

# Tecnotree

Extensive report

5/10/2024



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# Cash flow still needs to be proven

Tecnotree has continued to grow strongly in recent years, but the company has been unable to convert its EBIT into cash flow due to working capital tie-ups, foreign exchange losses and large investments in product development. The company's internal focus is currently on improving cash flow, but there is no evidence of this yet. The valuation would be attractive if the company's cash flow approached the company's profit level. However, we do not expect an immediate improvement here and with the current cash flow profile we do not see the risk/reward ratio as attractive. We lower our target price to EUR 6.0 (was EUR 7.0) and reiterate our Reduce recommendation.

## The company's BSS product family has proven its competitiveness in developed markets

At the core of Tecnotree's product offering is its BSS product family, which enables the company's operator customers to manage their products, customers, billing and digitize their business processes. In addition to pure BSS solutions, the company has expanded its product offering organically (fintech platform DiWa and digital trading platform Moments) and inorganically (AI platform Sensa). These are the future growth drivers for the company, but still represent a relatively small portion of revenue. In our view, the company's competitive advantage is highlighted by its long experience of operating in emerging markets and its deep customer relationships, which result in high switching costs. The company has also been successful in attracting new customers in recent years, gradually reducing its dependence on its largest customers and demonstrating the competitiveness of its product portfolio.

## Focus on cash flow

Despite Tecnotree's strong performance in recent years, the company's free cash flow has remained mainly negative due to working capital lock-ups, foreign exchange losses and massive product development investments. The company has not been able to finance its own growth investments with income financing and has had to resort to a share issue (2021) and convertible bonds (2023) to finance its growth. At present, however, the company's internal focus is very much on improving cash flow (internal motto: "Think cash, do cash"), which should be supported by, among other things, the company's move to a recurring revenue model (ARR) and growth in developed markets. We estimate that it may take a long time to change the business profile (especially for growth in developed markets) and that the challenges related to the geographic location of the company's customers will not be solved overnight. However, the company's financial position is currently secured by the convertible bonds it has collected, with the downside of a significant dilution in 2026-2028.

## We are still waiting for evidence of an improvement in cash flow

Tecnotree's P/E multiples for 2024-2025 are 6-5x and the corresponding EV/EBIT multiples are around 3x. The levels are low, but one should consider the low quality of the result (the result does not reflect cash flow). The current year's EV/OCF multiple is 12x, which we believe is still not very attractive as it does not take into account FX losses. The valuation should also take into account the dilution caused by the company's convertible bonds in 2026-2028 (around 34% at current rates) and in 2026 the P/E ratio will rise to 8x on our forecasts. The company has many opportunities to improve its cash flow profile through geographic expansion and business model change. If the company's cash flow starts to reflect more strongly the company's earnings level in the future, we see the valuation at an attractive level at the moment. However, we do not expect an immediate structural improvement here and we continue to wait for evidence of improving cash flow.

## Recommendation

**Reduce**

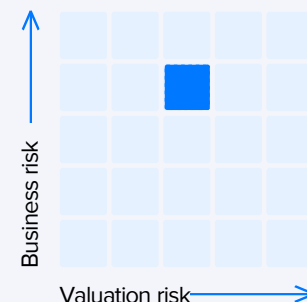
(previous Reduce)

**EUR 6.00**

(previous EUR 7.00)

**Share price:**

5.41



## Key figures

	2023	2024e	2025e	2026e
<b>Revenue</b>	78.4	82.3	86.2	90.1
<b>growth-%</b>	9%	5%	5%	5%
<b>EBIT adj.</b>	23.8	27.2	26.4	26.5
<b>EBIT-% adj.</b>	30.4 %	33.0 %	30.6 %	29.4 %
<b>Net Income</b>	11.2	15.3	17.0	17.1
<b>EPS (adj.)</b>	0.71	0.96	1.07	0.70
<b>P/E (adj.)</b>	9.6	5.6	5.1	7.7
<b>P/B</b>	1.2	0.8	0.7	0.7
<b>P/FCF</b>	neg.	11.1	5.3	7.6
<b>EV/EBIT (adj.)</b>	4.8	3.3	2.9	2.5
<b>EV/EBITDA</b>	4.1	2.6	2.0	1.7
<b>EV/S</b>	1.4	1.1	0.9	0.7

Source: Inderes

## Guidance

(Unchanged)

Tecnotree expects in 2024:

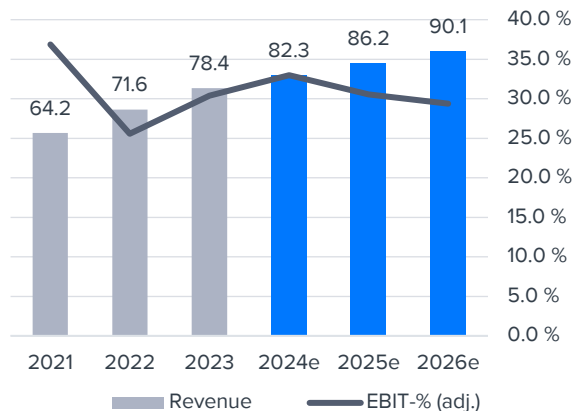
- Revenue to be higher by 2%-7% compared to 2023
- Operating profit (EBIT) to be higher by 7%-15% compared to 2023

## Share price



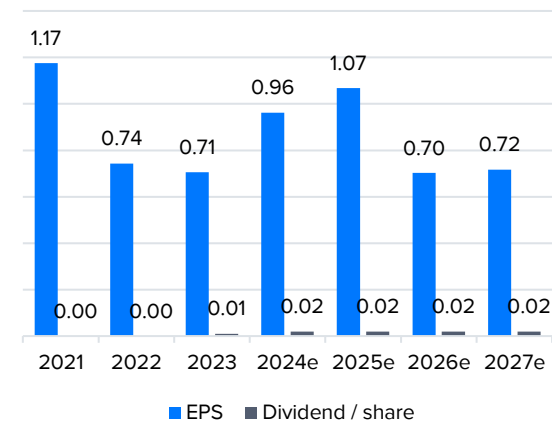
Source: Millistream Market Data AB

## Revenue and EBIT-%



Source: Inderes

## EPS and dividend



## Value drivers

- Value-generating M&A transactions
- Industry's organic drivers are strong and longer-term growth outlook is good
- The company's business model is scalable and cost efficient
- Increasing recurring income flow
- Technologically competent product portfolio



## Risk factors

- Failure in M&A transactions
- Risks related to receivables and cash collections
- Customer portfolio structure concentrated at top level
- Failure in product development work and reading the industry
- Weakening of a cost-efficient operating model
- Some cyclicity in operators' investments
- Political and legislative threats in emerging countries

Valuation	2024e	2025e	2026e
Share price	5.41	5.41	5.41
Number of shares, millions	15.9	15.9	24.3
Market cap	86	86	132
EV	90	77	65
P/E (adj.)	5.6	5.1	7.7
P/E	5.6	5.1	7.7
P/B	0.8	0.7	0.7
P/S	1.0	1.0	1.5
EV/Sales	1.1	0.9	0.7
EV/EBITDA	2.6	2.0	1.7
EV/EBIT (adj.)	3.3	2.9	2.5
Payout ratio (%)	2.1%	1.9%	2.8%
Dividend yield-%	0.4%	0.4%	0.4%

Source: Inderes

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# Tecnotree in brief

Tecnotree is an internationally operating IT solution supplier that focuses on serving telecom operators

**1978**

Year of establishment

**2000**

IPO

**13%**

Average revenue growth in 2019-2023

**31.4%**

Average adjusted EBIT margin in 2019-2023

**78.4 MEUR**

Revenue 2023

**23.8 MEUR (30.3% of revenue)**

Adjusted EBIT 2023

**883**

Headcount at the end of 2023

## 2011-2017

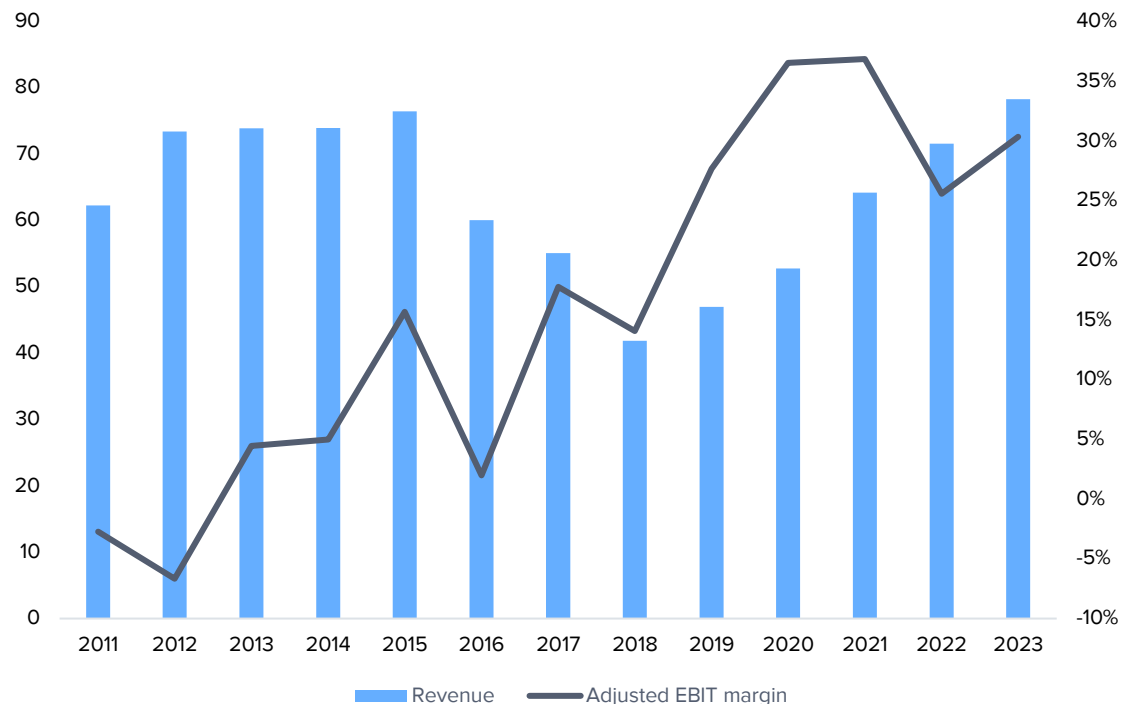
- In 2011 to 2016 several project risks materialized and led to financial difficulties
- Old VAS business decreases
- Work to improve structural efficiency begins
- Investments in product development and business productization

## 2018-2021

- Company successfully continues to improve structural efficiency and earnings development is strong
- BSS solutions prove their competitiveness and revenue and order book return to growth
- The restructuring is completed by paying off the restructuring debt with the proceeds of the directed issue in 2021

## 2022-2023

- Profitability slumps in 2022, but starts to recover again in 2023
- Acquisition of CognitiveScale AI platform in 2022
- The company raises 43 MEUR in convertible bonds to finance its growth strategy in 2023
- Significant acceleration of investment in product development
- Cash flow remains a challenge



Source: Tecnotree, Inderes

# Company description and business model 1/6

## Company description

### Solution supplier for telecom operators

Tecnotree is an internationally operating IT solution supplier that focuses on serving telecom operators. For its customers, Tecnotree offers license-based and ARR model systems to manage existing products, customers and billing, digitizing the underlying processes and increasing the value experienced by the customer. Tecnotree has long-standing customer relationships and its products often play an important role in telecom operators' digital business transformation. A concrete example is that with the company's solutions customers can create digital marketplaces and various micro services in their operations. This enables offering more individual and flexible service packages. Tecnotree is headquartered in Espoo. The company employed 892 people at the end of Q1'2024, most of whom work in India.

### Digital BSS Suite is the spearhead of product portfolio

The spearhead of Tecnotree's offering is the Digital BSS service platform, which consists of several different digital BSS (Business Support System) solutions that cover virtually all of the customer's core processes. The company's product portfolio covers all key business management systems and their life cycle stages for telecom operators. In general, the main functionalities of BSS solutions include product, customer, revenue stream and order management solutions. The company's products are not dependent on telecom operators' own network technologies, which increases the competitiveness

of the solutions. By far the largest part of Tecnotree's revenue (about 90%) comes from the BSS product family and related maintenance services. The company's BSS product portfolio can be divided into Tecnotree Edge and Tecnotree Switch, the latter being a lighter solution for smaller operators that is also quick to deploy.

### New growth drivers - Moments, DiWa and Sensa

In addition to BSS solutions for telecom operators, Tecnotree has developed new solutions to strengthen its product family for operators and to expand its offering to non-operator verticals. Currently, these new growth initiatives include Moments, DiWa and Sensa.

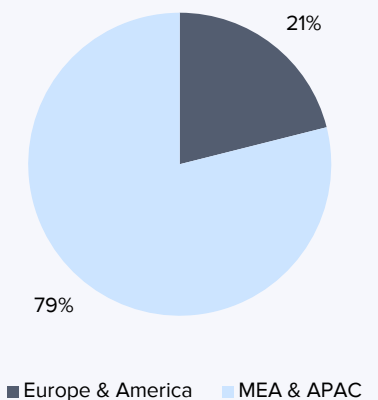
Moments and DiWa operate on a so-called *B2B2C* business model, and the revenue streams they generate are transaction-based and therefore highly scalable.

Designed to connect service providers and create new digital marketplaces, the Moments platform aims to attract and serve players in sectors such as education, sports, entertainment and healthcare. The Moments platform allows a service provider to create digital marketplaces and offer their services through Tecnotree's extensive operator network in locations they would otherwise not have access to. To our knowledge, the company has only signed a few contracts for the delivery of the Moments platform.

## Tecnotree

- Decades old operative history and deep understanding of customers' businesses
- From the customer's perspective, the solutions are business-critical
- The service platform has proven its competitiveness, especially in emerging markets
- Customer relationships with largest customers have survived hard times
- The company has changed from a project house to a software product house more clearly

### Geographical revenue breakdown 2023



# Company description and business model 2/6

Tecnotree's DiWa (Digital Wallet) is a fintech platform that, like Moments, is offered as an additional service alongside the company's other products. The company provides the DiWa platform to operators, banks and fintech players. Through DiWa, end-users can, for example, pay bills and manage their accounts. The potential of the platform is particularly high in Africa, where a large part of the population does not have a bank account yet.

With Moments and DiWa, the company is expanding further into the platform business, which can be highly profitable at best. We see these products as interesting growth opportunities, but there has not been a real breakthrough yet and we believe the revenues from these products are still very small.

Tecnotree Sensa is an AI and machine learning platform developed through the CognitiveScale acquisition. The Sensa platform is designed to help Tecnotree's customer base deliver human-centric, intelligent and personalized services and experiences to their end users. This enables the customer to deepen customer engagement, improve efficiency, and support the monetization of its various services. Tecnotree is using the platform to serve some of the non-operator customers that migrated from CognitiveScale (real estate company Radian and healthcare company United Health Group), but today Sensa is strongly integrated into the company's BSS product family and is primarily sold to operator customers. Some employees also transferred from CognitiveScale to Tecnotree.

Tecnotree estimates that its AI solutions generated revenues of 6.2 MEUR in 2023, exceeding the 5 MEUR estimated at the time of the original

acquisition.

## Major customers are large; revenue mainly comes from emerging regions

In 2023, Tecnotree's revenue amounted to 78.4 MEUR and its EBIT to 23.8 MEUR (EBIT-% 30.4%). Geographically, Tecnotree reports its revenue through two regions, Europe and America (2023: 19% of revenue) and MEA & APAC (81% of revenue). Within MEA & APAC, the Middle East and the more developed parts of Africa are particularly important regions for the company. In Europe and the Americas, Tecnotree's main markets are in Central and South America. With the acquisition of CognitiveScale, the company has also grown in developed markets, particularly in North America. In 2023, 58% of the company's external billings was in dollars, 17% in euros, 15% in Nigerian naira, and 9% in other currencies.

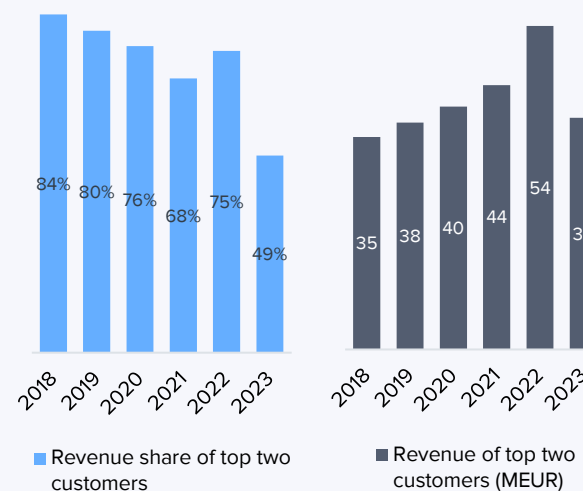
Tecnotree's customer portfolio is highly concentrated, with its two largest customers accounting for 49% of revenue in 2023, down sharply from 75% in the prior year due to the weakening of the Nigerian naira. In general, the company has succeeded in winning a large number of new customers in recent years, thus diversifying its customer portfolio. As a result, the share of the largest customers has shown a clear long-term downward trend.

The company's largest customers are the South African MTN Group and the Mexican Claro (part of the America Movil group). Of these, MTN is particularly large, accounting for 38% of Tecnotree's revenue in 2023.

