Germany

Enterprise software

18 July 2000

Atoss

Exploiting growth niches

Initiating coverage **EUR 30**

Year End 31 Dec.	Net Profit (DEMm)	EPS (DEM)	PER (x)	EV/ EBITDA (x)	Mcap /sales (x)	ROE (%)	ROE Excl. IPO (%)
1999A	1.5	0.37	159.7	59.9	7.4	24.0	24.0
2000E	3.4	0.84	69.7	28.2	5.3	4.3	26.3
2001E	5.4	1.35	43.4	17.5	3.9	6.4	28.6
2002E	9.0	2.24	26.2	9.9	2.9	9.6	32.6
2003E	13.3	3.30	17.8	6.3	2.1	12.4	32.2

Buy

Initiating coverage

Market Cap
EUR 120.8 m
(US$114.5 m)

Reuters
AOFG.F

Bloomberg
AOF NM

Andrea Kirkby
+44 20 7648 6810
andrea@icesec.co.uk

ATOSS is expected to continue growing both revenues and earnings at a very high rate. Our DCF model, which is based on conservative growth assumptions, shows a 20% upside from the current stock price. Further growth will depend on the company's implementation of its acquisition and geographical expansion strategies, and could create higher upside potential.

- **ATOSS has created a new market segment** in human resources software, focusing on strategic management of personnel resources rather than payroll and timekeeping. Its blue chip customer list shows the attractions of its software to companies attempting to manage their human resources in a more cost effective way.

- **High historic growth dynamics** appear repeatable. The company should see growth from the development of a lower functionality, lower priced range of product, as well as from entering new geographical markets. We believe management is well aware of potential culture problems adapting its product and approach and is likely to build through a mixed acquisition and organic development approach.

- **Comparisons are odious.** The other HR related software companies to which ATOSS might be compared are focused on payroll, a low added value product in a much more competitive market. When we compare ATOSS with the finance software companies, the valuation appears much more reasonable.

ICE SECURITIES LIMITED SHERBORNE HOUSE 119 CANNON STREET LONDON EC4N 5AT
GENERAL 0207 626 3232 TRADING 0207 626 3242
TELEX 881 12684 ICESEC G FAX 0207 626 2993
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SWOT analysis

Strengths

- ATOSS's product is a key strength. Its capabilities have been developed to meet two key needs; first, the requirement to manage both time and cost in a flexible way; and secondly, the need to manage employees in real time. We believe these capabilities differentiate it from most other products on the market. New modules have been developed to extend the basic functionality.

- We believe this is not a major market for the ERPs or for accounting software houses. Many of ATOSS's competitors are focused on timekeeping hardware rather than on flexible software provision.

Weaknesses

- The market remains very fragmented and ATOSS has not more than 4% market share even though it is the second largest player (and the leader has only 11% share). Our forecasts assume that ATOSS's share of the market will grow to just over 10% by 2004.

- ATOSS is still essentially a single-country company supplying 96% of its product to Germany alone.

- ATOSS is expected to generate only DEM 6m cash by 2003 as a result of high working capital requirements. This could create some strain on financial resources if the company uses its considerable cash pile on acquisitions in the near term, though in the absence of major acquisitions internally generated cash flow should be sufficient for the growth of the company.

Opportunities

- The cut-down TARIS product will enable ATOSS to reach medium sized enterprises with a suitably priced product. By reducing the requirement for business process consultancy, this will enable ATOSS to grow revenues without adding proportionately to the number of employees. At the same time the recently acquired CSD product will allow the company to address the lower end of the SME market.

- Use of indirect sales channels and possible start-up ASP operations will allow ATOSS to address a larger market without significant investment in its own marketing operations.

- International expansion represents a significant growth area for ATOSS. The company has identified France, with its introduction of the 35 hour week, as a market where change in the HR environment presents it with an immediate opportunity. The company's approach to international markets appears flexible and realistic. We expect

ATOSS to develop its TARIS product but also to acquire either local software resource or local distributors in order to accelerate market entry.

Threats

- ERPs such as SAP do not appear to have identified HR as an area in which to compete aggressively. However, if they reprioritise the area, they may well be able to capitalise on their large installed base. We believe, though, that the ERPs have more pressing problems than entering the HR market in force, given their recent underperformance.

- ATOSS is pursuing a range of new directions for growth including a cut-down product, internationalisation, and indirect sales. Management may be stretched by the number of different markets the company is entering.

- At the bottom end of the market, it is possible that ATOSS will see competition from free or extremely cheap web based services which rely on transaction fees or advertising for their revenue. This will not impact on the ATOSS products but could erode sales for CSD. However, while such services are beginning to test the market in the US, it may take longer for them to arrive in Europe with its smaller markets and more diverse employment laws.

Valuation summary

ATOSS has three quoted peers (two European, one US) but these do not form a useful comparison for valuation purposes; Kronos, in the US, has recently slashed profit forecasts, and both P&I and Meta4 are focused on payroll applications rather than strategic HR management, and are currently loss-making. On both a PER and market cap / sales basis ATOSS appears to be much more highly valued than its peers.

We believe that ATOSS could usefully be compared with other business software companies such as those supplying the finance sector. Compared with FJA, NSE and COR Insurance, ATOSS's valuation appears more reasonable. While still at the top end of the PER valuations, the company trades on a lower price/sales multiple than the two leaders, FJA and COR, and only 10% higher than NSE. Because of high growth rates, the PEG is only very slightly higher than FJA's.

However, because we do not find these comparative valuations convincing, we place more emphasis than usual on the discounted cash flow valuation. According to our conservative valuation ATOSS shares should be worth EUR 36.70, a 20% premium on the current stock price. However, higher than expected SME and ASP takeup could enable the company to grow at faster rates. Our best case valuation shows that the shares could be worth EUR 42.78, indicating a 40% potential upside from the current price.

