Parent Company</i>							
<b>Opening balance as of January 1, 2002</b>	<b>189,406,634</b>	<b>1,894</b>	<b>120</b>	<b>2,513,575</b>	<b>24,132</b>	<b>-1,838,377</b>	<b>701,344</b>
Redemption of warrants	4,492,217	45		24,573	-24,132		486
New issue of shares	7,281,551	73		73,000			73,073
Conversion loans	1,656,650	16		4,843			4,859
Loss coverage as per Annual General Meeting decision				-1,838,377		1,838,377	0
Paid Group contributions						-8,747	-8,747
Net income for the year						-247,980	-247,980
<b>Closing balance as of December 31, 2002</b>	<b>202,837,052</b>	<b>2,028</b>	<b>120</b>	<b>777,614</b>	<b>-</b>	<b>-256,727</b>	<b>523,035</b>

The face value of the share is SEK 0.01.

## Note 14. Continued

## Evolution of Capital Stock

Year	Transaction	Change total shares	Face value amount	Change capital stock	Total capital stock	Total total shares
	Opening balance		100		600,000	6,000
1998	Split 1:1000	5,994,000	0.1		600,000	6,000,000
1999	New issue upon IPO	2,000,000	0.1	200,000	800,000	8,000,000
1999	Redemption of warrants	120,000	0.1	12,000	812,000	8,120,000
2000	New issues of shares	1,450,000	0.1	145,000	957,000	9,570,000
2000	Split 1:10	86,130,000	0.01	861,300	957,000	95,700,000
2000	New issues of shares	18,853,494	0.01	188,535	1,145,535	114,553,494
2000	Redemption of warrants	10,811,470	0.01	108,115	1,253,650	125,364,964
2001	New issues of shares	61,466,850	0.01	614,669	1,868,318	186,831,814
2001	Redemption of warrants	2,211,244	0.01	22,112	1,890,431	189,043,058
2001	Conversion of convertible loan	363,576	0.01	3,636	1,894,066	189,406,634
2002	New issues of shares	7,281,551	0.01	72,816	1,966,882	196,688,185
2002	Redemption of warrants	4,492,217	0.01	44,922	2,011,804	201,180,402
2002	Conversion of convertible loan	1,656,650	0.01	16,566	2,028,370	202,837,052

In January, 3,892,217 shares were issued in conjunction with the redemption of stock option programs 1998/2001, providing Telelogic with SEK 24,131 thousand.

In conjunction with settlement of the final supplementary purchase price for the acquisition of Certeam AB in April, 6,000,165 new shares were issued.

Final settlement of the purchase price for the acquisition of shares in Telelogic DocExpress (formerly ATA Inc) was made in two steps, and 879,257 shares were issued in October, 402,129 shares in December.

In December, 600,000 shares were issued in conjunction with the redemption of stock option program 1998/2002, providing Telelogic with SEK 600 thousand.

During the year, conversion of convertible loan 2001/2005 occurred on nine occasions, which in combination entailed that 1,656,650 shares were issued.

**As of December 31, 2002, Telelogic has the following stock option programs for employees (of which TO 5, 7 and 9 pertain to employee stock options related to employment; the others pertain to warrants):**

Option program 2000/2005 ("TO4") concerned 300,000 options originally, of which 61,250 are outstanding. Each option entitles the holder to subscribe 1.18 shares in Telelogic AB at a subscription price of SEK 62.92 per share. The deadline for subscription of shares is May 31, 2005. When fully exercised, the capital stock will increase by SEK 723.

Option program 2001/2005 ("TO5") concerned 3,700,000 options originally, of which 252,944 are outstanding. Each option entitles the holder to subscribe 1.18 shares in Telelogic AB at a subscription price of SEK 40.82 per share. The deadline for subscription of shares is May 31, 2005. When fully exercised, the capital stock will increase by SEK 2,984.

Option program 2001/2005 ("TO6") concerned 400,000 options originally, of which 31,150 are outstanding. Each option entitles the holder to subscribe 1.18 shares in Telelogic AB at a subscription price of SEK 22.10 per share. The deadline for subscription of shares is October 31, 2005. When fully exercised, the capital stock will increase by SEK 367.

Option program 2001/2006 ("TO7") concerned 800,000 options originally, of which 692,200 are outstanding. Each option entitles the holder to subscribe one share in Telelogic AB at a subscription price of SEK 6.30 per share. The deadline for subscription of shares is April 30, 2006. When fully exercised, the capital stock will increase by SEK 6,922.