## Selected Tecnotree customers\*



\*Over 90 telecoms operators as customers and > 1 billion end-users in total




# Tecnotree's product portfolio

**BSS product family and support services**  
 (the core of the product portfolio,  
 ~90% of revenue)


**Moments, DiWa and Sensa**  
 (Tecnotree's growth drivers for the next few years,  
 ~10% of revenue)

### Digital BSS Suite




**Income flow management**

- Main focus on invoicing, charging and support functions
- Extremely business critical element
- Role also as data collector




**Customer management**

- Creation of new services
- Improving customer satisfaction and hold at the core
- Most crucial piece in terms of operator's value creation



**Product management**

- Supports the customer's product planning and development
- Enables integration of different product areas and makes the operator's pricing process more efficient




**Order management**

- Enables integration of different service areas
- Improves the efficiency of process flows and collects data
- Reduces the cost per customer


### Sensa

- AI platform built on IP from CognitiveScale
- Integrated into the company's BSS product family
- The solution enables customers to deliver more personalized services, to deepen customer engagement, improve operational efficiency and support service monetization.
- Also used by some of CognitiveScale's legacy customers (non-operators)





**Moments**

- A business platform that allows you to create digital trading platforms and ecosystems by combining different types of service providers
- The Moments platform aims to attract, for example, education, sports, entertainment, and health sectors




**Digital Wallet (DiWa)**

- Fintech platform enabling "wallet management" solutions for consumers and businesses
- Combining banking services on a single platform (e.g. money transfers, accounts, deposits and customer KYC)






**Option 1: license + supply (one-off revenue) and maintenance (recurring revenue)**

**Alternative 2: ARR model (lower one-off license fee and recurring revenues)**



**Mostly recurring revenue**

**Transaction-based recurring revenue**

Source: Inderes



# Company description and business model 3/6

Both companies are huge players with leading positions on their respective continents. In addition, there are dozens of local operators that operate under these two groups. As a result, Tecnotree's actual customer portfolio is more diversified than reported and the company has more than 90 customers in total.

In our view, Tecnotree's customer risk is offset by the business-critical role of the solutions it offers, which increases the switching costs faced by the customer and improves customer retention. However, the same factors make new customer acquisition slower. In the short term, the company's direction will continue to be strongly driven by the outlook and investment activity of its largest customers, as we believe it will be difficult to significantly expand the customer base in a short period of time. In the big picture, we see the customer structure as an element that raises the risk profile, despite the solid positions and strong relationships of the largest customers.

## Business model

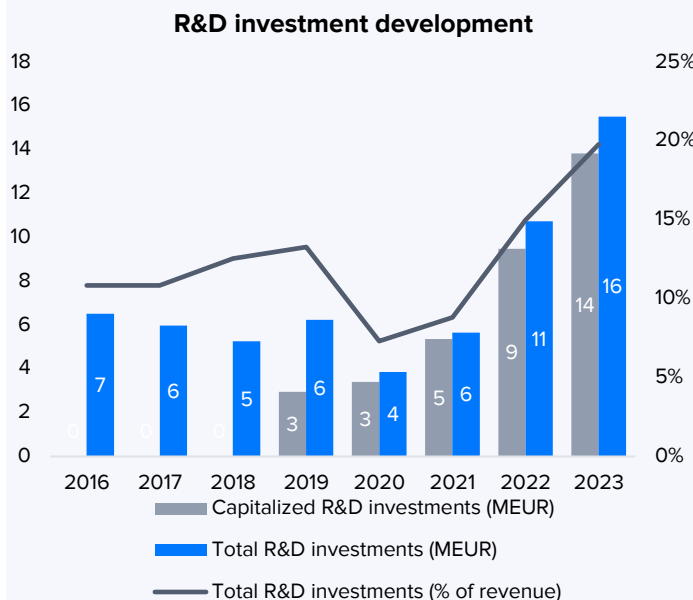
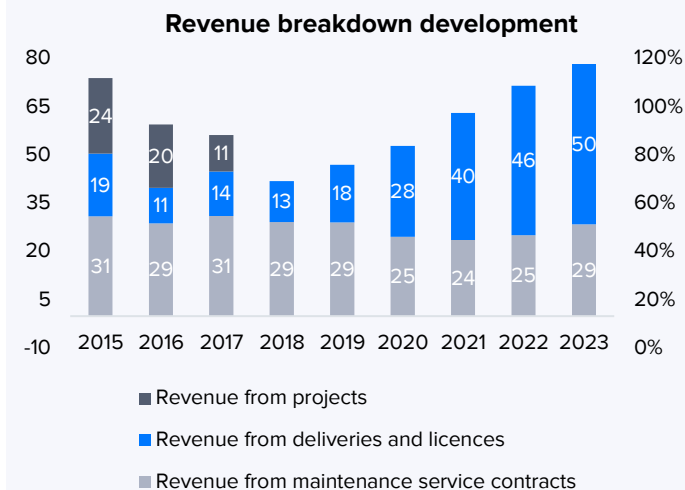
### Different revenue streams under the hood

Tecnotree's earnings model is built on a few income streams that are different by nature. The company itself breaks down its revenue reporting into its own licenses, third-party software and hardware, deliveries and maintenance and management services. Of these, own and third-party licenses are recognized in revenues at a given point in time, while maintenance and management services and delivery are invoiced over time according to the work performed.

Revenue from license sales is usually recognized

immediately after the sale and the delivery is within about 12 months. The license plus delivery is typically around half the value of the entire order. In addition to this, a 2–3-year maintenance contract is usually agreed, with the second part of the subscription being paid during the period. After this period, Tecnotree aims to renew the maintenance and service contracts. Ongoing maintenance and management services accounted for roughly 37% of Tecnotree's revenue in 2023. We also estimate that the revenue streams from license sales are tied to the operators' customer volumes within certain limits, which allows for growth with the operators without actual new sales.

In the future, the company aims to move from its current licensing model to an ARR model, where the customer's upfront investment is small and the delivery time is shorter, but the customer pays on an ongoing basis with a monthly bill. The model should bring more predictability and consistency to revenue, earnings and cash flow. In addition, this model should require less product customization than the traditional licensing model. By the end of Q1'2024, more than 60% of the company's order book was on continuous billing. However, we do not believe that the shift to recurring billing will solve the cash flow challenges posed by the geographic location of the company's customers. The transformation to a true SaaS company will also take time, and it is not yet justified to view the company through this operating model or its potential. For example, we believe there is still a significant need for product customization.



Source: Inderes

# Company description and business model 4/6

In addition to revenue streams related to the sale, deployment and support of its own product solutions, the company also has some activities related to the sale of third-party software and hardware. However, from Tecnotree's point of view, the economic importance of this activity is low (2023: 2.8 MEUR). From a strategic point of view, however, cooperation with third parties is justified, as it allows the company to partner with players with greater resources. In the long term, this can offer the company opportunities that might have proven to be difficult to achieve on its own.

## **A lot of capital is invested in product development**

Tecnotree's business model is quite typical for a software company, as the company develops, sells and maintains its own product solutions. Product development is a critical function for the company, as its competitiveness relies heavily on the technological capabilities of its products. Success in product development is therefore also critical for customer acquisition and retention, as well as for creating longer-term shareholder value. Product development is continuous in nature and we believe that it focuses on both close dialogue with customers and anticipation of the industry and its trends. In the long term, the success of product development naturally depends on the company's ability to recruit and retain skilled developers.

Currently, the company continues to invest heavily in its Digital BSS product family and growth initiatives (Sensa, Moments and DiWa). However, to our understanding, the investments in Moment and DiWa are not capitalized. In addition, the company's product development focuses on the transformation of BSS solutions to the ARR model.

BSS products always require some degree of customization, which we believe covers a significant portion of the investment.

Over the past five years, investment in product development has averaged approximately 13% of revenue. However, both absolute and relative levels have risen very sharply in recent years. From 2020, the company will also begin to capitalize its product development costs (3.4 MEUR). In 2023, 13.9 MEUR (total R&D expenditure of 15.5 MEUR) was already capitalized and total R&D expenditure represented 20% of revenue. However, our understanding is that only investments that are considered growth investments are capitalized on the balance sheet, while investments in the maintenance of old products are recorded as expenses. The depreciation level increased to 3.9 MEUR in 2023 (2022: 1.5 MEUR), but is still low in relation to investments, which means that the capitalization of R&D costs has a significant profitability enhancing effect compared to a situation where the company would expense its product development. Thus, current profitability paints an overly rosy picture of the cash flow profile.

From the operator's point of view, Tecnotree's BSS solutions play a very important role, as without them it's practically impossible to manage the business. With BSS solutions, customers also aim to increase the cost-efficiency of their operations and make them more responsive across the board (e.g. shorter time to market for new services). We believe this will be more pronounced for Tecnotree's customers, which operate in a fast-growing markets with relatively low ARPU (average revenue per user). Due to the business-critical

nature of BSS solutions, decision-making is strongly linked to strategic choices. In our view, the technological capabilities of the product and a good understanding of the customer's business are more important competitive factors than price. However, the significant capital spent on product development also reflects the fierce competition in the industry and the bargaining power of operators. Thus, the company must invest heavily in product development to remain competitive. In this context, Tecnotree's position in the value chain is somewhat challenging. At the current rate of investment, we believe that earnings growth would have to be quite strong for us to conclude that the high level of investment is clearly creating shareholder value.

The company's long operating history and numerous new customer wins in recent years are, in our view, a good indication of the competitiveness of its proprietary technology, particularly in emerging markets. In advanced markets, we believe the company has much to prove in terms of the technological competitiveness of its BSS product family.

## **Sales cycles are usually lengthy**

In line with the business-critical role of Tecnotree's product solutions, we estimate that the company's sales approach is consultative and solution-oriented. This emphasizes an in-depth understanding of the customer's business as part of an effective sales process. The company's sales are mainly direct sales.

# Company description and business model 5/6

We estimate that the company's sales cycles are relatively long and also that new customers typically start with smaller solutions and later progress to bigger sales. In the sales process, it often takes time to identify customer needs and customers are often offered demo solutions during the process.

Long sales cycles are reflected in customers' own risk management (e.g. ensuring seamless process flow), as business-critical systems are usually replaced/upgraded in phases. Large operators typically also have several strategic system suppliers. However, customer relationships are often very long term.

## Cost structure is scalable

Tecnotree's cost structure is very typical for a software company and a people-intensive business. By far the largest part of the company's costs are fixed, of which we estimate that most of them are related to the product development and sales organization. The majority of staff (2023: 83%) work in India, where the wages are much lower than in the West. In our view, this gives the company a certain relative advantage on the cost lines compared to Western competitors whose staff work in higher cost areas. In 2023, the average personnel cost was around EUR 28,000, which is a relatively low level. This figure may be partially distorted by the company's increased capitalization of R&D investments. However, we do not believe that low wages are a sustainable competitive advantage, as wage inflation in India is faster than in the West and the model is easily replicable.

Tecnotree also has typically high gross margins for a software company (2023: 94%). A fixed cost structure

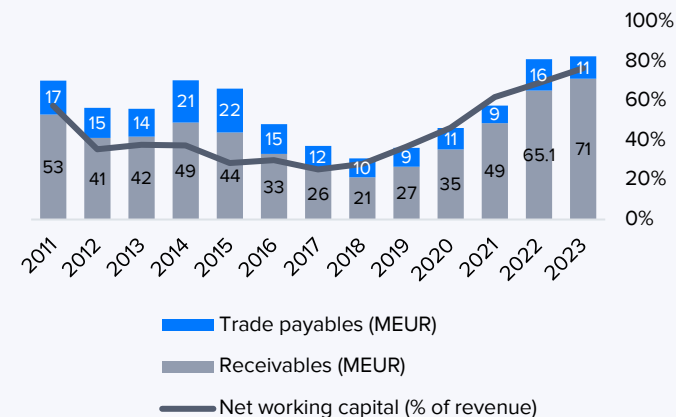
and a business with high gross margins means that revenue growth scales well to the bottom line. However, new sales and deliveries often require some up-front investment, and thus fixed costs often swell with growth. The downside of high gross margins is that when revenue are low, this is also directly reflected negatively in the result.

## A wealth of working capital tied up in the balance sheet

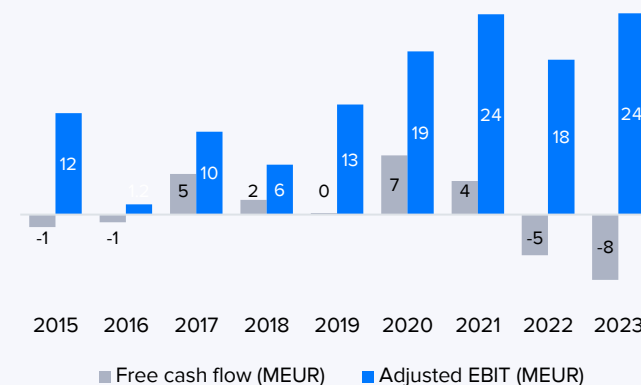
Tecnotree's operations are highly working capital intensive, with growth tying up large amounts of receivables in particular. The company recognizes project revenue under other receivables and trade receivables are recognized when the customer has been invoiced. Historically, the company has committed net working capital of 25-50% of revenue. After 2018, with the company growing strongly, the share has increased significantly, reaching 76% at the end of 2023, which is an exceptionally high level. The total amount of receivables at the end of 2023 was 71 MEUR, of which "other receivables" amounted to 38 MEUR. In addition to project income, we understand that this includes advance tax payments in certain countries and rental guarantees on real estate. However, it also includes a receivable related to a business sold in the Middle East, which as such is not related to operations.

The working capital commitment is explained both by the high relative bargaining power of Tecnotree's largest customers (long payment terms) and the focus of the business on countries with politically and economically challenging conditions.

Working capital commitment and development



FCF and adjusted EBIT development



# Company description and business model 6/6

In some of the countries in which Tecnotree operates, central banks may impose restrictions on the movement of US dollars, which may significantly delay the repatriation of receivables. Special situations, such as the devaluation of the Nigerian naira last year, also pose cash flow challenges if the currency depreciates before the money can be repatriated. We believe that the problem lies primarily in the geographic location of the customers, not in the customers themselves.

However, the company is actively seeking to improve the cash collection situation, including through business transformation (ARR), expansion into developed markets, various currency swap solutions and making sales incentives dependent on the rate of cash flow repatriation. However, the change in business model and geographic focus will take time, and we do not expect these actions to provide particularly rapid relief.

In any case, the increase in receivables already represents a significant concentration of risk on Tecnotree's balance sheet. In a bad scenario, the working capital commitment could also affect the profit level if the risks associated with long-dated receivables materialize and the company would have to write them down. At the end of Q1'2024, 61% of the company's trade receivables were past due and 12% were past due for more than one year. The company has made provisions for some of its receivables, and we see a risk of possible write-downs. However, the risks related to trade receivables are significantly more diversified over several customers than in the years of the crisis, when the problems were mainly caused by receivables from a single large project.

To our understanding, there are no project challenges or disputes associated with the increase in receivables. Even if the company eventually manages to repatriate its receivables, the high working capital intensity creates problems for the pursuit of growth, as even a small increase in volume ties up a significant amount of working capital. This puts a strain on the company's cash flow and thus also affects the allocation of capital.

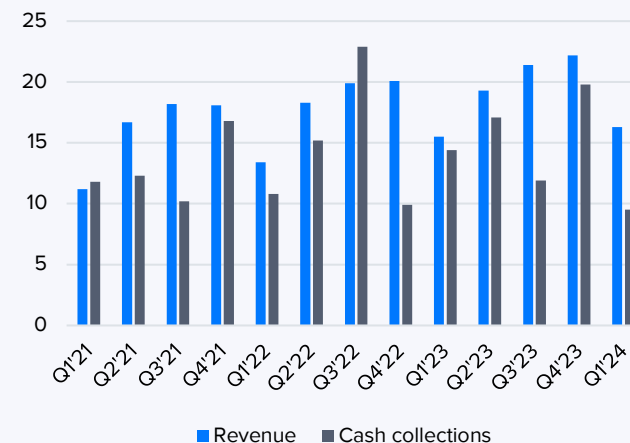
## Emerging from crisis phase, yet business model challenges remain

Tecnotree ran into severe financial difficulties in the early 2010s as a result of the different structure of the business and the realization of project risks, and ultimately entered a restructuring program in 2016. The program was originally due to run until 2025 but ended early in autumn 2021 when the company paid off its restructuring debt with funds raised through a directed issue.

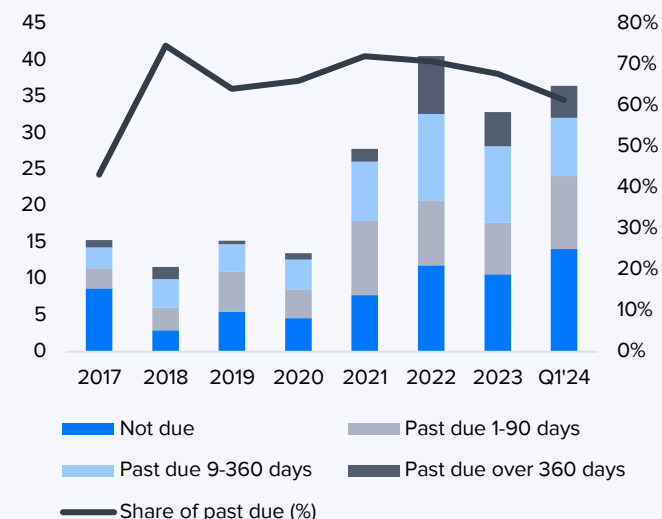
Despite Tecnotree's clearly positive results in recent years, the cash flow generated by the company's operations has remained weak in recent years. Until the cash flow profile improves, we believe it is justified for the company not to use significant leverage in its business. The acquisition of CognitiveScale added some debt to the company, but this is a small amount in the overall picture. At the end of 2023, interest-bearing debt on the balance sheet amounted to 5.7 MEUR.

