

Detecting new sources of growth

Underlying demand in the imaging markets remains strong but issues in the supply chain have restricted DT's growth. We expect revenue and profitability to see solid development in 2023 with the completion of the R&D program. We retain our HOLD-rating and TP of EUR 20.0.

External factors still restricting DT's full potential

MBU performed well during the whole pandemic time while decreased demand for aviation solutions caused a significant decline in SBU's activity. Industrial clients started investments early during the pandemic and IBU has enjoyed a solid revenue growth since. The recovery of SBU has started but the revenue is still significantly lacking from the levels of 2019. Moreover, COVID-19 lockdowns in China have further restricted the availability of critical components, forcing DT and its clients to postpone their deliveries. Even though the lockdowns in China would ease, the "normal" component shortage is expected to continue.

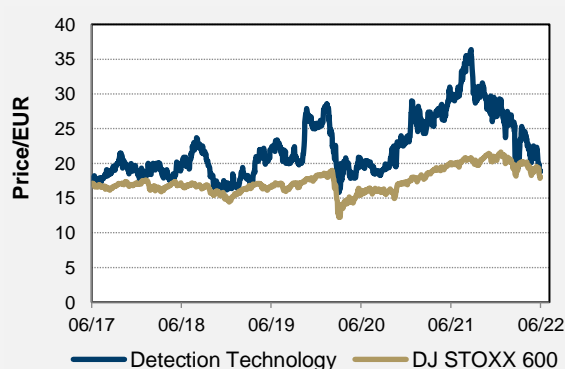
R&D pipeline loaded with opportunities

DT initiated its R&D program in early 2022 to lower its exposure to the component shortage which eventually enables faster lead times and higher revenue growth. The company aims to renew its products so that the critical components with low availability can be replaced by the components with better availability. DT's R&D pipeline provides a potential for future development as the usage of data-emphasized imaging increases in all its market segments. Furthermore, investments in multi-energy technology provide notable future potential when ME solutions commercialize.

HOLD with a target price of EUR 20.0

Supply chain issues and increasing cost inflation as well as geopolitical tensions have forced us to take a more conservative stance. However, we believe in DT's long-term story given its growth potential and developing technology and thus we retain our HOLD-rating with a TP of EUR 20.0. Future earnings growth supports the stock's upward development, but we see DT's current valuation compared to its peers somewhat elevated, not providing a suitable moment for increasing the position in DT.

Rating

HOLD


Share price, EUR (Last trading day's closing price) 18.95

Target price, EUR 20.0

Latest change in recommendation 21-Apr-21

Latest report on company 7-Jun-22

Research paid by issuer: YES

No. of shares outstanding, '000's 14,656

No. of shares fully diluted, '000's 15,156

Market cap, EURm 278

Free float, % 0.0

Exchange rate 0.000

Reuters code DETEC.HE

Bloomberg code DETEC FH

Average daily volume, EURm 0.0

Next interim report 03-Aug-22

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BUY HOLD SELL

KEY FIGURES

	Sales EURm	EBIT EURm	EBIT %	FCF EURm	EPS EUR	P/E (x)	EV/Sales (x)	EV/EBIT (x)	FCF yield %	DPS EUR
2020	81.6	8.7	10.7%	4.4	0.47	51.0	4.0	37.1	1.3	0.28
2021	89.8	10.6	11.8%	5.8	0.63	46.4	4.5	38.0	1.3	0.35
2022E	100.4	13.0	13.0%	5.5	0.70	27.0	2.5	19.1	2.0	0.39
2023E	112.1	17.9	16.0%	8.0	0.97	19.6	2.2	13.8	2.9	0.48
2024E	122.8	19.8	16.1%	10.1	1.07	17.7	2.0	12.4	3.6	0.53
Market cap, EURm	278		Gearing 2022E, %		-35.6		CAGR EPS 2021-24, %		19.1	
Net debt 2022E, EURm	-28		Price/book 2022E		3.5		CAGR sales 2021-24, %		11.0	
Enterprise value, EURm	250		Dividend yield 2022E, %		2.0		ROE 2022E, %		13.5	
Total assets 2022E, EURm	99		Tax rate 2022E, %		20.0		ROCE 2022E, %		16.7	
Goodwill 2022E, EURm	0		Equity ratio 2022E, %		80.1		PEG, P/E 22/CAGR		1.3	

Investment summary

X-ray detection solutions to medical, security, and industrial markets

Detection Technology is a global niche player providing X-ray detection solutions in medical, security, and industrial applications. By utilizing value-adding manufacturing and outsourcing capital-intensive processes, the business ties less capital and the production is flexible and easy to adjust. DT's solutions are either standardized "off-the-shelf" or customer-tailored products. To our understanding, the company has the widest digital X-ray detection portfolio and leading technological capabilities. DT invests a significant amount of its revenue in R&D (11.7% in 2021) to improve its competitiveness, fight against price erosion and launch new products.

Broad offering to private and public sector

DT has three business units: medical (MBU), security (SBU), and industrial business unit (IBU). The majority of MBU and SBU end-customers are governments or public entities while IBU provides most of its solutions to private-sector corporations. Most of MBU's solutions are customized while SBU provides both standard and customized products and the majority of IBU's products are standardized "off-the-shelf" solutions.

Track record of profitable growth

The company has grown profitably in recent years. DT's group revenue has grown at a CAGR of 18% during 2010-21 while during its time as a public company (2015-21), DT has shown annual revenue growth of 13%. The company scored its record EBIT margin of 22% in 2017, but since then the margins have been declining. The last two years have been tough in terms of relative profitability but driven by revenue growth and DT's scalable business model, we expect the profitability to improve during the next few years. We note that the current market environment restricts DT's growth and margin potential notably.

Megatrends supporting the growth

DT operates in the imaging markets that are supported by multiple megatrends: the aging population, insecurity concerns, climate change, digitalization, and AI, quality and efficiency requirements, as well as new emerging markets. The company has noted that X-ray technology is ever-increasing while the accessibility of imaging technology increases, radiation dosage decreases, and emerging markets are digitalizing their X-ray imaging equipment. Furthermore, DT's emphasis on the beyond hardware principle opens new growth opportunities in the future.

The recovery of aviation accelerates the growth

The company's management has indicated that the security business is gradually recovering from the COVID drop and investments in aviation are expected to start again. TSA is investing USD 4.8bn into its aviation security renewal during 2021-25. ECAC and Asian aviation authorities are planning to execute the same kind of renewal, which in total generates a growing demand for security applications where DT holds a solid market position. Combining the recovering demand and new investments, we expect security imaging markets to grow significantly faster than DT's approximation of annual growth rate during the next few years.

Estimates intact, expecting strong EPS growth during 2022-25

With our estimates intact, we expect the topline to grow by 11.7% y/y to EUR 100.4m in 2022, driven by the strong development of SBU and IBU. Driven by increased revenue, we expect the company to achieve an EBIT margin of 13% in 2022, implying a 22E EBIT of EUR 13m. Driven by strong revenue growth and scalability, on our estimates, DT will show strong double-digit EPS growth during 2022-25.

Valuation declined significantly but still trading above its peers

During 2020-21, DT's valuation took a notable leap above its historical levels. At best, the company was valued with a P/E multiple above 50x and EV/EBIT near 30x. Now, the company trades above its peers with 22E P/E of 27x and EV/EBIT of 19x. Meanwhile, the company's 23E EV/EBIT multiple lands near its peer group median with our expected EPS growth. We retain our HOLD-rating and target price of EUR 20.0.

Company description

Company overview

X-ray detection solutions to medical, security, and industrial markets

Detection Technology (DT) is a global technology company specialized in X-ray detector solutions for medical, security, and industrial applications. The company produces, develops, markets, and sells standardized and customized X-ray imaging solutions ranging from photodiodes to optimized detector subsystems with ASICs (application-specific integrated circuit), electronics, mechanics, and software for original equipment manufacturers (OEMs) and X-ray equipment integrators.

Broad offering to private and public sector

DT was established in Espoo, Finland in 1991 by three scientists with nuclear research backgrounds. The company was founded to industrialize ultra-sensitive sensor technology. DT expanded abroad relatively quickly, China being the first. The company was listed on Nasdaq First North Growth Market in 2015 in order to raise funds for future growth.

Track record of profitable growth

By focusing purely on X-ray detection and through persistent investments in R&D, the company has achieved the position of technology leader. The company has the world's widest line-scan X-ray detector portfolio, and it provides end-to-end detector solutions utilizing standard and scalable building blocks making the company's portfolio unique. The products are designed to meet the most stringent requirements, for example, security equipment standards in aviation, such as ECAC EDSCB C3, ECAC EDS Standard 3.1, and TSA AT-2 TIER II.

Megatrends supporting the growth

The company operates globally and has approx. 74% (2021) of net sales were generated in the APAC region, especially in China. Furthermore, ~18% of revenue splits to the EMEA region and 8% to the Americas respectively. DT's management has indicated that the Americas' sales have been affected negatively by the trade war between the USA and China.

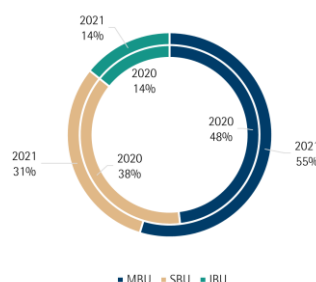
Employing 451 persons in four countries

The company is headquartered in Espoo, Finland. DT has offices in Finland, France, China, and the USA. Production mostly takes place in China while R&D centers are located in Finland, China, and France. At the end of 2021, the company employed 451 persons: 336 in Asia, 5 in America, and 110 in Europe. In our view, a major part of the company's personnel is highly educated and DT profiles rather as an expert than a manufacturing organization.

Divided into three business units

The company operates in three different industries: 1) medical (MBU), 2) security (SBU), and industrial (IBU). Previously, SBU has been the leading BU, but MBU surpassed it during difficult pandemic times. IBU is a new BU and still a young business with decent growth potential. IBU was separated from SBU at the end of 2020.

Figure 2: Revenue split by business units during 2020-21



Source: Detection Technology, Evli Research

Strategy

Strategy 2025: growth leader in digital X-ray imaging solutions in EUR 2.9 billion

DT renewed its strategy in 2019. Its new target is to be a global growth leader in *digital X-ray imaging solutions* and a significant player in other technologies where the company sees good business opportunities. DT achieved the target of its previous strategy in 2020: a leader in CT and line scan X-ray detectors with a 20% market share in the EUR ~700 million market. Given the new technologies, DT has developed or acquired during the 2010s, the new strategy's target market was also updated to include technologies such as multi-energy and flat-panel detection. DT's management has estimated the new market to be worth EUR ~3bn at the end of 2025.

DT's 2025 strategy's cornerstones are:

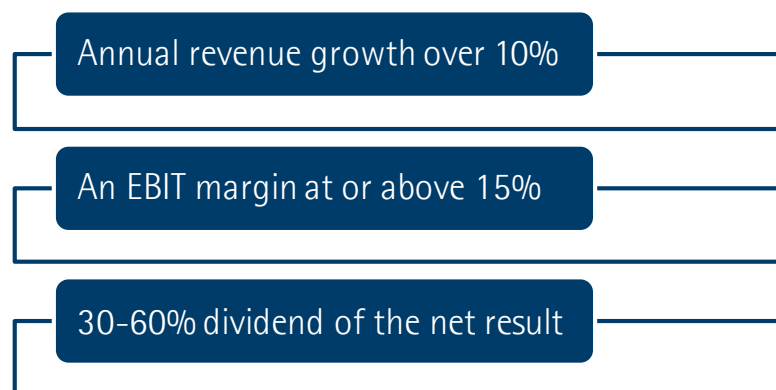
1. **Focusing on X-ray technology:** DT has comprehensive expertise in X-ray imaging far from the 1990s. The company's offering covers all main X-ray industries and DT has the world's widest line-scan X-ray detector portfolio.
2. **Customer-specific tailoring:** DT produces modular solutions that can be modified to meet customer-specific applications. DT believes that customization is one of the key competitive advantages of the company. Joint product development projects with customers might offer new perspectives and solutions that can be applied in DT's R&D and product families.
3. **R&D investments:** The company has annually invested ~11% of net sales to R&D to compete against price competition, strengthen its technology base, launch new product families, and mitigate price erosion.
4. **Geographical reach:** The company will continue to strengthen its operations in its key markets. In addition, DT plans to expand its reseller network, particularly in countries where it does not have its own sales organization.

Financial targets

Targeting profitable growth

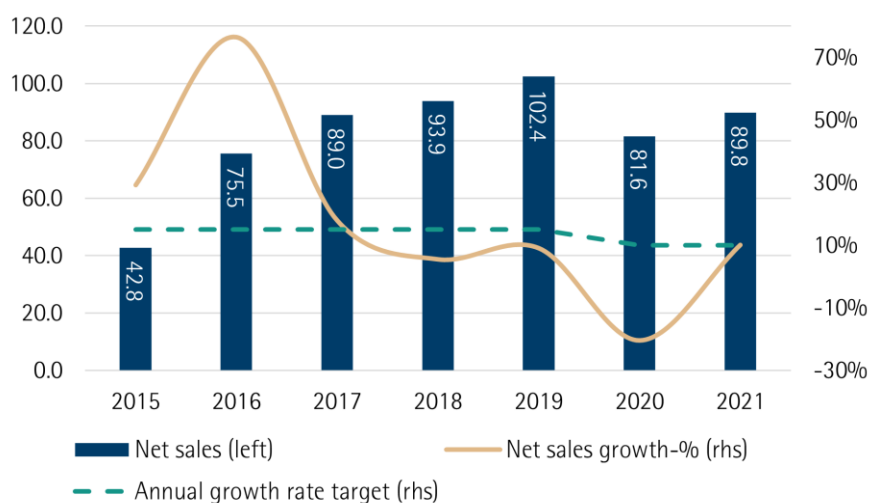
DT's medium-term financial targets were left intact during the strategy revision. The company is targeting annual revenue growth over 10%, an EBIT margin at or above 15%, and distributing a dividend of 30-60% of the net result.

Figure 3: Financial targets



Source: Detection Technology, Evli Research

Figure 4: Actualized net sales growth vs. medium-term target

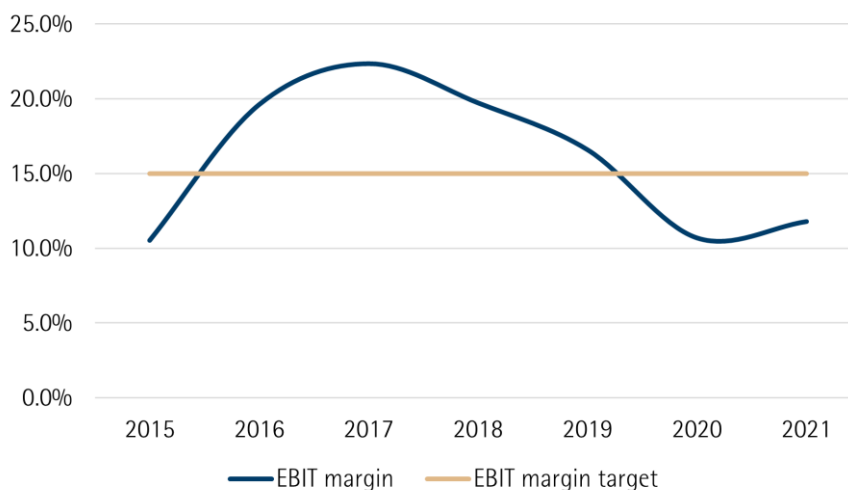


Source: Detection Technology, Evli Research

Growth target achieved in 2021

At the start of 2020, DT lowered its annual net sales growth target from 15% to 10% to reflect the market situation at that time. During 2015-17, the company showed topline growth above its medium-term target. In 2021, the first time since 2017, DT achieved its growth target by recording y/y growth of 10.1%. Current issues in the markets still restrict DT's full growth potential which in a healthy environment should be clearly above the company's targets given the strong underlying demand for imaging solutions.

Figure 5: Actualized EBIT margin vs. targets



Source: Detection Technology, Evli Research

External factors harmed the profitability

During 2015-19, the company generated solid profitability, with EBIT margin being above the medium-term target of 15%. However, a drop in the demand for aviation solutions driven by COVID-19 pushed DT's EBIT margin below the company's target level in 2020. Also in 2021, driven by still lower revenue than in 2019 and higher material costs, profitability fell short of the company's medium-term target. Given DT's soft Q2 driven by issues in the supply chain, we expect the company not to exceed the 15% EBIT margin in 2022.

