Global MedTech – How to succeed in uncertain times

TAKING THE PULSE AFTER THE PANDEMIC
he Roland Berger Global MedTech Report 2022 looks at an industry that has traditionally outperformed leading stock-market indices. MedTech companies develop products and provide services to fight and prevent diseases. MedTechs proved robust during the Covid-19 pandemic even as healthcare systems were thrown into disarray. In 2022, MedTechs struggle with high energy costs, rising inflation and supply-chain problems, along with a number of structural changes. Yet, the majority of companies in the sector continues to show solid revenue growth and profit margins.

Our analysis of more than one hundred mostly stock-listed global MedTech companies from 2018 to 2021 allows us to understand key differentiators in performance. The Roland Berger Winners Analysis shows that MedTech “winners” – highly profitable companies with strong, sustainable growth – on average invested more in research and development than “underperformers” (8.5% versus 6.5% of revenues). Winners were also significantly more efficient in allocating capital (average COGS of 42.0% versus 51.7% and average SG&A of 28.6% versus 34.4%) and averaged twice the market capitalization of underperformers. Winners were also more active managing their portfolio in terms of M&A (4.9 deals versus 3.5 deals completed by underperformers).

US-based MedTech companies were typically the most profitable, mainly the result of better access to the lucrative US market, with EBITDA margins on average five points higher than those of European or Asian peers. Asia-based MedTechs, many of them Chinese, generally saw fast revenue growth, while European companies tended to show the most impact from EU’s new Medical Device Regulation.

A look at the seven MedTech segments showed lab and diagnostics to be booming because of Covid-19 and a trend toward personalized healthcare. Companies in this segment performed best (average annual revenue growth above 20% and EBITDA increases of more than seven percentage points). Based on our analysis, MedTech winners share four characteristics: business leadership, strategic coherence, size and financial position, and an ability to execute.

Companies that share these characteristics are better prepared for the structural changes awaiting MedTech.

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A crucial industry faces huge opportunities and challenges

Medical technology (MedTech) companies develop products and provide services that can diagnose, monitor, treat and increasingly also prevent disease. Crucial to the healthcare systems of the world, they are playing an ever-bigger role in safeguarding health and wellbeing at every stage of the so-called patient pathway. Over the last years, the industry has grown more quickly than many other sectors – but recently it has also had to grapple with the impact of Covid-19, high inflation and soaring energy costs.

This study takes a timely and comprehensive look at this industry and its constituent segments. It analyzes the trends and issues with which MedTech companies have to contend, and identifies the sector’s winners – companies that boast high revenue growth and profitability – and their shared characteristics. It looks at the impact of the pandemic, supply-chain disruptions and inflation-driven cost increases. Lastly, it gives an outlook on the challenges MedTechs can expect to face in the foreseeable future.

Roland Berger analyzed more than one hundred mostly stock-listed MedTech companies from around the world that fall into one of seven segments:

1) Electromedical and equipment companies like Carl Zeiss, Siemens Healthineers and Philips
2) Surgical instruments and appliances makers like Coloplast, Zimmer Biomet and Convatec
3) Lab and diagnostics companies like Thermo Fisher, Qiagen and bioMérieux
4) Medical aid and devices companies like Sonova, Dexcom and Smith & Nephew
5) Service providers like Fresenius Medical Care, DaVita and Oak Street Health
6) Disposables and supplies companies like Paul Hartmann, Owens & Minor and Hogy Medical
7) Diversified multi-segment players like Medtronic, B. Braun and Abbott

Roland Berger assessed the financial performance of each company by compiling key performance indicators such as total shareholder returns (TSR) and the compound annual growth rate (CAGR) of revenues. Ensuing comparison of these metrics allowed us to identify the drivers that enable some companies to do business more successfully, realize higher returns and approach the future more optimistically than others. This, in turn, allows us to advise companies about the crucial strategic characteristics they must nurture in order to achieve or maintain MedTech industry leadership.

A strong sector reveals noticeable regional differences

Rising demand and margins for MedTech devices and services have in recent years seen MedTechs consistently outperform global stock markets. Our analysis shows MedTechs generated average total shareholder returns (TSR) of 99% over the last 4.5 years, the MSCI World stock-market index only 21%\(^1\). The industry even performed strongly during the Covid-19 pandemic – by no means a small feat given that healthcare systems all over the world faced unprecedented uncertainties and challenges.

Our deep dive into revenue and margin growth revealed important regional differences between companies headquartered in North America, and those based in Europe and the Asia-Pacific (APAC) region. They also showed that not all MedTech segments performed equally.