Tecnotree's return to growth has once again highlighted structural weaknesses in the company's business model and geographic positioning. Raising funds through convertible bonds also indicates that the company's cash flow from operations is not yet sufficient to fund the company's R&D and growth.

Revenue and cash collections



Trade receivable breakdown



# Investment profile 1/2

## Tecnotree is profiled as a high-risk growth company

The past five years have been eventful for Tecnotree, as the company has transformed itself from a company in crisis to a profitable growth company through a turnaround. However, the return to growth has once again highlighted a structural weakness in the company's business model, namely working capital commitment and high investment needs, resulting in weak cash flow generation. Questions have been raised about the quality of the company's results as accounts receivable have continued to swell on the company's balance sheet and as the company continues to capitalize more of its product development expenses on its balance sheet. The key to the company's investment story in the coming years will be to monitor the recovery of the cash flow profile.

## Strengths and value drivers

**Technologically competent solutions and long customer relationships:** We believe that Tecnotree's solutions are technologically viable in emerging markets, as evidenced by the company's long operating history and strong growth in recent years. The company also has long-standing customer relationships that have endured through difficult times. We believe that these are tangible demonstrations of the business-criticality of the company's products and the delivery on customer promises. In advanced markets, we believe the company still has a lot to prove in terms of competitiveness.

**Cost-effective approach:** During the crisis years, the company has honed its operating model to be

quite cost-effective and a culture of cost control has developed within the company. Cost-efficiency can be seen as a strength of the company and gives the company room for maneuver, e.g., to make the necessary growth investments that new customers now require.

**Organic growth:** The primary drivers of Tecnotree's organic growth are telecom operators' infra and software investments. These, in turn, are driven by the revolution of the operators' business models where operators are gradually changing to marketplaces and distributor of digital services. In addition, certain megatrends, such as the advance of digitalization and urbanization, also play a role. Tecnotree's largest customers are capable of growth and investment, and in recent years the company has also been successful in winning new customers. Taking this into account, the prospects for organic growth are good, which is also reflected in the company's strong order book. In addition to operators, the company is looking for new customers in other verticals, of which it already has preliminary indications. In addition to good growth opportunities, this would lower the company's risk profile. Thus, success in the company's new growth projects would be crucial for long-term value creation.

**Business model transformation:** Over the past few years, Tecnotree's business model has been transformed from old-generation project work to mainly product-based license sales. However, there are always certain customization needs for the products that the company sells. The company is now looking to gradually move to a stronger ARR model. With this revolution, the company's income flows could become more scalable, predictable,

and less risky. The ARR model also typically facilitates the nature of software upgrades, as customers no longer have to use several different software versions. In the long term, this should lead to greater cost efficiency and reduce the need for product customization. This transformation is off to a good start, with the majority of new orders already under the ARR model.

## Weaknesses and risk factors

**Risks related to receivables and weak cash flow:** The company's growth ties up significant working capital, particularly through an increase in receivables. A major reason for this is that the company operates in a geographically challenging market where cash collections can be difficult and time-consuming. In the company's old license-based business model the cash is often not possible to withdraw the money until after the delivery has been made. As the company grows, working capital is tied up significantly and cash flow is structurally lower than reported earnings. This has also been reflected in a decline in investor confidence in the stock market, as debt problems and poor cash flow have taken Tecnotree into a crisis before. If receivables had to be written down, this would put a dent in both the company's earnings and its balance sheet. This would also undermine confidence in the company's ability to generate cash flow in the longer term. In addition, the company's ability to remain competitive in the industry requires continued significant investments in product development, which the company has not been able to fund from cash flow in recent years. Thus, at least for the time being, the company's results are not effectively converted into cash flow.

# Investment profile 2/2

## IT infra and the cyclical nature of operators' investments:

The IT systems of many operators are still based on old, expensive, rather clumsy and disparate software. Replacing legacy systems is technically time-consuming and expensive. In the short and medium term, this may slow down the pace of change for operators and therefore the demand for Tecnotree solutions. In the long term, however, we believe that the risk is limited, as at some point the operators' technical debt will have to be wound down. By their very nature, operators' investments are somewhat cyclical, which can be seen as a risk for Tecnotree.

**Customer risks:** Tecnotree's two largest customers account for 49% of revenue. Thus, the company's customer portfolio is highly concentrated even though the biggest customers include income flow from several local operators. Losing one of the main customers or a considerable decrease in their business would, however, be a massive setback and make a big dent in the company's revenue and result. The customer relationships with these operators are, however, long, in addition to which the business criticality of the solutions Tecnotree delivers creates somewhat of a buffer against customer risks.

**Changes in the competitive field and/or position:** Tecnotree is a small player in the global and multi-player OSS/BSS market. Even though we believe Tecnotree's solutions to be competitive there are several other credible options available. If active competitors with greater resources decide to strengthen their presence in areas that are critical to Tecnotree, its competitive position may be weakened. With the cloud transformation, the threshold to enter the market also lowers, which partly increases the threat from new competitors. The

competitive landscape may also become more difficult as a result of mergers between operators or competitors.

**Failure in product development work:** Continued investment and success in product development is critical to Tecnotree's long-term performance. Failure in these investments would have a direct impact on the company's current customer relationships, new sales, competitive position and, as a sum of these factors, on its longer-term value creation potential. The company must also be able to continuously anticipate the business trends of its customers and direct its investments accordingly. We believe that the company has a good historical track record in this area, which of course is no guarantee for the future.

**Risks of emerging markets:** Working capital risks are also partly related to Tecnotree's strategic choice to operate in politically and economically volatile regions. The repatriation of cash flow is not always entirely in the hands of the company. In addition to the risks associated with the repatriation of receivables, local tax laws also pose challenges for the company, e.g., through withholding taxes. In addition, there are significant currency risks associated with operating in emerging markets. In general, the predictability of developments in the company's operating environment is not the highest.



## SWOT analysis

### Strengths

- Good industry and technology knowledge
- Extensive cloud-based product portfolio
- Agile operating model
- Competitive price point
- Long customer relationships and decades long operative history

### Weaknesses

- Largest customers still account for large share of revenue
- The resources of a small player are limited in many directions
- Working capital commitment and large investment needs weigh on cash flow
- Many variables on emerging areas that are out of the company's hands

### Opportunities

- Long-term organic growth outlook is good
- Business model transformation raises earnings potential and lowers risk levels
- Verticals outside the operator field
- Potential acquisition target for a larger player

### Threats

- Risks related to receivables
- Decrease in business from a significant customer or losing them completely
- Structural changes in the competitive field
- Failure in current investment and product development
- Materialization of political risks

# Investment profile

**1.** Organic growth outlook is good

**2.** Growth ties up working capital and cash flow is chronically weaker than earnings

**3.** Maintaining competitiveness requires continuous significant investments in product development

**4.** Customer mix is concentrated

**5.** Business model change to improve cash flow profile

## Potential



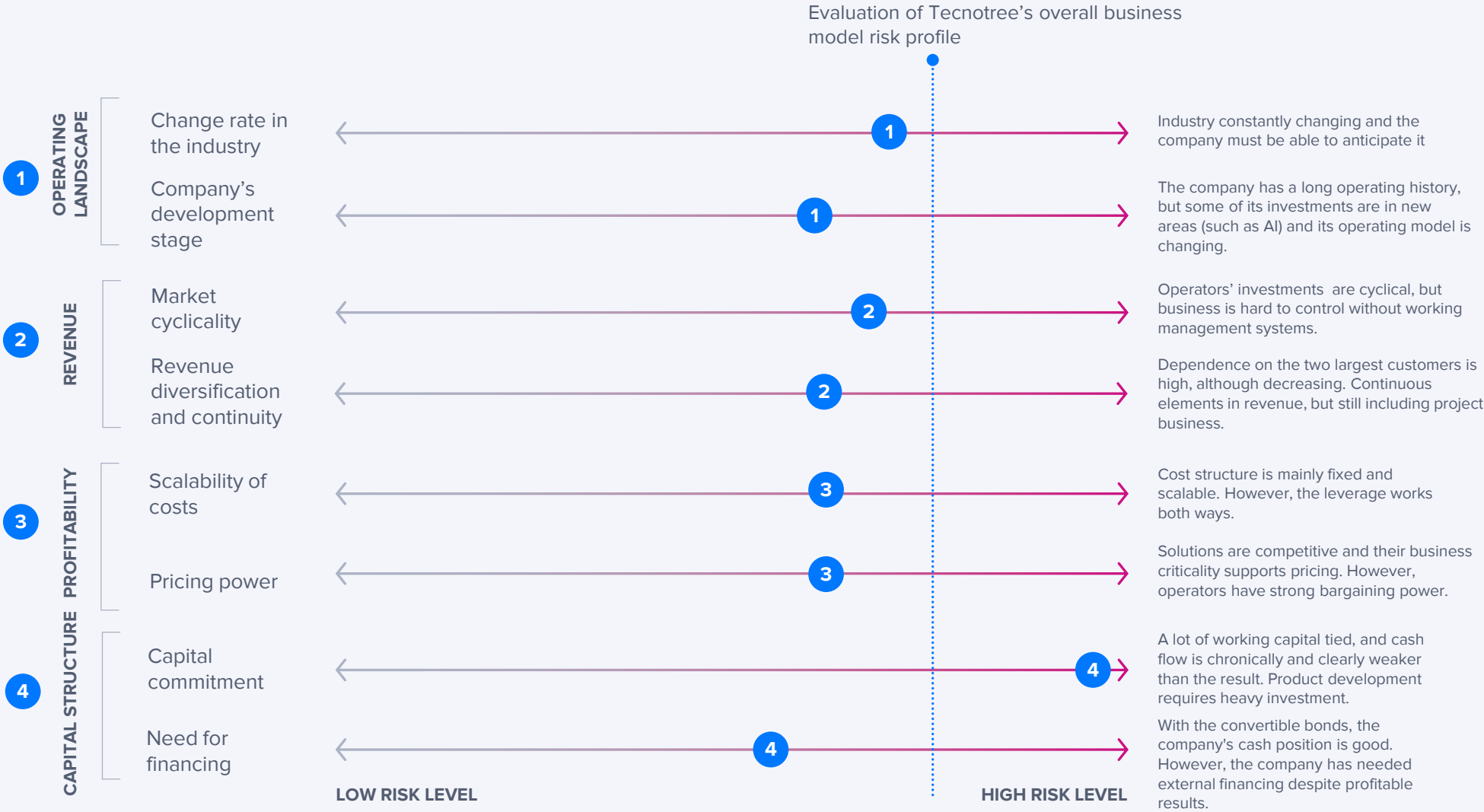
- Tecnotree's industry expertise and technological competitiveness is solid
- Organic drivers in the sector are strong and the overall growth outlook is good
- The business model change aims at an improved cash flow profile
- Long-term growth in developed markets and from outside the operator landscape
- Future growth in the share of recurring revenue streams

## Risks



- Cash flow profile is weak due to working capital commitment and heavy investment
- Operators' investments are cyclical and customer distribution is highly concentrated
- Risks related to trade receivables
- Failure in product development work
- Operating in emerging markets involves FX risks and geopolitical risks

# Risk profile of the business model



Source: Inderes



# Industry and competitive landscape 1/4

## The total market is large and growing

Tecnotree is a globally operating supplier of turnkey BSS solutions. The entire industry has typically been examined so that the market for business support software or OSS solutions (Operations Support Systems) has been added next to BSS solutions. OSS solutions focus on operations management, such as network management and planning in the case of operators. In turn, BSS solutions focus on running the business and activities within the organization. In our view, the relevant target market for Tecnotree is justified from the perspective of the OSS/BSS market as a whole, even though the company itself is positioned purely in the BSS world and within it, so far, still practically only in the operator field. Overall, the market consists of actual system investments and related operating and support services.

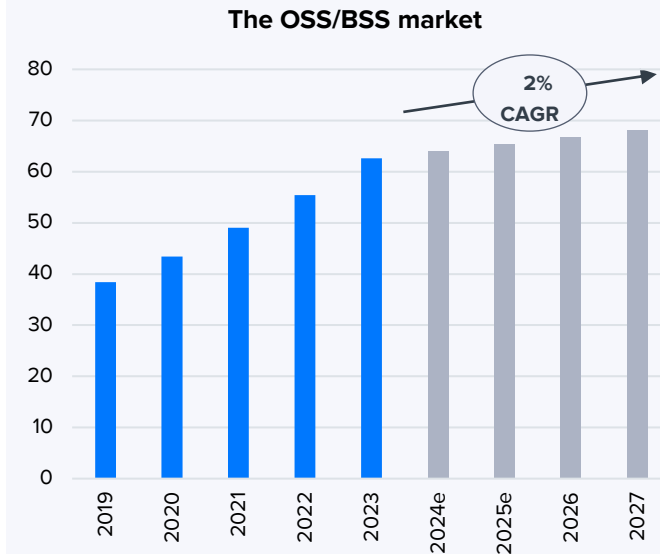
According to various market research companies, the size of the global OSS/BSS market was around 60 BNUSD in 2023. In our view, BSS operations is the more dominant slice of this cake even though it's difficult to accurately divide the market into OSS and BSS market shares. This is because there is considerable overlapping between the markets examined both from the demand and supply side.

By vertical, the telecoms sector is by far the largest in the market. According to Global Market Insight, this vertical accounts for just under 80% of the market. Other significant sectors are, for example, the financial and media sectors. For Tecnotree, we believe that the underlying market is huge relative to

the size of the company, and we do not see it as a constraint on the company's growth.

Different research institutes have very different estimates of the growth rate of the OSS/BSS market in the coming years. According to some institutions, the market will grow at a rate of around 10%. In contrast, Gartner, which has a generally good reputation, forecasts average annual market growth of only about 2% for 2022-2027. Tecnotree itself has also referred to this study. Factors slowing market growth include the postponement of operator investments in technology transformation, particularly due to the sluggish development of average revenue per user (ARPU) for operator services. We also expect the rise in interest rates to partly explain the slowdown in investment.

Geographically, growth is expected to be fastest in emerging economies, with a lower technological starting point and thus a relatively faster pace of digitalization. To our understanding, the requirements of the leading operators in these areas on management systems are high. This is explained by the fact that ARPUs in the regions are typically very low and operators' own performance requires a high customer mass and therefore a scalable and flexible business management system. From this point of view, Tecnotree's geographical positioning in emerging markets is good, even if this positioning carries its own risks. In our view, the structure of the company's customer portfolio is also an indication of its technological competitiveness.



# Industry and competitive landscape 2/4

## The market structure is fragmented

The supply-side structure of the sector is quite fragmented. The range of players in the market is very broad, with product companies specializing in specific segments, product companies with a broad product portfolio (companies in several verticals) and numerous smaller players specializing in the local market (incl. IT service houses). In addition, customers' own IT departments, large global network companies and multinational systems integrators operate in the market. In total, we estimate that there are hundreds of companies operating in some way in the OSS/BSS market.

The polarization of the industry is reflected in the fact that the major players, e.g., Amdocs, Ericsson, Huawei, Oracle and CSG have a combined market share of around half of the market, according to various estimates. In our view, this is especially explained by the fact that in the old on-premise world, large resources were a key factor that defined success. Especially leading operators have tried to improve the competitiveness of their operations with highly tailored solutions and, thus, primarily favored large companies with good delivery ability as their strategic partners. This has created and strengthened the scale-based (e.g. tailoring ability) competitive advantages of players with huge resources. However, with the ongoing cloud transformation, this traditional dynamic is to some extent changing, which we believe offers attractive growth opportunities for small and agile players like Tecnotree.

Due to the fragmented structure of the industry, the market has also historically seen a reasonably high

number of mergers and acquisitions. The typical logic of consolidation has been for larger players to supplement their technical and sectoral expertise by acquiring smaller and more niche companies. One factor that we believe has affected consolidation is also the concentrated structure of the operator market. This has resulted in several and varied BSS solutions within operators, which, in turn, has made consolidation a natural option for BSS suppliers to strengthen their customer relationships and improve their growth opportunities. We believe that consolidation will continue to be to some extent the driving force behind the structure of the industry, although the ongoing cloud transformation will lower the entry barriers and the dynamics of the industry (e.g. larger size doesn't automatically bring competitive advantage) will change somewhat as a result. All in all, the market is still rather fragmented, and this will not change significantly, at least not in the near future.

## Clear drivers behind growth

The growth of the OSS/BSS market is mainly driven by the transformation of operators' business models and the cloud transformation of system solutions. AI is also playing a growing role in operators' activities. Furthermore, market growth is also driven by the trend towards outsourcing of OSS/BSS solutions and the increased demand from small and medium-sized enterprises for OSS/BSS systems to enhance their own operations. In addition, broader megatrends such as urbanization and digitization (e.g. 5G) play a role.

## Main drivers for the market:



### Transformation of operators' business models

→ From offering standard communication solutions to more diversified customer-oriented services



### Cloud transformation

→ Moving from slow-moving on-premise systems to more flexible cloud services



### Artificial intelligence

→ Operators increasingly use AI to provide personalized services

## Megatrends supporting growth:



### Urbanization

→ A megatrend supporting market growth



### Digital transformation

→ A megatrend supporting market growth

## Factors limiting market growth:



### The investment outlook for operators

→ Moderated by rising interest rates and users ARPU growth slowing

# Industry and competitive landscape 3/4

Operators' business models have long been in transition. Historically, operators have been strongly driven by traditional and relatively standardized communication solutions compared to their competitors. The focus of value creation has been largely on its own cost-efficiency and management and support functions. Over the past few years, competition between operators has intensified and a significant amount of new competition from technology companies has also emerged. In terms of value creation for operators, this evolution has led to a more customer-centric mindset and an operational focus on continuous responsiveness (fast time to market for new services) and fully digital services focused on marketplaces, ecosystems, IoT, AI and cloud computing. In the big picture, telecoms operators are transforming themselves into more holistic digital service providers.