Business model

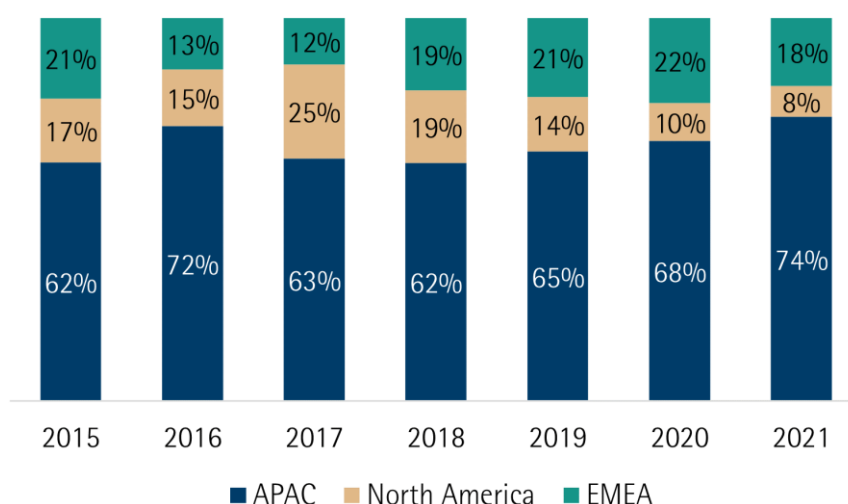
Asset light business model by focusing on value-adding operations

DT focuses on value-adding detector manufacturing operations, such as silicon wafer dicing, chip assembly (chip-on-board, flip chip) on organic and ceramic substrates, wire bonding, scintillator assembly, final assembly (PCBAs, cables, mechanics), as well as final electrical and optical testing. By outsourcing the capital-intensive processes, the company achieves more flexibility, scalability, and the ability to make quick changes in the product mix.

X-ray solutions to over 40 different countries and for 370 active clients

The company delivers standardized or customized X-ray imaging solutions for equipment OEMs that produce the end-product using DT's detectors, components, algorithms, and software. DT offers solutions to over 40 different countries and for 370 active clients (2021). SBU's and MBU's end customers are typically governments or public entities, such as airports, customs, hospitals, and dental care, while IBU provides solutions for private-owned corporations, such as food and pharmaceutical manufacturers.

Figure 6: Geographical revenue split



Source: Detection Technology, Evli Research

Strong position in the fast-growing market, the APAC region

DT has been a strong player in Asia, especially in China, and has sold most of its products to the APAC region in recent years. The APAC region is also the fastest-growing market in digital X-ray detection solutions. The strong presence in Asia stems from the past when DT started operations in China by co-operating with recognized Tsinghua University in 1994. The share of net sales in other regions has, to our understanding, been declining partly due to strong performance in the APAC region and partly due to tariffs between China and the USA (only the Americas' share). DT's sales are driven by the demand for end-products, and one should be aware that the company's geographical sales don't reflect the real distribution of sales and exposure to different regions since OEMs are also global operators.

Megatrends to increase the usage of and demand for X-ray equipment

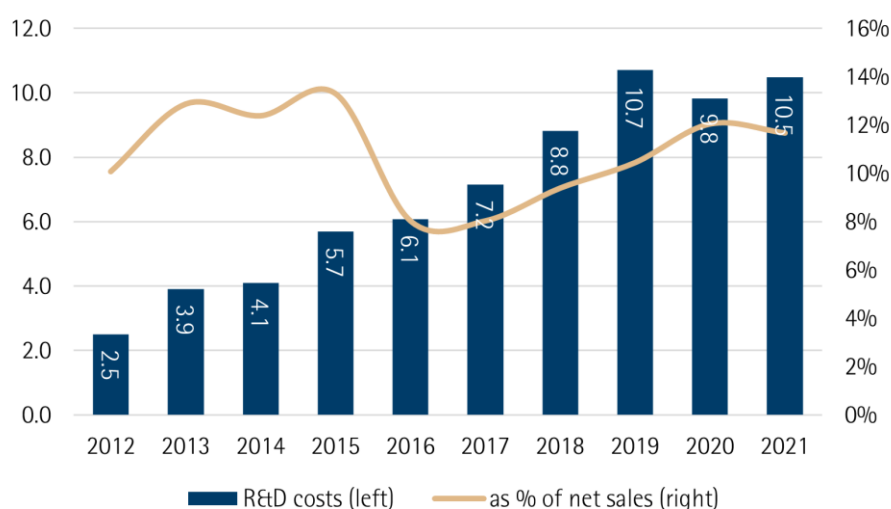
DT operates in industries where the growth relies highly on megatrends. The aging population and growing investments in healthcare drive medical revenue growth. The company's management expects emerging economies to consistently invest in healthcare infrastructure (including X-ray) and developed economies to temporarily reinforce their X-ray capabilities which were in danger of overload during COVID-19. Lately, healthcare investments have resulted in growing sales of CT solutions, especially

in China. Growing insecurity concerns and regulations increase the demand for X-ray devices in aviation, events, urban transformation, and buildings. For instance, the security standards in USA's aviation are driving airports to renew security checks with more expensive and accurate CT scanners. Similar security standard updates are occurring also in Asia and Europe that are currently being negotiated and are expected to be revealed during 2022. Growth is also seen in industrial applications, as X-ray imaging is an effective way to ensure the quality of products and efficiency of production for industrial corporations, such as in the food and pharmaceutical industries. The company's management has also raised climate change as an indirect driver for sales growth as insecurity and requirements for recycling increase. Moreover, digitalization and artificial intelligence (AI) offer new dimensions for X-ray imaging. All in all, the usage of X-ray imaging is ever-growing, providing DT a chance to achieve its goals.

Potential in new solutions and technologies

DT has increased its focus on the "beyond hardware" principle, where the company is looking for opportunities to commercialize software and services alongside the hardware. Beyond hardware is still a new concept that the company is piloting but some solutions have already been delivered to IBU customers. In addition, the company sees potential in new but still expensive multi-energy (ME) imaging systems. ME technology is the most accurate X-ray detection method in the company's product portfolio and DT's management sees future potential in it. In order to revert the earnings of the ME business from negative to positive, it would require more supply from market participants. So far, few medical OEMs have come in with their own vertical ME solutions. Meanwhile, DT has delivered some solutions to industrial customers where the applicability and quality offset the price factor in purchase decisions whereas in medical and security clients usually tender out the supplier. DT has indicated that ME is a technology that covers all its applications and therefore has potential in the field of X-ray imaging.

Figure 7: Research and development costs in EURm



Source: Detection Technology, Evli Research

Annual R&D investments approx. 11% of net sales

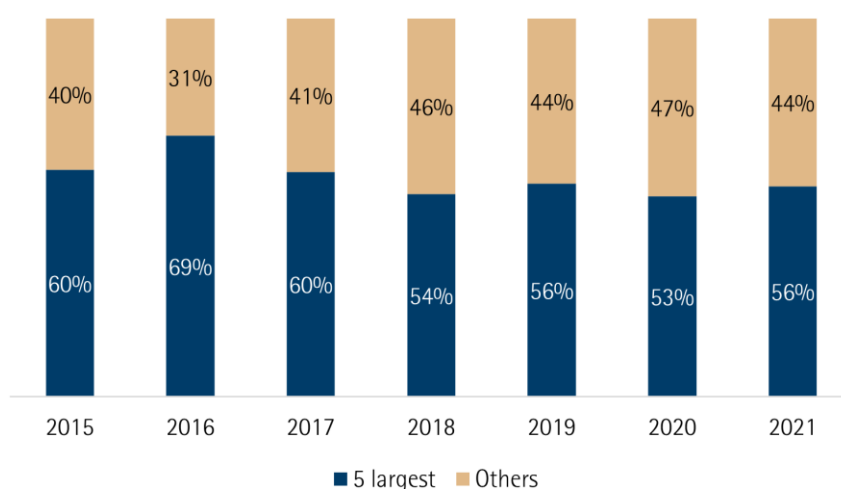
R&D plays a crucial part in DT's business enabling them to develop existing products, fight against price erosion and competition, and launch new products onto the market. The company's R&D activities include, for example, technology platform road mapping and joint product development projects with its customers. During 2015-2021, DT's R&D costs were in the range of 8-13% of net sales. According to DT's management, more

than half of R&D costs are personnel expenses. The R&D costs are mostly written off as expenses, and not capitalized, but some R&D costs related to tools, materials, and equipment have previously been capitalized.

Expanding the technology base by acquisitions

The company's management has noted that they are spending time and money seeking potential companies to acquire. DT acquired French technology company MultiX from auction sales in late 2018. According to the company's management, past and potential future acquisitions aim to expand the technology base. In order to avoid risks, DT seeks a smaller size of business than itself. The company is not willing to pay for overpriced businesses and current valuations are limiting the set of potential acquisition targets even though the valuations of public companies have seen some decreases.

Figure 8: Net sales split by customer size



Source: Detection Technology, Evli Research

A centralized customer base increases risks

DT still has a quite centralized customer base and over half of the revenue is generated by the five largest customers. However, the share of the top 5 customers has declined and the customer base has grown over recent years. Even though we see the centralization of the customer base as a risk factor, the track record of the company constantly growing its customer base lowers the risk level of customer centralization. Also, DT's technological expertise and well-managed customer relations provide support for growing the customer base.

MBU typically serves large OEMs

In our view, MBU possesses the largest customers of the company's customer base. DT's management has indicated that three of the four largest medical OEMs (GE Healthcare, Siemens, Philips, Canon) are DT's customers. The company also serves the leading industrial and security OEMs, such as Smiths Detection, Analogic, Leidos, and OSI Systems (Evli's assessment; named companies are not disclosed by DT).

SWOT-analysis



Medical business unit (MBU)

Customized solutions for medical customers

The Medical business unit provides X-ray solutions for medical equipment manufacturers. DT produces both customer-tailored and standardized off-the-shelf X-ray detection solutions, but the company's management has indicated that a major part of MBU sales is tailored solutions as its customers are typically large OEMs. DT delivers solutions for several medical fields, such as:

- Bone densitometry
- Chest and trauma X-ray
- Computed tomography (CT)
- Dental X-ray
- Mammography
- Surgical X-ray imaging

Medical market to reach EUR 2bn until 2025

DT's management estimates the size of the medical market to reach EUR ~2bn at the end of 2025. The market is expected to grow by 5% annually in the medium term.

Healthcare investments to feed the demand for medical X-ray equipment

DT expects the demand for MBU to continue strong. According to DT's management, both developed and developing countries have reinforced their healthcare capacities that were overloaded during the COVID-19 infection peaks. Nevertheless, the company sees investments in healthcare in developed economies to be transient and the real revenue drivers to be investments in healthcare in emerging economies and the aging population.

Security business unit (SBU)

Detection Technology produces X-ray imaging subsystems for a complete range of security applications from baggage, parcel, and cargo scanning to personnel screening and computed tomography.

We expect the security market to see much higher growth rates after the pandemic

The security application market is estimated to reach EUR ~500m in 2025. The company expects the market to grow by 6% annually in the medium term driven by insecurity concerns and increased regulation. The pandemic has decreased the growth rate of the security market during 2020-21 and we expect the security market to grow faster than 6% during the next few years as halted projects restart and pent-up demand picks up.

Pandemic cut net sales significantly

SBU and especially aviation took a big hit from the pandemic and demand is expected to start to recover during H2'2021. Pre-pandemic revenue from aviation represented over 50% of the SBU sales. According to DT's management, SBU has received a good number of bids and orders, and the company expects the growth of the security market to pick up.

TSA's security updates to offer over USD 500m addressable sales

The company's management has raised the potential of the USA's aviation security standards that will update the security inspections in airports. All the X-ray equipment (typically line scanners) are seen to be replaced by CT scanners. In the next 5 years, TSA is investing USD 4.8bn in enhancing threat detection in the USA. The category where DT act as a supplier amounts to USD 3.68bn. In our cautious calculations, the addressable revenue for detector suppliers from TSA's project is explicitly over USD 500m (sum of sales during 2021-25). Similar projects are under planning in Europe and Asia, and they are expected to be revealed this year.

Table 1: TSA's investments in Enhanced Threat Detection in millions

TSA's Enhanced Threat Detection	DT's Core Competence	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Checkpoint Property Screening System (CPSS)/CT	Yes	28.9	29.0	29.0	29.0	29.0	144.9
Electronic Baggage Screening Program (EBSP)	Yes	254.5	253.1	254.2	256.2	252.2	1 270.2
Advanced Technology X-ray and CPSS/CT	Yes	94.9	100.0	131.2	134.3	136.9	597.3
EBSP	Yes	276.9	280.2	280.9	279.5	286.9	1 404.4
Advanced Imaging Technologies	Yes	24.1	23.8	17.4	19.4	22.6	107.3
ETD	No	23.8	23.5	24.1	24.0	24.8	120.2
Passenger Screening Program (PSP) Legacy	No	10.3	12.4	12.3	12.3	12.7	60.0
TSA-Led National Explosives Detection Canine Teams	No	135.9	136.3	136.4	137.8	140.1	686.5
State and Local Law Enforcement Explosives Detection Canine Teams	No	34.8	34.8	34.8	34.8	34.8	174.0
Counter-Unmanned Aircraft System (C-UAS)	No	3.0	8.2	19.7	19.8	18.5	69.2
Air Cargo	Yes	15.2	15.4	15.4	15.4	15.4	76.8
Surface	Yes	8.0	8.0	8.0	8.0	8.0	40.0
On-Person Screening Capability	Yes	5.0	5.0	12.7	9.8	7.5	40.0
Alarm Resolution Capability	No	3.0	3.0	13.8	4.9	-	24.7
DT's Core Competence		707.5	714.5	748.8	751.6	758.5	3 680.9
Total		918.3	932.7	989.9	985.2	989.4	4 815.5

Source: TSA's investment plan for FY 2021-2025¹, Evli Research¹ Homeland Security – TSA Capital Investment Plan: https://www.dhs.gov/sites/default/files/publications/tsa_-_capital_investment_plan_fy_2021-fy_2025.pdf

Industrial business unit (IBU)

IBU emphasizes more software alongside hardware

X-ray to ensure quality and effectiveness of production

At the end of 2020, DT established a new business unit for industrial solutions to offer high-tier detector solutions in which software and algorithms play a more significant role. Before organization restructuring, IBU sales were reported jointly with SBU sales.

IBU offers products from single detector cards to complete detector systems, including readout electronics and interfacing software that sends raw images to the host computer of the imaging equipment for processing. The end products are used for screening for instance in the following industries:

- Agriculture
- Automotive
- Defence and aerospace
- Food industry
- Forest industry
- Industrial process control
- Mining
- Oil and gas
- Pharmaceutical industry
- Recycling and waste sorting
- Renewable energy

Young and fragmented market

The industrial market is still young and quite fragmented. The market is expected to reach worth EUR ~400m in late 2025. DT expects the market to grow at a CAGR of 5%. Medium-term industrial revenue drivers are quality and efficiency requirements, climate change, digitalization, and AI.

