



Sustainability Challenges in the Danish MedTech Industry

Ten insights on what the industry is facing for a more sustainable product development.

Technolution™

We have **investigated** what challenges the Danish MedTech industry is facing for a more sustainable product development.

This white paper explores potential obstacles and barriers for making product development more sustainable as experienced by a broad sample of the Danish MedTech industry.

Sustainable development is appearing more frequently on the radar of the Danish MedTech industry, and it will most likely become unavoidable to take into consideration in the future. There exists an endless sea of initiatives and ways to go, which makes it challenging to navigate.



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Ten insights spread across five different themes – this is what they said:

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– but still a secondary or tertiary priority

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– but it is still up to the individual employee to implement

4 Life Cycle Assessment is a vital tool
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We have knowledge about sustainability – but it is fragmented and spread across the organization.

Many MedTech companies possess the resources to work with sustainability from the CEO level and all the way down to the production floor. However, respondents report that sustainability is often accompanied by a fragmentation issue. Since sustainability is an underlying factor in many areas of the organization, it can be challenging to organize and share responsibilities and knowledge across all of them. Put simply, when sustainability is everybody's responsibility, it becomes no one's responsibility.

Today, when MedTech employees add sustainability as a secondary function to their main work role, it is often motivated by personal drive towards or interest in the area. But the Danish MedTech companies in this whitepaper report the need for dedicated personnel within the area of sustainability, if the subject is to become more than just an add-on to the employee's existing job functions.



When sustainability is everybody's responsibility, it becomes no-one's responsibility.

On the other hand, the respondents report that a centralized sustainability effort is too resource demanding. Sustainability needs to be decentralized and implemented everywhere in the organization, and responsibility for the area needs to be placed where appropriate.

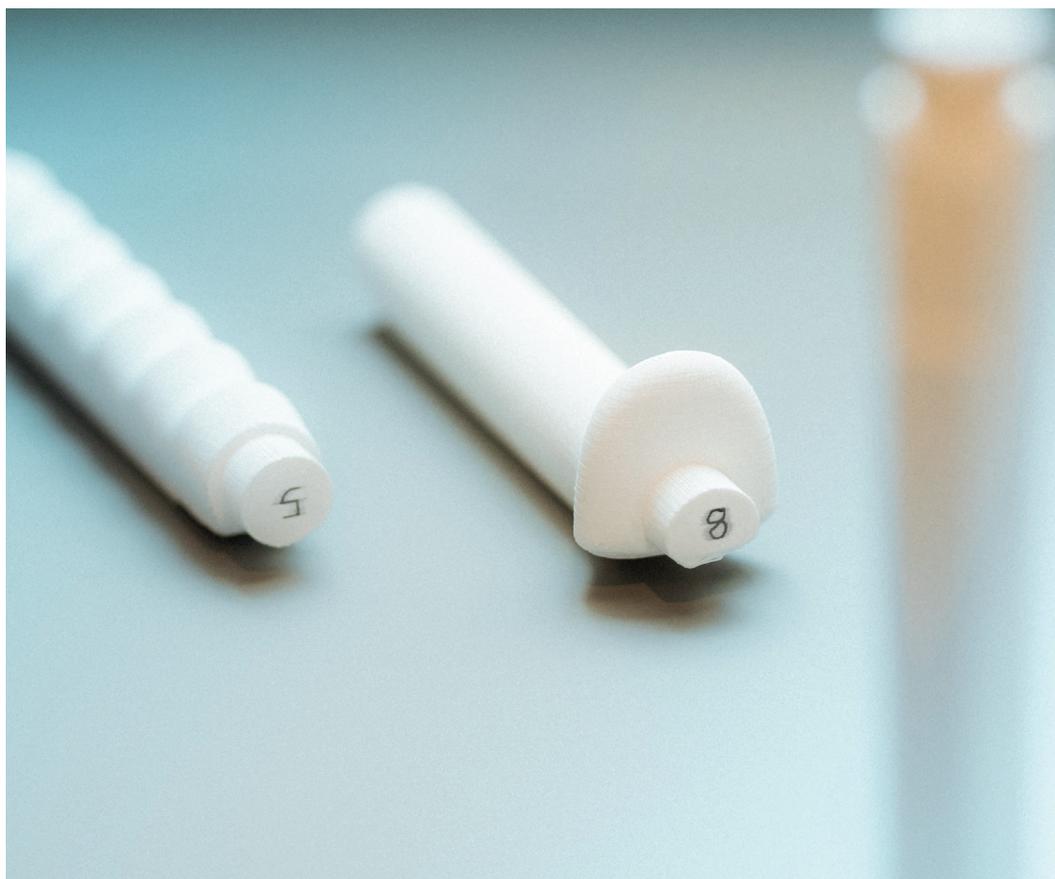
What is, then, the best place to locate the main responsibility for the sustainability area? The companies interviewed for this whitepaper deliver no single answer to this question. Examples could be within Environmental, Safety & Governance (ESG) departments, Human Resources (HR) and Corporate Social Responsibility (CSR) resources, but also with committed personnel from various departments in the organization. In general, though, the personnel responsible for sustainability should be appointed from the management level, and management must make the necessary resources available to them.