From the viewpoint of BSS solutions, this shift has, in turn, emphasized the agility and flexibility of the system. In on-premise environments, a number of different systems tailored to legacy revenue models have been in place, making the IT infrastructure slow-moving and at the same time making it difficult to respond to new competition. In order to remain competitive and strengthen their new revenue models, operators have begun to reduce the technical debt resulting from the above factors. Thus, the changes in operators' business models offer attractive long-term growth paths for competitive BSS providers.

Another clear growth driver in the OSS/BSS market is the ongoing cloud transformation of systems. In

addition to the cumbersome nature of on-premise systems, the problem has been the high price tag of customization. As a result, the lifecycle and switching costs of systems can be very high. In addition, system updates can cause direct operational disruptions, hampering day-to-day operations. In fact, lower lifecycle costs and greater flexibility are the key competitive advantages of cloud-based solutions. Both of these features are very important to operators. Cloud transformation is therefore a clear long-term trend that will support market growth, although a strong dependence on legacy systems may act as a brake on growth. However, the share of cloud-based solutions is still relatively low and the development of cloud transformation by operators has been relatively slow.

The third growth trend in the market is the increasing role of AI in operator systems. AI creates opportunities for operators to create more personalized services in a timely manner, which should enable higher ARPU. Globally, the AI market is still in its infancy and growing rapidly. As Tecnotree is a system supplier to operators, we do not think it makes sense for the company to consider the entire AI market as a separate market.

### Competition on several levels

Due to the fragmented structure of the industry, the competitive field is also multifaceted.



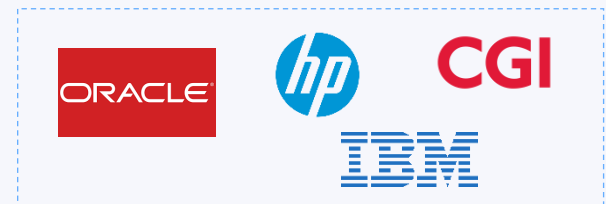
### Selected competitors of Tecnotree



Players specializing in BSS solutions and with a strong position in the operator market



Leading network infra suppliers that are gradually moving away from the BSS market



Global software giants that are involved in several industrial verticals

# Industry and competitive landscape 4/4

Thus, Tecnotree doesn't only compete with certain types of companies, but competes purely in the OSS/BSS market and mainly with players focused on the operator field, global network equipment suppliers and multinational software houses involved in several industrial verticals. In addition, customers' own IT departments act to some extent as competitors to Tecnotree.

Among BSS suppliers that nearly only focus on the operator field, Tecnotree's best known competitors are, in our opinion, Amdocs, Netcracker, CSG, Comarch, Optiva and Sterlite. In addition to these companies, Tecnotree also competes with a number of smaller vendors such as Whale Cloud, Qvantel, 6D Technologies and Matrixx. Generally, the key strengths of players that are strongly positioned in the operator field derive, in our opinion, from deep industry expertise and long customer relationships. The largest players typically also benefit from their extensive resources, while for smaller suppliers, customer proximity and agility can be a competitive advantage. Partly as a result of this and the more limited sales resources available, smaller companies typically have very concentrated customer portfolios.

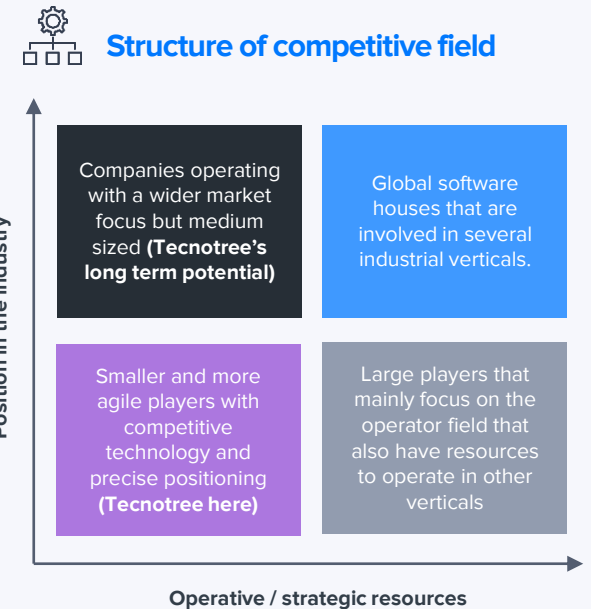
Competitors include global network equipment and infrastructure suppliers such as Ericsson, Nokia, Huawei and ZTE. Historically, these companies have sought a wider share of the telecommunication sector's value chain by also spreading to the OSS/BSS market. However, it is our understanding that Huawei and other infrastructure providers have scaled down their BSS operations in recent years. This can therefore create opportunities for smaller players.

The third category of competitors is the multinational

software houses, for which the operator market has typically been a reasonably important vertical. These companies have historically played a key role in consolidating the market through their inorganic movements. The key strengths of these companies include large resources and, to some extent, extensive vertical expertise and scalability. We estimate that software houses competing with Tecnotree include Oracle, IBM and CGI.

## Sustainable competitive advantages are hard to find

Despite the industry's good growth profile, competition is fierce with numerous solution providers in the market and we believe that achieving significant technological differentiation is very challenging, especially in the long term. As a result, the industry has to invest heavily in product development just to keep up. The market is made more challenging by the high negotiating power of buyers. Operators are rarely dependent on a single supplier and because there are many competitors, they have a lot of choice when selecting a supplier. However, the high cost of exchange limits buyers' negotiating power somewhat. We believe that success in the industry requires highly competitive and continuous product development and the ability to anticipate future developments in our own operating verticals. In the industry, we estimate that the key sources of competitive advantage that are closest to being sustainable come from the switching costs faced by the customer and hence from long customer relationships. In light of Tecnotree's long operational history and new customer wins in recent years, the company's overall technological competitiveness currently appears to be at a good level.



# Strategy 1/2

## Value proposition and positioning

Tecnotree's value proposition to its customers is largely built on a technologically capable, cost-effective and cloud-based BSS offering. The company aims to establish itself as an important strategic supplier to the customer and thereby increase the switching costs. We think the company has historically done this quite well.

In our view, Tecnotree isn't a premium pricer, which we believe makes sense given the company's target segment. As the company's human resources are mainly located in competitive regions, this creates a certain price elasticity with respect to competitors. As such, we believe the company strives to provide the best value for money solution for its customers.

## Seeking growth from new and existing customers

Tecnotree does not have specific financial targets, but the company aims to achieve profitable growth through its business that promotes the digital transformation of operators. Growth will be pursued in existing customers, by winning new customers and, to some extent, by expanding into new verticals and markets. The company will raise 43 MEUR through a convertible bond (23 MEUR raised at the end of Q1'24), which will be used to implement its growth strategy. Funds will be used for, e.g., geographic expansion, new customer acquisition, product development and acquisitions.

In general, acquiring new customers in Tecnotree's industry is often difficult due to high customer switching costs, long sales cycles and fierce competition. However, Tecnotree has recently succeeded in winning new customers, which is a

sign of the competitiveness of the company's offering and its sales capabilities. In order to attract new customers, the company often has to offer either discounts or long payment terms and has historically relied mainly on the latter (especially in times of crisis). This has been reflected in a strong increase in working capital, which is partly a conscious strategic choice for the company.

In addition to new customer acquisition, the company clearly has growth potential within its existing customer base. For the most part, the company has very long and close relationships with its existing customers, some of which have lasted for decades. The strategies of the company's main customers are growth-oriented, creating a good opportunity for Tecnotree to grow with them. While the customer portfolio remains concentrated, Tecnotree's growth is also to some extent dependent on the growth of its customers. For example, the customer relationship with MTN Group played a very important role in the company's growth from 2018 to 2022 (in 2023, the share of revenue dropped significantly). In the longer term, however, we believe that the company should continue to diversify its customer risk by investing in new customer acquisition.

In any event, we believe that the pursuit of growth will remain at the heart of the company's strategy well into the future. We expect the company to continue to allocate capital to the development of its product portfolio, either organically or inorganically.

## Target areas for product development

Product development investments are essential to the company's capital allocation, and their success will largely determine the company's future competitiveness and growth rate. In recent years, the company has significantly increased its R&D investment and will continue to do so. In addition to developing its BSS portfolio, the company is currently focusing its R&D investments on AI, cloud, healthcare, fintech and OTT technologies.

## Efforts to expand target market to developed markets

Historically, the company's strategic target segment has been operators in emerging markets and with high technical standards. We believe this is justified given the company's long history and expertise in these areas. At the same time, however, the company's target segment increases its risk profile due to risk factors associated with emerging markets (long payment terms and currency risks).

More recently, however, the company's growth strategy has increasingly focused on expansion into developed markets. Through the CognitiveScale acquisition, the company's US clients include UnitedHealth Group (healthcare) and the Radian Group (real estate).

# Strategy 2/2

The company also has existing operator customers in developed markets, albeit relatively small in terms of revenue.

From a cash flow profile perspective, we view the expansion into developed markets as positive. However, in terms of the technological competitiveness of the product portfolio, we believe that the company still has some room to prove itself, as we believe that competition in developed markets is more intense and that it faces competitors with significant resources.

## Focus on cash collections and cash flow

Receivables have grown to a very high level on Tecnotree's balance sheet, and we believe it would be critical in the short term to reduce them. The company is also aware of the problem and as part of its strategy aims to improve cash flow repatriation: "Think cash, do cash"). This includes tying sales incentives to the repayment of receivables, late payments and the use of foreign exchange derivatives, which should help to mitigate currency-related slowdowns.

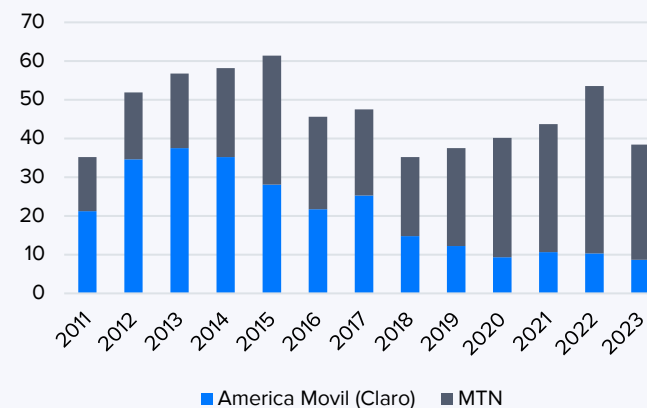
The change in business model towards recurring revenue (ARR/SaaS model) also plays an important role in improving cash flow. Here, cash flow should become more stable over time. In the model, delivery to the customer is also quicker, so cash flow from the time of the order should also be quicker. The transition to the ARR model has progressed rapidly, with the majority of new orders already under this model. However, we do not believe that the model solves the cash flow challenges posed by the geographical location of customers.

## Acquisitions also as part of the toolbox

With technology company valuations falling, Tecnotree has made it increasingly clear that acquisitions are part of the company's strategic toolbox. The company is looking for target companies in AI/machine learning, cloud computing, BSS/OSS, Fintech, OTT and healthcare, among others. Tecnotree does not intend to use significant debt (excluding convertible bonds) in its acquisitions, which we believe is prudent for the company. When the company takes over the debts of an acquired company, it tries to pay them off as quickly as possible. If Tecnotree's own valuation is favorable from the company's point of view, the company can also make acquisitions through share swaps. We think it makes sense to keep an opportunistic acquisition strategy in the toolbox, which is also enabled by the convertible bonds the company has accumulated. On the other hand, acquisitions can also mitigate risks if the business expands from areas where repatriation of receivables is challenging.

In the 2023 financial statements, the company reported that it had made an upfront payment (2 MEUR) for an acquisition. With the upfront payment, we understand that Tecnotree will test the compatibility of the target company's technology and if the results are satisfactory, the deal will be closed later. If the compatibility is not satisfactory, Tecnotree has the right to refund the upfront payment.

Revenue of two largest customers



# Strategy



## Strategic focus areas



### Growth in current and new customers

- Long-term customer relationships create a strong foundation for growth with existing customers
- Does not require significant additional investment in product development or sales
- Concentrated customer portfolio makes growth partly dependent on old customers
- Acquiring new customers is important for growth and risk management



### Expansion to developed markets

- Growth in developed markets would mitigate risk by improving cash flow profile
- Through the CognitiveScale acquisition, the company gained customers in developed markets (not operators).
- For the BSS portfolio, the company still has to prove its technological competitiveness



### New verticals

- Growing in new verticals would bring new revenue streams and lower risk levels
- The company's Moments and DiWa solutions play a key role in expanding into new verticals
- We estimate that future revenues from these will remain relatively small



### Product development and investment in new product areas

- Success in product development is critical to the long-term competitiveness of the company
- Significant increase in R&D investments in recent years
- The need to invest in product development is constant
- Current product development focus areas in addition to the BSS Suite: AI, cloud, healthcare, fintech and OTT technologies



### Improving cash flow

- Receivables at a very high level on the balance sheet represent a clear concentration of risk
- Efforts to improve the collection of receivables include linking sales incentives to the collection of receivables, the use of late payment fees in customer contracts and the use of currency swaps
- The ARR model should support a more stable cash flow
- Internal motto: "Think cash, do cash"



### Acquisitions

- With technology company valuations falling, Tecnotree has stated that acquisitions to support its product portfolio are increasingly part of the company's strategic toolbox
- For acquisitions, the company does not use significant leverage (excluding convertible bonds)
- Own shares can also be used

# Financial position 1/2

## Historical growth and earnings development

Tecnotree's historical revenue and earnings performance has been very mixed, especially during the crisis years. In 2015-2018, the company's revenue fell significantly (-45%) as project risks were materialized. From 2019 onwards, the company's revenue started to grow steadily again. Between 2019 and 2023, revenue grew by an average of 13.3% per year. The growth has been largely driven by an increase in sales of own licenses and deliveries. Ongoing maintenance revenue also returned to growth between 2022 and 2023. Profitability has also developed favorably as the turnaround has progressed, with the adjusted EBIT margin gradually increasing from 14.1% in 2018 to 36.9% in 2021. In 2022, there was a significant drop in profitability due to widespread cost inflation (EBIT margin: 25.4%). In 2023, however, profitability returned to growth (30.3% of revenue). However, the net result deteriorated from the previous year (2023: 11.2 MEUR, 2022: 11.6 MEUR) mainly due to significant FX losses (9.7 MEUR) resulting from the devaluation of the Nigerian naira.

In terms of profitability, it is worth noting that it has been supported by the capitalization of product development investments since 2019, as the resulting depreciation has not yet increased proportionately. The capitalized product development costs for 2019-2023 were between 2.9 and 13.8 MEUR. For example, in 2023, the EBIT margin adjusted for net investments would have been 17.7%, well below the reported margin. The company's depreciation level increased to 3.9 MEUR in 2023 (2022: 1.5 MEUR), but the company's capitalized R&D costs have also continued to

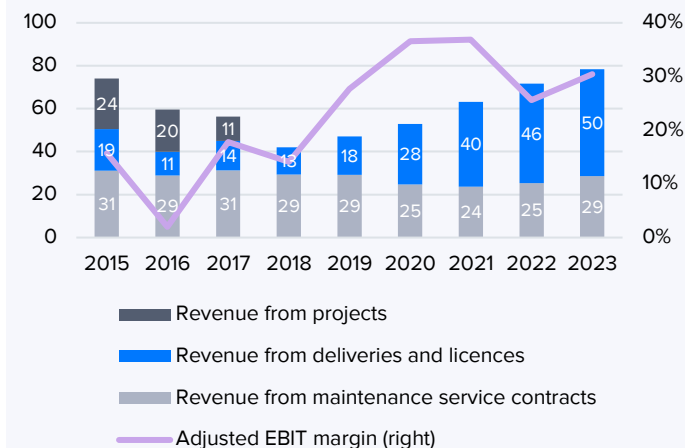
increase, resulting in a very large gap between capitalized and reported profitability.

## The cost structure is mainly fixed

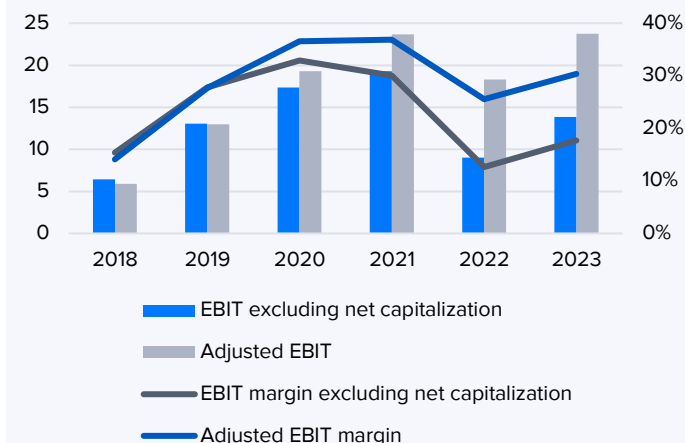
As is typical for a software house, Tecnotree's gross margin is very high and ranged between 90-97% in 2018-2023. In general, the direct costs associated with sales are small in magnitude. However, Tecnotree's gross margin may give too rosy a picture, as in the cost-based profit and loss account, personnel costs related to deliveries aren't reflected in material and service costs. Thus, in the function-specific income statements, we estimate that the gross margin would be significantly lower than at present, but still at a good level. However, a high gross margin provides strong profit leverage if fixed costs do not increase in line with sales growth.