Assets

Figure 9: Balance sheet at the end of 2021

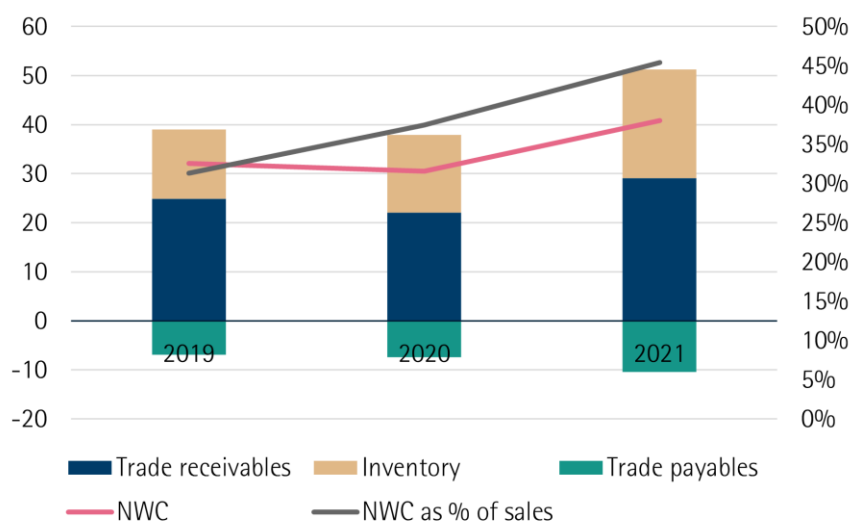


Source: Detection Technology, Evli Research

Strong but not over-capitalized balance sheet

DT's balance sheet is asset-light and strong. To our understanding, the company is holding a relatively large cash position of EUR 29.8m for potential acquisitions. The company's management has noted that DT has increased its inventories (2021: EUR 22.2m) due to the global component shortage. DT's business model ties working capital somewhat, as its trade and other receivables accounted for EUR 31.3m at the end of 2021. Tangible assets amounted to EUR 5.6m which consist of machines, assembly lines, and other equipment located in factories and R&D centers in Finland, China, and France. The company's balance sheet is goodwill-free, and the company had activated intangible assets worth EUR 3.2m at the end of 2021. With a high equity ratio of 80%, the company's equity amounted to EUR 73.5m. Non-interest-bearing current liabilities accounted for EUR 16.4m at the end of 2021 while short-term interest-bearing debt was EUR 2.2m. We wouldn't be afraid if the company would finance its future investments, for instance, acquisitions, with additional debt.

Figure 10: Net working capital

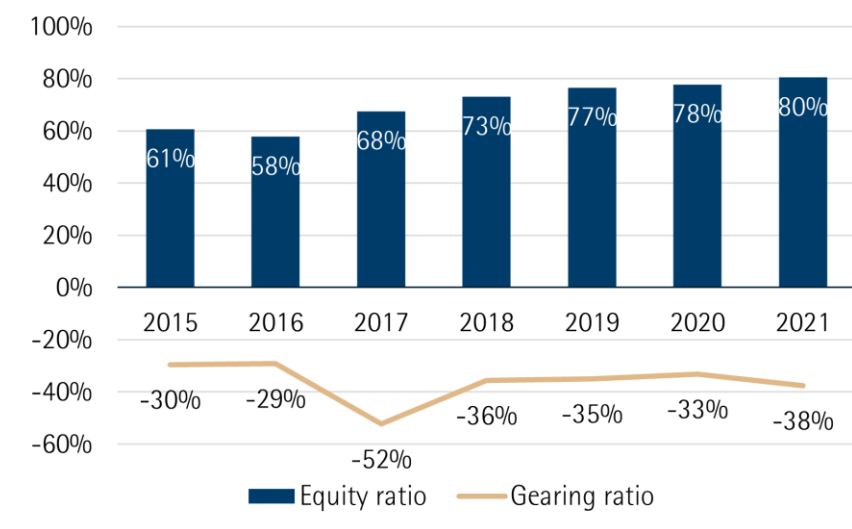


Source: Detection Technology, Evli Research

Growth and position in the value chain ties working capital

Our view is that the company's focus on growth and its position in the value chain has resulted in relatively high net working capital. In addition, DT has increased its inventories due to the low availability of critical components in order to respond to the high demand for detectors which in part has increased its working capital. In our view, relatively low trade payables indicate DT's short terms of payments while we see that DT has provided its customers quite beneficial payment terms. As a result, DT's working capital has been around EUR 40-50m, and net working capital approx. EUR 30-50m, representing over 30% of net sales. As the company's operations require no significant investments, we don't find the higher NWC a big deal but by improving its usage of working capital the company would access more efficient cash flows.

Figure 11: Equity and net gearing ratio



Source: Detection Technology, Evli Research

Net debt-free business

The company is debt-free and the share of equity has raised since 2016. At the end of 2021, the company's gearing and equity ratios were -38% and 80% respectively.

Markets

Market description

New target market almost EUR 3bn in 2025

DT upgraded its strategy in mid-2019, and simultaneously expanded its target market to cover new imaging technologies. The company describes the market as digital X-ray imaging detector solutions and applications. The new market size is estimated to be slightly below EUR 3 billion in 2025. It is hard to estimate the current size of the markets due to the declined volumes of security imaging solutions. According to our calculations, the current market size is around EUR 2.3 billion by expecting that the market is growing at a CAGR of 5.2%.

20% market share in CT and line scanning solutions

According to DT's previous 2020 strategy its core market, i.e., CT and line scanning detection solutions, was estimated to be worth EUR 700 million in 2020 and according to the company's management, DT achieved the share of 20% of the total market size and nominated itself as a market leader at the end of 2020.

New technologies widen the market

In addition to the CT and line scanning solutions, the new, EUR 3 billion market includes new technologies where the technology is not fully commercialized yet or the company has a relatively low market share. DT also searches for new revenue sources using the "beyond hardware" principle where software, data, and services are emphasized alongside the hardware.

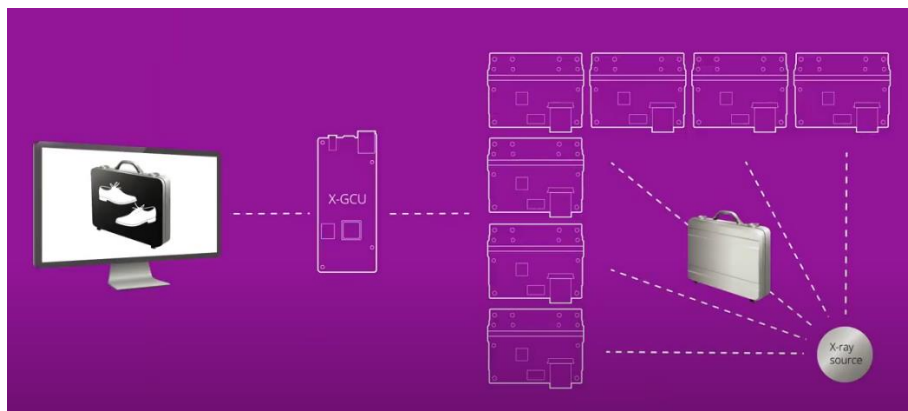
Market share is marginal

The company hasn't revealed its current share in the new market, but we can argue that the share is still marginal, considering the share of new technologies (see Figure 14) and DT's current revenue in that category. Moreover, the company has stated its target is to be the growth leader in such a market during 2019-2025.

X-ray technologies

The passage of X-rays through materials can be recorded with photographic films and detectors, which allows one to see inside objects. X-ray imaging can be used in various applications since the strength of X-ray power can be adjusted to fit the features of the examined object.

Figure 12: Detectors and X-ray control unit



Source: Detection Technology

Detector being the most important component in X-ray equipment

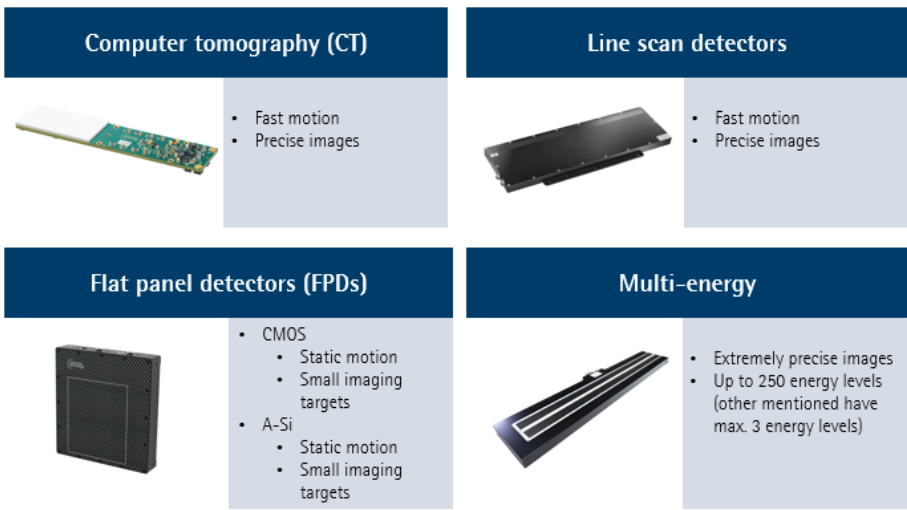
X-ray imaging equipment consists of multiple components. The X-ray generator produces X-rays while the detector measures the X-ray and sends the data to the host computer for processing. DT argues that the most important component for the quality of the X-ray image is the detector. DT estimates that the detectors represent 12-25 % of

Algorithms and AI adding value to X-ray imaging

the total imaging equipment costs. The share varies from one application area to the other, typically the more customized the solutions are the higher the cost. The number of detectors in X-ray equipment varies depending on the application and the size of the X-ray equipment. For example, a general airport security inspection line scanner consists of dozens of detectors while a CT scanner could consist of 100+ detectors.

Digital X-ray technology is nowadays based on algorithms and AI that analyze the data sent from the detector. Algorithms can detect objects that the human eye is not capable to observe, for example, drugs and diseases. With algorithms and AI, the X-ray inspection process can be automated.

Figure 13: Technologies in digital X-ray solutions and applications market



Source: Detection Technology, Evli Research

Flat-panel and multi-energy supplement the product portfolio

As of 2018, DT has reinforced its expertise in new detection technologies, such as multi-energy (ME) and flat-panel detectors (FPDs). Consequently, in 2019 DT renewed its strategy and target market. In addition to CT and line scanners, the new market includes flat-panel detectors and multi-energy technology.

DT's flat-panel portfolio consists of CMOS technology

Flat-panel detectors can be divided into two groups, CMOS flat-panel, and amorphous silicon (a-Si) flat-panel detector. DT has already commercialized CMOS flat-panel detectors for medical, dental, and industrial applications, but the company has no offering in a-Si flat-panel technologies yet. To our understanding, DT sees opportunities to widen its flat-panel technology also in a-Si technology to compete against its main peers.

CMOS vs. a-Si

CMOS technology is suitable for static and small object imaging, such as dental or surgical X-rays, whereas a-Si technology is adequate for static and relatively large object imaging, such as security inspection of large objects or medical imaging of large animals.

Opportunities in ME technology

With the acquisition of MultiX in 2018, DT expanded its technology base into multi-energy technology. The commercialization rate of multi-energy is still quite low, but the company sees business opportunities in such technology due to its accuracy and applicability in every business area. The demand for ME products is quite scarce and markets are still young. OEMs are currently developing vertical solutions for their ME equipment. DT's management has indicated that the technology becomes more cost-effective as the supply increases which decreases the price and cost of production. At this moment, DT has ME solutions for industrial and security applications.

Component shortage

Facing post-pandemic supply chain issues

The majority of the electronics-related industries have been battling against component shortages and cost inflation. High demand, lack of producers, global COVID-19 lockdowns during the first years of the pandemic and now in China, and unreliable lead times have led to a shortage of electronic components, such as semiconductors, that are used also by DT's products. The current visibility of the availability of critical components is weak and DT has purchased components from providers other than its contract partners, from so-called "spot markets". The cost of spot-priced components might be manifold compared to contract suppliers' components, implying that the company's material costs have increased somewhat due to spot component purchases.

Additional R&D program to decrease the exposure to component shortages

DT's product deliveries have been tremendously affected by the component shortage, and sales have been consistently postponed during the last few quarters. In Q1, sales worth few million was postponed to Q2 due to a lack of critical components, especially among the company's customers which resulted in lower orders of DT's products. At first, DT's products were less subject to component shortage but by now, the lack of components has also infected DT's supply chain partially as a result of COVID-19 lockdowns in China. As a consequence, DT started an R&D program to renew its products so that the most poorly available components can be replaced by components having better availability. Therefore, DT lowers its exposure to component shortage and improves its lead times so that delivery delays could be avoided. However, as long as the company's customers lack other components, DT's sales are in danger of being postponed.

Margin pressures ease should the revenue growth materializes

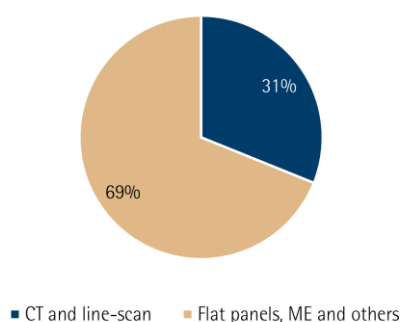
In our view, through lower revenue and increased material costs, DT's margins have had some downward development. Also, higher R&D investments have put some pressure on the margins. With the additional R&D program succeed and the component shortage of DT's customers easing, we expect the growth stemming from strong underlying demand to scale nicely and profitability to improve. However, some industry experts expect the shortage of components to last from one year to multiple years. Therefore, we have taken a more cautious stance.

Market size

EUR 2.9bn addressable markets in 2025

According to DT's estimate, the market size would be around EUR 2.9bn in 2025. In our estimates, the present market size would be approximately EUR 2.4–2.5bn in 2022. However, the COVID-19 pandemic and component shortage have disrupted the markets and estimates might change over time.

Figure 14: Estimated market shares by technologies in 2025

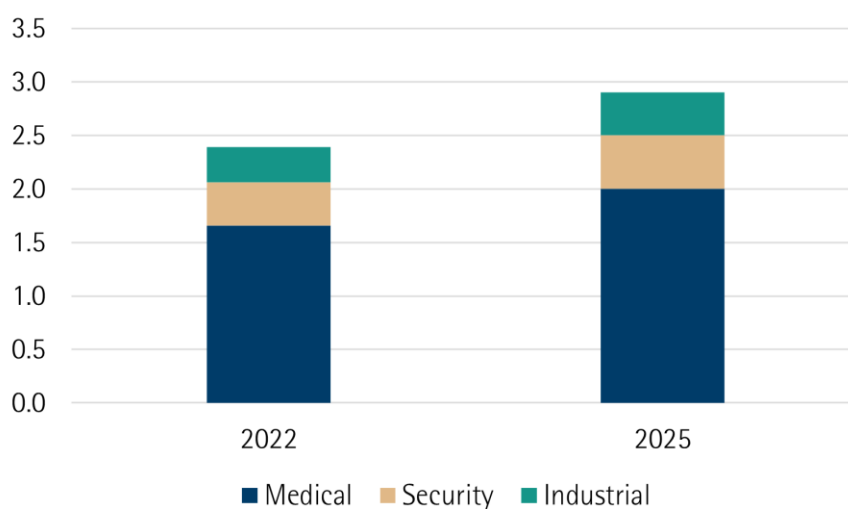


Source: Detection Technology, Evli Research

New technologies will dominate the original ones

In our calculations, original CT and line scan detectors' share of the digital X-ray detector market is around 31% while the new applications (ME, FPDs, and others) will dominate the market by 69% in 2025. DT believes in the potential of multi-energy in the long run, but the commercialization is still in the early stages. Even though the commercialization rate of FPDs is much higher than in ME, there are still new ways to grow the flat-panel business. DT could catch its stake in the growing dental imaging market or expand its FPD portfolio into a-Si technology via acquisition or R&D activities.

Figure 15: Digital X-ray detector market by segments in EURbn



Source: Detection Technology, Evli Research

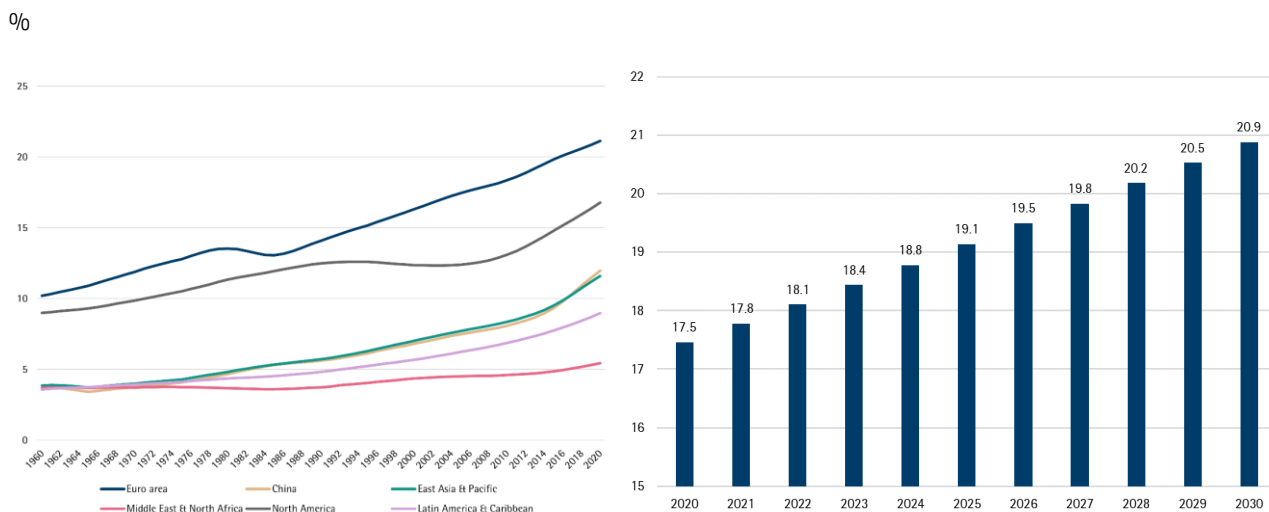
Market drivers

Global long-lasting megatrends support the market to grow

The demand for detectors is ultimately determined by the demand for the end-product, X-ray equipment. DT is well-positioned in a market where the long-term growth is driven by multiple megatrends:

- **Insecurity concerns:** insecurity has increased in heavily trafficked areas such as airports, metro/train stations, and events. Governments and organizations are increasingly investing in X-ray security applications to prepare against and avoid threats.
- **Aging population:** countries are investing in healthcare systems to ensure treatment capacity for the elderly population. Based on previous statistics, the slope of aging population growth has increased especially in Asia and North America in the 2010s and the trend is expected to continue.