Option program 2001/2006 ("TO8") concerned 4,000,000 options originally, of which 2,769,425 are outstanding. Each option entitles the holder to subscribe one share in Telelogic AB at a subscription price of SEK 8.40 per share. The deadline for subscription of shares is April 30, 2006. When fully exercised, the capital stock will increase by SEK 27,694.

Option program 2001/2006 ("TO9") concerned 4,800,000 options originally, of which 3,441,287 are outstanding. Each option entitles the holder to subscribe one share in Telelogic AB at a subscription price of SEK 8.50 per share. The deadline for subscription of shares is April 30, 2006. When fully exercised, the capital stock will increase by SEK 34,412.

## NOTE 15. DEFERRED TAX LIABILITY

TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
Allocation for deferred tax					
Untaxed reserves	–	–	84	–	–
Other debts/receivables	768	–	28	–	–
	<b>768</b>	<b>0</b>	<b>112</b>	<b>0</b>	<b>0</b>

**NOTE 16. OTHER ALLOCATIONS**

TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
Restructuring expenses	22,019	15,200	32,000	1,250	–
	<b>22,019</b>	<b>15,200</b>	<b>32,000</b>	<b>1,250</b>	<b>0</b>

The income for the year has been encumbered by SEK 74,066 thousand (120,025) referable to restructuring costs in conjunction with staff reductions (242 persons). The costs pertain mainly to severance pay and office rents. During the year, SEK 67,247 thousand (136,825) were paid and SEK 22,019 thousand (15,200) reserved.

**NOTE 17. CONVERTIBLE LOANS**

The company has outstanding convertible loans reported at SEK 46,439 thousand. Original face value is SEK 60,105 thousand, of which SEK 7,576 thousand has been converted into shares. The convertible loan runs at an annual interest rate of 3.5% until December 2005. The convertible loan can be redeemed at any time in return for shares at a conversion rate of SEK 3.75 per share. Because the market interest rate for this loan was computed at 10.25%, the loan amount has undergone a present value computation.

**NOTE 18. BANK OVERDRAFT FACILITY**

TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
Approved credit limit	135,716	151,589	91,112	120,000	125,000
Unused portion	–127,588	–143,801	–86,759	–120,000	–125,000
Used credit amount	8,128	7,788	4,353	0	0
<i>Assets pledged to credit institutions</i>					
Corporate mortgages	45,000	51,853	45,000	45,000	45,000
Restricted assets	2,956	–	–	–	–
	<b>47,956</b>	<b>51,853</b>	<b>45,000</b>	<b>45,000</b>	<b>45,000</b>

**NOTE 19. OTHER DEBTS**

TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
Other long-term debts	2,135	6,242	4,354	–	–
Debt for acquisition of Certeam AB <sup>1</sup>	–	69,000	59,263	–	69,000
Debt for acquisition of ATA Inc <sup>1</sup>	–	3,454	3,454	–	3,454
	<b>2,135</b>	<b>78,696</b>	<b>67,071</b>	<b>0</b>	<b>72,454</b>

<sup>1</sup> Debts attributable to supplementary purchase prices for acquired companies.

**NOTE 20. ACCRUED EXPENSES AND PREPAID INCOME**

TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
Maintenance agreements, prepaid income	209,790	218,730	200,862	–	1,896
Vacation pay liabilities	28,078	39,267	18,774	3,680	2,787
Accrued salaries	36,803	39,103	70,713	2,184	2,044
Social welfare expenses	19,905	37,105	26,614	481	1,685
Accrued interest expenses	153	171	–	153	171
Other	37,519	77,218	123,471	7,144	5,858
	<b>332,247</b>	<b>411,594</b>	<b>440,434</b>	<b>13,642</b>	<b>14,441</b>

**NOTE 21. ASSETS PLEDGED AND CONTINGENT LIABILITIES**

TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
<b>Assets pledged</b>					
<i>For own liabilities and allocations</i>					
Corporate mortgages	45,000	51,853	45,000	45,000	45,000
Restricted assets	2,956	–	–	–	–
<b>Total</b>	<b>47,956</b>	<b>51,853</b>	<b>45,000</b>	<b>45,000</b>	<b>45,000</b>
<i>Other assets pledged and guarantees</i>					
Bank accounts	–	–	79,422	–	–
<b>Total assets pledged</b>	<b>47,956</b>	<b>51,853</b>	<b>124,422</b>	<b>45,000</b>	<b>45,000</b>

TSEK	Group			Parent Company	
	021231	011231	001231	021231	011231
<b>Contingent liabilities</b>					
Guarantees for employees	11	29	57	11	29
Guarantees for Group companies	–	–	–	21,796	25,410
Counter obligation for bank guarantee	6,700	2,766	–	3,547	–
<b>Total contingent liabilities</b>	<b>6,711</b>	<b>2,795</b>	<b>57</b>	<b>25,354</b>	<b>25,439</b>

**NOTE 22. CURRENCY HEDGING**

The Group's policy is to hedge commercial flows for a maximum of 12 months.