MedTech companies based in North America have for many years enjoyed considerably higher operating margins than their competitors from Europe and APAC. These higher earnings before interest, taxes, depreciation and amortization (EBITDA) margins were driven by better access to the US market, in which MedTech prices are usually higher than elsewhere. Pricing pressure is higher in

\(^1\) Total shareholder returns (TSR) defined as: (stock price end – stock price begin + dividends) / stock price begin
Europe, as a result of its universal healthcare systems, and in APAC, where reimbursement of MedTech costs is usually lower than in North America. While EBITDA margins of North American and APAC companies continued to grow steadily even after the onset of Covid-19, European MedTechs’ operating margins fell by two percentage points in 2020, their strongest decline in the past 15 years. Profitability of European companies improved again in 2021 as they saw EBITDA margins recover as elective surgery volumes recovered.  

MedTech companies have averaged an EBITDA margin of about 22% over the past 15 years. They have outperformed traditional manufacturing sectors like industrials and automotive, which typically have operating margins of less than 10%. However, MedTechs continue to lag behind pharmaceutical-industry margins of more than 25%.

Noticeably, the profitability of European MedTechs has fallen below the long-term industry average in the last three years. European regulation has recently become stricter with the implementation of the European Union’s Medical Device Regulation (EU MDR). New MedTech products have had to be registered using these new rules since May 2021, while all MedTech products registered under the old Medical Device Directive (MDD) need to be re-certified by May 2024. European companies, in particular, have had to commit additional resources to process documentation and quality control. In a survey conducted among small

MedTech companies, the cost impact was estimated to be 5%-10% of sales. In addition, we are observing that Europe-based companies are struggling with R&D spendings on software and hardware to update and sustain existing products. This is hampering the development of new and transformative products.

In 2022, the Russia-Ukraine war, drastic increases in energy prices as well as rising inflation have decisively affected EBITDA margins of MedTech companies, resulting in a drop of 6.8% from 2021 to 2022. Of the more than one hundred analyzed companies, nine companies reported a negative EBITDA in the first half of 2022, indicating some are under heavy pressure. In contrast, overall revenues increased by 15.6% in the first half of the year, mainly driven by US companies with an increase of 21.5%. Asian companies struggled with zero growth in the last year, mainly the result of rigorous Covid-19 lockdowns and soaring shipping costs.

Based on a selected sample of more than one hundred stock-listed pharmaceuticals companies – Roland Berger Winners in Pharmaceuticals benchmarking database

Survey conducted by German healthcare software company Climedo Health
Growth drivers are a shift to personalized medicine, improvements in diagnostic testing and aging populations in developed countries.

Interestingly, medical aids and devices companies saw recently declining margins rebound during Covid-19 to above pre-crisis levels. Growth in this segment is fueled by an aging population in many major healthcare markets, a trend that has spurred usage of innovative solutions in eye care and hearing devices. While product development on the hardware side – like the miniaturization of hearing aids – continues, software is becoming the key differentiator as apps complement traditional product attributes.

Healthcare-related service providers achieved only relatively modest growth of 4.1% per year on average and saw margins decline. Leading players like Fresenius Medical Care and DaVita are under pressure given US reimbursement cuts and problems with retaining skilled employees in a demanding business. Reimbursement pressure is also visible in declining EBITDA margins to about 14.5% in 2021.

The lowest-margin segment within MedTech is within disposables and supplies. Lower EBITDA margins of around 8% are a consequence of less differentiation in product offerings. As a result, players in this segment need to focus even more heavily on performance and efficiency-related activities.

Diversified companies show that being active in different MedTech segments is no disadvantage. Diversified players experienced solid annual growth averaging 8.8% between 2019 and 2021 and saw margins rise from 25.9% to 28.1%. Players like Medtronic and Danaher show that diversified companies are often leaders in the segments in which they operate. Successful diversified players often manage to lead thanks to common attributes like clear performance metrics or the ability to innovate continuously.

Our analysis shows revenue growth and profitability vary significantly across the MedTech segments. Innovation and product differentiation drive higher margins, while companies focused on commodities like disposables and supplies have average EBITDA margins below 10%. This shows that companies pursuing breakthrough innovations face higher short-term risks and capital spending, but can expect higher margins and sustainable growth in the long run.