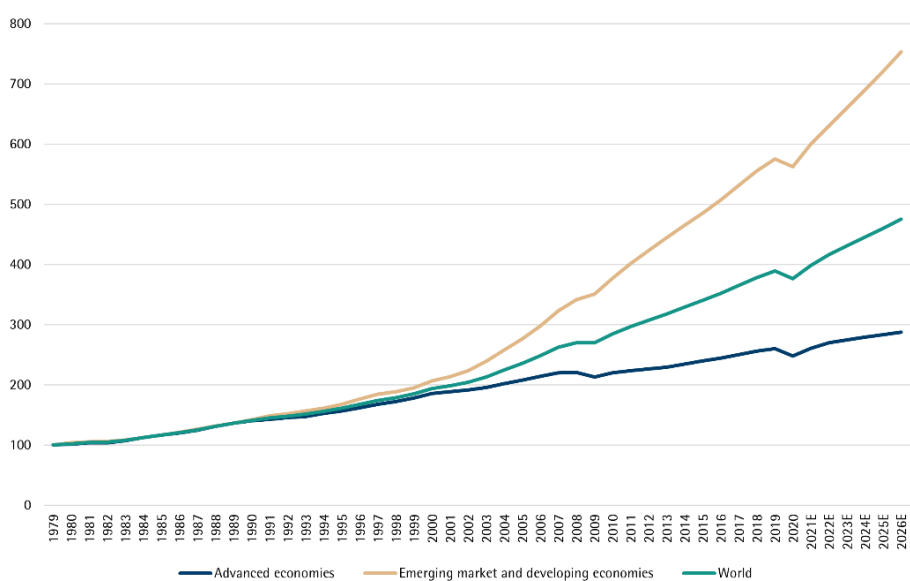
Figure 18: Share of elderly (65 or above) of the total population and projected share of elderly (65 or above) of the total OECD population



Source: World Bank, OECD.stat, Evli Research

- **Climate change:** recycling requirements and increased insecurity open indirect demand for detectors.
- **Digitalization and AI:** digital applications using AI and machine learning raise imaging technology to a new level and boost device renewal.
- **Quality and efficiency requirements:** increased need to control industrial production and product quality using X-rays.
- **Emerging markets:** increased purchasing power and GDP growth drive emerging economies to invest in their healthcare and security

Figure 19: Indexed GDP development in advanced economies, emerging markets, and the entire world from 1980 to 2026E



Source: IMF, Evli Research

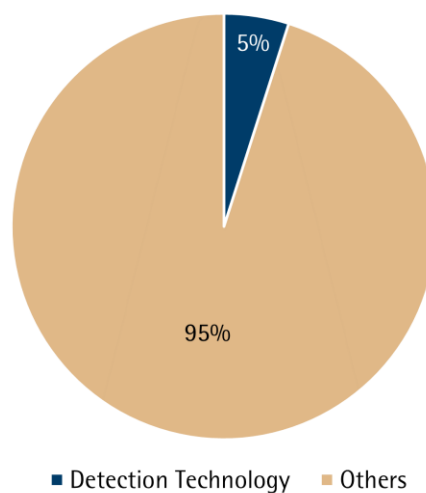
X-ray is a technology that is ever-growing as the accessibility of imaging increases, radiation dosage reduces, and digitalization of X-ray imaging develops in emerging economies. DT expects that X-ray usage spreads over the industry bounds.

Market share

Current market share
below 5%

As the target market grew from EUR 700m to EUR 2.25bn (in 2021), DT's market share diminished significantly. The company held a ~20% market share in its previous market (CT and line scanners) while in the new market of digital X-ray solutions, on our estimates, DT's market share is around 5% in 2025.

Figure 20: Market share in 2025



Source: Evli Research

Competitors

DT is competing against billion-dollar corporations

Most of the main competitors generate billion-dollar revenues annually and produce also other imaging-related products than detectors. DT stands out from the big players with its pure focus on X-ray detectors and staying on the crest of a wave by developing high-end and future technology. Below we have provided a brief summary of the main competitors.

Table 2: Main competitors

Company	Country	Medical	Security	Industrial	Ticker	Note
Hamamatsu Photonics	Japan	Yes	Yes	Yes	6965	Market leader in medical
AMS	Austria	Yes	-	-	AMS	
Sens-Tech	GB	-	Yes	-	-	
Analog Devices	US	Yes	-	-	ADI	
iRay Technology	China	-	Yes	Yes	688301	
X-Scan Imaging	US	-	-	Yes	-	

Source: Detection Technology, Evli Research

Analog Devices

Analog Devices is an American multinational semiconductor company that specializes in data conversion and signal processing technology. Analog Devices sells signal processing technologies for medical imaging. The company produces both standard and application-specific products for CT scanners and digital X-rays. Analog Devices generated USD 7.3bn in revenue with a 27% EBIT margin in 2021.

AMS AG

AMS AG is an Austrian-based designer and manufacturer of optical solutions. The company sells various sensors, interfaces, LiDARs, etc. to industrial, security, and medical customers. AMS competes with DT in flat-panel and CT scan detectors. Through the acquisition of Osram Licht AG in 2020, AMS almost doubled its revenue. The company had annual net sales of EUR 5.0bn and an EBIT margin of 10% in 2021.

Hamamatsu Photonics

Hamamatsu Photonics is a Japanese company manufacturing photomultiplier tubes, imaging devices, light sources, Opto-semiconductors, imaging, and analyzing systems. Hamamatsu competes with DT in all its business segments and is a clear leader in the medical detector market. The company generated net sales of JPY 169.0bn and an EBIT margin of 20% in 2021.

Sens-Tech

Sens-Tech headquartered in Egham, United Kingdom, develops and manufactures high-sensitivity solutions for the detection of light and X-rays. In terms of detectors, Sens-Tech operates in security applications, but it also has other solutions for the medical and industrial fields. Sens-Tech generated GBP 18.7m (approx. EUR 16m) revenue in 2020.

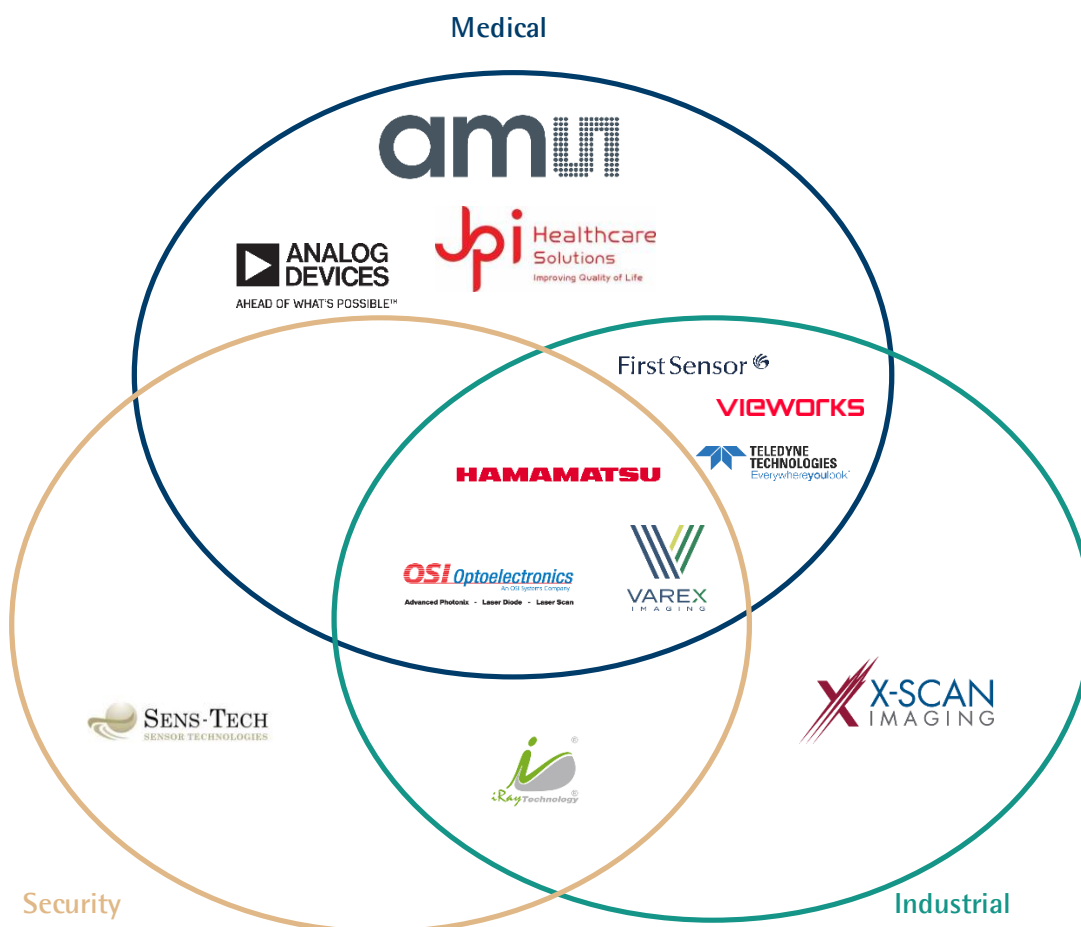
iRay Technology

iRay Technology engages in the research, development, production, and sale of digital X-ray detectors. It offers universal cables, universal radios, mammography detectors, radiography detectors, dynamic detectors, and linear detector arrays. iRay operates in security and industrial applications. iRay had annual net sales of CNY 1.2bn and an EBIT margin of 32% in 2021.

X-Scan Imaging Corporation

X-Scan Imaging Corporation is a US-based manufacturer of high-performance, CMOS Linear Diode Arrays, CMOS & CCD Time Delayed Integration detectors, and line-scan camera systems designed for both visible and radiographic imaging applications. X-Scan competes against DT in industrial applications. No official information on the company's net sales.

Figure 16: Positioning of competitors in the X-ray imaging markets



Source: Evli Research

Competitive landscape

Tight competition in every segment

In our view, the competition is tight in every business area. Most medical and security end-customers are typically governments or public entities and thus the price is an important factor in purchase decisions. The medical market is more saturated, and the competition has centralized to certain players with few market leaders, while security and industrial markets are more fragmented. In our view, DT has a strong position in the security market with a ~10% market share and good foundations for future growth in medical markets while in industrial markets the company operates with a marginal market share.

Non-competitive prices might lead to customer churn

Price competition has increased during recent years and DT has had to ramp down products to replace them with a lower cost detector to compete against customer churn, for example in the case of Aurora replacing X-Card2. DT's management has noted that with Aurora the company has brought already left customers back and acquired new customers. To our understanding, the price competition is stronger in security and medical markets than in industrial.

High entry barriers, technological competence, and patents protect from competition

The industry's high entry barriers, DT's R&D activities, and technological competence support the company's competitive position in X-ray imaging markets. The company's ability to provide customized solutions for customers and wide product portfolio further improves its competitiveness. Moreover, patents are protecting the company's innovative technology.

The company gained market share during 2015–20

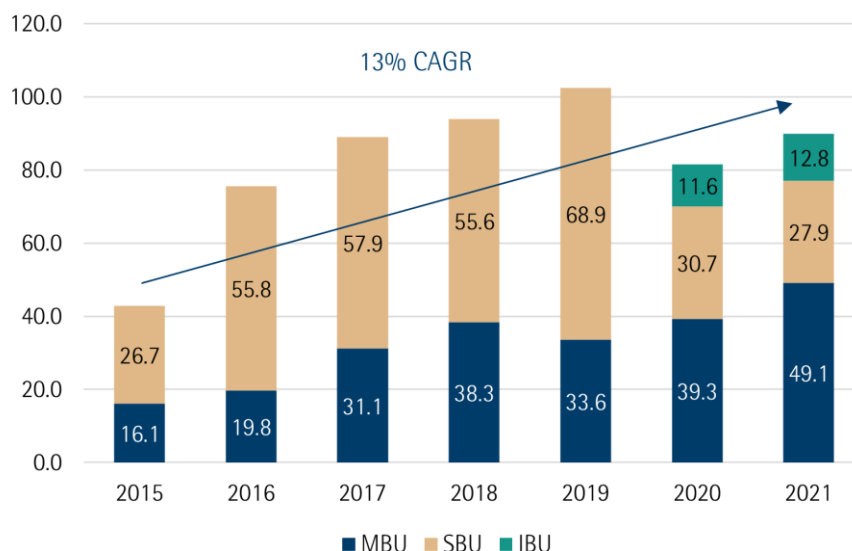
According to its management, DT has gained market share during the previous strategy period (until 2020). The company has also grown faster than the market has grown (based on DT's approximated market growth rates). The claim of gained market share isn't that easy of a task to verify since competitors have business outside the X-ray industry, and hence the growth rates inside peer groups aren't directly comparable. However, based on several independent market research sources², the industry's annual growth rate is around 5–7%. All in all, DT has had strong growth in the past and it is expected to continue.

² 360iResearch (2021), Preeti Wadhvani & Saloni Gankar (2021), Mordor Intelligence (2021), Fortune Business Insights (2021), Sumant Ugalmugle & Rupali Swain (2021), Global Industry Analysts (2021), Meticulous Market Research Pvt. Ltd. (2021)

Financial performance

Net sales

Figure 21: Net sales in EURm



Source: Detection Technology, Evli Research

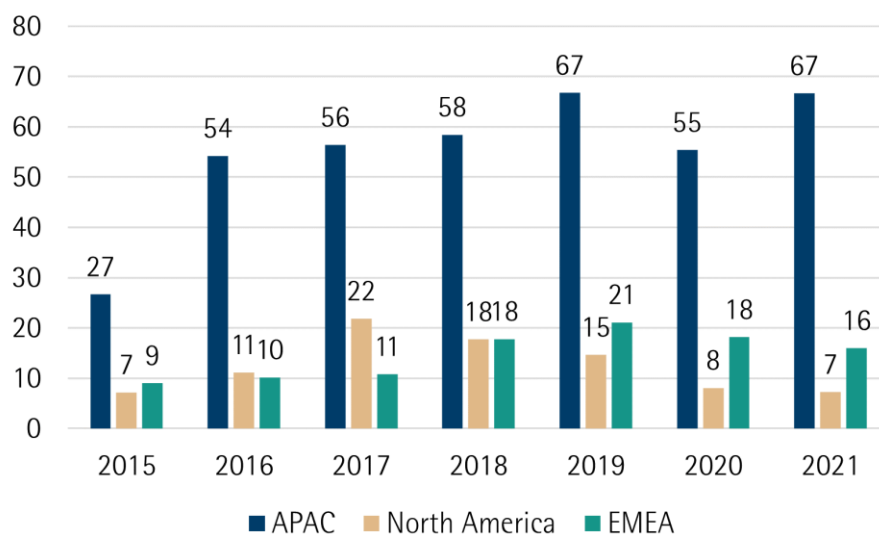
Growing fast: at a CAGR of 18% during 2010-21

Detection Technology has a track record of generating profitable growth for several years. From 2010 to 2021, the company has grown at a CAGR of 18% while during its trading time on Nasdaq First North Helsinki, DT has shown annual growth rates of 13%. Lately, the fastest growing business unit, MBU has grown at a CAGR of 20% during 2015-21 while SBU saw a significant drop in its demand during COVID-19, and the demand for aviation solutions started to recover in late 2021. During 2015-2019, the combination of SBU and IBU (IBU operates currently as an independent business unit) grew annually by some 27%. IBU's independent track is short, but the company grew in 2021 by some 10% y/y.