Markets

ATOSS competes in a complex and fragmented market. The market for HR related software is shared between a number of different types of competitor, relatively few of whom specialise in HR software as ATOSS does. The market comprises:

- Manufacturers of timekeeping hardware (punch clocks, access card systems, etc) who also produce software. Since these systems are focused on simple timekeeping, with some geographical control, they tend to be relatively unsophisticated (e.g. time can't be booked to different activities).

- Payroll related systems often associated with accounting software. These are focused on payment and financial accounting and have limited capability for management of personnel. Many of these systems are based on batch processing (e.g. monthly running of the payroll) and therefore do not enable managers to locate employees in real time (e.g. to call a new shift at short notice or to replace employees calling in sick).

- ERP modules. While the major ERPs have some HR capability within their systems, this has usually not been a focus. ERPs have a surprisingly small share of the German market for HR related systems with only 13% of the market.

- Specialised suppliers such as ATOSS focused on HR flexible solutions.

Few suppliers have significant market shares. ATOSS has just over 3% of the market, and we believe only Interflex, with 11% of the market, and SAP, for which detailed sales figures are not available, are larger. Our forecasts assume that ATOSS will gain a market share of not greater than 10% by 2003 within Germany, which should be an easily attainable target.

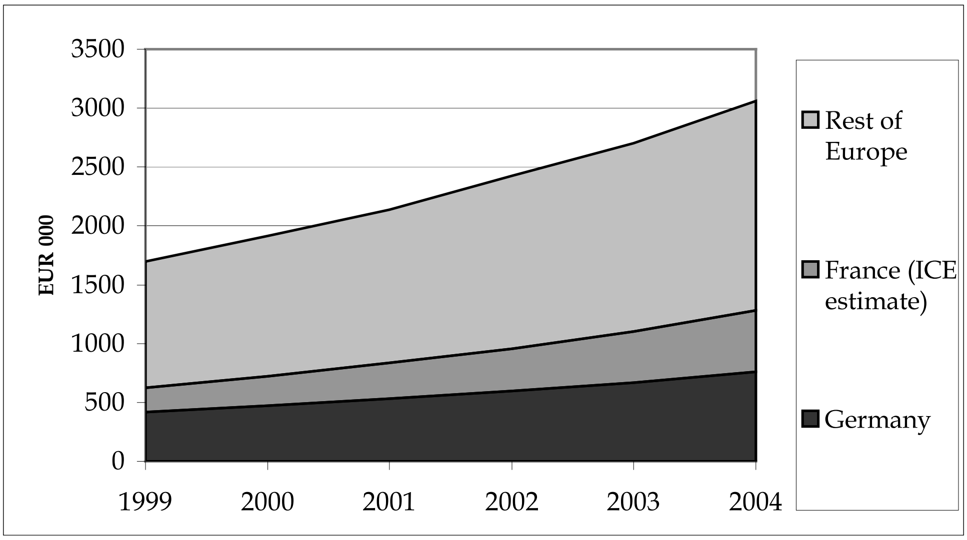
ERP markets as a whole have tended to grow at 30% a year. However, many companies' IT plans have focused on two main areas – CRM and SCM – and HR has been merely a subsidiary area, growing more slowly (10-15% CAGR). We believe this may be due to three factors:

- First, benefits from CRM and SCM are more easily quantifiable. As businesses migrate to the web, links with customers and suppliers are more radically changed by the availability of internet technology than relations with employees.

- Secondly, many of the HR solutions are relatively unsophisticated and therefore do not possess a compelling investment case. Bearing out this hypothesis, ATOSS's growth has been at rates significantly higher than the rest of the market.

- There has tended to be cultural resistance within many organisations to computerised management of staff, particularly in white collar occupations. As a result, ATOSS's management is able to point out that HR is the last 'unmanaged' area of the firm – accounts, supply chain and customer relations are already managed by software.

Chart 1: The European markets for HR software



Sources: IDC, ATOSS, ICE Securities estimates

The HR software market is largely driven by national and EU legislation and regulation affecting employment patterns and working hours. The market is mainly for replacement systems rather than completely new installations, with competition on the basis of functionality rather than price. Surveys show one third of German firms are planning to replace their existing systems. Key drivers for demand are: social change leading to different shift working patterns and the use of flexitime; the Working Time Directive, with its requirement for detailed records of time worked, and national legislation passed to comply with the Directive; the requirement to manage the work process more flexibly to meet fluctuating customer demand and tighter time schedules.

ATOSS has also started to identify particular industry niches where it can develop an industry-specific product such as TARIS Medical, used in hospitals and health care centres. By heading for such niches we believe ATOSS may be able to stay ahead of the game as other software providers introduce further functionality to their products.

ATOSS has so far focused on the market for larger enterprises. Customers include Deutsche Lufthansa, Thyssen, Bayer, Nokia, and Deutsche Bahn. We believe this is typical of the market for ERP and for HR solutions in general. However, ATOSS is now developing two families of products to tackle the medium sized enterprise market (through a cut-down TARIS product), and the SME market (through CSD, a company acquired in 1999). Currently only 9% of ATOSS's 650 customers have under 500 employees.