Invoicing to sales companies occurs in the respective companies' local currencies. The Group's net exposure of contracted flow, and to a certain extent, budgeted flow for 2002 can be hedged 40 – 80%.

Outstanding hedges for currency flows in the form of forward contracts as of December 31, 2002 fall due within seven months.

As of December 31, 2002, there were no unreported latent currency gains or losses on the outstanding forward contracts.

Malmö, Sweden, February 14, 2003

**Bo Dimert**  
Chairman

**Kjell Duveblad**

**Erik Gabrielsson**

**Kjell Spångberg**

**Joakim Westh**

**Anders Lidbeck**  
Chief Executive Officer

**Michael Andersson**  
Employee Representative

**Brandon Jones**  
Employee Representative

## Auditor's Report

I have audited the Annual Report, Consolidated Financial Statements, and the management of the Company by the Board of Directors and the Chief Executive Officer of Telelogic AB for 2002. The financial statements and management of the Company are the responsibility of the Board of Directors and the CEO. My responsibility is to state an opinion on the Annual Report, Consolidated Financial Statements and management of the company based on my audit.

The audit was conducted in accordance with generally accepted auditing standards in Sweden. Those standards require that I plan and perform the audit so as to obtain reasonable assurance that the Annual Report and Consolidated Financial Statements are free of material error. An audit includes the examination of a selection of records supporting the amounts and disclosures in the financial statements. 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 Report and Consolidated Financial Statements. As the basis for my opinion concerning discharging from personal liability, I have examined significant decisions,

actions taken and circumstances within the Company in order to determine whether any liability exists towards the company on the part of any director or the CEO and to determine whether any individual has in any other way acted in contravention of the Swedish Companies Act, the Swedish Annual Accounts Act or the Company's Articles of Incorporation. I believe that my audit provides a reasonable basis for the opinion stated below.

The Annual Report and Consolidated Financial Statements were prepared in accordance with the Swedish Annual Accounts Act and thus provide a true and fair picture of the Company's and the Group's financial performance and position in accordance with generally accepted accounting practices in Sweden.

I recommend that the General Meeting adopt the Income Statement and Balance Sheet for the Parent Company and for the Group, dispose of the loss in the Parent Company in accordance with the recommendation given in the Management Report and discharge the Company's directors and Chief Executive Officer from personal liability for the fiscal year.