MBU overperformed SBU during the pandemic, now the component shortage restricts product deliveries

DT's FY 2020 was difficult due to the globally spread pandemic. SBU saw a tremendous drop in sales in 2020 which continued also in 2021. IBU and SBU were reported as one business unit until 2020 and for that reason, the exact decline in SBU sales is hard to estimate, but SBU and IBU together declined by 39% y/y in 2020. The medical business overtook SBU in sales during 2020 and performed well also in 2021, but MBU's good performance wasn't enough to offset the decline in SBU and the group revenue declined by 20% in 2020. DT returned back to its growth path in 2021 and drivers behind the revenue increase were MBU and IBU which both showed double-digit growth figures. Now, the low availability of critical components has slowed the growth pace of MBU despite the demand for its solutions continuing strong. In Q1'22 MBU grew by 4.5% y/y while IBU showed strong double-digit growth by increasing its revenue by 45% y/y. SBU grew from a soft comparison period by ~8% y/y. In early June 2022, DT issued a profit warning in which the company lowered its revenue guidance. Now, DT expects Q2 revenue to decline y/y due to product quality issue in the supply chain and low availability of critical components.

Figure 22: Net sales by region in EURm



Source: Detection Technology, Evli Research

APAC mainly driven by medical solutions

The company has been a strong competitor in the APAC region, especially in China. The strong presence in Asia stems from DT's expansion of its silicon wafer procession to China in 1994 and its cooperation with Chinese scientists, universities, and authorities. Considering geopolitical tensions and current zero-tolerance COVID politics in China, we find DT to carry somewhat risk stemming from its large presence in China. Meanwhile, the presence in the APAC region is evident as several major medical OEMs operate from the region.

Trade war affecting US sales

The sales in the Americas have declined since 2018 when the trade war between the USA and China began. Further decline in revenue during 2020-21, is in our view partially due to the decline of SBU's sales as some security OEMs are based in North America. DT produces most of its products in China and the trade war has had a direct impact on the Americas' sales according to DT's management. At the moment, the tariffs DT faces are "at full mode", but the company uses some procedures to soften the impact of tariffs, for example by selling detectors made in China internally via its subsidiaries.

Solid double-digit growth in the pre-pandemic EMEA

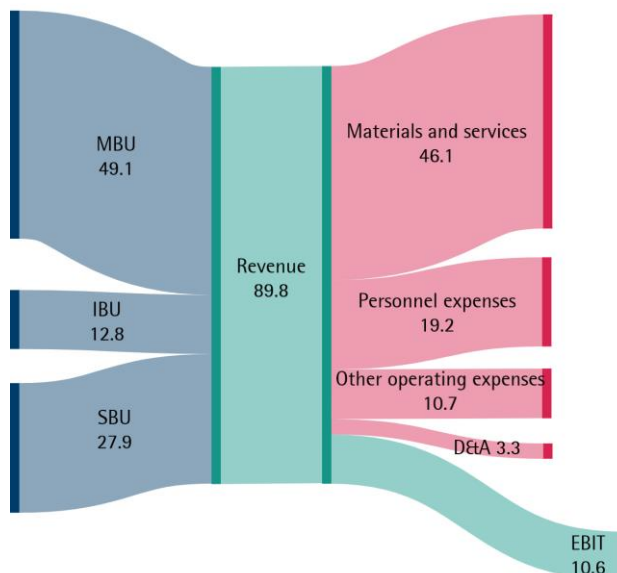
The EMEA region's sales have grown double-digit numbers until the pandemic year 2020 at which time the revenue faced a slight decrease. In our view, some security OEMs operate from Europe, for example, Smiths Detection, which partially explains the decline in the business unit's sales. Meanwhile, to our understanding, the majority of industrial customers are based in the EMEA region. Should the usage of imaging among industrial companies increase, we see some upside potential in the sales of the EMEA region.

APAC being the only region to grow in 2021

The APAC region was the only region that grew in 2021: the APAC grew by 20%, the EMEA region declined by 12% and the Americas declined by 10%. The group demand in 2021 was driven by investments in healthcare, especially in the APAC region. The near-term future seems uncertain mainly due to component shortage, geopolitical risks, China's zero-tolerance COVID politics, and increasing inflation. In order to lift the profitability to the levels of the years 2016-19, we see that DT has to succeed in its pricing decisions and managing its supply chain.

Cost structure

Figure 23: 2021 revenue and cost structure in EURm

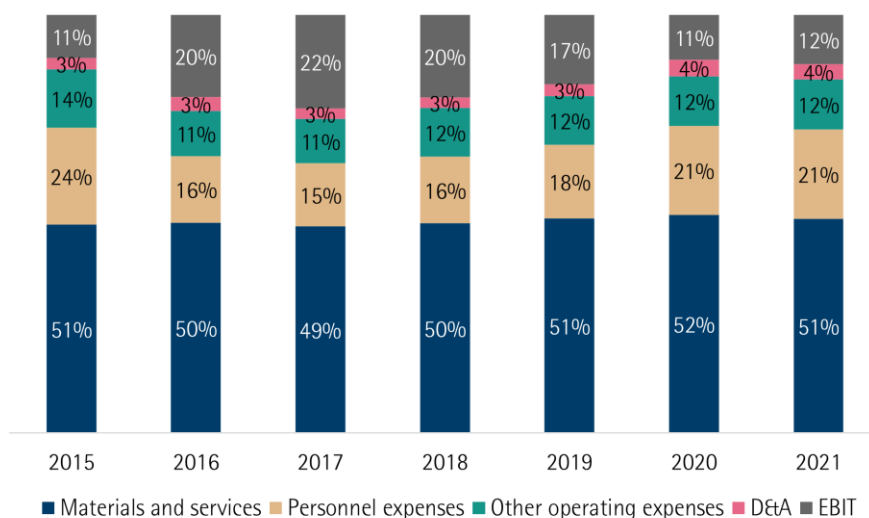


Source: Detection Technology, Evli Research

A simple and stable cost structure provides continuity

The company's cost structure is simple and stable having no surprises. Variable costs, i.e., materials and services cover over 50% of the total operative expenses, personnel expenses are quite stable and ~20% of OPEX, other operative expenses recurring themselves at ~15% of OPEX, and due to the scarcity of in-/tangible assets the depreciation and amortizations are on a low level of ~3% of OPEX.

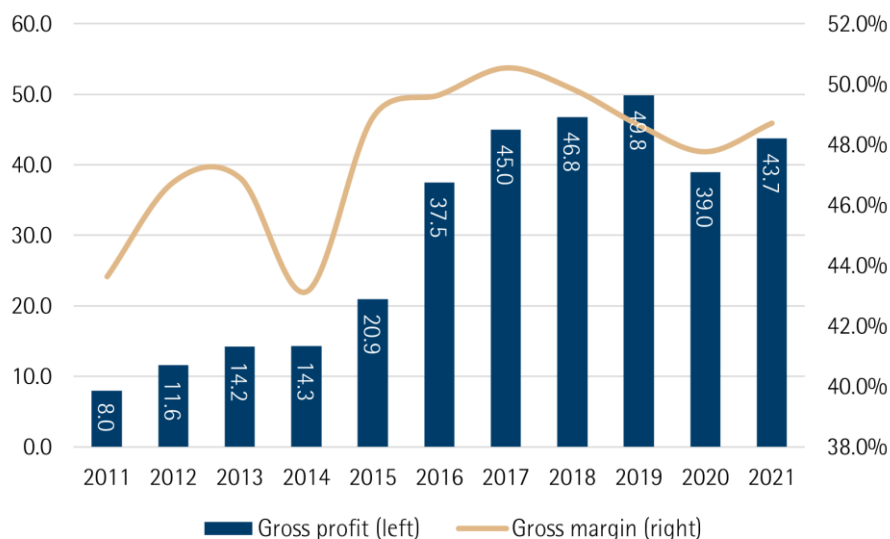
Figure 24: DT's cost structure during 2015-2021



Source: Detection Technology, Evli Research

Gross margin and profitability

Figure 25: Gross profit in EURm and gross margin

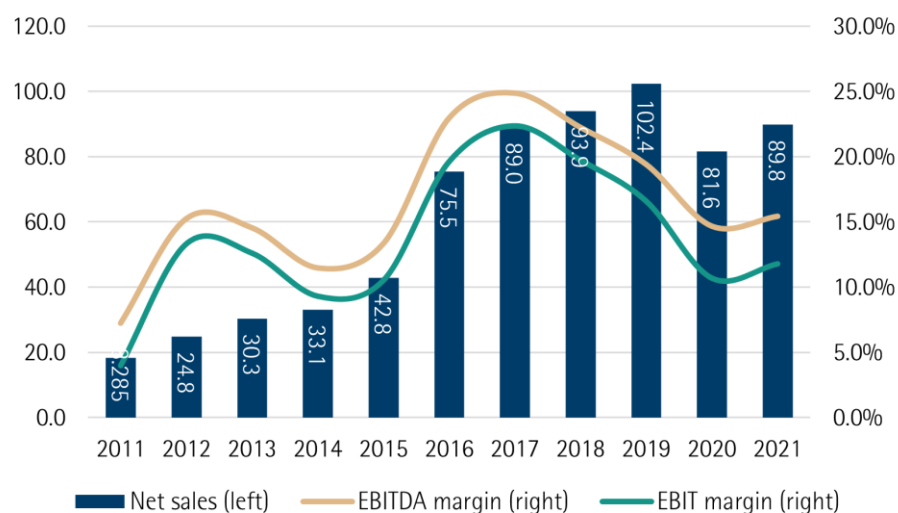


Source: Detection Technology, Evli Research

Gross margin sensitive to price competition

According to the company's management, there is no certain margin level for each product rather the margins depend on the market environment and customer profile. Prices are usually agreed on a binding basis for the following year. Gross profit has developed well during 2015-19, but the margin has impaired since 2017. Our understanding is that the gross margin has weakened due to increased price competition starting from 2017-18 as well as later by the impact of global supply chain issues. In early 2022, DT started an R&D program to decrease its exposure to the component shortage which is expected to be completed gradually starting from Q3 and increasingly in Q4'22. We expect to see a slight margin improvement through the exposure to component shortage decreasing, but the major impact is seen in the topline growth and lead times.

Figure 26: Net sales in EURm, EBITDA, and EBIT margin.



Source: Detection Technology, Evli Research

COVID pressed EBIT margin below targets

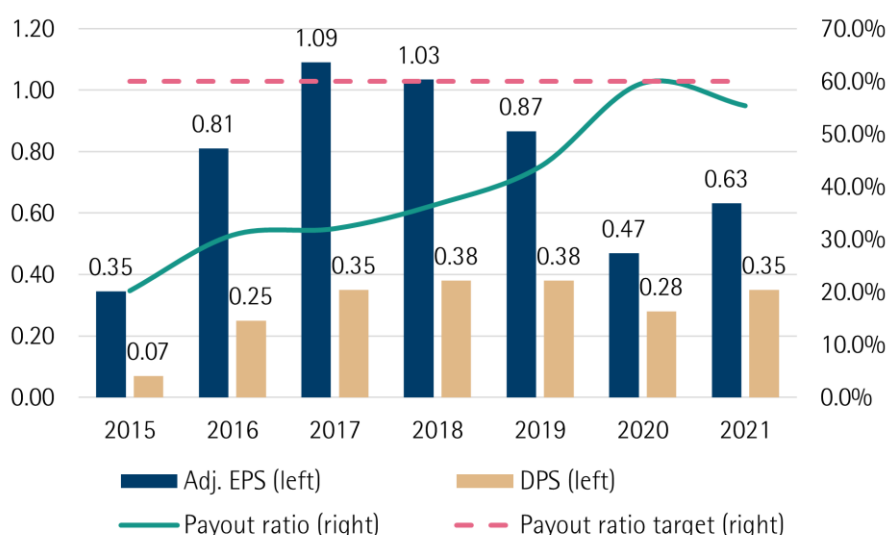
DT is targeting an EBIT margin at or above 15%. The company has generated solid profitability exceeding the target level, excluding the pandemic year 2020 when the EBIT margin dropped to 11%. The year 2021 also fell short of our expectations and the operating profit margin was 11.8%. The downgrade of EBIT margin during 2018-2019 was mainly caused by worsened gross margin and increased investments in future growth and R&D. During 2020-21, lower net sales have resulted in impaired EBIT margin.

R&D investments shrink margins but will add long-term value

The company invests aggressively in R&D and a major part of the costs are written off during the financial year. R&D costs are constantly pushing the margins but the company has shown its capability of developing its product portfolio profitably.

Earnings

Figure 27: Earnings and dividend per share in EUR



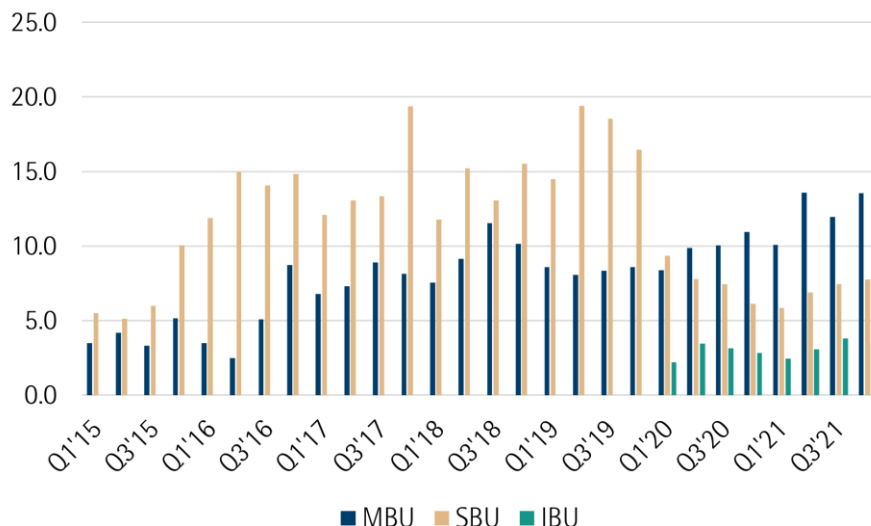
Source: Detection Technology, Evli Research

Relative DPS in the trend of growth

DT made its record EPS in 2017 when the relative profitability was also at the highest level in recorded history. Since 2018, earnings have declined in line with worsening margins while in 2021 EPS changed its direction to positive growth. The company has increased the relative dividend consistently. In 2021, DT distributed almost 60% of its net result to shareholders. DT's target is to annually distribute dividends or returned capital worth 30-60% of the net result.

Seasonality

Figure 28: Revenue seasonality by business units in EURm

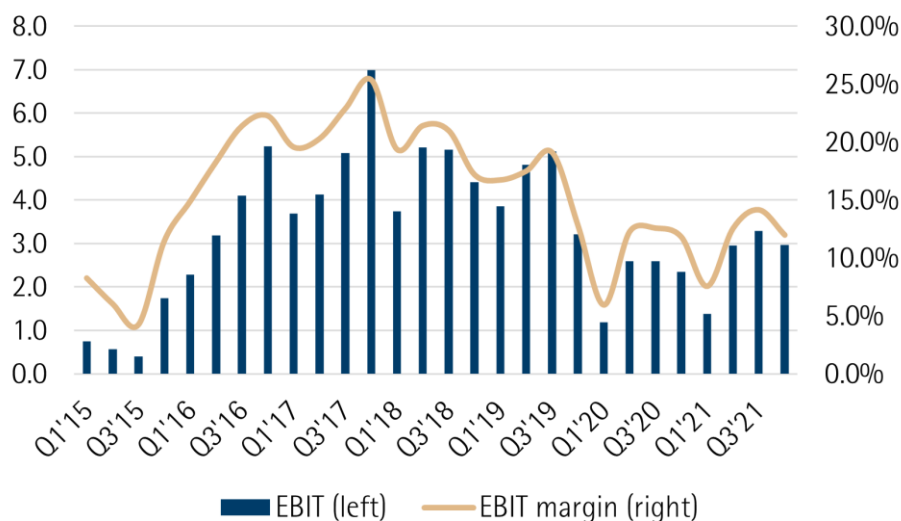


Source: Detection Technology, Evli Research

H2 typically delivers stronger net sales

DT's net sales reflect some seasonality. In most cases, the second half has dominated the first half in net sales in medical and security markets, but the COVID-19 has confused the seasonal trend. There is not enough data to interpret IBU's seasonal characteristics, yet the company's management has indicated that IBU faces some seasonality.