Table 1: customer target sectors

Product	Customer target sector
TARIS	500 employees plus
TARIS 'Start-up edition'	200-500 employees
CSD 'Time Control'	<200 employees

Technology and product

ATOSS's basic product is the TARIS software platform, on which 26 additional modules are based. It is fully scalable and has been developed to make upgrades easy through a single server installation. Rather than achieving flexibility through extensive customisation of the software, TARIS focuses on using software parameters and standard components to allow a standard package to be fully tailored to the customer's requirements. The consultancy provided by ATOSS focuses on mapping the customer's business processes on to the software, rather than customising the software. (The difference to both time and cost of upgrades is significant; for instance, Siebel, which has a similar software strategy, estimates that it is possible to upgrade the Siebel package in two days against a possible six month lead time for SAP implementations. Thus Siebel has 80% of customers using the newest version of its software, while we understand SAP has a significant time lag in customer acceptance of upgrades.)

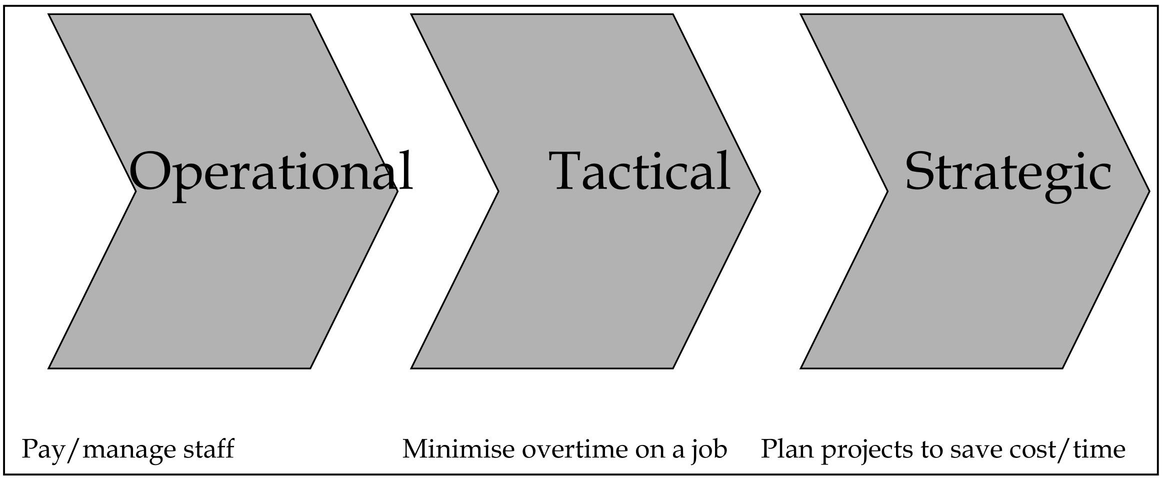
TARIS was first developed in 1989 using PASCAL. Recent modules have been developed using C+9+, Java and XML and support all major operating systems. The creation of a Java Webserver interface not only allows companies to standardise the interface for the product on to the web browser, to minimise training requirements, but will also enable the company to offer an ASP solution. This will be particularly attractive to the middle layer of companies (50-300 employees).

The core package of TARIS creates libraries for storing the two groups of parameters; (1) working time models such as shift times, holiday regulations, and overtime rules, and (2) personnel profiles such as each employee's pay scale and time in lieu records. This allows time worked to be estimated for payroll purposes, but also allows real-time analysis and scheduling which includes not only time but also cost as a criterion.

Additional modules can be added to the basic package to carry out such tasks as assigning shift patterns, assigning individual duties, minimisation of overtime worked, project management, and time and cost allocation to different projects or products.

We believe that ATOSS is some way ahead of most of its competition in functionality. Payroll focused software is the basic level of implementation with most companies, and it is that end of the market where price competition is greatest (including competition from firms of accountants and banks which may outsource payroll operations) and technological differentiation lowest. By focusing on more sophisticated products which enable companies to manage their workforce both tactically and strategically, and with regard to both time and cost, we believe ATOSS has distanced itself from the price-sensitive end of the market and differentiated its product.

Chart 2: levels of operation of HR systems



- Operational – manage/pay staff
- Tactical – minimise overtime
- Strategic – plan projects to save cost / time

Competition

The major ERPs have not so far targeted the HR sector, though most of them offer HR modules. Most ERPs (with the exception of Oracle) have found themselves wrong-footed by the growth of e-commerce, and have therefore prioritised the development or acquisition of CRM and SCM interfaces that are fully web-capable. The HR niche has been seen as less important. We believe HR sales are not material for either SAP or Baan. A further consideration, particularly in the SME sector into which ATOSS is now moving, is that unless a company already uses SAP as an ERP product, the complexity of the SAP architecture and long lead time makes it uneconomic to install. Oracle, on the other hand, offers a good midmarket product in the US, but does not appear to have a large installed base in Germany.

More significant competition comes from two traditional HR businesses; first, time clock manufacturers who have diversified into HR software; and secondly, payroll systems which have expanded into HR management. However, it has not been easy for these businesses to expand into the higher value added Human Resources Management Software (HRMS) sector. P&I, for instance, launched its HRMS module in the LOGA system, but it still accounts for only DEM 5.3m in revenues (15% of total sales for the company). While ATOSS does not manufacture hardware, it has partnerships with a number of hardware manufacturers such as PCS, Kaba Benzing and Acola to enable the company to offer complete systems including data entry solutions.

Table 2: German HR software competitors

Company	**Sales**	
Interflex	DEM 130m	Focused on access control and time management
Isgus	DEM 60m	Focus on hardware (>60% of revenues)
Astrum	DEM 20m	SP-Expert product is closest to ATOSS, with similar market share and similar size of company (120 staff) and client base (500 customers)
AZS		Similar focus to Astrum and ATOSS, but hardware sales are still significant
P & I Personal und Informatik	DEM 36m	LOGA payroll product still accounts for majority of revenues; HRMS revenues are less than DEM 6m

German payroll and employment law is extremely complex and this has so far acted as an entry barrier to foreign firms. Many US firms have attempted to enter Europe through using US software together with payroll fixes (e.g. Lawson used IBM's HRAccess payroll engine), but in the end only a fully integrated and localised system is able to compete with local solutions.