The largest single item in Tecnotree's cost structure is personnel costs, which accounted for 31% of revenue in 2023. The company's key functions of product development and sales are very knowledge- and people-intensive. We estimate that particularly the personnel costs linked to product development are almost entirely fixed, while the costs on the sales side also have variable elements in the form of various commissions. Personnel expenses have increased very moderately in absolute terms in recent years. We believe this is partly due to the fact that the company has started to capitalize more of its product development expenses on the balance sheet. The weakening of the Indian rupee also has an impact, as a large part of the workforce is based in India.

Revenue mix development



EBIT and profitability with net capitalization





## Financial position 2/2

Overall, personnel costs are relatively scalable cost item in line with growth. However, due to the nature of Tecnotree's business, the pursuit of organic growth always requires some additional investment in human resources, which must be invested continuously and to some extent up front.

Tecnotree's other expenses accounted for 28% of revenue in 2023. Other expenses consist mainly of direct subcontracting, other external resources and other costs typically associated with the business. Other costs include both variable and fully fixed components.

### Withholding taxes and currencies have been a challenge

Sales of Tecnotree's products and services are subject to withholding taxes in several countries of operation, which in some cases results in double taxation of the company's income. Local tax laws in emerging regions that are of importance to Tecnotree are also typically fast-changing and, in our view, sometimes ambiguous in their interpretation. High withholding taxes are naturally a burden not only on net income but also on cash flow. In recent years, the company has been able to reduce its withholding tax burden from the levels of five years ago. Withholding taxes have historically been the largest component of the company's tax burden, as the company pays virtually no income tax in Finland due to significant tax-deductible product development costs. Due to withholding taxes and the company's tax planning, there is always uncertainty in forecasting the company's annual tax rate (2021-2023: 14-33%).

Historically, net income has also been significantly impacted by FX losses. In addition to the euro and the dollar, the Nigerian naira is a major currency (2023: 15%), leading to significant losses in 2023 as

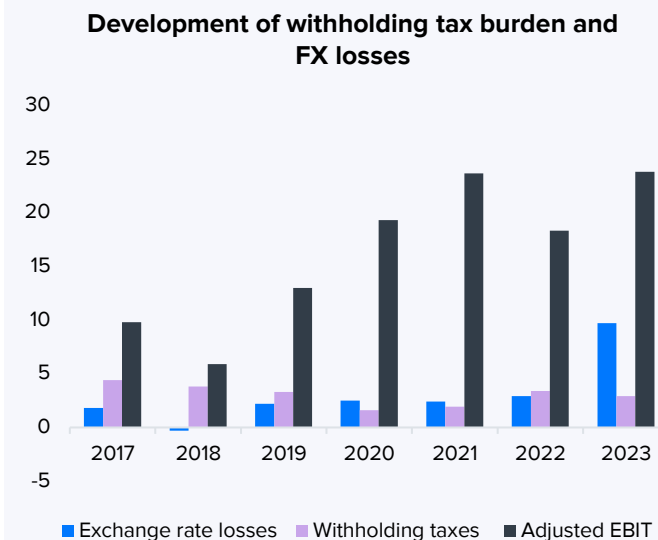
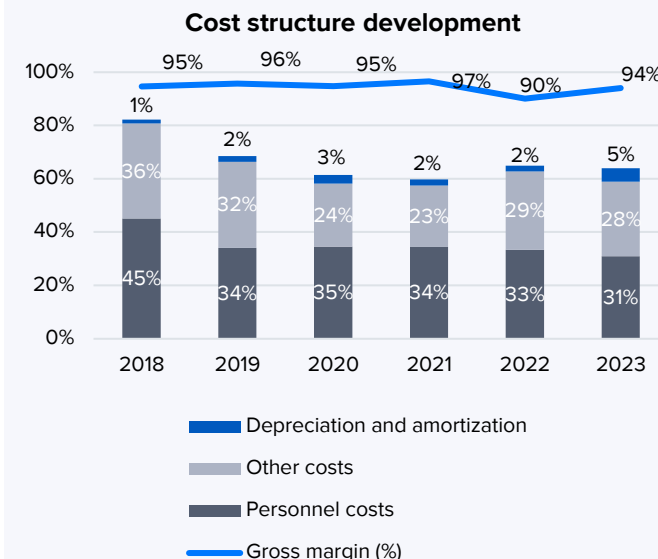
the currency depreciated significantly.

### Balance sheet position is strong and cash flow weak

At the end of 2023, Tecnotree had an equity ratio of 67.5% and net gearing of 6.6%. It is noteworthy that at the end of 2023, only 21.1 MEUR of convertible bonds had been collected (43 MEUR subscribed). Convertible bonds still appear as a liability on the balance sheet at this stage, which weakens the balance sheet ratios. The company's balance sheet ratios are strong, but they must remain so given the challenges of repatriating cash flow and the high working capital commitment. The main balance sheet risk relates to trade receivables and capitalized intangible assets, the write-off of which could have a significant negative impact on the balance sheet ratios. 68% of the receivables were due at the end of 2023 and 17% were due in more than one year, so the risk is elevated.

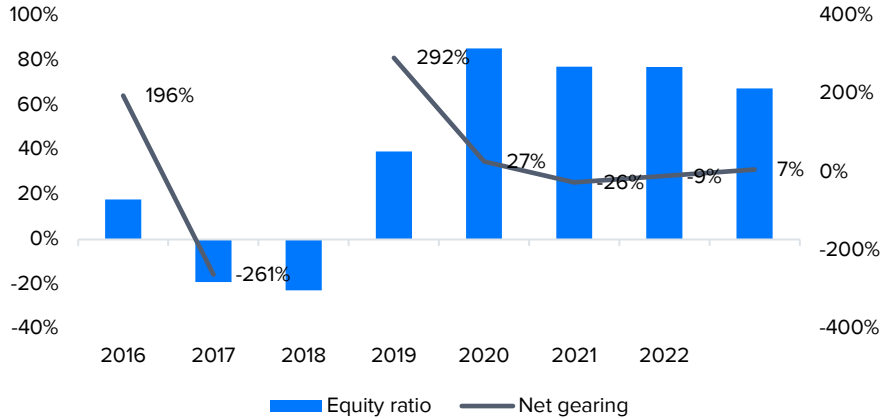
The balance sheet total at the end of 2023 was 128 MEUR. Of receivables, by far the largest part consisted of trade and other receivables (71.3 MEUR). At the end of 2023, cash and cash equivalents amounted to 20.8 MEUR. Intangible assets totaled EUR 33.5 million. On the liabilities side, equity amounted to 86.5 MEUR and the rest of the balance sheet consisted mainly of convertible bonds (21.1 MEUR) and trade payables (11.3 MEUR). Interest-bearing debt on the balance sheet amounted to EUR 5.7 million.

Overall, Tecnotree's profitability and balance sheet ratios do not give a fully accurate picture of the company's financial situation, as its free cash flow is structurally lower than its profit level. In light of this and factors related to cash flow repatriation, we also consider it important to monitor cash flow ratios.

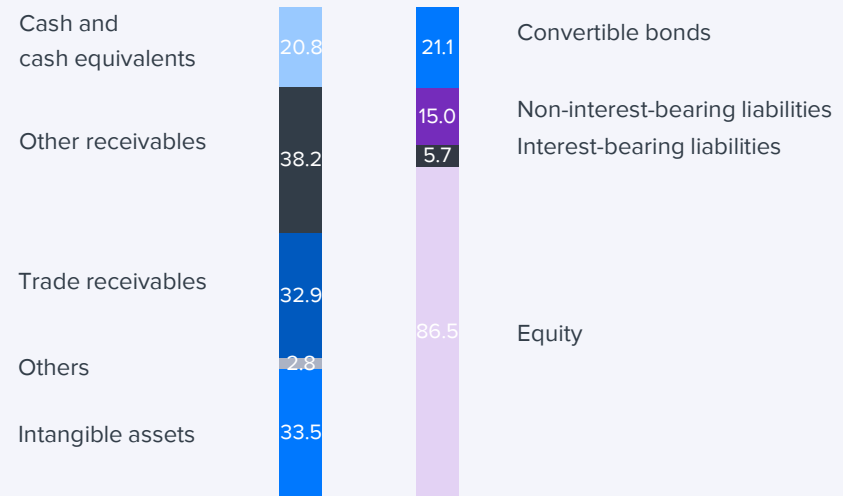


# Financial position

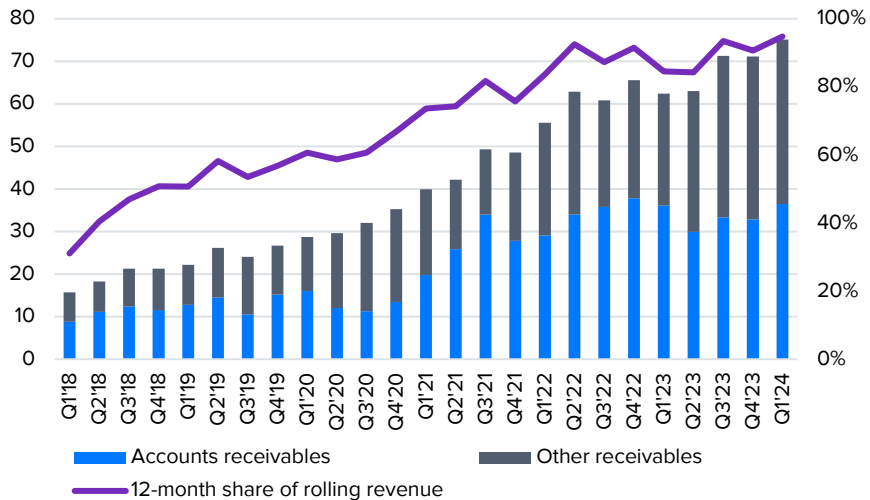
### Balance sheet development



### Balance sheet at the end of 2023



### Development of receivables in relation to revenue

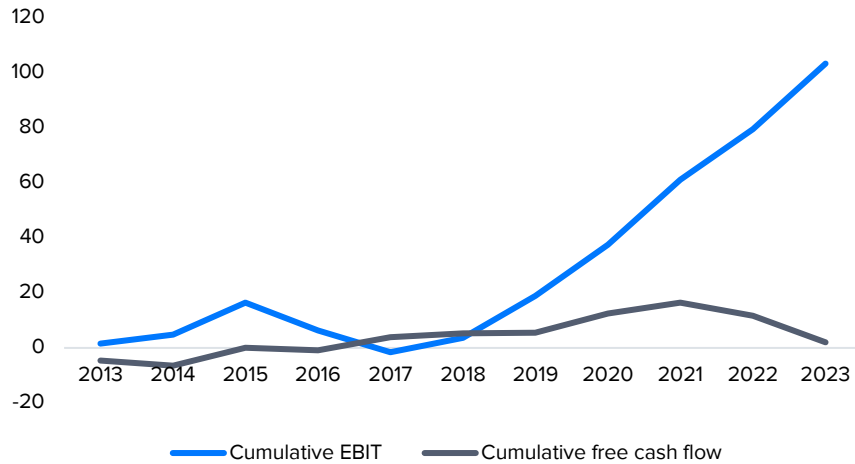


### Order book development (MEUR)

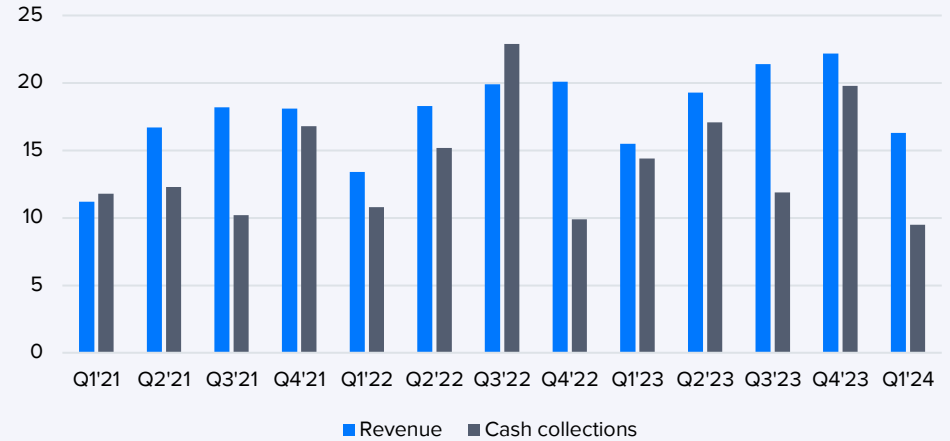


# Financial position

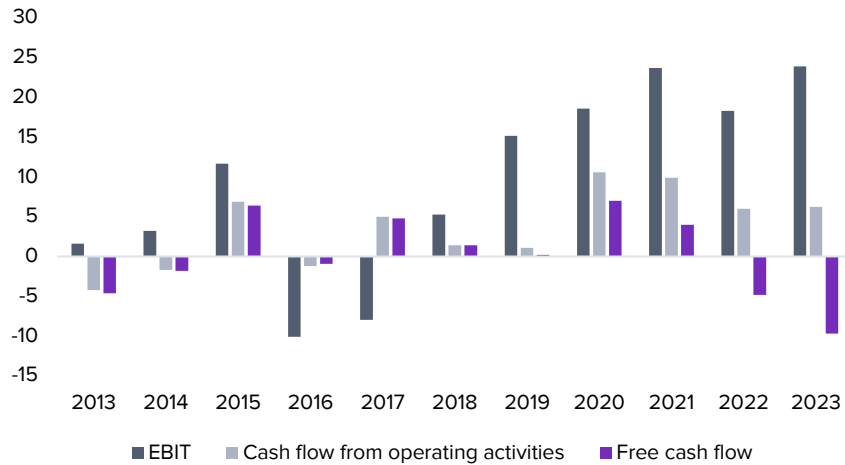
### Cumulative EBIT and FCF



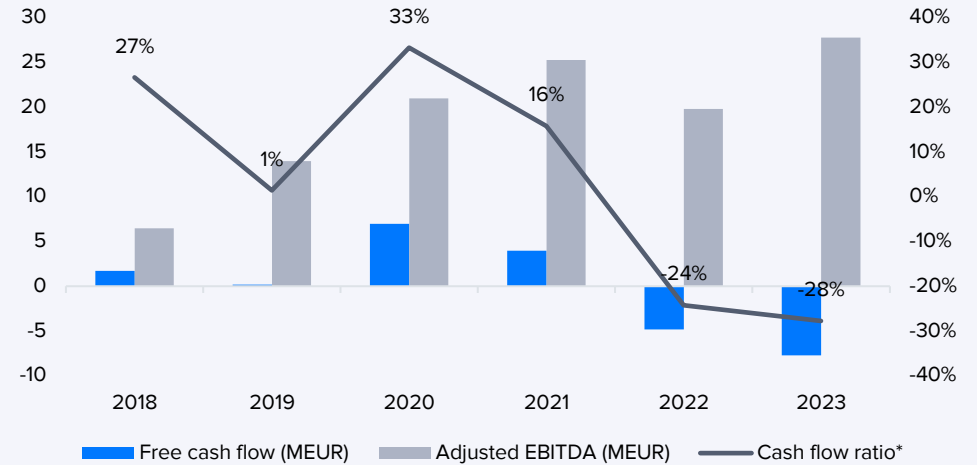
### Revenue and cash collections



### EBIT and cash flow development



### Development of cash flow ratio



\*Ratio of free cash flow to adjusted EBITDA

# Estimates 1/3

## Basis for the estimates

We model Tecnotree's revenue development separately by revenue streams related to licenses and deliveries as well as maintenance revenues. We base our short-term forecasts on the order book, new orders received and our estimates of ongoing revenue streams.

In the short term, quarterly business predictability is quite poor, as the timing of orders and deliveries can have a significant impact on quarterly revenue. Maintenance revenue is a bit smoother, but even here there are occasional larger fluctuations from quarter to quarter. Moreover, as the company has very high gross margins and a largely fixed cost structure, fluctuations in sales levels can also cause significant fluctuations quarterly profitability. In addition, the level of capitalized product development expenses has been a source of uncertainty in recent years, although this has leveled off in recent quarters. At the bottom of the income statement, the tax rate and the variability of finance costs with exchange rates pose challenges to predictability. Near-term predictability is enhanced by the guidance the company has provided annually since 2022. However, the company has deviated from its guidance on a number of occasions, which undermines their informative value.