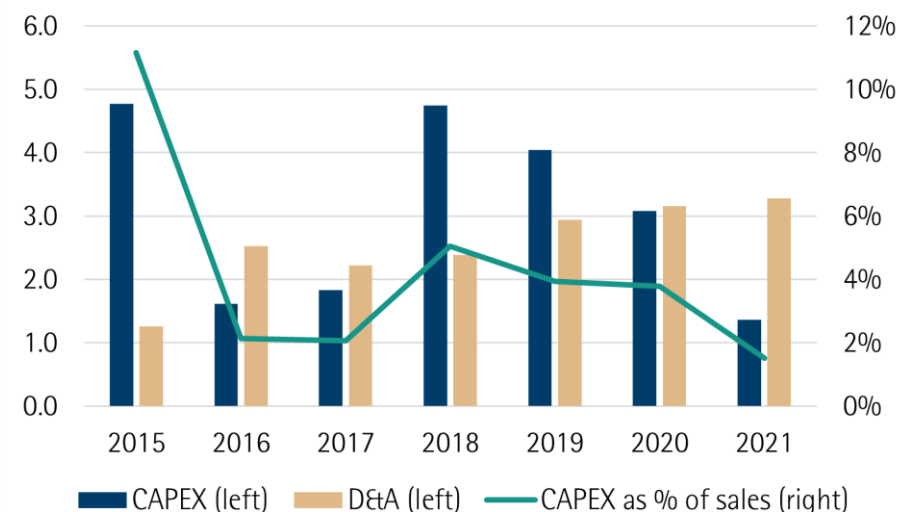
Figure 29: EBIT seasonality (EURm)



Source: Detection Technology, Evli Research

Capital expenditures

Figure 30: Capital expenditures in EURm



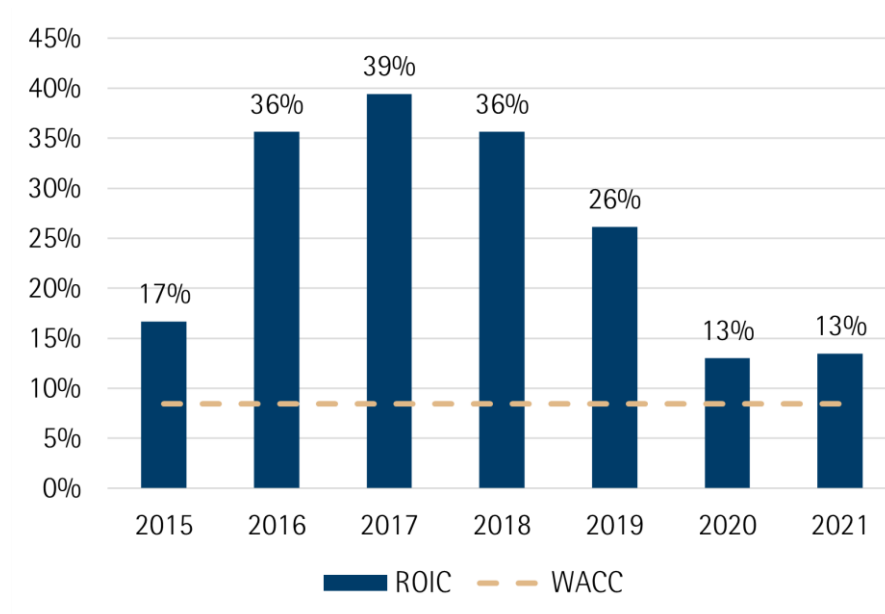
Source: Detection Technology, Evli Research

Relatively low CAPEX due to asset-light business model

DT's capital expenditures typically consist of investments in factories, IT systems, or equipment. During 2015-2021, DT has acquired a new technology company MultiX (2018), invested in a new production facilities in Peking, China (2015) and Wuxi, China (2019-2020) as well as established new talent hub in Nanjing, China (2021) of which materialize rather as P&L costs than CAPEX according to our estimations. CAPEX as a percentage of net sales illustrates the low capital intensity of DT's business model. In recent years, the annual capital expenditures have varied between ~2-5% of total net sales.

Selected key figures

Figure 31: Return on invested capital (ROIC)*



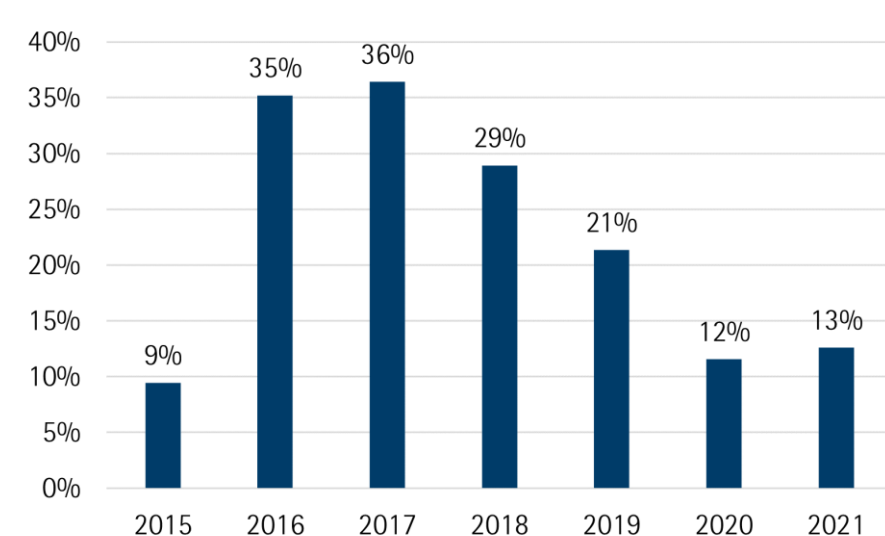
Source: Detection Technology, Evli Research

* $ROIC = \text{Net operating profit after tax} / (\text{interest bearing debt} + \text{total equity} + \text{non-operating cash flow})$

Business is creating value, but ROIC has been decreasing

The company's return on invested capital (ROIC) has been higher than its weighted average cost of capital (WACC) throughout its time as a public company which indicates DT's ability to create added value over time. However, the company's ROIC figure has declined since 2017 which is not a preferable trend in our view.

Figure 32: Return on equity



Source: Detection Technology, Evli Research

Estimates

Estimates intact	We made no revisions to our estimates which were adjusted with our update on the 7 th of June. DT expects the group revenue to decline in Q2'22 while the company further noted that double-digit revenue growth in H2'22 is likely. Earlier the company expected to see double-digit group revenue growth and the medical business to see less than 10% growth in Q2. In the medium-term, the company aims to achieve revenue growth above 10%, an EBIT margin at or above 15%, and to distribute 30-60% of net profits as dividends.
Part of Q2'22 sales will be postponed	DT has faced different challenges since the start of COVID-19. Current interruptions in the global supply chain have had a significant impact on the lead times of DT and its customers and a notable amount of Q2 sales will be postponed to Q3. Hence we expect the revenue to decline y/y in Q2'22. The company has earlier faced product delivery delays and we expect them to continue also in H2 but in smaller amounts driven by the completion of DT's R&D program.
We expect medical to show solid growth also in the future	Driven by increased investments into healthcare both in developing and developed countries, the demand for medical imaging solutions has increased significantly during 2020-21. We expect the trend to continue especially in developing countries and hence the demand for medical imaging solutions to remain strong during the next few years. During recent quarters, MBU has faced some delays due to the low availability of components used in medical solutions but with the DT's product R&D program completed, we expect lead times to improve and delays to decrease driving the revenue to grow more clearly.
Pent-up demand and new aviation investments drive the security market to grow significantly	Meanwhile, the SBU faced a significant decline during the COVID-19 pandemic when aviation nearly stopped and investments in X-ray security applications declined significantly. Now, air travelling has picked up and events that emphasize security via X-ray detection have restarted again, we see huge potential in the recovery of the security imaging market. DT's security business got back to the growth path in Q3-Q4'21 but the sales level is still quite moderate and hence we expect SBU to show consistent growth rates during the next few years. In addition, aviation authorities in the USA, Europe and, China have initiated their intentions to replace airport detection systems with more precise CT scanners. First orders have been placed by the TSA (US authority) and we expect the revenue to materialize within a year or two.
Imaging among industrial players will be increasing steadily	The industrial business unit has grown very strongly during recent years and imaging among industrial processes has increased consistently. DT has a solid position in European industrial imaging markets but by widening its offering to US customers, we expect the company to continue its growth above the market trend. To our understanding, the usage of X-ray imaging in industrial factories in Asia is still quite moderate which on the other hand provides a potential for the future. In addition, by offering solutions by emphasizing its "beyond hardware" principle, DT kind of tests the attractiveness of new data and AI-driven applications that can later be expanded for more conservative medical and security markets. Moreover, to our understanding, DT has simulated its multi-energy detection solutions with industrial customers. Meanwhile, the R&D of the entire technology is still in the early stages, we see a significant potential in DT gaining an advantage over some of its competitors when the technology commercializes. For now, the development of ME products is an investment that might generate positive returns in the future.

Expecting low double-digit growth in 2022

We have made no changes to our estimates. An additional and transitory issue in the supply chain has affected DT's sales in Q2 which however is already solved according to the company. To our understanding, the issue applied especially to the medical business unit. With the profit warning, we expect Q2'22 to be soft and the quarter will have a negative impact on full-year performance. We estimate group revenue to grow by 11.7% y/y to EUR 100.4m in 2022. Driven by soft Q2, we estimate MBU to grow by 5.3% y/y. While SBU's Q1 was rather moderate, we expect SBU to grow strongly during Q2-Q4'22 and full-year revenue to increase by 18.4% y/y. We also expect IBU to increase significantly by showing y/y revenue growth of 22% in 2022.

We expect the lead times to improve from 2023 onwards

With the component availability improving through DT's R&D program, we expect the future deliveries not to be constrained as much as in 2022. With lead times improving, our 2023 revenue estimate amounts to EUR 112.1m, implying y/y growth of ~12%. The topline growth is driven by all business units, but we expect SBU to contribute the most with its pent-up demand and increased aviation investments by TSA. We also believe that the increased mobility and events held generate higher demand for security detection solutions. With DT's investments in industrial applications and increased usage of X-ray among industrial players, we expect also IBU to show solid revenue growth in 2023 and during 2024-25. Moreover, we expect group revenue to grow by 9.5-8% during 2024-25.

A scalable business model enables higher profitability

With DT's scalable business model and revenue growth, our 23-25E EBIT margin estimates will see an improvement above the company's medium-term target. However, with the cost inflation through supply chain issues and a common inflationary environment, we expect 22E EBIT to land at EUR 13.0m, implying a 13% margin. On our estimates, DT will see a notable earnings growth during 2022-25, which in part supports the attractiveness of the investment case. However, there are lots of uncertainty regarding the issues in the supply chain and component availability.

Table 3: Estimates

Estimates	2017	2018	2019	2020	Q1'21	Q2'21	Q3'21	Q4'21	2021	Q1'22	Q2'22E	Q3'22E	Q4'22E	2022E	2023E	2024E	2025E
Net sales	89.0	93.9	102.4	81.6	18.3	23.5	23.2	24.7	89.8	20.3	22.4	29.6	28.1	100.4	112.1	122.8	132.6
Medical	31.1	38.3	33.6	39.3	10.1	13.6	11.9	13.6	49.1	10.5	10.6	15.8	14.8	51.7	56.1	60.6	65.4
Security	57.9	55.6	68.9	30.7	5.8	6.9	7.5	7.8	27.9	6.3	8.1	9.3	9.4	33.1	38.4	43.0	46.4
Industrial				11.6	2.4	3.1	3.8	3.4	12.8	3.5	3.7	4.5	3.9	15.6	17.6	19.2	20.7
EBITDA	22.1	20.9	19.9	12.0	2.3	3.7	4.1	3.8	13.9	2.3	2.6	6.3	5.0	16.2	21.3	22.6	25.6
EBIT	19.9	18.5	17.0	8.7	1.4	3.0	3.3	3.0	10.6	1.5	1.8	5.5	4.2	13.0	17.9	19.8	22.5
Adj. EPS	0.00	1.03	0.87	0.47	0.09	0.16	0.19	0.19	0.63	0.09	0.09	0.30	0.22	0.70	0.97	1.07	1.22
Net sales growth-%	17.9%	5.5%	9.1%	-20.4%	-8.0%	11.5%	12.5%	24.3%	10.1%	10.9%	-4.8%	27.3%	13.6%	11.7%	11.7%	9.5%	8.0%
EBITDA margin	24.9%	22.2%	19.4%	14.7%	12.4%	15.9%	17.6%	15.2%	15.4%	11.4%	11.7%	21.4%	17.7%	16.2%	19.0%	18.4%	19.3%
EBIT margin	22.4%	19.7%	16.6%	10.7%	7.6%	12.5%	14.1%	12.0%	11.8%	7.4%	8.1%	18.7%	14.9%	13.0%	16.0%	16.1%	17.0%

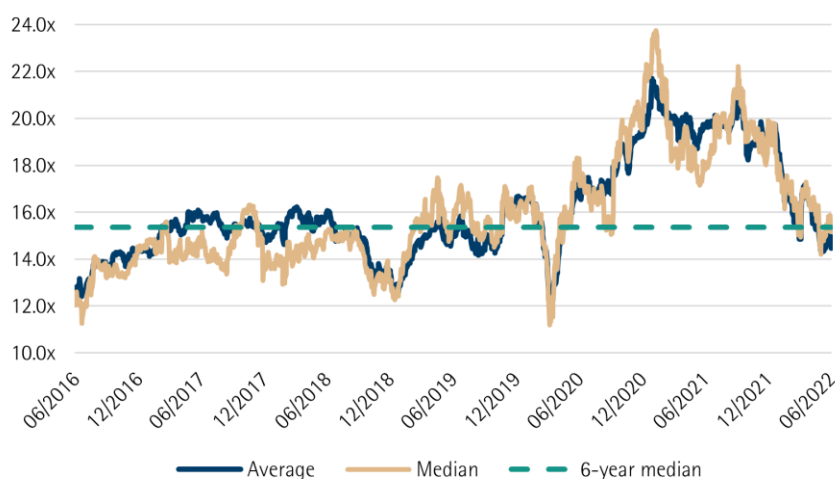
Source: Evli Research

Valuation

HOLD-rating with a TP of
EUR 20.0

DT's valuation and market environment haven't changed since our last update, and we reiterate our HOLD-rating and target price of EUR 20.0. While our DCF-model suggests DT's equity value to amount to EUR 26 per share, we however rely on peer multiples in defining the fair value for DT as the assumptions in the DCF-model contain some uncertainty.

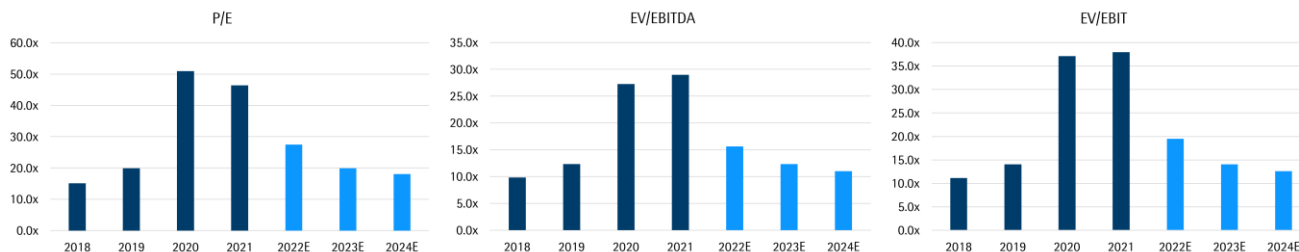
Figure 33: Peer EV/EBIT (12-months forward) development



Source: FactSet, Evli Research

During 2020-21, DT's peer group's valuation saw a significant increase alongside the company. Measured by EV/EBIT multiple, at best, the peer group was trading with a ~50% premium compared to the 6-year median. Until now, the valuation of the peer group has declined near the 6-year median of 15.3x which we find a sustainable level. However, if the company won't deliver and reach its targets, we find it appropriate for the company to trade below its peer group. In addition, the increasing interest rates will set some pressure on the valuation multiples of growth-focused companies.