While this currently protects ATOSS's market position in Germany, it also implies that the costs of entering new markets will be large as different employment regulations need to be addressed. However, ATOSS's parameter-based software architecture will enable the company to address these new markets *without* changing the basic software package. We believe this is a major competitive advantage particularly when compared to ERPs or payroll focused packages.

Customers

Unlike many other smaller enterprise software companies, ATOSS has a diversified customer base with no dependence on single major customers. Lufthansa, one of ATOSS's largest and longest standing customers, accounts for less than 1% of its business. This compares with single customer exposure of up to 20% at other firms such as Management Data and NSE. In our view this diversification should make revenues less lumpy and protects ATOSS from the potential negative impact of loss of any single contract. ATOSS's customers are widely spread across different industries.

ATOSS has often started a customer relationship with a small project in a single area of the customer's business. For instance, with Lufthansa the original implementation focused on in-flight catering. This has now expanded and ATOSS systems are now used to manage all of Lufthansa's German based ground staff. Extension of the ATOSS implementation to new business areas by existing customers is a strong endorsement of the product.

ATOSS case studies show various situations in which the software is able to create significant value for the customer. In particular, ATOSS software is useful for managing staff where flexible rostering and just-in-time staffing is needed.

- Lufthansa needed to be able to roster staff to match the timetable of flights arriving and departing, including any flight delays.

- Meyer-Werft needed a system with remote working capability in order to manage staff while on board ship. The shipbuilder was able to cut build time by 50% using ATOSS software.

Entry barriers

ATOSS has established a good product position but the entry barriers within Germany remain fairly low. With under 4% market share, ATOSS's installed base is not a significant enough part of the market to deter rivals. The market remains highly fluid.

Strategy

ATOSS has so far served a mainly blue chip customer base which demands consulting work as well as the basic software package. Its business model has therefore been similar to that of larger ERP players, in that increases in sales can only be achieved with a comparable increase in the number of employees.

ATOSS's move to produce lower functionality and lower-priced software for medium sized enterprises and 'out of the box' software (through CSD) for smaller enterprises will delink revenue growth from employee numbers and will enable the company to grow more speedily. We believe that in identifying the market for strategic HR software at smaller firms ATOSS is some way ahead of the market. This strategy could be compared to the impact of Sage on the accounting market in the 1980s, and if ATOSS manages to penetrate the market quickly it may gain a significant competitive advantage by becoming a standard product for the application.

ATOSS is also considering operating as an ASP, which again would allow it to address the SME market in a more appropriate way. ATOSS will not be running its own servers, but will provide software through co-operation with major vendors who offer ASP portals. The current software is fully web-enabled, so that no further development is required to enable the company to offer TARIS over the web.

ATOSS is also determined to become a European rather than solely German player. The company has carried out research into the major European markets and believes that France, where the introduction of a 35-hour week has created a need for new employee management systems, is the prime target market. Management is fully aware of the cultural and regulatory differences between the European markets, and we believe it is likely that the company will operate a mixed strategy of acquisition and organic expansion in order to leverage the strengths of the TARIS system with local HR expertise, brand name and access to customers. ATOSS also appears likely to enter the Netherlands and Scandinavian markets.

We expect the timing of entry to new markets to be as follows:

- France and the Netherlands – 2000

- Scandinavia – 2001
- UK – 2001/2.

The process of geographical expansion may be accelerated if the company is able to enter partnership with a major reseller in any single market.

Cost base

Because ATOSS resells a significant amount of hardware (card readers, access control devices etc) to accompany its software systems, a significant amount of the cost of goods sold is accounted for by the cost of bought-in hardware for resale. It is worth noting, though, that the company does not hold stock; hardware is bought for specific contracts. We estimate just over 50% of COGS is hardware, the remainder representing consultancy costs. COGS currently represents 38% of sales, down from 42% in 1998.

As the company expands into the midmarket and SME sectors, sales of 'out of the box' software will increase and the proportion of hardware in sales will accordingly decline. Gross margin should, therefore, rise to levels closer to those enjoyed by 'pure' software companies.

Over the last three years ATOSS has spent an average of 8% of sales on R&D. This is comparatively low for a software company; P&I for instance has R&D spend of over 20% of revenues. However, ATOSS will increase its spend this year to 12% of revenues. This is somewhat understated compared to other companies because of the hardware element in sales; if hardware is stripped out, because it's purely a resale business, R&D would already stand around 12% of revenues and will increase to 16% over the next two years. We believe the hardware stripped figure is a better comparison.

Sales and administration costs have tended to run around 45-50% of revenues. The company currently sells directly to its customers; however, the figure is likely to fall as ATOSS's entry to the midmarket and SME sectors will use third party distributors.

An alternative split of costs given by the German GAAP accounts shows staff costs running at around 20% of sales. Over the last two years staff cost has increased ahead of or at the same rate as sales, with staff cost per employee remaining static. This year is also likely to see some erosion in productivity as staff are added for international expansion and for the move into new market sectors, but thereafter we expect productivity to increase markedly. The workforce has doubled over the past two years from 62 employees to 124, and we expect to see further increases.

Earnings history

Unlike most other companies in its sector, ATOSS has been profitable throughout its history despite experiencing high growth in sales and employee levels.