Malmö, Sweden, February 18, 2003

**Alf Svensson**  
Certified Public Accountant



### Six-year review

MSEK	2002	2001	2000	1999	1998	1997
<b>INCOME STATEMENTS</b>						
Licensing and maintenance revenues	856.2	970.5	569.6	210.4	134.8	90.2
Consulting and other revenues	264.8	524.5	311.6	108.0	43.7	15.2
<b>Net Sales</b>	<b>1,121.0</b>	<b>1,495.0</b>	<b>881.2</b>	<b>318.4</b>	<b>178.5</b>	<b>105.5</b>
Licensing and maintenance expenses	-85.0	-113.0	-57.5	-24.5	-11.9	-7.5
Consulting and other expenses	-229.0	-351.0	-196.5	-61.5	-25.2	-7.1
<b>Gross income</b>	<b>807.0</b>	<b>1,031.0</b>	<b>627.2</b>	<b>232.4</b>	<b>141.4</b>	<b>90.9</b>
Sales expenses	-494.3	-739.7	-362.8	-137.4	-77.0	-45.2
Administrative expenses	-111.4	-168.0	-92.2	-34.8	-18.5	-12.8
Product development expenses	-173.2	-260.9	-171.5	-53.3	-42.3	-26.7
<b>Operating income, excluding restructuring costs and goodwill</b>	<b>28.1</b>	<b>-137.6</b>	<b>0.7</b>	<b>6.9</b>	<b>3.6</b>	<b>6.2</b>
Restructuring costs	-74.1	-120.0	0.0	0.0	0.0	0.0
Goodwill amortization during the year	-19.9	-126.3	-50.4	-4.7	-1.2	0.0
Goodwill write-downs	0.0	-1,737.6	0.0	0.0	0.0	0.0
<b>Operating income</b>	<b>-65.9</b>	<b>-2,121.6</b>	<b>-49.7</b>	<b>2.2</b>	<b>2.3</b>	<b>6.2</b>
Net financial items	-1.7	-2.0	8.1	0.5	-1.3	0.0
<b>Net income after financial items</b>	<b>-67.6</b>	<b>-2,123.6</b>	<b>-41.6</b>	<b>2.7</b>	<b>1.0</b>	<b>6.2</b>
Tax	-33.9	72.4	-7.1	-2.6	-0.9	-1.8
<b>Net income before tax</b>	<b>-101.5</b>	<b>-2,051.2</b>	<b>-48.7</b>	<b>0.1</b>	<b>0.1</b>	<b>4.4</b>
<b>BALANCE SHEETS AS OF DECEMBER 31</b>						
<b>Assets</b>						
Goodwill	238.8	301.3	1,951.1	173.8	16.3	0.0
Source code rights	4.3	7.1	8.8	11.3	0.0	0.0
Capitalized product development	146.4	75.0	0.0	0.0	0.0	0.0
Tangible fixed assets	63.7	124.9	133.8	29.1	14.8	7.8
Financial fixed assets	151.9	183.5	102.0	57.7	0.0	0.0
Accounts receivable	290.7	486.3	537.6	144.7	56.3	39.8
Other current receivables	79.0	139.3	101.0	23.2	14.2	4.2
Cash and bank accounts	160.0	128.4	240.8	30.9	9.7	2.9
<b>Total assets</b>	<b>1,134.8</b>	<b>1,445.8</b>	<b>3,075.1</b>	<b>470.7</b>	<b>111.3</b>	<b>54.7</b>
<b>Equity and liabilities</b>						
Shareholders' equity	627.2	716.2	2,337.2	109.0	12.2	3.7
Allocations	24.3	15.2	34.3	7.8	0.4	0.8
Interest-bearing long-term debts	54.6	58.0	4.4	6.5	29.3	0.0
Non-interest-bearing long-term debts	2.1	81.8	67.1	172.6	0.0	0.0
Interest-bearing current liabilities	0.7	2.1	0.0	20.0	11.0	0.0
Due to suppliers	45.8	46.8	79.7	26.5	13.1	6.9
Accrued expenses and prepaid income	332.3	411.6	448.7	87.2	37.6	28.5
Other non-interest-bearing current liabilities	47.8	114.1	103.7	41.1	7.7	14.8
<b>Total equity and liabilities</b>	<b>1,134.8</b>	<b>1,445.8</b>	<b>3,075.1</b>	<b>470.7</b>	<b>111.3</b>	<b>54.7</b>
<b>CASH FLOW ANALYSIS</b>						
Cash flow from current operations	122.4	-219.4	-146.8	-1.8	0.3	
Investment activities	-92.1	-160.7	-648.6	-56.4	-29.9	
Financing activities	11.5	257.2	1,004.2	79.6	36.4	
<b>Period cash flow</b>	<b>41.8</b>	<b>-122.9</b>	<b>208.8</b>	<b>21.4</b>	<b>6.8</b>	
Liquid assets at year-start	128.4	240.8	30.9	9.7	2.9	
Exchange rate difference in liquid assets	-10.2	10.5	1.1	-0.2	0.0	
Liquid assets at year-end	160.0	128.4	240.8	30.9	9.7	