Figure 34: Valuation multiples



Currently, DT trades with a premium to its peer group median (22-23E EV/EBIT: 16x and 13x). However, with a 23E EV/EBIT multiple, the company lands near the level of its peers with the expected earnings growth, and we consider a 22E EV/EBIT multiple of ~20x to be justified for the company. Compared to historical levels 20x multiple might seem cheapish but we again note that the business possesses some short-term external uncertainties and the markets are pricing the risks stemming from the uncertainties in.

Table 4: Peer group

Detection Technology Peer Group	Security identifier	MCAP MEUR	EBIT %		EBITDA %		ROCE %		ROE %		DIV %		Equity ratio %	
			22E	23E	22E	23E	22E	23E	22E	23E	22E	23E	22E	23E
First Sensor AG	SIS-DE	540												
Hamamatsu Photonics K.K.	6965-JP	6266	24.0	24.3	32.4	33.2	16.8	15.6	14.1	13.0	1.1	1.2	80.2	81.7
OSI Systems, Inc.	OSIS-US	1364	11.3	12.4	16.8	17.3	12.0	14.0	16.4	16.5			47.2	52.7
Varex Imaging Corporation	VREX-US	816	11.4	13.0	16.5	17.6								
ams-OSRAM AG	AMS-CH	2372	9.8	12.2	18.9	21.2	7.3	8.7	9.3	10.2	0.0	0.1	35.3	35.8
Analog Devices, Inc.	ADI-US	74082	48.8	48.5	49.9	50.2	11.8	12.4	12.4	14.1	2.0	2.2	72.7	72.0
Keysight Technologies Inc	KEYS-US	23662	28.0	28.5	30.6	30.8	22.6	22.5	33.0	30.7	0.0	0.0	50.4	53.7
National Instruments Corporation	NATI-US	4058	17.0	18.3	19.8	21.5	16.2	18.0	22.0	24.9	3.4	3.4	57.7	60.6
Spectris plc	SXS-GB	3640	16.8	17.4	20.2	20.6	18.1	18.7	14.1	14.7	2.6	2.8	77.1	79.4
Oxford Instruments plc	OXIG-GB	1466	18.2	18.3	20.7	21.1	18.4	17.5	53.1	27.3	0.9	0.9	67.3	69.7
Trimble Inc.	TRMB-US	14203	23.5	24.6	25.1	26.1	14.3	14.7	17.2	17.3	0.0	0.0	56.8	60.2
Hexagon AB Class B	HEXA.B-SE	28220	28.6	29.4	37.1	38.6	11.4	12.1	13.3	13.6	1.2	1.4	61.8	63.4
Thales SA	HO-FR	24241	11.0	11.8	15.4	16.0	13.3	14.2	21.7	21.9	2.4	2.7	21.7	23.6
Agfa-Gevaert NV	AGFB-BE	603	2.2	4.6	6.5	8.7			-3.6	3.4	0.0	0.0	36.3	38.3
Konica Minolta, Inc.	4902-JP	1645	2.3	3.7	8.7	10.0	2.6	4.2	2.2	4.3	4.7	4.5	40.9	41.6
Iray Technology Co., Ltd Class A	688301-CN	4351	41.0	41.3	42.1	43.3	18.1	20.5	18.4	20.7	0.1	0.1	87.4	86.6
Vieworks Co., Ltd	100120-KR	249	18.9	19.0	21.7	21.7	18.2	17.6	16.2	15.8	2.1	2.1	84.6	85.8
Vaisala Oyj Class A	VAIAS-FI	1474	13.8	14.2	18.3	18.6	21.7	23.1	22.5	22.1	1.8	2.0	55.7	60.9
Peer Group Average		10736	19.2	20.1	23.6	24.5	14.9	15.6	17.6	16.9	1.5	1.6	58.3	60.4
Peer Group Median		3006	17.0	18.3	20.2	21.2	16.2	15.6	16.3	16.2	1.2	1.4	57.3	60.8
Detection Technology (Evli est.)		278	13.0	10.6	16.2	13.9	16.7	20.9	13.5	17.1	2.0	2.6	80.1	79.4

	Security identifier	MCAP MEUR	EV/S		EV/EBITDA		EV/EBIT		P/E		Sales growth %		Net debt / EBITDA	
			22E	23E	22E	23E	22E	23E	22E	23E	22E	23E	22E	23E
First Sensor AG	SIS-DE	540												
Hamamatsu Photonics K.K.	6965-JP	6266	4.4x	4.1x	13.4x	12.5x	18.1x	17.0x	25.3x	24.6x	15.5	2.4	-1.5	-1.8
OSI Systems, Inc.	OSIS-US	1364	1.4x	1.2x	8.3x	7.2x	12.3x	10.0x	14.5x	13.2x	3.1	0.0	1.1	0.6
Varex Imaging Corporation	VREX-US	816							20.1x	14.7x	3.2	6.2		
ams-OSRAM AG	AMS-CH	2372	0.8x	0.9x	4.5x	4.2x	8.6x	7.3x	7.8x	6.7x	-1.4	-2.5	1.8	1.8
Analog Devices, Inc.	ADI-US	74082	7.0x	6.5x	14.0x	13.0x	14.4x	13.5x	16.2x	14.8x	60.8	6.3	0.8	0.6
Keysight Technologies Inc	KEYS-US	23662	4.6x	4.3x	15.0x	13.8x	16.4x	15.0x	19.4x	18.0x	7.7	5.4	-0.3	-0.6
National Instruments Corporation	NATI-US	4058	2.6x	2.5x	13.3x	11.4x	15.5x	13.4x	16.1x	14.1x	13.4	0.0	0.4	0.3
Spectris plc	SXS-GB	3640	2.3x	2.1x	11.2x	10.3x	13.5x	12.2x	18.2x	16.6x	-2.0	4.6	-0.6	-0.8
Oxford Instruments plc	OXIG-GB	1466	3.2x	3.0x	15.3x	14.3x	17.4x	16.4x	24.3x	22.9x	3.0	4.3	-0.7	-0.8
Trimble Inc.	TRMB-US	14203	4.0x	3.5x	15.8x	13.5x	16.9x	14.3x	21.2x	18.5x	5.9	8.0	0.5	-0.2
Hexagon AB Class B	HEXA.B-SE	28220	6.0x	5.4x	16.1x	13.9x	20.9x	18.2x	23.4x	21.1x	17.5	8.8	1.3	0.8
Thales SA	HO-FR	24241	1.4x	1.3x	9.2x	7.8x	12.8x	10.6x	16.4x	14.8x	6.3	7.2	0.0	-0.4
Agfa-Gevaert NV	AGFB-BE	603	0.3x	0.3x	4.3x	3.0x	12.5x	5.7x	22.4x	22.4x	3.3	2.3	-0.9	-0.7
Konica Minolta, Inc.	4902-JP	1645	0.5x	0.5x	5.9x	4.9x	22.0x	13.4x	19.2x	10.1x	7.4	2.4	3.1	2.6
Iray Technology Co., Ltd Class A	688301-CN	4351							50.0x	36.8x	39.6	36.8		
Vieworks Co., Ltd	100120-KR	249	1.4x	1.3x	6.6x	5.9x	7.6x	6.8x	10.1x	9.1x	12.3	9.7	-1.1	-1.1
Vaisala Oyj Class A	VAIAS-FI	1474	2.9x	2.7x	15.9x	14.4x	21.2x	18.8x	26.7x	24.2x	12.3	6.5	-0.6	-0.9
Peer Group Average		10736	2.9x	2.6x	11.3x	10.0x	15.4x	12.8x	20.6x	17.8x	12.2	7.2	0.2	0.0
Peer Group Median		3006	2.6x	2.5x	13.3x	11.4x	15.5x	13.4x	19.3x	16.6x	7.4	6.2	0.0	-0.4
Detection Technology (Evli est.)		278	2.5x	2.2x	15.4x	12.1x	19.1x	13.8x	27.0x	19.6x	10.1	10.4	-1.7	-1.5

Premium/discount relative to peer group median

Source: FactSet, Evli Research

Risk factors

DT's business includes risks that might have an impact on the attractiveness of the investment. We have named potential risk factors in a particular order (most potential first) below:

- 1) **Component shortages** have had an impact on the company's sales and profitability. Industry specialists expect the shortage to continue and increased shortage might have a bigger impact than expected on sales and margins which eventually lowers the attractiveness of the short-term investment case.
- 2) **COVID-19 and its side effects.** On the one hand, the pandemic boosted demand for MBU solutions, but on the other hand, SBU's top line took a huge hit driven by nearly stopped aviation. While western economies have eventually opened their societies, China still has continued its zero-tolerance COVID politics and some lockdowns have been which have resulted in bottlenecks in supply chain and lower availability of critical components.
- 3) **Increased competition** might put pressure on margins and lead to loss of the market share. However, high entry barriers and demanding technology lower the probability of new rookies gaining a significant amount of market share.
- 4) **End of major customership.** Over 50% of the revenue is generated by the five largest customers. The top line will take a significant hit in the case of major customership ending. Nevertheless, we find DT's well-managed customer relationships and investments in customer experience to prevent customer churn.
- 5) **Sudden changes in megatrends.** X-ray imaging market growth relies on several megatrends and loss of or changes in megatrends might slow down the underlying demand for detection solutions.
- 6) **Macroeconomic trends.** Increasing interest rates shouldn't have a direct impact on DT's business. Part of DT's underlying demand stems from the public sector. If the economic activity declines and GDP decreases, the demand for detectors might somewhat decrease. However, in recessions, governments usually increase their expenditures to stimulate their economies which might on the other hand have a positive impact on the imaging markets.

VALUATION RESULTS	BASE CASE DETAILS	VALUATION ASSUMPTIONS	ASSUMPTIONS FOR WACC	
Current share price	18.95 PV of Free Cash Flow	90 Long-term growth, %	5.0 Risk-free interest rate, %	2.25
DCF share value	26.68 PV of Horizon value	279 WACC, %	8.5 Market risk premium, %	5.8
Share price potential, %	40.8 Unconsolidated equity	0 Spread, %	0.0 Debt risk premium, %	2.8
Maximum value	26.7 Marketable securities	30 Minimum WACC, %	8.5 Equity beta coefficient	1.10
Minimum value	26.7 Debt - dividend	-7 Maximum WACC, %	8.5 Target debt ratio, %	20
Horizon value, %	75.6 Value of stock	391 Nr of shares, Mn	14.7 Effective tax rate, %	20

DCF valuation, EURm	2021	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	Horizon
Net sales	90	100	112	123	133	141	148	155	163	171	179	188
<i>Sales growth, %</i>	<i>10.1</i>	<i>11.8</i>	<i>11.7</i>	<i>9.5</i>	<i>8.0</i>	<i>6.0</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>
Operating income (EBIT)	11	13	18	20	23	24	25	26	28	29	30	32
<i>Operating income margin, %</i>	<i>11.8</i>	<i>13.0</i>	<i>16.0</i>	<i>16.1</i>	<i>17.0</i>	<i>17.0</i>	<i>17.0</i>	<i>17.0</i>	<i>17.0</i>	<i>17.0</i>	<i>17.0</i>	<i>17.0</i>
+ Depreciation+amort.	3	3	3	3	3	3	4	4	4	4	4	4
EBITDA	14	16	20	23	26	27	29	30	32	33	35	
- Paid taxes	-1	-3	-4	-4	-5	-5	-5	-5	-6	-6	-6	
- Change in NWC	-6	-5	-5	-5	-4	-3	-3	-3	-3	-4	-4	
<i>NWC / Sales, %</i>	<i>41.3</i>	<i>41.5</i>	<i>41.7</i>	<i>41.8</i>	<i>41.9</i>	<i>42.0</i>	<i>42.1</i>	<i>42.1</i>	<i>42.2</i>	<i>42.2</i>	<i>42.3</i>	
+ Change in other liabs	0	0	0	0	0	0	0	0	0	0	0	
- Operative CAPEX	-1	-3	-4	-4	-4	-4	-4	-4	-5	-5	-5	
<i>opCAPEX / Sales, %</i>	<i>1.5</i>	<i>3.4</i>	<i>3.2</i>	<i>3.1</i>	<i>3.0</i>	<i>2.9</i>	<i>2.8</i>	<i>2.8</i>	<i>2.8</i>	<i>2.8</i>	<i>2.8</i>	
- Acquisitions	0	0	0	0	0	0	0	0	0	0	0	
+ Divestments	0	0	0	0	0	0	0	0	0	0	0	
- Other items	0	0	0	0	0	0	0	0	0	0	0	
= FCFF	5	6	8	10	13	15	16	17	18	19	20	605
= Discounted FCFF		5	7	8	10	10	10	10	10	9	9	279
= DFCF min WACC		5	7	8	10	10	10	10	10	9	9	279
= DFCF max WACC		5	7	8	10	10	10	10	10	9	9	279

INTERIM FIGURES

EVLI ESTIMATES, EURm	2021Q1	2021Q2	2021Q3	2021Q4	2021	2022Q1	2022Q2E	2022Q3E	2022Q4E	2022E	2023E	2024E
Net sales	18.3	23.5	23.2	24.7	89.8	20.3	22.4	29.6	28.1	100.4	112.1	122.8
EBITDA	1.4	4.6	4.1	3.8	13.9	2.3	2.6	6.3	5.0	16.2	20.4	22.6
<i>EBITDA margin (%)</i>	<i>7.6</i>	<i>19.7</i>	<i>17.6</i>	<i>15.2</i>	<i>15.4</i>	<i>11.4</i>	<i>11.7</i>	<i>21.4</i>	<i>17.7</i>	<i>16.2</i>	<i>18.2</i>	<i>18.4</i>
EBIT	1.4	3.0	3.3	3.0	10.6	1.5	1.8	5.5	4.2	13.0	17.9	19.8
<i>EBIT margin (%)</i>	<i>7.6</i>	<i>12.6</i>	<i>14.1</i>	<i>12.0</i>	<i>11.8</i>	<i>7.4</i>	<i>8.1</i>	<i>18.7</i>	<i>14.9</i>	<i>13.0</i>	<i>16.0</i>	<i>16.1</i>
Net financial items	0.3	-0.1	0.2	0.3	0.8	0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
Pre-tax profit	1.7	2.9	3.5	3.3	11.4	1.6	1.7	5.4	4.1	12.8	17.7	19.6
Tax	-0.5	-0.6	-0.6	-0.5	-2.1	-0.3	-0.3	-1.1	-0.8	-2.6	-3.5	-3.9
<i>Tax rate (%)</i>	<i>26.6</i>	<i>19.4</i>	<i>18.0</i>	<i>14.3</i>	<i>18.6</i>	<i>20.0</i>	<i>20.0</i>	<i>20.0</i>	<i>20.0</i>	<i>20.0</i>	<i>20.0</i>	<i>20.0</i>
Net profit	1.2	2.3	2.8	2.8	9.3	1.3	1.4	4.3	3.3	10.3	14.2	15.6
EPS	0.09	0.16	0.19	0.19	0.63	0.09	0.09	0.30	0.22	0.70	0.97	1.07
EPS adjusted (diluted no. of shares)	0.08	0.15	0.19	0.19	0.61	0.08	0.09	0.29	0.22	0.68	0.94	1.03
Dividend per share	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.39	0.48	0.53
SALES, EURm												
MBU	10.1	13.6	11.9	13.6	49.2	10.5	10.6	15.8	14.8	51.7	56.1	60.6
SBU	5.8	6.9	7.5	7.8	27.9	6.3	8.1	9.3	9.4	33.1	38.4	43.0
IBU	2.4	3.1	3.8	3.4	12.7	3.5	3.7	4.5	3.9	15.6	17.6	19.2
Total	18.3	23.5	23.2	24.7	89.8	20.3	22.4	29.6	28.1	100.4	112.1	122.8
SALES GROWTH, Y/Y %												
<i>MBU</i>	<i>20.2</i>	<i>37.0</i>	<i>18.8</i>	<i>24.3</i>	<i>25.2</i>	<i>4.1</i>	<i>-21.9</i>	<i>32.3</i>	<i>9.2</i>	<i>5.2</i>	<i>8.5</i>	<i>8.0</i>
<i>SBU</i>	<i>-38.0</i>	<i>-11.7</i>	<i>0.2</i>	<i>26.5</i>	<i>-9.2</i>	<i>8.1</i>	<i>17.7</i>	<i>24.8</i>	<i>21.3</i>	<i>18.6</i>	<i>16.1</i>	<i>12.0</i>
<i>IBU</i>	<i>9.9</i>	<i>-10.4</i>	<i>21.5</i>	<i>21.7</i>	<i>9.9</i>	<i>47.0</i>	<i>19.9</i>	<i>16.8</i>	<i>13.2</i>	<i>22.3</i>	<i>12.8</i>	<i>9.0</i>
<i>Total</i>	<i>-8.2</i>	<i>11.4</i>	<i>12.5</i>	<i>24.6</i>	<i>10.1</i>	<i>11.0</i>	<i>-4.8</i>	<i>27.3</i>	<i>13.6</i>	<i>11.8</i>	<i>11.7</i>	<i>9.5</i>
EBIT, EURm												
MBU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
SBU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
IBU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
Group	1.4	3.0	3.3	3.0	10.6	1.5	1.8	5.5	4.2	13.0	17.9	0.0
Total	1.4	3.0	3.3	3.0	10.6	1.5	1.8	5.5	4.2	13.0	17.9	19.8
EBIT margin, %												
<i>MBU</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>16.1</i>
<i>SBU</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>16.1</i>
<i>IBU</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>16.1</i>
<i>Total</i>	<i>7.6</i>	<i>12.6</i>	<i>14.1</i>	<i>12.0</i>	<i>11.8</i>	<i>7.4</i>	<i>8.1</i>	<i>18.7</i>	<i>14.9</i>	<i>13.0</i>	<i>16.0</i>	<i>16.1</i>