Sales have increased from DEM 20.5m in 1997 to DEM 35.1m last year. Software licences have been the main growth engine, increasing by 90% in 1998 and by 50% in 1999. ATOSS does not appear to have experienced the millennium freeze which hit several industry players in Germany, including rival P&I, though sales representatives have apparently found sales more difficult to achieve. Our major caveat is that though sales appear to have been made, the order book appears to have been run down somewhat, and new orders in the last quarter were only half the level of sales. We expect to see better order intake in Q2 and particularly Q3.

Q1 2000 continued the upwards trend in sales with software licences nearly doubling and increasing their share of revenues in the period from 16% to 27%. (Q1 is seasonally weak in software sales with maintenance and services slightly stronger.) Software licence sales increased from 28.7% of sales in FY 1997 to 33.5% in FY 1999.

Hardware currently accounts for 25% of total sales. Performance has been somewhat variable since the hardware proportion of a single larger contract may affect the total for the firm quite significantly. For instance, hardware revenues rose 75% in 1999 mainly as a result of sales mix. We estimate the gross margin on hardware is around 25%.

Consulting currently accounts for 20% of sales and maintenance for a further 16%. Maintenance has grown at a much slower rate than software licence sales.

Despite the fluctuations in hardware sales, ATOSS has managed to increase the gross margin from 58.4% in 1997 to 61.3% in 1998 and 62.1% in 1999. EBIT margins have also increased significantly from 3.1% in 1997 to 9.0% in 1999, though we expect some dilution this year as high R&D spend is incurred on the new products.

Net profits have grown in both the past two years, with a particularly strong growth in 1999 of 258%.

Returns

ATOSS has historically had a fairly slim balance sheet and funded its development from internally generated funds. Accordingly, the company has enjoyed high returns on equity and capital employed. However, the IPO has brought in a significant amount of cash and boosted the shareholders' funds from DEM 6.2m to DEM 78.9m.

Since the cash is currently being kept on deposit, while ATOSS seeks appropriate acquisition opportunities, returns for 2000/2001 are likely to appear very low in comparison.

We have therefore created an adjusted ROE calculation which strips out the IPO from the shareholders' funds figure. According to our estimates, ATOSS should see a decline in ROE only in the current year, and should thereafter achieve ROE of 30% or above in line with historic levels.

Table 3: Return on equity – adjusted

	1997	1998	1999	2000E	2001E	2002E	2003E
ROE	33.5	29.6	24.0	3.5	6.4	9.7	12.4
Adjusted	33.5	29.6	24.0	26.3	28.6	32.6	32.2

We expect ATOSS to generate modest amounts of cash flow after investments in future years. The presence of the cash pile, with its significantly dilutive effect on returns, will put pressure on management to develop its international operations quickly. We expect at least one significant acquisition to be made in order to expand into France, the UK or the Netherlands, in addition to investment in organic operations.

Forecasts

ATOSS's revenue and cost base will change over the next three years as the company enters new market areas. As sales of small systems and 'in the box' software increase, and the percentage of revenue accounted for by large contracts decreases, both hardware and consulting will decline as a percentage of total turnover. On the other hand we expect maintenance to increase its share of total turnover to 20% by 2003, based on the increase in installed base. This together with a higher percentage of smaller sales should increase the visibility of earnings.

Table 4: Forecast sales breakdown

DEM m	1997	1998	1999	2000E	2001E	2002E	2003E
Software	5.9	8.8	11.8	19.4	29.1	43.6	65.5
Hardware	6.9	5.0	8.8	12.3	14.8	17.8	21.3
Consulting	3.6	4.6	7.0	8.4	10.1	12.1	14.5
Maintenance	2.8	3.9	5.6	8.1	11.8	17.3	25.6
Other	1.2	0.6	2.0	1.4	1.0	0.7	0.5
%							
Software	28.7	38.3	33.5	39.1	43.6	47.7	51.4
Hardware	33.8	21.9	25.1	24.9	22.2	19.4	16.7
Consulting	17.8	20.1	20.0	17.1	15.1	13.2	11.4
Maintenance	13.8	17.1	15.8	16.3	17.6	18.9	20.1
Other	5.9	2.6	5.7	2.8	1.5	0.7	0.4

We expect sales growth of around 40% a year, representing three to four times the industry average. COGS as a percentage of sales should fall together with the proportion of hardware sales, which we believe have less than half the gross margin of other sales. We are also expecting SGA expenses to taper off as a percentage of revenues once the company begins to sell through indirect channels.

R&D, on the other hand, will rise this year to 12% of sales, as the company gears up its expansion effort and integrates the CSD product. While we expect R&D to taper off thereafter, we see it remaining at 10% rather than falling back to historic levels as the company continues to expand.

We expect EBIT margins to increase to 10% this year despite the increase in R&D costs, since the company is controlling sales and marketing costs carefully. By 2001 the EBIT margin should exceed 12% and we believe the company can increase it further in future years as long as the number of employees is controlled tightly.

The company currently holds some DEM 75m of cash representing the IPO proceeds of DEM 70m net plus existing cash balances. Although we expect the company to identify acquisitions it is currently not possible to forecast the uses of this cash. We have therefore allowed for interest income of DEM 1.7m in 2000. We expect the company to be mildly cash generative despite high working capital requirements, so that the amount of the cash pile should rise (in the absence of acquisitions) and interest income is also expected to increase in future years.

ATOSS is currently paying over 50% tax. Because the company has been consistently profitable, it does not have tax losses that can be set against income. We expect the tax rate to continue to run around this level.

Earnings per share should grow at well above industry rates as the company's expansion policy pays off. We are expecting 129% earnings growth this financial year, with earnings nearly doubling in 2001 before settling at 66% in 2002. These forecasts do not include any contribution from acquisitions which might be made.