## Quarterly data

MSEK	2002				2001			
	Qt 4	Qt 3	Qt 2	Qt 1	Qt 4	Qt 3	Qt 2	Qt 1
<b>INCOME STATEMENTS</b>								
Licensing and maintenance revenues	221.0	201.6	224.8	208.8	260.3	217.7	254.1	238.4
Consulting and other revenues	54.0	62.4	65.2	83.2	119.7	122.3	145.9	136.6
<b>Net Sales</b>	<b>275.0</b>	<b>264.0</b>	<b>290.0</b>	<b>292.0</b>	<b>380.0</b>	<b>340.0</b>	<b>400.0</b>	<b>375.0</b>
Licensing and maintenance expenses	-19.8	-21.0	-22.1	-22.1	-26.7	-27.2	-30.8	-28.3
Consulting and other expenses	-44.4	-51.2	-61.9	-71.5	-79.8	-84.9	-95.8	-90.5
<b>Gross income</b>	<b>210.8</b>	<b>191.8</b>	<b>206.0</b>	<b>198.4</b>	<b>273.5</b>	<b>227.9</b>	<b>273.4</b>	<b>256.2</b>
Sales expenses	-128.9	-119.9	-123.2	-122.3	-135.9	-174.9	-225.9	-203.0
Administrative expenses	-25.0	-26.6	-29.2	-30.6	-32.4	-39.6	-48.4	-47.6
Product development expenses	-40.1	-44.2	-44.6	-44.3	-54.8	-62.9	-73.0	-70.2
<b>Operating income, excluding restructuring costs and goodwill</b>	<b>16.8</b>	<b>1.1</b>	<b>9.0</b>	<b>1.2</b>	<b>50.4</b>	<b>-49.5</b>	<b>-73.9</b>	<b>-64.6</b>
Restructuring costs	-24.3	-19.8	-8.0	-22.0	-45.0	-75.0	0.0	0.0
Goodwill amortization during the year	-4.8	-4.7	-5.0	-5.4	-35.9	-29.4	-31.3	-29.8
Goodwill write-downs	0.0	0.0	0.0	0.0	-1,737.6	0.0	0.0	0.0
<b>Operating income</b>	<b>-12.3</b>	<b>-23.4</b>	<b>-4.0</b>	<b>-26.2</b>	<b>-1,768.1</b>	<b>-153.9</b>	<b>-105.2</b>	<b>-94.4</b>
Net financial items	-0.7	0.1	0.8	-1.9	-1.9	-1.4	0.8	0.5
<b>Net income after financial items</b>	<b>-13.0</b>	<b>-23.3</b>	<b>-3.2</b>	<b>-28.1</b>	<b>-1,770.0</b>	<b>-155.3</b>	<b>-104.4</b>	<b>-93.9</b>
Tax	-33.9	0.0	0.0	0.0	0.2	34.2	18.1	19.9
<b>Net income after tax</b>	<b>-46.9</b>	<b>-23.3</b>	<b>-3.2</b>	<b>-28.1</b>	<b>-1,769.8</b>	<b>-121.1</b>	<b>-86.3</b>	<b>-74.0</b>
<b>BALANCE SHEETS AS OF PERIOD-END</b>								
<b>Assets</b>								
Goodwill	238.8	254.4	266.8	287.1	301.3	2,049.1	2,105.1	2,057.4
Source code rights	4.3	5.0	5.7	6.4	7.1	7.8	8.6	8.7
Capitalized product development	146.4	132.0	114.0	96.0	75.0	53.8	32.8	10.4
Tangible fixed assets	63.7	74.4	84.0	102.1	124.9	139.4	147.1	145.1
Financial fixed assets	151.9	181.9	181.6	181.5	183.5	178.2	139.0	121.0
Accounts receivable	290.7	272.8	307.5	332.4	486.3	446.5	472.1	445.5
Other current receivables	79.0	90.5	90.7	92.1	139.3	129.6	119.2	121.4
Cash and bank accounts	160.0	150.3	175.4	185.8	128.4	178.8	89.8	155.6
<b>Total assets</b>	<b>1,134.8</b>	<b>1,161.3</b>	<b>1,225.7</b>	<b>1,283.4</b>	<b>1,445.8</b>	<b>3,183.2</b>	<b>3,113.7</b>	<b>3,065.1</b>
<b>Equity and liabilities</b>								
Shareholders' equity	627.2	685.2	720.1	680.7	716.2	2,454.0	2,410.0	2,415.0
Allocations	24.3	13.0	13.4	17.9	18.3	0.0	0.0	19.5
Interest-bearing long-term debts	54.6	45.9	50.2	53.7	58.0	59.2	54.2	17.6
Non-interest-bearing long-term debts	2.1	8.5	9.0	81.4	78.7	64.6	58.8	68.1
Interest-bearing current liabilities	0.7	0.0	0.5	1.2	2.1	0.0	0.0	0.1
Due to suppliers	45.8	27.3	29.1	39.6	46.8	63.7	56.0	62.3
Accrued expenses and prepaid income	332.3	336.2	351.7	349.3	411.6	442.1	448.7	420.8
Other non-interest-bearing current liabilities	47.8	45.2	51.7	59.6	114.1	99.6	86.0	61.7
<b>Total equity and liabilities</b>	<b>1,134.8</b>	<b>1,161.3</b>	<b>1,225.7</b>	<b>1,283.4</b>	<b>1,445.8</b>	<b>3,183.2</b>	<b>3,113.7</b>	<b>3,065.1</b>
<b>CASH FLOW ANALYSIS</b>								
Cash flow from current operations	37.4	-2.1	14.1	73.0	-48.9	-61.1	-66.6	-42.8
Investment activities	-30.2	-21.5	-18.2	-22.2	-12.0	-50.0	-40.9	-57.8
Financing activities	5.8	-2.2	-2.2	10.1	11.7	197.2	35.0	13.3
<b>Period cash flow</b>	<b>13.0</b>	<b>-25.8</b>	<b>-6.3</b>	<b>60.9</b>	<b>-49.2</b>	<b>86.1</b>	<b>-72.5</b>	<b>-87.3</b>
Liquid assets at period-start	150.3	175.4	185.7	128.4	178.8	89.8	155.6	240.8
Exchange rate difference in liquid assets	-3.3	0.7	-4.0	-3.6	-1.2	2.9	6.7	2.1
Liquid assets at period-end	160.0	150.3	175.4	185.7	128.4	178.8	89.8	155.6