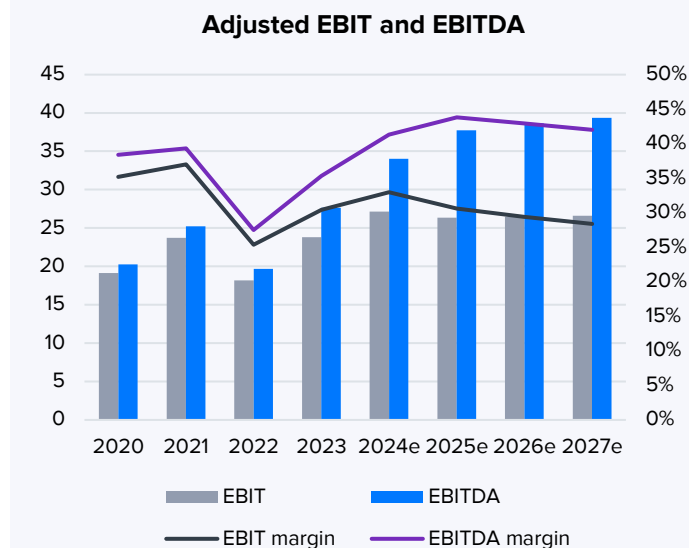
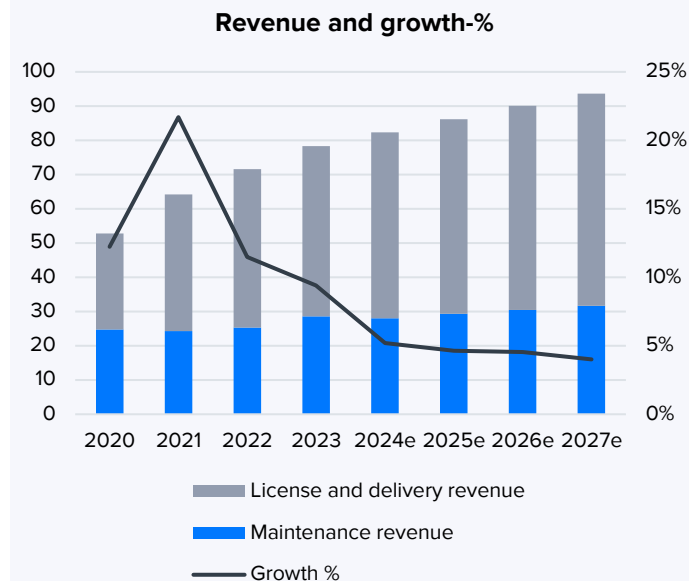
On an annual basis, the business is generally flatter and the numbers should better reflect the company's longer-term trends. In the medium term, the visibility of the company's business is already reasonable, as the structure of the order book is long and sales increasingly include recurring revenue streams. The main uncertainties relate to new orders and hence to the growth rate. This is due to factors such as the

timing of operators' investments. The transition to the ARR model may also have a negative impact on revenues in the medium term. In the long term, the company's growth will largely depend on its own competitiveness and the implementation of its strategy with the general development of the market naturally having an impact. In the longer term, the company's success in attracting new customers in developed markets and commercializing its AI solutions will also be critical. The first signs of this are encouraging.

Forecasting costs is key to predicting short- and medium-term profitability. In practice, profitability is determined by the gross margin and the level of fixed costs (OPEX-%). We expect gross margin to remain strong at around 94-95% going forward. The main uncertainties to operational profitability are related to staff efficiency and the timing and size of investments, in line with the company's cost profile. Currency exchange rates introduce uncertainty into the revenue, cost and financial expense rows. In addition, the predictability of the bottom rows is affected by withholding taxes.

## Turnaround not yet reflected in cash flow

Since 2018, Tecnotree has managed to return to strong growth, improve its profitability, reduce its customer risk and pay off its restructuring debt, thereby strengthening its financial position significantly.



# Estimates 2/3

Profitability deteriorated in 2022, but with earnings returning to growth in 2023, it is clear that cash flow generation has been a bigger problem than earnings. Free cash flow has remained negative in 2022-2023 despite strong results. The main challenges continued to be the repayment of receivables from customers in geographically challenging countries, FX losses and very high investment levels.

## Estimates for 2024

Tecnotree's guidance for the current year is for revenue growth of 2-7% and EBIT growth of 7-15% (2023: 23.8 MEUR). The moderation in growth compared to recent years is mainly due to the transition of the backlog to the ARR model, which generates revenue from orders at a slower rate. However, overall growth is supported by the company's very strong order book (Q1'24: 74.8 MEUR). We saw a slight softness in orders in Q1'24, but we believe this can be explained by seasonality. Already, over 60% of the order book is recurring revenue, providing predictability and support for revenue levels in the coming years. A slight headwind to growth comes from last year's acquisition in the Middle East. However, we estimate that the revenue of the business was relatively small as the company did not disclose it. However, compared to the related receivables (more than 10 MEUR), the revenue has hardly been negligible.

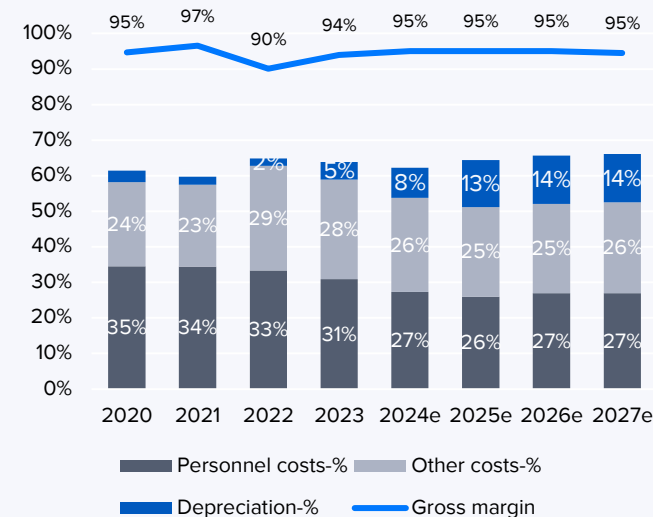
We expect Tecnotree's revenue to grow by about 5% to EUR 82.3 million this year. Our growth forecast is slightly above the midpoint of the company's guidance range, which we believe the company has the potential to achieve given its strong order book. We expect EBIT to grow by around 14% to 27.2 MEUR (33.0% of revenue), which is close to the

upper end of the guidance range. The fact that EBIT grew faster than revenue is mainly due to the company's [significant cost-cutting measures](#) and the overall revenue growth with high gross margins, which is also clearly reflected in profitability. We expect significant losses on foreign exchange rates also this year, concentrated in the early part of the year (Q1'24: -1.7 MEUR net), but easing towards the end of the year. This is due in particular to the sharp devaluation of the Nigerian naira at the beginning of the year.

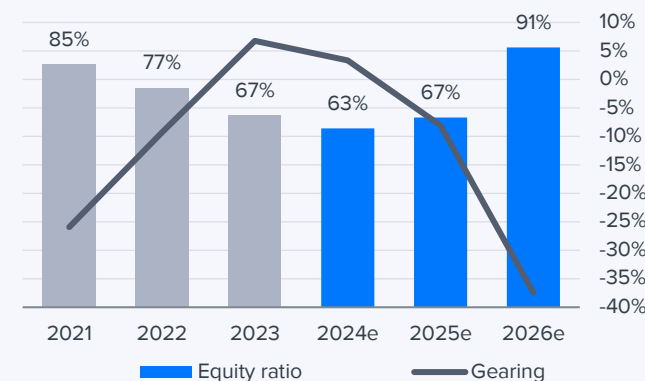
We expect depreciation to be significantly lower than investment this year. Therefore, by capitalising product development costs, profitability looks better than if product development costs were expensed in the income statement. Our forecast EBIT adjusted for net investments (EBIT - investments + depreciation) is 19.9 MEUR (cf. EBIT forecast 27.2 MEUR).

Tecnotree has not provided cash flow guidance for the year, so visibility on this is still weak at this stage. In a positive scenario, the company manages to repay the proceeds from the sale of its subsidiary in the Middle East, of which 10.6 MEUR are still outstanding. In general, the company is actively seeking to improve its cash flow profile, including by expanding in developed markets and by shifting its business model more towards recurring revenues.

### Cost structure and gross margin



### Development of balance sheet key figures



# Estimates 3/3

We did not see any signs of that in the first quarter, and we do not expect it to translate into structurally improved cash flow for some time, because we think the transformation of the business structure will take quite a long time, even in a good scenario.

## Estimates for 2025-2027

In 2025, we estimate Tecnotree's revenue will grow by just under 5% to 86.2 MEUR. This growth will continue to be supported by the company's strong order book. We also expect the company to continue to win new customers, which is important for its longer-term growth. Nevertheless, we expect the growth rate to continue at a more moderate level compared to the strong growth years of recent years. This is also partly due to the move to the ARR model, where revenues accumulate more slowly over time and there are no large one-off license sales at the same rate. In terms of revenue, we expect to see growth in both license and delivery revenue as well as maintenance revenue.

Overall growth will also be supported by the company's growth drivers Moments, DiWa and the Sensa AI platform. Moments and DiWa are not yet expected to generate significant revenues, although the company has previously indicated that they will start generating revenues in late 2023 or during 2024. Tecnotree's Sensa AI platform is already generating relevant revenues for the company, with the company's AI solutions already generating more than 6 MEUR in 2023.

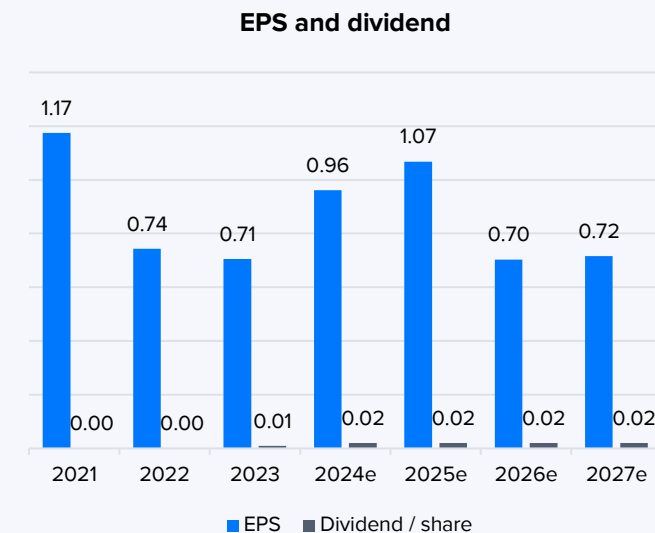
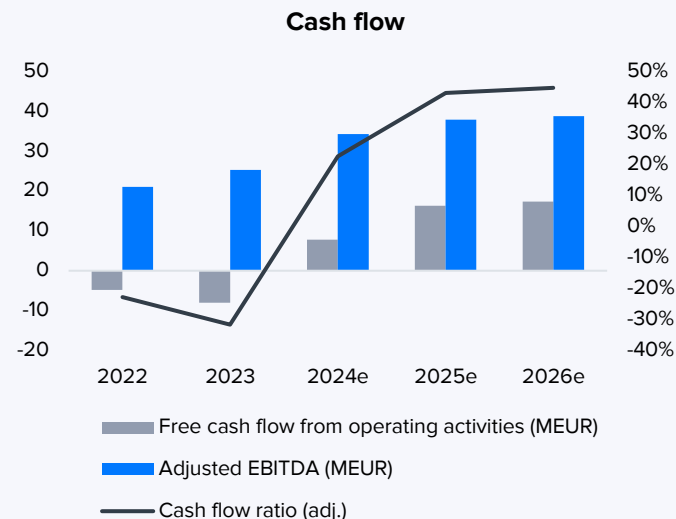
We expect Tecnotree's EBIT to weaken slightly to 26.4 MEUR next year. However, this is the result of our forecast increase in depreciation and amortization, and we expect EBITDA to increase

significantly (2024e 34.3 MEUR, 2025e 37.9 MEUR).

Between 2026 and 2027, we expect revenue to grow at a rate of 4-5%. We therefore expect the company to grow slightly faster than the 2% market growth forecast by Gartner. We believe that the fundamentals for continued growth are good, but growth obviously requires a steadily increasing order flow. We still see plenty of room for growth in emerging markets, underpinned by operators' business breakthroughs. In addition, expansion in developed markets offers significant growth opportunities for the business, although we believe this is still in its early stages.

## Long-term estimates

Between 2028 and 2032, we forecast turnover growth to gradually level off towards 2.5%. After that, from 2032 onwards, our terminal growth assumption is 2%. We believe it is justified to keep a safety margin in the growth forecasts, as visibility on the company's technological competitiveness, especially in developed markets, and on the longer-term market development is rather thin. Operator investment has historically been cyclical, which also justifies caution in growth forecasts. We expect the EBIT margin to gradually decline from 27% in 2026 towards our terminal target (25.5%). The scaling of profitability in our projections is limited by a significant increase in depreciation from current levels. We believe that the current profitability in terms of EBIT margin does not take into account the large investments in product development that the business requires. At the EBITDA level, we expect profitability to scale with growth.



# Income statement

Income statement	2022	Q1'23	Q2'23	Q3'23	Q4'23	2023	Q1'24	Q2'24e	Q3'24e	Q4'24e	2024e	2025e	2026e	2027e
Revenue	71.6	15.5	19.3	21.4	22.2	78.4	16.3	20.3	22.5	23.2	82.3	86.2	90.1	93.7
EBITDA	19.8	4.2	6.9	7.4	9.3	27.7	6.0	8.7	9.5	10.0	34.3	37.9	38.8	39.5
Depreciation	-1.5	-0.6	-0.7	-1.2	-1.4	-3.9	-1.6	-1.7	-1.8	-1.9	-7.2	-11.5	-12.3	-12.9
EBIT (excl. NRI)	18.3	3.6	6.2	6.2	7.9	23.8	4.4	7.0	7.7	8.0	27.2	26.4	26.5	26.6
EBIT	18.3	3.6	6.2	6.2	7.9	23.8	4.4	7.0	7.7	8.0	27.2	26.4	26.5	26.6
Net financial items	-1.1	-1.0	-1.9	-1.9	-5.1	-9.9	-2.3	-1.5	-1.5	-1.5	-6.8	-4.0	-4.0	-4.0
PTP	17.2	2.7	4.3	4.2	2.8	13.9	2.1	5.5	6.2	6.5	20.3	22.4	22.5	22.6
Taxes	-5.7	-0.9	-0.5	-1.0	-0.3	-2.8	-0.4	-1.4	-1.6	-1.6	-5.0	-5.4	-5.4	-5.2
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net earnings	11.6	1.8	3.8	3.2	2.5	11.2	1.6	4.1	4.7	4.9	15.3	17.0	17.1	17.4
EPS (adj.)	0.74	0.11	0.24	0.20	0.16	0.71	0.10	0.26	0.29	0.31	0.96	1.07	0.70	0.72
EPS (rep.)	0.74	0.11	0.24	0.20	0.16	0.71	0.10	0.26	0.29	0.31	0.96	1.07	0.70	0.72

Key figures	2022	Q1'23	Q2'23	Q3'23	Q4'23	2023	Q1'24	Q2'24e	Q3'24e	Q4'24e	2024e	2025e	2026e	2027e
Revenue growth-%	11.5 %	17.0 %	5.4 %	7.4 %	10.4 %	9.5 %	4.7 %	5.4 %	5.3 %	4.6 %	5.0 %	4.7 %	4.5 %	4.0 %
Adjusted EBIT growth-%	-22.7 %	77.5 %	21.1 %	22.2 %	28.5 %	30.2 %	21.5 %	13.2 %	24.9 %	2.4 %	13.9 %	-2.9 %	0.4 %	0.5 %
EBITDA-%	27.7 %	27.2 %	35.6 %	34.5 %	41.7 %	35.4 %	37.1 %	42.9 %	42.4 %	43.0 %	41.7 %	43.9 %	43.0 %	42.2 %
Adjusted EBIT-%	25.6 %	23.3 %	32.0 %	28.9 %	35.4 %	30.4 %	27.0 %	34.4 %	34.2 %	34.7 %	33.0 %	30.6 %	29.4 %	28.4 %
Net earnings-%	16.1 %	11.3 %	19.4 %	15.0 %	11.1 %	14.3 %	10.0 %	20.3 %	20.7 %	21.2 %	18.6 %	19.7 %	19.0 %	18.6 %

Source: Inderes

Estimate revisions	2024e	2024e	Change	2025e	2025e	Change	2026e	2026e	Change
MEUR / EUR	Old	New	%	Old	New	%	Old	New	%
Revenue	83.0	82.3	-1%	86.9	86.2	-1%	90.9	90.1	-1%
EBITDA	34.1	34.3	1%	36.5	37.9	4%	37.8	38.8	3%
EBIT (exc. NRIs)	27.0	27.2	1%	24.9	26.4	6%	25.4	26.5	4%
EBIT	27.0	27.2	1%	24.9	26.4	6%	25.4	26.5	4%
PTP	20.6	20.3	-2%	20.9	22.4	7%	21.4	22.5	5%
EPS (excl. NRIs)	0.98	0.96	-2%	1.00	1.07	7%	0.67	0.70	5%
DPS	0.01	0.02	100%	0.01	0.02	100%	0.01	0.02	100%

Source: Inderes

# Balance sheet

Assets	2022	2023	2024e	2025e	2026e
<b>Non-current assets</b>	<b>26.4</b>	<b>36.3</b>	<b>43.6</b>	<b>46.4</b>	<b>48.5</b>
Goodwill	0.0	0.0	0.0	0.0	0.0
Intangible assets	23.6	33.5	40.7	43.5	45.5
Tangible assets	0.4	0.4	0.5	0.5	0.6
Associated companies	0.0	0.0	0.0	0.0	0.0
Other investments	0.0	0.0	0.0	0.0	0.0
Other non-current assets	1.8	1.9	1.9	1.9	1.9
Deferred tax assets	0.6	0.5	0.5	0.5	0.5
<b>Current assets</b>	<b>77.4</b>	<b>91.9</b>	<b>118</b>	<b>131</b>	<b>147</b>
Inventories	0.0	0.0	0.0	0.0	0.0
Other current assets	0.0	0.0	0.0	0.0	0.0
Receivables	65.1	71.1	76.6	78.4	80.2
Cash and equivalents	12.3	20.8	41.7	52.6	66.6
<b>Balance sheet total</b>	<b>104</b>	<b>128</b>	<b>162</b>	<b>177</b>	<b>195</b>

Source: Inderes

Liabilities & equity	2022	2023	2024e	2025e	2026e
<b>Equity</b>	<b>80.1</b>	<b>86.5</b>	<b>102</b>	<b>118</b>	<b>178</b>
Share capital	1.3	1.3	1.3	1.3	44.4
Retained earnings	49.5	55.9	71.0	87.7	104
Hybrid bonds	0.0	0.0	0.0	0.0	0.0
Revaluation reserve	0.0	0.0	0.0	0.0	0.0
Other equity	29.3	29.3	29.3	29.3	29.3
Minorities	0.0	0.0	0.0	0.0	0.0
<b>Non-current liabilities</b>	<b>5.5</b>	<b>25.8</b>	<b>45.8</b>	<b>45.8</b>	<b>2.7</b>
Deferred tax liabilities	0.0	0.0	0.0	0.0	0.0
Provisions	0.0	0.0	0.0	0.0	0.0
Interest bearing debt	2.4	1.0	0.0	0.0	0.0
Convertibles	0.0	21.1	43.1	43.1	0.0
Other long term liabilities	3.1	3.7	2.7	2.7	2.7
<b>Current liabilities</b>	<b>18.2</b>	<b>15.9</b>	<b>14.4</b>	<b>13.4</b>	<b>14.4</b>
Interest bearing debt	2.5	4.5	2.0	0.0	0.0
Payables	15.8	11.3	12.4	13.4	14.4
Other current liabilities	0.0	0.0	0.0	0.0	0.0
<b>Balance sheet total</b>	<b>104</b>	<b>128</b>	<b>162</b>	<b>177</b>	<b>195</b>



# Valuation 1/3

## Tecnotree's turnaround has not been without problems

The development of Tecnotree's share has been remarkably volatile over the past five years. As the company emerged from the crisis and returned to strong profitable growth, the stock performed excellently in 2019-2021. Since then, growth has continued and the company has maintained its strong performance. However, the return to growth has again highlighted a structural weakness in the company's business model, namely working capital tie-up, emerging market currency exposures and high investment needs, which have resulted in a weak cash flow generation capacity. Questions have been raised about the quality of the company's profits as trade receivables have continued to swell on the balance sheet and the company has continued to increase its R&D spending. The key to the investment story over the next few years will be to monitor the repayment of receivables and how these massive product development investments pay off, or in simple terms, the development of the cash flow profile.