Risks

We believe the main risk facing ATOSS is that of over-extending the company's resources. ATOSS is likely to expand in three ways – first into new market areas (mid market and SME products), secondly into new geographic areas, and thirdly into provision of software as an ASP, involving the adoption of a new business model.

Geographical expansion is important. ATOSS is a company that could become a strong regional player and that has few direct competitors with equivalent functionality. The key risk for many German companies is a cultural one; software designed for a particular market and style of management does not easily transfer across borders. This is not merely a language issue. We believe ATOSS management is realistic about the amount of work involved in making TARIS software appropriate for new geographic markets.

We believe the move to SME and midmarket solutions is also important, for two reasons. First, it addresses new areas of the market and should help to consolidate ATOSS's market share within Germany. Secondly, it will delink ATOSS's profits from the need to increase the workforce by enabling the company to leverage its R&D without providing extensive consultancy services.

The current high levels of cash in the business provide ATOSS with the backing it will need to carry out expansion without overextending the company financially.

Shareholder structure

The founder of the company, Andreas Obereder, still owns 56% of ATOSS shares. Employees and management own a further 13%. 85% of employees hold equity in the company.

Valuation

It is difficult to find comparisons for ATOSS, since its focus is distinctly different from that of other European quoted companies in the HR software sector. Both Easdaq-quoted Meta4, which is the leading payroll software manufacturer in Spain and Portugal, and Neuer Market listed P&I Personal und Informatik, are focused on payroll functions rather than strategic HR management. P&I has now created an HRMS program as part of its LOGA product family, but this still only accounts for 15% of the company's revenues. We believe ATOSS should trade at a significant premium to both these stocks since it has identified a new market segment and has distinctive functionality. The fact that both Meta4 and P&I are currently making losses also makes a direct comparison difficult.

Kronos, a US HRMS company, is more directly comparable to ATOSS. Its software has many of the same capabilities and shares a focus on work scheduling and productivity rather than payroll functions. However, we believe that it faces a much tougher competitive landscape than ATOSS. While it has seen steady revenue growth of 20% with rising margins in the past, recent profit warnings have hit the stock price, and it now seems likely the company will report earnings down 25% in the current quarter and 16% for the fiscal year to September 2000. Its low rating reflects the decline in profit expectations and we therefore don't believe it is a useful comparison for ATOSS, which is in any case a company at a much earlier stage of market development.

ATOSS is valued at a significant premium to the directly comparable stocks. On a 2001 PER basis it trades at a 40% premium to P&I, and at nearly four times Kronos's multiple. However, it is Kronos rather than ATOSS which appears atypical, trading at 19 times prospective earnings and 15 times for 2001. Looking at market capitalisation to sales, ATOSS trades at 4.8 times expected 2000 sales; this is a 20% premium to Meta4, and over twice P&I.

However, simply comparing PERs is in our view misleading. Once expected growth is factored in, ATOSS looks quite reasonably valued. For instance, the disparity between ATOSS' and Kronos' valuations reflects the fact that while Kronos is growing at only 19% a year, our expectations for ATOSS are for more than 100% earnings growth per year in the short term and 40% in the medium term.

Since the direct comparators for ATOSS are limited, we also compared the company to a selection of business-focused software companies quoted on the Neuer Markt. We excluded consultancy companies and e-commerce companies from the comparison. Using these comparators, ATOSS again does not look cheap, but it appears to be quite well placed considering the quality of the business.

ATOSS still appears highly valued on a PER basis. ATOSS's multiples of 69x (2000) falling to 43x (2001) represent a significant premium to firms such as FJA (68 / 31) and NSE (31 / 15). Again, the company should display higher growth characteristics than the rest of the industry, and this is reflected in the PEG, which is substantially below FJA's 1.03 times. In terms of market cap to sales, ATOSS appears to trade in a typical range for the business software sector. At 4.8 times 2000 sales, the company trades below both FJA (6.2 times) and COR (8.7 times) though well above NSE (3.1 times).

Given the lack of good comparisons we tend to put more emphasis than usual on the discounted cash flow valuation of the company. Based on our current, conservative, forecasts, and using a 10.93% cost of capital, the NPV of the company appears to be EUR 36.7 a share.

Our forecasts are conservative compared to some of the company's own targets. We have, therefore, looked at a best case giving a 20% upside. The NPV in this case would be EUR 42.78.

Table 5: valuation comparisons

Company	Share price	Year ending	EPS	PER	CAGR 5 yrs	Mcap /
	# of shares m				PEG	sales
Currency	Mcap USDm					
ATOSS	30.0	1998	0.05	571.9	95	10.3
	4.03	1999	0.19	159.7	0.73	6.7
EUR	115	2000	0.43	69.7		4.8
		2001	0.69	43.4		3.5
META 4 NV	8.5	1998	0.12	70.8	n/a	6.6
	22.2	1999	-1.34	-6.3	n/a	4.3
EUR	179	2000	-0.99	-8.6		3.6
		2001	-0.36	-23.6		2.9
P & I	7.25	1998	3.11	2.3	n/a	5.6
	7.5	1999	-0.18	-40.8	n/a	3.3
EUR	52	2000	-0.08	-90.6		2.0
		2001	0.21	34.5		1.3
COR	22.11	1998	-0.13	-170.1	n/a	31.9
	8.2	1999	-0.02	-1105.5	n/a	17.4
EUR	181`	2000	0.71	31.1		8.7
		2001	1.15	19.2		5.8
CPU	13.69	1998	0.17	80.5	n/a	25.3
	7	1999	-0.73	-18.8	n/a	6.7
EUR	96	2000	-0.17	-80.5		3.4
		2001	0.72	19.0		1.7
FJA	50.00	1998	0.54	92.6	74	8.6
	7.7	1999	0.66	75.8	1.02	7.4
EUR	385	2000	0.75	66.7		6.1
		2001	1.60	31.3		5.1
NSE	13.7	1998	1.87	7.3	56	5.3
EUR	11.7	1999	-0.16	-85.6	0.56	4.9
	152	2000	0.44	31.1		3.1
		2001	0.89	15.4		2.0
Kronos	25 5/8	1998	1.15	22.3	19	1.9
	13	1999	1.71	15.0	0.89	1.5
USD	333	2000	1.50	19.3		1.3
		2001	1.92	15.0		0.6