## Key Numbers

	2002	2001	2000	1999	1998	1997
<b>Margins</b>						
Gross margin, %	72.0	69.0	71.2	73.0	79.2	86.1
Profit margin, %	-6.0	-142.0	-4.7	0.9	0.6	5.9
<b>Return on capital</b>						
Return on operating capital, %	-11.3	-154.4	-4.5	3.0	8.4	47.0
Return on capital employed, %	-8.6	-135.8	-3.2	3.9	8.4	40.9
Return on equity, %	-15.1	-134.4	-4.0	0.2	9.5	60.1
<b>Capital structure</b>						
Operating capital, MSEK	522.5	647.9	2,100.8	104.7	42.8	12.9
Capital employed, MSEK	682.5	776.3	2,341.6	135.6	52.5	15.8
Shareholders' equity, MSEK	627.2	716.1	2,337.2	109.0	12.2	3.7
Net interest-bearing debts, MSEK	0.0	0.0	0.0	0.0	30.6	9.2
Capital turnover ratio	1.9	1.1	0.8	4.3	6.4	8.0
Debt/equity ratio	0.0	0.1	0.0	0.0	2.5	2.5
Equity/Assets ratio, %	55.3	49.5	76.0	23.2	11.0	6.7
<b>Share data, millions of shares<sup>1</sup></b>						
Total shares at end of the year before dilution	202.8	189.4	125.4	81.2	60.0	60.0
Total shares at end of the year after dilution	216.9	211.2	132.0	97.5	69.7	60.0
Average total shares during year before dilution	198.5	148.5	107.3	76.7	60.0	60.0
Average total shares during year after dilution	212.3	165.5	113.0	92.1	69.7	60.0
Dilution, % <sup>2</sup>	7.0	11.5	5.3	20.1	16.1	0.0
<b>Earnings per share after taxes, SEK</b>						
Before full dilution	-0.51	-13.82	-0.45	0.00	0.00	0.07
After dilution	-0.51	-13.82	-0.45	0.00	0.00	0.07
<b>Shareholders' equity per share, SEK</b>						
Before full dilution	3.09	3.78	18.64	1.34	0.20	0.06
After dilution	2.89	3.39	17.70	1.12	0.18	0.06
<b>Price/earnings ratio</b>						
Before dilution	Neg	Neg	Neg	>100	NA	NA
After dilution	Neg	Neg	Neg	>100	NA	NA
Price per share at year-end, SEK	6.20	8.30	52.50	45.00	NA	NA
Market cap at year-end, SEK	1,258	1, 572	6,582	3,654	NA	NA

<sup>1</sup> Total shares adjusted for stock splits in 1998 and 2000.

<sup>2</sup> Calculated in accordance with FASC, Recommendation 18, with consideration only to warrants for which the share price as of December 31 exceeded the discounted redemption rate and conversion of outstanding convertible loans.

## Definitions

Key Numbers	Definition	Calculation 2002	(TSEK)
<b>Operating capital</b>	Balance Sheet total minus non-interest-bearing debts. Average capital employed has been computed as incoming plus outgoing capital employed divided by two.	Balance Sheet total – Non-interest-bearing debts – Cash and bank accounts Operating capital	1,134,800 –452,300 –160,000 522,500
<b>Return on operating capital</b>	Operating income plus financial income as percent of average capital employed.	Average operating capital Operating income Return on operating capital	585,206 –65,900 –11.3%
<b>Capital employed</b>	Balance Sheet total minus non-interest-bearing debts. Average capital employed has been computed as incoming plus outgoing capital employed divided by two.	Balance Sheet total – Non-interest-bearing debts Capital employed Average capital employed	1,134,800 –452,300 682,500 729,389
<b>Return on capital employed</b>	Operating income plus financial income as percent of average capital employed.	Operating income +financial income Return on capital employed	–65,900 3,045 –62,855 –8.6%
<b>Shareholders' equity</b>	Shareholders' equity at year-end. Calculated as shareholders' equity plus shareholders' equity share of untaxed reserves.	Shareholders' equity including 72% of untaxed reserves Average shareholders' equity	627,200 671,677
<b>Return on shareholders' equity</b>	Net income after tax in relation to average shareholders' equity.	Net income Average shareholders' equity Return on shareholders' equity	–101,500 671,677 –15.1%
<b>Interest-bearing net debts</b>	Interest-bearing debts minus cash and bank accounts.	Interest-bearing debts – Cash and bank accounts Net interest-bearing debts	55,300 –160,000 –104,700
<b>Capital turnover rate</b>	Sales divided by average operating capital.	Sales Average operating capital Capital turnover rate	1,121,000 585,206 1.9
<b>Profit margin</b>	Net income after financial items as percent of net sales.	Net income/loss after financial items Net sales Profit margin	–67,600 1,121,000 –6.0%
<b>Gross margin</b>	Gross margin as percent of net sales.	Gross income Net sales Gross margin	807,000 1,121,000 72.0%
<b>Equity/Assets</b>	Shareholders' equity as percent of Balance Sheet total.	Equity Balance Sheet total Equity/Assets ratio	627,200 1,134,800 55.3%