This uncertainty about the company's ability to generate future cash flows has been reflected in the valuation level accepted by the stock market for the company, with a strong negative impact after 2021. At the current share price valuation, we do not believe that the stock market is confident that the company's earnings will be converted into cash flow in the near future. At the same time, it is worth noting the impact of rising interest rates on the acceptable valuation level, which is also strongly reflected in the valuation levels of other growth companies.

## Factors affecting the acceptable level of valuation

**Weak cash flow profile.** Tecnotree has a weak cash flow profile, which means that traditional P&L ratios have historically not reflected the company's cash flow. This creates challenges for looking at valuation multiples and for valuation in general.

**Good evidence of organic growth.** Tecnotree's organic growth has been strong in recent years, reflecting the company's technological competitiveness in emerging markets. In the longer term, we also see good growth prospects for Tecnotree, underpinned by telecom operators' operational model shifts and the cloud transformation of BSS solutions.

**Business in emerging markets.** The good growth opportunities offered by emerging markets are offset by a higher risk profile. In concrete terms, this is reflected in the challenges in cash collections and foreign exchange losses.

**Dilution caused by convertible bonds.** Tecnotree's valuation should take into account its 43 MEUR convertible bond facility. For the period 2023-2025, we have treated convertible bonds as a liability. The conversion of the bonds into shares will take place between 2026 and 2028, but we have assumed full conversion in 2026. We have not included warrants in our estimates at the current price level. If the share price were to rise above the level required by the subscription price of the warrants (EUR 18), the dilution caused by them should be taken into account in the valuation.

Valuation level	2024e	2025e	2026e
Share price	5.41	5.41	5.41
Number of shares, million	15.9	15.9	24.3
Market cap	86	86	132
EV	90	77	65
P/E (adj.)	5.6	5.1	7.7
P/E	5.6	5.1	7.7
P/B	0.8	0.7	0.7
P/S	1.0	1.0	1.5
EV/S	1.1	0.9	0.7
EV/EBITDA (adj.)	2.6	2.0	1.7
EV/EBIT (adj.)	3.3	2.9	2.5
Dividend/earnings (%)	2.1%	1.9%	2.8%
Dividend yield %	0.4%	0.4%	0.4%

Source: Inderes

# Valuation 2/3

Investors should note that as the share price falls, the dilution caused by convertible bonds for existing investors increases. At the current share price, the dilution from the bonds would be approximately 34%.

**Business is capital intensive.** Tecnotree's growth and competitiveness requires significant investments in product development, which the company has financed, among other things, through the convertible bonds it has raised. In addition to the commitment of working capital, major investments have been part of the reason for the significant swelling of the balance sheet in recent years. As the balance sheet has grown, the return on capital has also gradually declined. As investment will continue to exceed depreciation in the coming years, our projections show a further gradual deterioration in the return on capital. On the other hand, the good thing about capitalizing product development costs is that it makes it easier to estimate the return on investment.

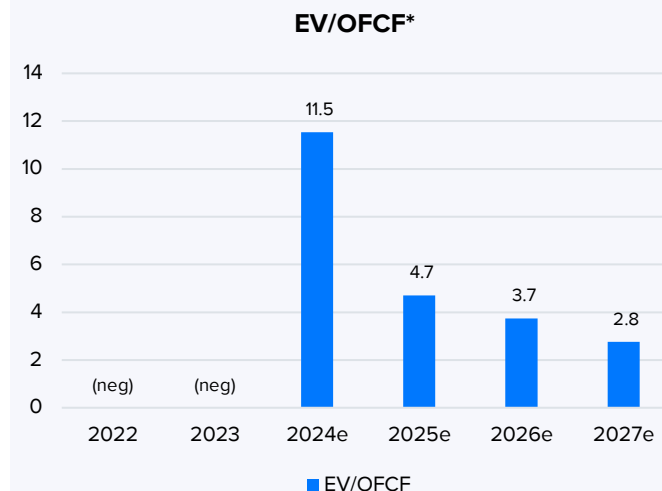
## Multiple-based valuation

We forecast Tecnotree's P/E multiples for 2024-2025 to be 6x-5x, while the corresponding EV/EBIT multiples are around 3x. However, the challenge with looking at earnings-based valuation multiples is the company's weak cash flow profile, as the income statement numbers have not historically reflected well the cash flow generated by the company's operations or free cash flow. Thus, the acceptable valuation multiples are not high. Looking at the company's EBIT adjusted for net capitalization, the EV/EBIT multiples for 2024-2025 would be 4.5x-3x. The P/E ratio rises to 8x in 2026 due to the increase in the number of shares resulting from the conversion of convertible bonds.

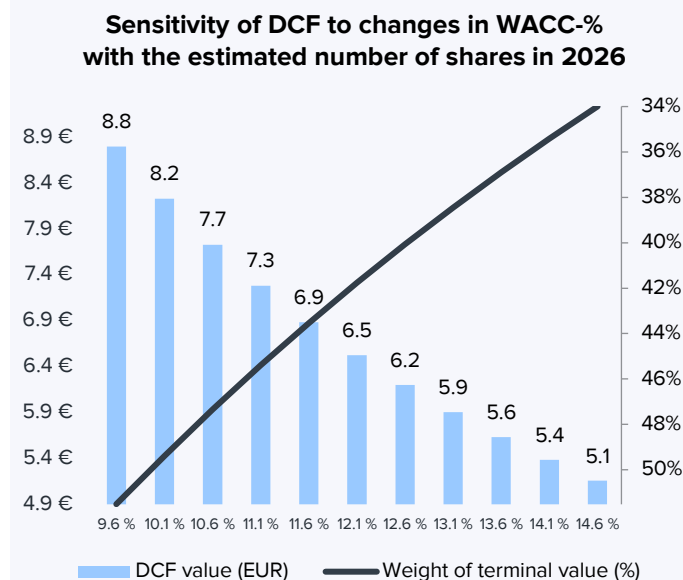
When free cash flow is chronically weaker than earnings, we find it more meaningful to look at cash flow multiples. However, cash flow is more volatile than earnings, which creates its own challenges for the use of multiples. The current year cash flow multiple (EV/OFCF) is projected at 12x, which is not particularly attractive given the weak visibility on current year cash flows at this stage. Next year, the multiple will fall to around 5x, which would correspond to a cash flow yield of 21%. With an average operating free cash flow for 2024-2026, the EV/OFCF multiple is 6.5x. These are already attractive levels, but they imply a clear normalization of cash flow. Visibility up to this point is still very poor. Another challenge with operating free cash flow is that it excludes foreign exchange losses, which means that operating free cash flow projections are likely to overstate true free cash flow.

## DCF model highlights the potential of the stock if the cash flow profile recovers

Our DCF model give the stock a value of EUR 9.9, which would indicate clear upside potential for the stock. The model's terminal assumption for growth is 2%. We have set the EBIT margin for the terminal period at 25.5%. Risks to maintaining strong profitability in the long term include a significant increase in competition, the development of competing technologies and a weakening of the company's cost-efficient operating model.



\* Does not take account of exchange rate losses



Source: Inderes

## Valuation 3/3

Terminal profitability must also take into account the significant increase in depreciation in our forecasts for the coming years as a result of the company's major investments. As a result, the gap between EBITDA and EBIT will widen over the forecast period.

In the case of Tecnotree, the DCF model should consider that there is considerable uncertainty in the cash flow projections, in particular regarding the projections of working capital commitment and investment levels. The DCF also excludes foreign exchange losses. Thus, we believe that relying entirely on the DCF model for valuation is not justified at this stage. However, the model also reflects the potential of Tecnotree's stock if the company's cash flow profile improves in the future. The DCF model also does not take into account dilution from convertible bonds from 2026 onwards. If the current number of shares that we forecast for 2026 were added to the DCF model, the value per share would be EUR 6.5.

Our DCF model has the WACC and cost of equity set at 12.1%. The high required return reflects our view of Tecnotree's high risk profile. The required return has also sought to take into account the riskiness of the countries from which the company's cash flows originate, as several of the countries in which the company operates have equity risk premiums that are significantly higher than in Western countries. However, most of the company's billing is in euros and dollars, which still helps to reduce the risk of cash flows (compared to a situation where all cash flows would be in the local currencies of the countries in which the company operates). In our model, the weight of the terminal period is 42%, which we consider to be a

rather moderate level for a growth company.

### Peers do not offer significant support for valuation

There is no significant support from peers to monitor the valuation of Tecnotree, as there are only a few listed BSS suppliers. All the listed BSS suppliers are clearly bigger than Tecnotree and the companies' geographical focus areas and, thus, their strategic choices also focus on developed areas. This makes the peer group's risk profile lower. Tecnotree's weak cash flow profile also weakens the comparison of the company's key figures.

The median P/E ratios for the peer group for 2024-2025 are 18x-15x and EV/EBIT ratios are 14x-11x. Tecnotree's earnings-based discount is therefore very high (around 65-75%). We believe that the discount is due to the company's smaller size than its peers, its higher risk profile and, in particular, its weaker cash flow profile. If Tecnotree could improve its cash flow profile, the valuation could have the potential to approach the level of its peers in the longer term. Even in a best-case scenario, we think this is a long way off.

### We do not believe that the risk/reward ratio is sufficient

The key to Tecnotree's investment story is how the company manages to invest in growth and improve its cash flow profile in the coming years. We are positive about the company's ambition to grow outside emerging markets and the business model change, which may have a risk-mitigating effect through a better cash flow profile. In general, the company is also strongly focused on improving

cash flow, which we welcome. There are still no signs of a structural improvement in the cash flow profile. The first critical step would be for the company to be able to finance its growth investments with income financing. We estimate that the transformation of the business profile may take a long time, as the challenges related to the company's geographical locations will not be resolved overnight.

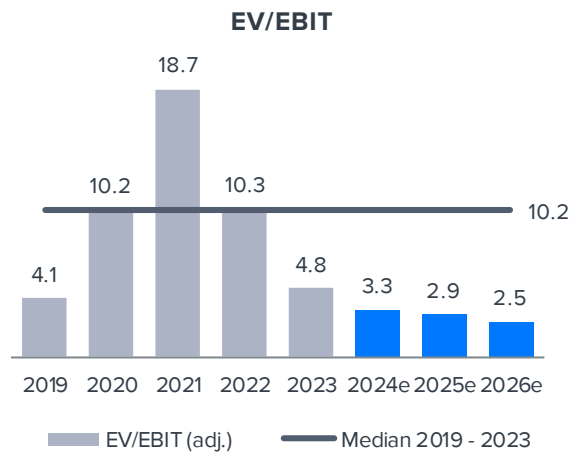
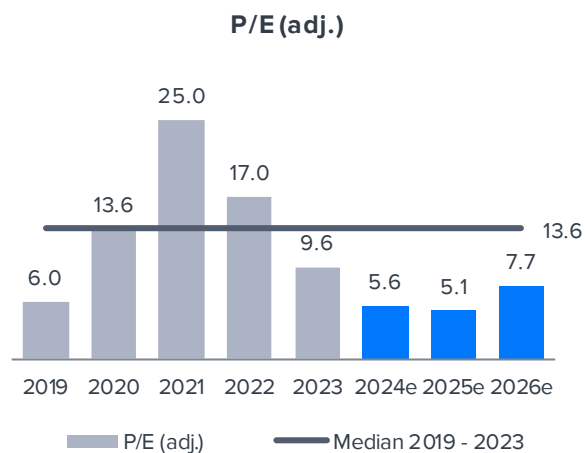
If the company manages to significantly improve its cash flow profile in the future, we believe the current valuation is already at an attractive level. In addition to improving cash flow, this would translate into a declining required return for investors over time, which would support valuations. However, some improvement in this area is already priced into current valuations, especially given the dilution that will occur between 2026 and 2028. If the company continues to burn cash and has to rely on equity financing in the future, there is still room for downside.

In any case, we think the range of outcomes is broad and we estimate the fair value of the stock to be between EUR 4-10. The upper end of the range would, in our view, reflect a scenario where the company's earnings start to better convert into cash flow and would correspond to a P/E multiple of around 10x in 2024. The lower end of the range reflects a situation where the company's ability to generate free cash flow remains tight, but the company does not need to resort to equity financing. Given the high risks, we do not find the return potential attractive enough and are waiting for further evidence in the form of improved cash flow. We lower our target price to EUR 6.0 and repeat our Reduce recommendation.

# Valuation table

Valuation	2019	2020	2021	2022	2023	2024e	2025e	2026e	2027e
Share price	3.40	14.0	29.4	12.6	6.80	<b>5.41</b>	<b>5.41</b>	<b>5.41</b>	<b>5.41</b>
Number of shares, millions	11.8	13.7	15.7	15.5	15.8	<b>15.9</b>	<b>15.9</b>	<b>24.3</b>	<b>24.3</b>
Market cap	40	192	460	196	108	<b>86</b>	<b>86</b>	<b>132</b>	<b>132</b>
EV	53	198	443	189	114	<b>90</b>	<b>77</b>	<b>65</b>	<b>50</b>
P/E (adj.)	6.0	13.6	25.0	17.0	9.6	<b>5.6</b>	<b>5.1</b>	<b>7.7</b>	<b>7.6</b>
P/E	5.2	14.2	25.0	17.0	9.6	<b>5.6</b>	<b>5.1</b>	<b>7.7</b>	<b>7.6</b>
P/B	11.7	9.7	6.8	2.4	1.2	<b>0.8</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>
P/S	0.9	3.6	7.2	2.7	1.4	<b>1.0</b>	<b>1.0</b>	<b>1.5</b>	<b>1.4</b>
EV/Sales	1.1	3.7	6.9	2.6	1.4	<b>1.1</b>	<b>0.9</b>	<b>0.7</b>	<b>0.5</b>
EV/EBITDA	3.4	9.7	17.5	9.5	4.1	<b>2.6</b>	<b>2.0</b>	<b>1.7</b>	<b>1.3</b>
EV/EBIT (adj.)	4.1	10.2	18.7	10.3	4.8	<b>3.3</b>	<b>2.9</b>	<b>2.5</b>	<b>1.9</b>
Payout ratio (%)	0.0 %	0.0 %	0.0 %	0.0 %	1.4 %	<b>2.1 %</b>	<b>1.9 %</b>	<b>2.8 %</b>	<b>2.8 %</b>
Dividend yield-%	0.0 %	0.0 %	0.0 %	0.0 %	0.1 %	<b>0.4 %</b>	<b>0.4 %</b>	<b>0.4 %</b>	<b>0.4 %</b>