Financial forecasts

Profit and loss account DEMm

	1997	1998	1999	2000E	2001E	2002E	2003E
Net sales	20.5	23.0	35.1	49.6	66.7	91.5	127.4
COGS	8.5	8.9	13.3	17.6	21.5	27.4	37.1
Gross profit	12.0	14.1	21.8	32.0	45.3	64.1	90.2
Gross margin	58.4%	61.3%	62.1%	64.5%	67.8%	70.1%	70.8%
Selling, general and administrative costs	9.5	11.3	16.0	21.0	29.4	39.3	53.5
Research and development costs	1.8	1.8	2.9	5.9	7.3	9.1	12.7
	11.3	13.1	19.0	26.9	36.7	48.5	66.2
Operating profit	0.7	1.0	2.8	5.0	8.6	15.6	24.0
Other income and expenses	0.0	0.1	0.3	0.0	0.0	0.0	0.0
EBIT	0.6	1.2	3.2	5.0	8.6	15.6	24.0
Interest	0.0	-0.1	0.0	1.8	2.3	2.4	2.5
Minorities	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
Profit before tax	0.6	1.1	3.1	6.8	10.9	18.0	26.5
Income tax	-0.3	-0.7	-1.6	-3.4	-5.4	-9.0	-13.3
Net profit	0.3	0.4	1.5	3.4	5.4	9.0	13.3
Dividends	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Retained profit	0.3	0.4	1.5	3.4	5.4	9.0	13.3
EPS	0.08	0.10	0.37	0.84	1.35	2.24	3.30
CEPS	0.23	0.31	0.61	1.22	1.82	2.86	4.14
DPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Balance sheet DEMm

	1997	1998	1999	2000E	2001E	2002E	2003E
Cash and securities	1.2	1.2	5.7	76.1	78.2	82.5	88.8
Receivables	4.0	6.4	7.4	10.9	14.6	20.0	27.9
Inventories	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5.3	7.6	13.1	87.0	92.9	106.1	121.3
Property, plant and equipment	1.5	2.2	2.5	2.8	2.8	2.5	1.9
Financial assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intangible assets	0.0	0.2	0.5	0.6	0.9	1.7	3.3
Goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deferred tax assets	0.0	0.0	0.1	0.1	0.1	0.1	0.1
	1.6	2.4	3.1	3.5	3.8	4.2	5.3
	6.8	**10.0**	**16.2**	**90.5**	**96.6**	**106.1**	**121.3**
Payables	2.0	2.5	2.5	3.4	4.1	5.2	7.1
Debt	0.2	0.3	0.0	0.0	0.0	0.0	0.0
Provisions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accruals	3.0	5.4	7.2	7.2	7.2	7.2	7.2
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5.2	8.1	9.7	10.5	11.3	12.4	14.3
Debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deferred tax	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Accrued pensions	0.6	0.3	0.4	0.4	0.4	0.4	0.4
	0.6	0.4	0.4	0.4	0.4	0.4	0.4
Capital stock	0.2	0.2	1.3	7.2	7.2	7.2	7.2
Additional paid in capital	0.0	0.0	3.1	67.2	67.2	67.2	67.2
Retentions	0.8	1.2	1.7	5.1	10.5	19.5	32.1
Comprehensive income	0.0	0.0	0.1	0.1	0.1	0.1	0.1
	1.0	1.4	6.2	78.9	84.3	93.3	106.6
Minority interest	0.1	0.1	0.0	0.0	0.0	0.0	0.0
	6.8	**10.0**	**16.2**	**90.5**	**96.6**	**106.1**	**121.3**
Stock days	0	0	0	0	0	0	0
Debtor days	71	101	77	80	80	80	80
Creditor days	87	101	69	70	70	70	70
ROCE	29.7%	55.3%	45.8%	4.7%	10.1%	16.6%	22.2%
ROE	33.5%	29.6%	24.0%	4.3%	6.4%	9.6%	12.4%
Net RO / ave E	19.8%	10.0%	3.4%	3.3%	6.1%	9.0%	12.4%
ROA	9.9%	10.5%	17.4%	4.1%	8.9%	14.7%	19.8%
ROCE cash stripped out	29.7%	55.3%	45.8%	89.5%	114.3%	127.7%	124.5%
IPO stripped ROE	33.5%	29.6%	24.0%	30.7%	37.9%	38.7%	36.3%
Net (debt) / cash	1.08	0.94	5.68	76.13	78.23	82.5	88.75
Gearing	-111.7%	-67.7%	-92.3%	-95.7%	-92.1%	-87.8%	-82.7%