Some MedTechs clearly and consistently outperform others

Our analysis now focuses on how individual MedTech players are creating value for shareholders. The top-ranking companies – the ones we call "winners" – delivered average TSR of 35% per year from 2018 to 2021, while the "underperformers" positioned in the last quartile saw average annual shareholder return of 6.8%.
returns of only 6%. This disparity spurred us to identify three things: the companies that consistently outperform peers, the factors that drive industry-leading TSR and the strategic attributes “winners” have in common.

Our Winners Analysis is a diagnostic tool for understanding a company’s past performance that also serves as a blueprint for its future strategy and execution. We take a company’s past revenues, adjusted for inflation, as the best proxy for future growth. In addition, we take the difference between return on invested capital (ROIC) and weighted average cost of capital (WACC) as the best metric for risk-adjusted profitability.

This sets us apart from investors, who model revenue without inflation adjustments as the growth metric and EBIT margin as the profitability metric, without considering invested capital (IC) and the cost of capital as the risk adjustment. As a result, investors can look at two companies with USD 1,000 in sales and a 10% EBIT margin and not know that one needs USD 2,000 in annual investment, the other only USD 200.

Looking at TSR performance in detail, we found that companies with high growth but lower profitability performed better than those with lower growth but higher profitability. Investors did not reward the latter group for sacrificing growth for higher margins. Our analysis of TSR rendered four archetypes:

1) A small number of low-growth, low-profitability companies that should consider strategic overhauls and improving both revenue growth and profitability;

2) Very profitable but lower-growth MedTechs that should consider investing more in research and development (R&D), product-portfolio growth and market expansion, as investors reward a mix of high growth and profitability the most;

3) Companies with high growth (above 20% per year), but low margins that need performance and productivity programs to aim for sustained, high-margin growth;

4) High-growth, high-profitability companies that should continue to strengthen their competitiveness through R&D spending, digitalizing their product and solutions portfolio, more platform-based manufacturing, omnichannel sales, and leveraging data to develop economic value around their products.

Some MedTech segments have a noticeably higher share of winners than others.

- The electromedical and equipment segment offers a mixed picture. Its share of winners is solid, while its share of profitless growers is low. But it is noticeably facing challenges to grow faster than the overall MedTech market, for example in the field of cardiology equipment such as pacemakers, defibrillators and stents. Declining reimbursements and growing pressure to demonstrate economic value are key factors.
Interestingly, surgical instruments and appliances have the highest share of underperformers. This can in part be explained by the lower growth due to Covid-19 driving down the volume of elective surgery. However, low profitability also indicates that companies are facing challenges in turning R&D investments into successful high-margin products that can lead them to profitable growth.

Many of the fastest-growing players are lab and diagnostics companies. Covid-19 and personalized diagnostics have driven growth and explain why the sector has the highest share of winners and a sizeable share of profitless growers.

Medical aids and devices also have a high share of winners, predominantly in the field of hearing aids and ophthalmology products. MedTech companies are seeing above-average profitability in both areas, while still growing as a result of aging populations and increasing access to healthcare across the globe.

Services companies, on the other hand, have not been very profitable, even if they have been growing considerably. In particular, large companies in dialysis care are experiencing growth problems. Peers that operate largely in outpatient care and at the intersection to homecare could well see higher revenue growth.

Disposables and supplies manufacturers have a very high share of underperformers. This shows the difficulty of generating above-average profits from a portfolio of poorly differentiated products.

Diversified players have a less focused market-participation model and are active in segments with both lower and higher growth rates. Consequently, company performance is highly dependent on individual strategies. The segment has the most even spread of winners, cash generators, profitless growers and underperformers.

The APAC region has the highest relative share of winners and cash generators and the lowest share of underperformers – more than a third of companies are in the top category, many of them based in China. These players tend to be younger than rivals in North America and Europe and are growing faster.

European and North American peers have to find ways to defend their leading positions against these Asian competitors. Companies based in Europe and North America have a substantial share of underperformers and profitless growers, indicating the need for structural changes of MedTechs headquartered in both regions.

This analysis shows that the earlier comparison of regional EBITDA rates may be skewed in favor of North America as a result of larger, high-margin companies driving the average up. Our company analysis reveals that 44% of MedTechs with above-average profitability are based in North America. Europe has a share of 38%, while APAC comes last with only a 18% share.

Winners come from all segments – but have four things in common

Despite these segmental differences, our analysis identified four characteristics that winners have in common, regardless of the focus of their business. The success of all winning MedTechs is founded on: business leadership, strategic coherence, size and financial position, and a proven ability to execute plans.