## Board of Directors

### BO DIMERT, Chairman

Born 1943  
Board consultant  
Board member for Telelogic AB since 2001  
Chairman of the Board for ipUnplugged AB and Zoomon AB, board member for NetInsight AB, Optimail AB, Razorfish Inc. and Sverige-Amerikastiftelsen  
Shares: 15,000  
Options: 100,000

### KJELL DUVEBLAD

Born 1954  
Active in own firm  
Board member for Telelogic AB since 1998  
Member of the board for Emerging Technologies ET AB, IT-Företagen, Teleopti AB and Trittech Teknik AB  
Shares: 400,000  
Convertibles: SEK 740,000

### ERIK GABRIELSON

Born 1962  
Partner, Advokatfirman Vinge  
Board member for Telelogic AB since 2002  
Member of the board for Lifco AB, Elanders AB, SwitchCore AB, Wilhelm Sonesson AB and Appium AB  
Shares: 157,336

### ANDERS LIDBECK

Born 1962  
President and Chief Executive Officer for Telelogic AB.  
Board member for Telelogic AB since 1998  
Board member for Emerging Technologies ET AB  
Shares: 1,306,000  
Options: 200,000  
Convertibles: SEK 373,182

### MICHAEL ANDERSSON

Born 1968  
Employee Representative  
Board member for Telelogic AB since 2000  
Shares: 750  
Options: 3,230

### BRANDON JONES

Born 1975  
Employee Representative  
Board member for Telelogic since 2002  
Shares: 300  
Options: 3,700

Total options specified throughout are based on total number of underlying shares. Holdings specified include those of relatives and companies.  
Data pertains to holdings as of December 31, 2002.



#### **KJELL SPÅNGBERG**

Born 1953  
Private investor  
Board member for Telelogic AB  
since 2000  
Chairman of the board for  
Emerging Technologies ET AB  
Shares: 13,416,000  
Convertibles: SEK 40,291,298

#### **JOAKIM WESTH**

Born 1961  
Private investor  
Board member for Telelogic AB  
since 2001  
Chairman of the board for  
Absolent AB, board member for  
VKR Holding A/S  
Shares: 45,000  
Options: 200,000

#### **Auditors**

##### **ALF SVENSSON**

Regular auditor, KPMG  
Born 1949  
Auditor for Telelogic AB  
since 1998

##### **CHRISTER CEDERBLAD**

Deputy auditor  
Cederblads Revisionsbyrå AB  
Born 1944  
Deputy auditor for Telelogic AB  
since 2000

#### **Board of Directors and its rules of procedure**

The board has consisted of six members, including the CEO, elected at the Annual General Meeting. Additionally, the employee organization has appointed two regular members and one deputy member to the board.

The company's CFO and CTO regularly participate in the board meetings, while other management personnel participate at board meetings as deemed necessary. During the year there were fourteen board meetings. The board's work follows established schedules, which are intended to meet the board's needs for information concerning the organization and the management team's need for guidelines in carrying out its duties.

The Board of Directors has regulated the way in which it operates in written rules of procedure in which clarifications are made of the division of responsibility between the board and the CEO, and the guidelines for financial reporting to the board. The rules of procedure are subject to annual review. The company's auditor has participated in several board meetings in connection with, among other things, the release of financial reports, and has presented observations regarding the Group audit.

#### **Compensation issues**

The full Board of Directors comprises a compensation committee that handles issues pertaining to policy with respect to terms of employment and compensation levels for senior executives and other employees at the Company. The CEO is excluded when issues pertaining to his personal situation are discussed. The compensation committee also prepares employee stock option programs for employees in accordance with the authorization granted at the Annual General Meeting.