Cash flow statement DEMm

	1997	1998	1999	2000E	2001E	2002E	2003E
Net income	0.3	0.4	1.5	3.4	5.4	9.0	13.3
Unrealised exchange rate adjustments				-	-	-	-
Depreciation	0.7	0.8	1.1	1.5	1.9	2.5	3.4
Deferred taxes	0.0	0.1	-0.1	-	-	-	-
Non-cash remuneration costs				-	-	-	-
Profit from disposals				-	-	-	-
	0.9	1.3	2.4	4.9	7.3	11.5	16.6
Increase/decrease in receivables	-0.9	-2.4	-1.0	-3.5	-3.8	-5.4	-7.9
Increase/decrease in inventories	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Increase/decrease in prepaid							
Increase/decrease in payables	1.1	2.6	1.8	0.9	0.7	1.1	1.9
	0.2	0.2	0.8	-2.6	-3.0	-4.3	-6.0
Net cash flow from operations	1.1	1.4	3.2	2.3	4.3	7.2	10.7
Proceeds from disposals	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Capex	-1.1	-1.7	-2.0	-1.9	-2.2	-3.0	-4.4
	-1.0	-1.6	-2.0	-1.9	-2.2	-3.0	-4.4
Free cash flow	0.1	-0.1	1.3	0.4	2.1	4.3	6.2
Proceeds from share issues	0.0	0.0	3.2	70.0	0.0	0.0	0.0
Dividends paid	-0.3	0.0	0.0	0.0	0.0	0.0	0.0
	-0.2	-0.1	4.5	70.4	2.1	4.3	6.2
Notes to cash flow:							
Depreciation							
On tangible fixed assets	0.6	0.7	0.9	1.2	1.5	1.8	2.1
On intangible assets	0.0	0.1	0.2	0.3	0.4	0.7	1.3
	0.7	0.8	1.1	1.5	1.9	2.5	3.4

Financial summary EURm

Profit & Loss Statement		1997	1998	1999P	2000E	2001E	2002E
Sales	EURm	10	12	18	25	34	46
Gross margin	%	58.4	61.3	62.1	64.5	67.8	70.1
EBITDA	EURm	0.7	1.0	2.2	3.4	5.4	9.3
EBITDA margin	%	6.4	8.7	12.3	13.4	15.9	20.1
EBIT	EURm	0.3	0.6	1.6	2.6	4.4	8.0
EBIT margin	%	3.1	5.1	9.0	10.1	12.8	17.4
Pre-tax profit	EURm	0.3	0.6	1.6	3.5	5.5	9.2
Effective tax rate	%	0.5	0.6	51.7	50.0	50.0	50.0
Net profit	EURm	0.2	0.2	0.8	1.7	2.8	4.6
Net margin	%	1.6	1.8	4.3	6.9	8.3	10.0
Dividend	EUR	0.0	0.0	0.0	0.0	0.0	0.0
EPS	EUR	0.0	0.1	0.2	0.4	0.7	1.1
CEPS	EUR	0.1	0.2	0.3	0.6	0.9	1.5
Price / NAV	x	271.72	187.52	42.47	2.97	3.10	2.80
Balance Sheet		**1997**	**1998**	**1999P**	**2000E**	**2001E**	**2002E**
Net cash	EURm	0.5	0.5	2.9	38.6	39.7	41.8
Shareholders' funds	EURm	0.5	0.7	3.1	40.3	43.1	47.7
Working capital	EURm	(0.5)	(0.8)	(1.2)	0.2	1.7	3.9
Capital employed	EURm	1.1	1.1	3.5	40.7	43.5	48.1
Fixed assets	EURm	0.8	1.2	1.6	1.8	1.9	2.2
Total assets	EURm	3.5	5.1	8.3	45.9	49.1	54.3
Cash flow		**1997**	**1998**	**1999P**	**2000E**	**2001E**	**2002E**
Cash earnings	EURm	0.5	0.6	1.3	2.5	3.8	5.9
Capital expenditure	EURm	(0.5)	(0.9)	(1.0)	(1.0)	(1.1)	(1.5)
Operating cash flow	EURm	0.6	0.7	1.7	1.2	2.2	3.7
Net investment cash flow	EURm	(0.5)	(0.8)	(1.0)	(1.0)	(1.1)	(1.5)
Key Ratios		**1997**	**1998**	**1999P**	**2000E**	**2001E**	**2002E**
Net debt/equity	%	-111.7	cash	-92.3	-95.7	-92.0	-87.7
Interest cover	x	-20.5	18.8	790.8	-2.9	-3.7	-6.5
Payout ratio	%	0.0	0.0	0.0	0.0	0.0	0.0
ROCE	%	29.7	55.3	45.8	6.3	10.1	16.6
ROE	%	33.5	29.6	24.0	4.3	6.4	9.7
Net RO av.Equity	%	19.8	10.0	3.4	4.1	6.1	9.0
EBIT/av. capital employed	%	n/a	54.8	70.2	11.5	10.4	17.5
Ave. working capital/sales	%	n/a	-5.3	-5.4	-2.0	2.8	6.0
Increase in NWC to cash earnings	%	20.7	13.6	32.1	-53.2	-41.1	-37.3
Average fixed asset turnover	x	n/a	0.3	0.7	0.4	0.3	0.2
EV/sales	x	12.7	11.3	7.3	3.7	2.8	2.0
EV/EBITDA	x	200.1	132.5	59.9	28.2	17.6	9.9
EV/EBIT	x	407.4	223.6	80.8	36.9	21.5	11.5

Appendix II
Glossary

ERP	Enterprise Resource Planning
HR	Human resources
HRMS	Human Resources Management Software
SCM	Supply Chain Management
CRM	Customer Relationship Management

ICE Securities Limited
20 Abchurch Lane
London EC4N 7BB
UK
Tel: +(44) 20 7626 3232
Fax: + (44) 20 7626 2993

ICE Holdings North America LLC
645 Madison Avenue
13th floor
New York NY 10022
USA
Tel: +(1 212) 698 0526
Fax: +(1 212) 698 0512

ICE Consult GmbH
Kornhausstr. 3
CH-9000 St. Gallen
Switzerland
Tel: +(41) 71 227 3100
Fax: +(41) 71 227 3109