### H / Characteristics of Winners

Winning companies share a common set of characteristics

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<thead>
<tr>
<th>1</th>
<th>Business leadership</th>
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<td>Can your businesses set the agenda in their areas of market participation?</td>
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<td>Technology leadership</td>
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<th>Strategic coherence</th>
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<td>Do you have a consistent strategic rationale across your portfolio?</td>
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<td>Clear strategy and focus</td>
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<td>Differentiated value proposition</td>
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<th>3</th>
<th>Size and financial position</th>
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<td>Are you relevant in the marketplace in terms of size, financial success or technology with the ability to efficiently attract capital?</td>
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<td>Trusted capital market partner</td>
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<td>Convincing equity story</td>
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<th>4</th>
<th>Proven ability to execute</th>
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<td>Can you deliver results on a sustainable basis?</td>
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<td>Short reaction times</td>
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<td>Performance-driven culture</td>
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Source: Roland Berger
WINNING CHARACTERISTICS – SIMILAR APPROACHES DRIVE VERY DIFFERENT MEDTECH BUSINESSES

1. Business leadership

Winners are leaders in their fields, having managed to achieve top-three positions or generate unique selling propositions that allow them to set prices and defend price points. Winners have an in-depth understanding of the core competencies needed to succeed in each of their businesses. Differentiated and unique business models allow them to create value for their customers and build long-lasting relationships.

Winners focus on consistent growth and typically also on recurring revenues. These revenue streams and an eye on entering other segments with strong growth allow them to benefit from market-induced growth and reduce risks of performance volatility. Winners typically focus on segments in which their product portfolio gives them an advantage over their competitors. Their business leadership comes from a focus on transformative R&D to create pace-setting products and services. By contrast, underperformers often invest in only incremental developments, just enough to maintain their existing product portfolio.

2. Strategic coherence

Strategic coherence starts with a clearly formulated vision and value proposition. These give a company’s employees and customers an overall purpose and define what the company stands for. Following a clear strategic intent in its businesses is more important for a winning company than realizing synergies.

Winners pursue active portfolio management, with a large number of ongoing M&A transactions. They will also be inclined to quickly sell a company again if it does not match initial ambitions regarding business-leadership potential, revenue growth and operating margins, or the overall corporate vision.

Winners also invest heavily in R&D. Our research shows that winning companies invest on average about 8.5% of their revenues in R&D, while underperformers spend only around 6.5%. As winning companies usually have considerably higher revenues than underperformers, their R&D spending is about 26% higher in absolute terms than that of underperforming companies.

An example for a company with sound vision and execution based on a set of clear values is a diversified player with its focus on "the four Ps" of people,
process, plan and performance. The company used performance criteria to manage its business portfolio actively, including a high number of M&A deals.

It adopted a “razor-blade” business model to sell equipment initially and then focus on regular consumables sales to operate these products. This has led to recurring revenue streams of more than 75%, while avoiding any dependency on individual customers. The focus on its business model has provided the framework for growth and performance. It has also ensured the company’s focus across different business units that operate in various industries and ensured its long-term success by outperforming other companies. It also shows that a diversified business can be successful if it is based on well-defined strategic pillars. These communicate a clear purpose and can address market expectations, for example regarding sustainability.

3. Size and financial position
Size and financial position matter in MedTech. Winning companies generally have a market capitalization more than two times the size of their underperforming peers, giving them a place on leading global stock-market indices. Resulting investor coverage means winners have better access to capital. → L

4. Ability to execute
Companies prove their ability to execute strategy through disciplined capital allocation, efficient deployment of resources, and clear communication and implementation. Our Winners Analysis ranking is based on historic revenue growth and return on invested capital. To achieve industry-leading returns on invested capital, companies have to select investments strategically and deploy resources extremely efficiently.

Winners are more efficient than underperformers. Their selling, general and administrative (SG&A) expenses are lower (28.6% versus 34.4%), often because processes are more digitalized, for example across administrative and increasingly also sales functions. Being more efficient, winning companies typically also have a lower cost of goods sold (COGS) (42.0% versus 51.7%). → M

The MedTech industry should concentrate on the four characteristics that winners have in common. If they apply the best practices underlaying them, all companies have the chance to deliver superior shareholder returns in the future. Roland Berger’s assessment grid below is a powerful tool with which companies can benchmark their business and identify areas in which they need to take action. → N
THE MEDTECH INDUSTRY IS MOVING FROM:

1. Unconnected, paper-based to automated, digital processes
   Digitalization is changing the way healthcare providers work and patients interact with them. Medical devices were traditionally largely unconnected and healthcare processes paper-based, but MedTechs are now expected to offer automated and digital products. For example, features such as remote monitoring of medical devices require products that are forcing MedTechs to master new areas of expertise.