#### **Nomination issues**

In the quarterly report for the third quarter of 2002 and in the annual statement, the shareholders were invited to submit proposals for board nominations to the board's chairman Bo Dimert, or to CEO Anders Lidbeck. Board nominations are handled jointly by the board. At the 2003 Annual General Meeting the board intends to submit a proposal to establish a formal nominations committee. For more information pertaining to this, please see the board's full proposal for the Annual General Meeting. It can be ordered from the Company or viewed on the website.





**HÅKAN TJÄRNEMO**

**Chief Financial Officer**

Born 1960, employed since 1998

Shares: 243,628

Options: 128,500

**SCOTT RASKIN**

**President, Telelogic Americas  
and Asia/Pacific**

Born 1961, employed since 2001

Shares: 0

Options: 200,000

**JEAN-LOUIS VIGNAUD**

**Vice President Product  
Management**

Born 1961, employed since 1996

Shares: 0

Options: 25,000

**MICHAEL ATLEVI**

**President Telelogic Europe**

Born 1957, employed since 1983

Shares: 157,800

Options: 75,500

Total options specified throughout are based on total number of underlying shares. Holdings specified include those of relatives and companies. Data pertains to holdings as of December 31, 2002.



**INGEMAR LJUNGDAHL**  
**Chief Technology Officer**

Born 1953, employed since 1984  
CEO during the period 1991–1997  
Shares: 0  
Options: 88,000

**ANDERS LIDBECK**  
**President & CEO**

Born 1962, employed since 1998  
Shares: 1,306,000  
Options: 200,000  
Convertibles: SEK 373,182

**CATHARINA SUNDELIN**  
**Vice President Corporate**  
**Communications**

Born 1973, employed since 1997  
Shares: 72,000  
Options: 100,000

**JESPER CHRISTENSEN**  
**Chief Marketing Officer**

Born 1958, employed since 2000  
Shares: 0  
Options: 165,500

### **International main office**

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Telelogic Finland Oy  
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Singapore  
Slovakia  
South Africa  
Taiwan  
Thailand  
Turkey  
United Arab Emirates  
USA

### Annual General Meeting, 2003

The customary Annual General Meeting for Telelogic AB will be held on April 2 at 3:00 PM at Börshuset, Skeppsbron 2, Malmö, Sweden. A brief introduction to the company's products will be given at 2:30 PM.

Shareholders wishing to participate in the AGM must be entered in the register of shareholders maintained by VPC AB (Swedish Securities Register Center) no later than March 21. Shareholders also need to register their attendance no later than 4 pm CET, March 26.

To be entitled to participate in the meeting, shareholders whose shares are nominee registered must have the shares temporarily registered in their own name at VPC AB. The nominee should, therefore, be informed well in advance of March 21.

Registration details (full name, address, telephone number, number of shares represented, personal identification or organisation number) can be sent

- By conventional mail to: Telelogic AB, Attn: Carin Weiss, Box 4128, SE-203 12 Malmö, Sweden
- By e-mail to: [carin.weiss@telelogic.com](mailto:carin.weiss@telelogic.com)  
or by fax to: +46 40-650 65 55

Shareholders who are represented by a proxy should send a power of attorney in conjunction with the notice to participate at the meeting.

The Board of Directors' proposal for the Annual General Meeting may be ordered from the Company as described above.

### Financial information for 2003

Financial information pertaining to Telelogic for fiscal 2003 will be released on the following dates:

*April 2, 2003*

Resolutions adopted by Annual General Meeting

*April 23, 2003*

Interim report for period January–March 2003

*July 22, 2003*

Interim report for period April–June 2003

*October 21, 2003*

Interim report for period July–September 2003

*January 27, 2004*

Annual statement for 2003

Telelogic's financial information is available in Swedish and English, and is posted at Telelogic's website, [www.telelogic.com/about/investors/reports.cfm](http://www.telelogic.com/about/investors/reports.cfm)

#### *How to obtain financial information concerning Telelogic AB:*

The quickest way to obtain information about Telelogic is via the Internet. At Telelogic's website, [www.telelogic.com](http://www.telelogic.com), all financial reports are posted as soon as they are published. On the website it is also possible to subscribe to financial reports in printed form by conventional mail, or in digital form by e-mail. Telelogic press releases may also be subscribed to by e-mail.

#### *The Annual Report (in Swedish and English) may be ordered from:*

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The Telelogic logo features the word "Telelogic" in a bold, italicized sans-serif font. A red stylized arrow points upwards and to the right, positioned between the "T" and the "e" in "Tele".