INCOME STATEMENT, EURm	2017	2018	2019	2020	2021	2022E	2023E	2024E
Sales	89.0	93.9	102.5	81.6	89.8	100.4	112.1	122.8
<i>Sales growth (%)</i>	<i>17.9</i>	<i>5.5</i>	<i>9.2</i>	<i>-20.4</i>	<i>10.1</i>	<i>11.8</i>	<i>11.7</i>	<i>9.5</i>
EBITDA	22.1	20.9	19.9	11.9	13.9	16.2	20.4	22.6
<i>EBITDA margin (%)</i>	<i>24.9</i>	<i>22.3</i>	<i>19.5</i>	<i>14.6</i>	<i>15.4</i>	<i>16.2</i>	<i>18.2</i>	<i>18.4</i>
Depreciation	-2.2	-2.4	-2.9	-3.2	-3.3	-3.2	-2.5	-2.8
EBITA	19.9	18.5	17.0	8.7	10.6	13.0	17.9	19.8
Goodwill amortization / writedown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	19.9	18.5	17.0	8.7	10.6	13.0	17.9	19.8
<i>EBIT margin (%)</i>	<i>22.4</i>	<i>19.7</i>	<i>16.6</i>	<i>10.7</i>	<i>11.8</i>	<i>13.0</i>	<i>16.0</i>	<i>16.1</i>
Reported EBIT	19.9	18.5	17.0	8.7	10.6	13.0	17.9	19.8
<i>EBIT margin (reported) (%)</i>	<i>22.4</i>	<i>19.7</i>	<i>16.6</i>	<i>10.7</i>	<i>11.8</i>	<i>13.0</i>	<i>16.0</i>	<i>16.1</i>
Net financials	-0.5	-0.1	-1.0	-0.6	0.8	-0.2	-0.2	-0.2
Pre-tax profit	19.4	18.4	16.0	8.1	11.4	12.8	17.7	19.6
Taxes	-4.2	-3.6	-3.6	-1.4	-2.1	-2.6	-3.5	-3.9
Minority shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net profit	15.2	14.9	12.5	6.7	9.3	10.3	14.2	15.6
Cash NRIs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-cash NRIs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BALANCE SHEET, EURm								
Assets								
Fixed assets	6	9	10	10	9	9	10	11
Goodwill	0	0	0	0	0	0	0	0
Right of use assets	0	0	0	0	0	0	0	0
Inventory	9	13	14	16	22	25	28	30
Receivables	21	27	27	25	31	35	39	43
Liquid funds	27	22	26	25	30	30	34	37
Total assets	62	71	77	76	92	99	111	121
Liabilities								
Shareholder's equity	42	51	58	58	74	79	87	96
Minority interest	0	0	0	0	0	0	0	0
Convertibles	0	0	0	0	0	0	0	0
Lease liabilities	0	0	0	0	0	0	0	0
Deferred taxes	0	0	0	0	0	0	0	0
Interest bearing debt	5	4	6	6	2	2	3	3
Non-interest bearing current liabilities	15	15	12	11	15	16	18	20
Other interest-free debt	1	0	1	1	2	2	2	2
Total liabilities	62	71	77	76	92	99	111	121
CASH FLOW, EURm								
+ EBITDA	22	21	20	12	14	16	20	23
- Net financial items	11	-4	4	-1	3	0	0	0
- Taxes	-3	-5	-5	-3	-1	-3	-4	-4
- Increase in Net Working Capital	1	-10	-2	0	-6	-5	-5	-5
+/- Other	-12	4	-5	-1	-3	0	0	0
= Cash flow from operations	19	6	12	8	7	9	12	14
- Capex	-2	-5	-4	-3	-1	-3	-4	-4
- Acquisitions	0	0	0	0	0	0	0	0
+ Divestments	0	0	0	0	0	0	0	0
= Free cash flow	17	1	8	4	6	5	8	10
+/- New issues/buybacks	-1	0	0	-1	10	0	0	0
- Paid dividend	-3	-5	-5	-5	-4	-5	-6	-7
+/- Other	-2	0	2	1	-7	0	1	0
Change in cash	11	-4	4	-1	5	0	4	3

KEY FIGURES	2018	2019	2020	2021	2022E	2023E	2024E
M-cap	224	368	344	429	278	278	278
Net debt (excl. convertibles)	-18	-20	-19	-28	-28	-30	-33
Enterprise value	206	348	324	402	250	247	244
Sales	94	103	82	90	100	112	123
EBITDA	21	20	12	14	16	20	23
EBIT	19	17	9	11	13	18	20
Pre-tax	18	16	8	11	13	18	20
Earnings	15	12	7	9	10	14	16
Equity book value (excl. minorities)	51	58	58	74	79	87	96
Valuation multiples							
EV/sales	2.2	3.4	4.0	4.5	2.5	2.2	2.0
EV/EBITDA	9.8	17.4	27.3	29.0	15.4	12.1	10.8
EV/EBITA	11.1	20.4	37.1	38.0	19.1	13.8	12.4
EV/EBIT	11.1	20.4	37.1	38.0	19.1	13.8	12.4
EV/OCF	33.6	30.0	43.1	56.4	28.1	21.3	17.7
EV/FCFF	142.7	41.7	65.2	78.5	44.2	30.2	23.9
P/FCFE	162.4	48.7	77.4	74.5	50.6	34.5	27.6
P/E	15.1	29.5	51.0	46.4	27.0	19.6	17.7
P/B	4.4	6.3	5.9	5.8	3.5	3.2	2.9
Target EV/EBITDA	0.0	0.0	0.0	0.0	16.3	12.9	11.5
Target EV/EBIT	0.0	0.0	0.0	0.0	20.3	14.7	13.1
Target EV/FCF	0.0	0.0	0.0	0.0	48.3	32.6	25.8
Target P/B	0.0	0.0	0.0	0.0	3.7	3.4	3.1
Target P/E	0.0	0.0	0.0	0.0	29.5	21.4	19.4
Per share measures							
Number of shares	14,375	14,375	14,375	14,656	14,656	14,656	14,656
Number of shares (diluted)	14,849	14,875	14,875	15,156	15,156	15,156	15,156
EPS	1.03	0.87	0.47	0.63	0.70	0.97	1.07
Operating cash flow per share	0.43	0.81	0.52	0.49	0.61	0.79	0.94
Free cash flow per share	0.10	0.53	0.31	0.39	0.37	0.55	0.69
Book value per share	3.57	4.06	4.06	5.02	5.37	5.95	6.53
Dividend per share	0.38	0.38	0.28	0.35	0.39	0.48	0.53
Dividend payout ratio, %	36.7	43.9	59.7	55.4	55.0	50.0	50.0
Dividend yield, %	2.4	1.5	1.2	1.2	2.0	2.6	2.8
FCF yield, %	0.6	2.1	1.3	1.3	2.0	2.9	3.6
Efficiency measures							
ROE	32.0	22.7	11.5	14.0	13.5	17.1	17.1
ROCE	36.4	28.5	13.6	15.1	16.7	20.9	20.8
Financial ratios							
Inventories as % of sales	14.2	13.8	19.5	24.8	24.8	24.8	24.8
Receivables as % of sales	28.4	25.9	30.1	34.8	34.8	34.8	34.8
Non-interest bearing liabilities as % of sales	16.4	12.1	13.4	16.3	16.3	16.3	16.3
NWC/sales, %	25.9	27.0	35.6	41.3	41.5	41.7	41.8
Operative CAPEX/sales, %	5.0	3.9	3.8	1.5	3.4	3.2	3.1
CAPEX/sales (incl. acquisitions), %	5.0	3.9	3.8	1.5	3.4	3.2	3.1
FCFF/EBITDA	0.1	0.4	0.4	0.4	0.3	0.4	0.5
Net debt/EBITDA, book-weighted	-0.9	-1.0	-1.6	-2.0	-1.7	-1.5	-1.5
Debt/equity, market-weighted	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Equity ratio, book-weighted	73.0	76.6	77.9	80.4	80.1	79.4	79.6
Gearing, %	-35.6	-34.9	-33.2	-37.6	-35.6	-34.8	-34.8

COMPANY DESCRIPTION: Detection Technology is a global provider of off-the-shelf and customized X-ray imaging solutions for medical, security and industrial applications. DT's product portfolio ranges from photodiodes to complete detector systems with ASICs, electronics, mechanics and software. The company was established in 1991 and it listed on Nasdaq First North Finland in 2015. The company is headquartered in Finland and has volume production in Beijing, China. Detection Technology has ~450 employees in Finland, China, France and USA, serving 370 active customers in over 40 countries.

INVESTMENT CASE: Demand for Detection Technology's detector solutions is increasing due to expansion of healthcare to a wider share of population in the emerging economies, aging population, growth in travelling and freight transport, urbanization, increased security concerns and increasing need for X-ray imaging applications in industrial inspection. We see investment case attractive due to strong market drivers, especially in China, as well as DT's compelling strategy and execution capabilities, which should enable DT to grow faster than the market and maintain above target level margins. Due to its proximity to the fastest growing market China and inexpensive valuation, DT could be also become an acquisition target.

OWNERSHIP STRUCTURE	SHARES	EURm	%
Ahlstrom Capital Bv	5,280,167	100.059	36.0%
Skandinaviska Enskilda Banken AB	2,030,278	38.474	13.9%
OP-Finland Fund	617,376	11.699	4.2%
Sijoitusrahasto Aktia Capital	548,762	10.399	3.7%
Varma Mutual Pension Insurance Company	515,000	9.759	3.5%
Ilmarinen Mutual Pension Insurance Company	435,737	8.257	3.0%
Martola Hannu Veikko	431,690	8.181	2.9%
Evli Finnish Small Cap Fund	387,925	7.351	2.6%
Op-Suomi Mikroyhtiöt -Erikoissijoitusrahasto	247,081	4.682	1.7%
Säästöpankki Kotimaa	240,000	4.548	1.6%
Ten largest	10,734,016	203.410	73%
Residual	3,921,914	74.320	27%
Total	14,655,930	277.730	100%

EARNINGS CALENDAR

August 03, 2022

Q2 report

OTHER EVENTS**COMPANY MISCELLANEOUS**

CEO: Hannu Martola

CFO: Petri Hiljanen

IR: Johanna Tarkiainen

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DEFINITIONS

P/E	$\frac{\text{Price per share}}{\text{Earnings per share}}$	EPS	$\frac{\text{Profit before extraord. items and taxes} - \text{income taxes} + \text{minority interest}}{\text{Number of shares}}$
P/BV	$\frac{\text{Price per share}}{\text{Shareholders' equity} + \text{taxed provisions per share}}$	DPS	Dividend for the financial period per share
Market cap	Price per share * Number of shares	OCF (Operating cash flow)	EBITDA – Net financial items – Taxes – Increase in working capital – Cash NRIs ± Other adjustments
EV (Enterprise value)	Market cap + net debt + minority interest at market value – share of associated companies at market value	FCF (Free cash flow)	Operating cash flow – operative CAPEX – acquisitions + divestments
EV/Sales	$\frac{\text{Enterprise value}}{\text{Sales}}$	FCF yield, %	$\frac{\text{Free cash flow}}{\text{Market cap}}$
EV/EBITDA	$\frac{\text{Enterprise value}}{\text{Earnings before interest, tax, depreciation and amortization}}$	Operative CAPEX/sales	$\frac{\text{Capital expenditure} - \text{divestments} - \text{acquisitions}}{\text{Sales}}$
EV/EBIT	$\frac{\text{Enterprise value}}{\text{Operating profit}}$	Net working capital	Current assets – current liabilities
Net debt	Interest bearing debt – financial assets	Capital employed/Share	$\frac{\text{Total assets} - \text{non-interest bearing debt}}{\text{Number of shares}}$
Total assets	Balance sheet total	Gearing	$\frac{\text{Net debt}}{\text{Equity}}$
Div yield, %	$\frac{\text{Dividend per share}}{\text{Price per share}}$	Debt/Equity, %	$\frac{\text{Interest bearing debt}}{\text{Shareholders' equity} + \text{minority interest} + \text{taxed provisions}}$
Payout ratio, %	$\frac{\text{Total dividends}}{\text{Earnings before extraordinary items and taxes} - \text{income taxes} + \text{minority interest}}$	Equity ratio, %	$\frac{\text{Shareholders' equity} + \text{minority interest} + \text{taxed provisions}}{\text{Total assets} - \text{interest-free loans}}$
ROCE, %	$\frac{\text{Profit before extraordinary items} + \text{interest expenses} + \text{other financial costs}}{\text{Balance sheet total} - \text{non-interest bearing debt (average)}}$	CAGR, %	Cumulative annual growth rate = Average growth per year
ROE, %	$\frac{\text{Profit before extraordinary items and taxes} - \text{income taxes}}{\text{Shareholder's equity} + \text{minority interest} + \text{taxed provisions (average)}}$		

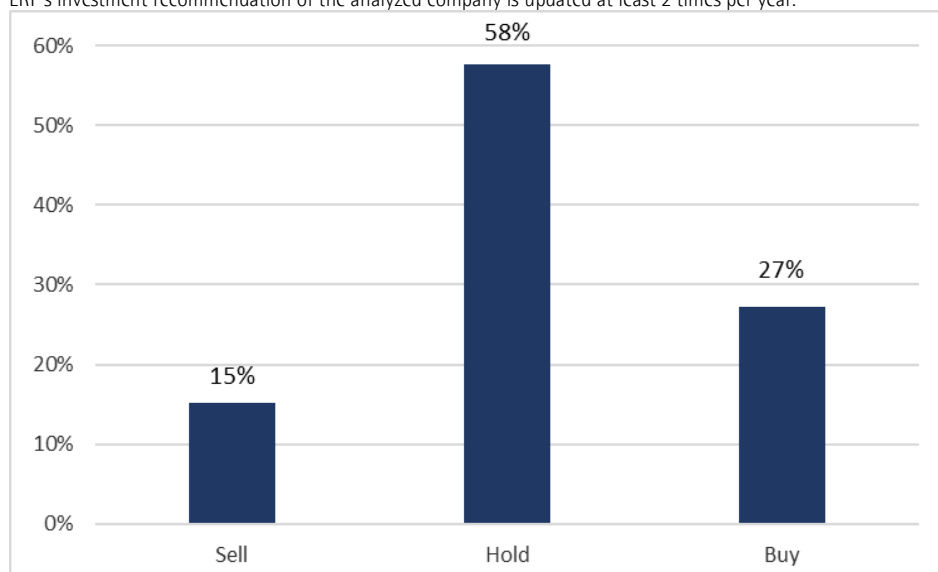
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Target price compared to share price	Recommendation
< -10 %	SELL
-10 – (+10) %	HOLD
> 10 %	BUY

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Name(s) of the analyst(s): Heikura

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