2. Fee-for-service to value-based and personalized care
   Healthcare systems have traditionally been reimbursement-based fee-for-service models, but are now shifting to value-based and personalized care. This trend is driven by better availability of data as well as better diagnostics.

3. Inpatient to outpatient care and more disease prevention
   Hospitals have traditionally been MedTech companies’ biggest customers. However, new outpatient healthcare models and disease prevention have grown in importance. This means products and services have to become more convenient so that patients and relatives can use them more easily.

4. Clinical value of products to clinical and economic value of solutions
   MedTech products were traditionally focused on providing clinical value to patients. Today, the economic value of products and solutions is gaining in importance alongside producing superior clinical outcomes. Given rising healthcare costs as a result of aging populations in developed countries, only MedTech products and solutions that can produce both superior clinical and economic value will succeed.

5. Stand-alone hospitals to global networks and omnichannel sales
   Selling MedTech products is getting more complex and is demanding a broader set of skills to optimally address potential customers throughout the sales cycle.

5/ All MedTech companies must brace for structural challenges

Understanding common drivers of success in the MedTech industry helps companies benchmark their own position, address shortfalls and even develop an agenda to lead. Given the uncertain times in which MedTech companies are operating, setting the right strategic priorities is more important than ever.

MedTech companies have to continue addressing the pressing challenges of supply-chain resilience, inflation and the ongoing pandemic. Secondly, MedTechs are facing important structural changes.

Looking forward, the MedTech industry is going through some structural changes...

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<td>non-connected, paper-based processes...</td>
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<td>fragmented...</td>
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<td>incremental and sustaining R&amp;D...</td>
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5. Stand-alone hospitals to global networks and omnichannel sales
   Selling MedTech products is getting more complex and is demanding a broader set of skills to optimally address potential customers throughout the sales cycle.
With the growing importance of integrated delivery networks (IDNs), group purchasing organizations (GPOs) and other types of hospital networks, MedTech companies need centralized sales channels with key account teams that can communicate the value of their products. Digital tools and algorithm-based approaches to personalizing messaging will gain in importance and shift MedTech sales away from traditional segment-based strategies.

6. Incremental to transformational research and development
Our analysis shows that the increasing complexity of product portfolios and customer requirements is hindering MedTech companies from investing in transformational R&D that leverages new technology. Large shares of R&D budgets are still invested in incremental advances or just maintaining product portfolios, for example as a result of new regulations such as the MDR. But companies will only be successful if they succeed in managing portfolio complexity through their global production and R&D platforms – and allocate the majority of R&D resources to innovative development.

FIVE ESSENTIAL QUESTIONS MEDTECH EXECUTIVES QUICKLY NEED TO ANSWER
Given all of these challenges, MedTech company executives need to consider the following key questions:

- Does my company have business leadership in its market segments? Is it among the top-three segmental players, or does it have a differentiated product profile or portfolio in this field?
- Does my company display strategic coherence? Is its strategy clearly formulated? Does it invest enough in pursuing breakthrough innovations – and not just on sustaining R&D?
- Does my company display strategic coherence in the active management of its business portfolio? Is it just as ready to make investments in M&A as it is to sell businesses again if they disappoint?
- Does my company have the size and financial position to perform better than the industry average? Does it in consequence have sufficient access to capital to finance its growth ambitions?
- Does my company have a proven ability to execute? Is it, for example, clearly prioritizing its resources and capital as part of wider efforts to efficiently execute corporate strategy?

At Roland Berger, we help our clients address those strategic questions so that they can take or build on leading positions in the industry. MedTechs have to address current problems, strategic issues and structural questions in order to continue fulfilling their pivotal role in global healthcare. Only if all these issues are success-fually addressed can MedTech companies continue to help shape the detection and treatment of disease around the world – and continue its growth trajectory.
ROLAND BERGER is the only management consultancy of European heritage with a strong international footprint. As an independent firm, solely owned by our Partners, we operate 51 offices in all major markets. Our 2700 employees offer a unique combination of an analytical approach and an empathic attitude. Driven by our values of entrepreneurship, excellence and empathy, we at Roland Berger are convinced that the world needs a new sustainable paradigm that takes the entire value cycle into account. Working in cross-competence teams across all relevant industries and business functions, we provide the best expertise to meet the profound challenges of today and tomorrow.