Source: Inderes



# Peer group valuation

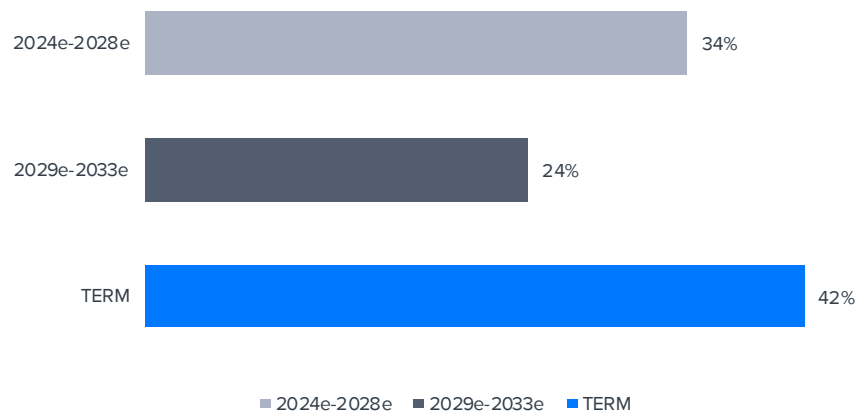
Peer group valuation	Market cap	EV	EV/EBIT		EV/EBITDA		EV/S		P/E		Dividend yield-%		P/B
Company	MEUR	MEUR	2024e	2025e	2024e	2025e	2024e	2025e	2024e	2025e	2024e	2025e	2024e
Amdocs Ltd	9344	9426	11.0	10.4	9.3	8.8	2.0	1.9	13.2	12.0	2.1	2.2	2.7
CSG Systems International Inc	1148	1539	8.7	8.2	6.8	6.4	1.5	1.4	10.3	9.6	2.9	3.1	
Comarch SA	577	498	14.0	11.3	8.5	7.4	1.1	1.0	17.8	14.9	2.0	2.2	1.5
Sterlite Technologies Ltd	677	1018	30.9	23.8	13.6	11.2	1.6	1.4	17.8	20.1	2.0	1.5	2.4
Cerillion PLC	543	518	26.1	22.9	23.1	20.6	10.1	9.0	33.3	29.8	0.8	0.8	9.8
<b>Tecnotree (Inderes)</b>	<b>86</b>	<b>90</b>	<b>3.3</b>	<b>2.9</b>	<b>2.6</b>	<b>2.0</b>	<b>1.1</b>	<b>0.9</b>	<b>5.6</b>	<b>5.1</b>	<b>0.4</b>	<b>0.4</b>	<b>0.8</b>
<b>Average</b>			<b>18.1</b>	<b>15.3</b>	<b>12.3</b>	<b>10.9</b>	<b>3.2</b>	<b>3.0</b>	<b>18.5</b>	<b>17.3</b>	<b>1.9</b>	<b>2.0</b>	<b>4.1</b>
<b>Median</b>			<b>14.0</b>	<b>11.3</b>	<b>9.3</b>	<b>8.8</b>	<b>1.6</b>	<b>1.4</b>	<b>17.8</b>	<b>14.9</b>	<b>2.0</b>	<b>2.2</b>	<b>2.5</b>
<b>Diff-% to median</b>			<b>-76%</b>	<b>-74%</b>	<b>-72%</b>	<b>-77%</b>	<b>-31%</b>	<b>-38%</b>	<b>-68%</b>	<b>-66%</b>	<b>-82%</b>	<b>-83%</b>	<b>-66%</b>

Source: Refinitiv / Inderes

# DCF calculation

DCF model	2023	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	TERM
Revenue growth-%	9.5 %	5.0 %	4.7 %	4.5 %	4.0 %	3.3 %	3.0 %	3.0 %	2.5 %	2.5 %	2.0 %	2.0 %
EBIT-%	30.4 %	33.0 %	30.6 %	29.4 %	28.4 %	26.8 %	26.2 %	25.8 %	25.5 %	25.5 %	25.5 %	25.5 %
<b>EBIT (operating profit)</b>	<b>23.8</b>	<b>27.2</b>	<b>26.4</b>	<b>26.5</b>	<b>26.6</b>	<b>25.9</b>	<b>26.1</b>	<b>26.5</b>	<b>26.8</b>	<b>27.5</b>	<b>28.1</b>	
+ Depreciation	3.9	7.2	11.5	12.3	12.9	13.3	13.6	13.9	14.2	14.9	14.9	
- Paid taxes	-2.7	-5.0	-5.4	-5.4	-5.2	-4.8	-4.9	-4.9	-5.0	-5.2	-5.7	
- Tax, financial expenses	-2.0	-1.7	-1.0	-1.0	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.4	
+ Tax, financial income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
- Change in working capital	-10.4	-4.4	-0.8	-0.7	-0.8	-1.2	-1.0	-2.1	-1.8	-1.8	-1.5	
<b>Operating cash flow</b>	<b>12.7</b>	<b>23.2</b>	<b>30.7</b>	<b>31.7</b>	<b>32.6</b>	<b>32.3</b>	<b>33.0</b>	<b>32.5</b>	<b>33.3</b>	<b>34.5</b>	<b>35.3</b>	
+ Change in other long-term liabilities	0.6	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
- Gross CAPEX	-13.9	-14.4	-14.4	-14.4	-14.4	-14.5	-14.7	-14.8	-14.9	-14.9	-14.9	
<b>Free operating cash flow</b>	<b>-0.6</b>	<b>7.8</b>	<b>16.3</b>	<b>17.3</b>	<b>18.2</b>	<b>17.8</b>	<b>18.3</b>	<b>17.7</b>	<b>18.4</b>	<b>19.6</b>	<b>20.4</b>	
+/- Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
FCFF	-0.6	7.8	16.3	17.3	18.2	17.8	18.3	17.7	18.4	19.6	20.4	205
<b>Discounted FCFF</b>		<b>7.2</b>	<b>13.5</b>	<b>12.8</b>	<b>12.0</b>	<b>10.5</b>	<b>9.6</b>	<b>8.3</b>	<b>7.7</b>	<b>7.3</b>	<b>6.8</b>	<b>68.1</b>
Sum of FCFF present value		164	157	143	130	118	108	98.2	89.9	82.2	74.9	68.1
<b>Enterprise value DCF</b>		<b>164</b>										
- Interest bearing debt		-26.7										
+ Cash and cash equivalents		20.8										
-Minorities		0.0										
-Dividend/capital return		-0.2										
<b>Equity value DCF</b>		<b>158</b>										
<b>Equity value DCF per share</b>		<b>9.9</b>										

## Cash flow distribution



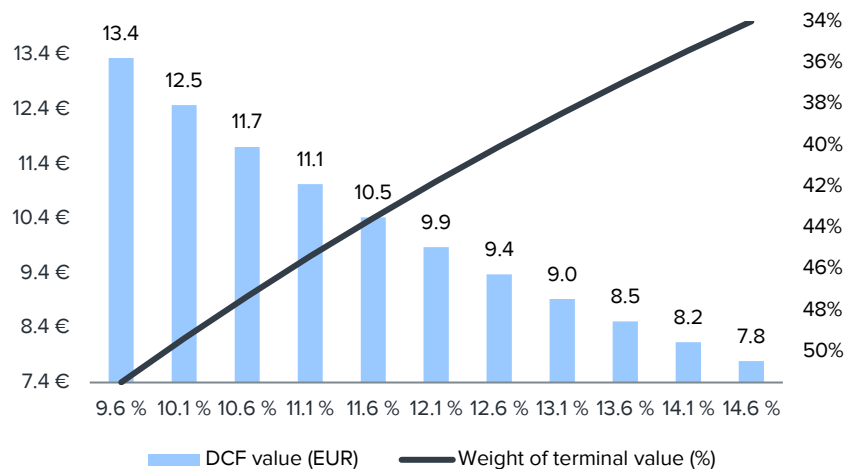
## WACC

Tax-% (WACC)	20.0 %
Target debt ratio (D/(D+E))	0.0 %
Cost of debt	3.0 %
Equity Beta	1.50
Market risk premium	4.75%
Liquidity premium	2.50%
Risk free interest rate	2.5 %
<b>Cost of equity</b>	<b>12.1 %</b>
<b>Weighted average cost of capital (WACC)</b>	<b>12.1 %</b>

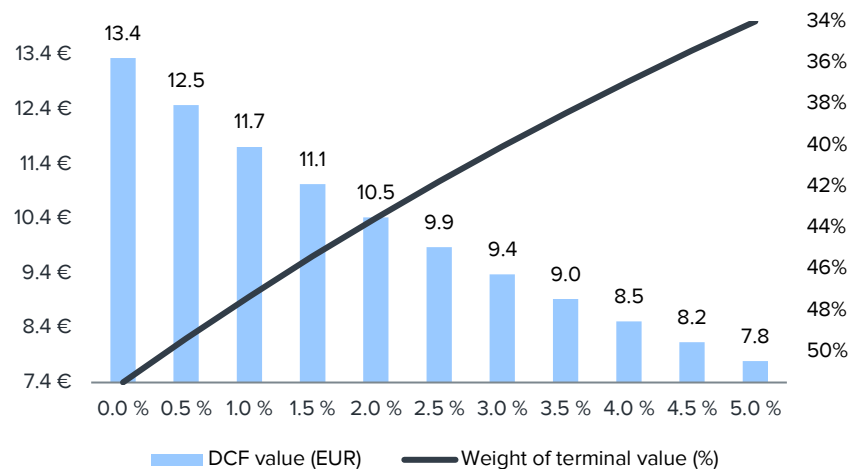
Source: Inderes

# DCF sensitivity calculations and key assumptions in graphs

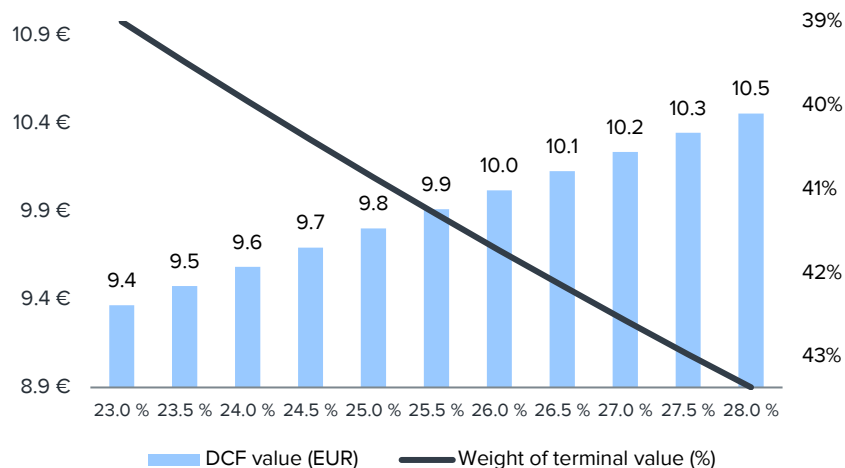
Sensitivity of DCF to changes in the WACC-%



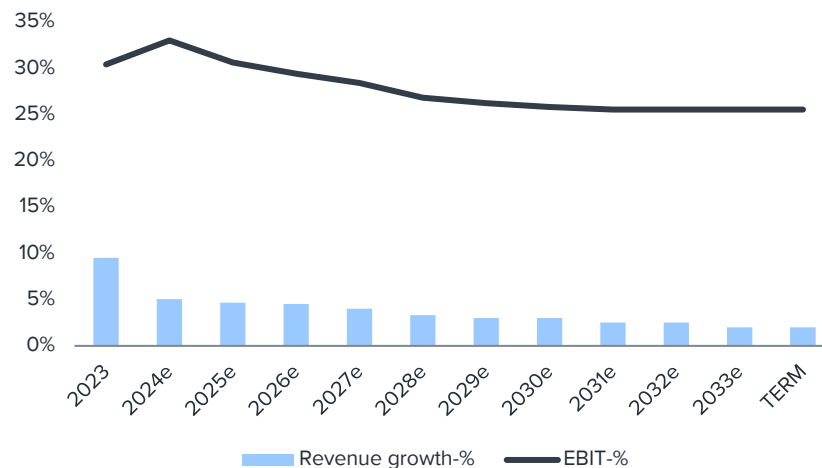
Sensitivity of DCF to changes in the risk-free rate



Sensitivity of DCF to changes in the terminal EBIT margin



Growth and profitability assumptions in the DCF calculation



Source: Inderes. Note that the weight of the terminal value (%) is shown on an inverse scale for clarity.

# Summary

Income statement	2021	2022	2023	2024e	2025e	Per share data	2021	2022	2023	2024e	2025e
Revenue	64.2	71.6	78.4	<b>82.3</b>	<b>86.2</b>	EPS (reported)	1.17	0.74	0.71	<b>0.96</b>	<b>1.07</b>
EBITDA	25.3	19.8	27.7	<b>34.3</b>	<b>37.9</b>	EPS (adj.)	1.17	0.74	0.71	<b>0.96</b>	<b>1.07</b>
EBIT	23.7	18.3	23.8	<b>27.2</b>	<b>26.4</b>	OCF / share	0.40	0.28	0.80	<b>1.46</b>	<b>1.93</b>
PTP	21.5	17.2	13.9	<b>20.3</b>	<b>22.4</b>	FCF / share	-0.30	-0.32	-0.04	<b>0.49</b>	<b>1.02</b>
Net Income	18.4	11.6	11.2	<b>15.3</b>	<b>17.0</b>	Book value / share	4.33	5.15	5.46	<b>6.39</b>	<b>7.44</b>
Extraordinary items	0.0	0.0	0.0	<b>0.0</b>	<b>0.0</b>	Dividend / share	0.00	0.00	0.01	<b>0.02</b>	<b>0.02</b>
Balance sheet	2021	2022	2023	2024e	2025e	Growth and profitability	2021	2022	2023	2024e	2025e
Balance sheet total	79.3	103.8	128.2	<b>161.8</b>	<b>177.5</b>	Revenue growth-%	22%	12%	9%	<b>5%</b>	<b>5%</b>
Equity capital	67.7	80.1	86.5	<b>101.6</b>	<b>118.3</b>	EBITDA growth-%	24%	-22%	40%	<b>24%</b>	<b>10%</b>
Goodwill	0.0	0.0	0.0	<b>0.0</b>	<b>0.0</b>	EBIT (adj.) growth-%	23%	-23%	30%	<b>14%</b>	<b>-3%</b>
Net debt	-17.6	-7.5	5.9	<b>3.4</b>	<b>-9.5</b>	EPS (adj.) growth-%	14%	-37%	-5%	<b>36%</b>	<b>11%</b>
Cash flow	2021	2022	2023	2024e	2025e	EBITDA-%	39.4 %	27.7 %	35.4 %	<b>41.7 %</b>	<b>43.9 %</b>
EBITDA	25.3	19.8	27.7	<b>34.3</b>	<b>37.9</b>	EBIT (adj.)-%	36.9 %	25.6 %	30.4 %	<b>33.0 %</b>	<b>30.6 %</b>
Change in working capital	-15.5	-9.6	-10.4	<b>-4.4</b>	<b>-0.8</b>	EBIT-%	36.9 %	25.6 %	30.4 %	<b>33.0 %</b>	<b>30.6 %</b>
Operating cash flow	6.3	4.4	12.7	<b>23.2</b>	<b>30.7</b>	ROE-%	42.0 %	15.6 %	13.4 %	<b>16.3 %</b>	<b>15.4 %</b>
CAPEX	-7.3	-14.8	-13.9	<b>-14.4</b>	<b>-14.4</b>	ROI-%	46.8 %	24.0 %	24.1 %	<b>20.9 %</b>	<b>17.1 %</b>
Free cash flow	-4.7	-4.9	-0.6	<b>7.8</b>	<b>16.3</b>	Equity ratio	85.4 %	77.1 %	67.5 %	<b>62.8 %</b>	<b>66.7 %</b>
						Gearing	-25.9 %	-9.3 %	6.8 %	<b>3.4 %</b>	<b>-8.0 %</b>
Valuation multiples	2021	2022	2023	2024e	2025e						
EV/S	6.9	2.6	1.4	<b>1.1</b>	<b>0.9</b>						
EV/EBITDA (adj.)	17.5	9.5	4.1	<b>2.6</b>	<b>2.0</b>						
EV/EBIT (adj.)	18.7	10.3	4.8	<b>3.3</b>	<b>2.9</b>						
P/E (adj.)	25.0	17.0	9.6	<b>5.6</b>	<b>5.1</b>						
P/B	6.8	2.4	1.2	<b>0.8</b>	<b>0.7</b>						
Dividend-%	0.0 %	0.0 %	0.1 %	<b>0.4 %</b>	<b>0.4 %</b>						

Source: Inderes



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Buy	The 12-month risk-adjusted expected shareholder return of the share is very attractive
Accumulate	The 12-month risk-adjusted expected shareholder return of the share is attractive
Reduce	The 12-month risk-adjusted expected shareholder return of the share is weak
Sell	The 12-month risk-adjusted expected shareholder return of the share is very weak
The assessment of the 12-month risk-adjusted expected total shareholder return based on the above-mentioned definitions is company-specific and subjective. Consequently, similar 12-month expected total shareholder returns between different shares may result in different recommendations, and the recommendations and 12-month expected total shareholder returns between different shares should not be compared with each other. The counterpart of the expected total shareholder return is Inderes' view of the risk taken by the investor, which varies considerably between companies and scenarios. Thus, a high expected total shareholder return does not necessarily lead to positive performance when the risks are exceptionally high and, correspondingly, a low expected total shareholder return does not necessarily lead to a negative recommendation if Inderes considers the risks to be moderate.	

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## Recommendation history (>12 mo)

Date	Recommendation	Target	Share price
8/5/2022	Accumulate	0.80 €	0.69 €
9/15/2022	Accumulate	0.65 €	0.54 €
10/24/2022	Accumulate	0.65 €	0.54 €
12/15/2022	Accumulate	0.70 €	0.63 €
2/27/2023	Reduce	0.58 €	0.54 €
3/28/2023	Accumulate	0.54 €	0.44 €
4/19/2023	Reduce	0.54 €	0.52 €
8/7/2023	Accumulate	0.54 €	0.48 €
10/30/2023	Reduce	0.42 €	0.38 €
2/23/2024	Reduce	0.35 €	0.32 €
<i>Reverse split at 20:1 ratio</i>			
4/29/2024	Reduce	7.00 €	6.30 €
5/10/2024	Reduce	6.00 €	5.41 €



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