Sustainability is important in design – but still a secondary or tertiary priority.

Developing a medical device is already challenging, and adding sustainability to the equation makes it even more so. The respondents report that sustainability is indeed considered in the development phase of medical devices, but it is often seen as yet another set of criteria that designers must take into consideration. Besides for avoidance of certain substances, sustainability factors are still not commonly stated in an explicit manner in the e.g., the requirement specifications for future products. Until sustainability becomes an explicit Key Performance Indicator (KPI), it is still perceived as icing on the cake and something that is considered only, when everything else is in place. This often leaves little wiggle room at the end of development, and only minor sustainability efforts can therefore be implemented.

It is never too late to start the sustainability journey, but starting early is better. By setting KPIs for sustainability, organizations can make it a cornerstone of the product design from the very beginning.

Sustainability is still
considered icing on the cake.



We might have sustainability guidelines to follow – but it is still up to the individual employee to implement.

Several of the companies interviewed report following some sort of sustainability guidelines during the development phase. The maturity and level of implementation varies from optional guidelines to formalized parts of development processes.

Sustainability is a developing field, and there is still room for guidelines to become more deeply rooted in organizations. In general, companies are increasingly looking towards putting more resources into maturing and developing guidelines. Although sustainability guidelines may be in place in one way or another, it is currently often up to the individual employee to navigate with their own common sense or rules of thumb during development. Respondents report examples of internal education of personnel regarding sustainability, but this is considered a tedious and slow process.

The solution to this problem could be to establish formal requirements to the sustainability guidelines, thereby making it easier to implement them.



Life Cycle Assessment is a vital tool – but it is resource demanding to work with.

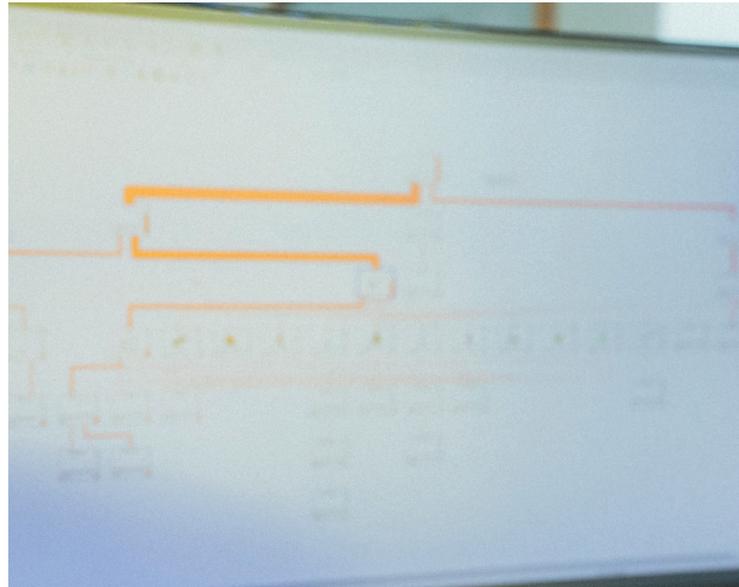
Life Cycle Assessments (LCAs) are used by the respondents to establish current performance and improvement areas. The use of external LCA resources from consultants or other partnerships outside the companies are most commonly seen due to two reasons.

Firstly, there are credibility reasons by having a third party perform the assessments - especially in the case of external communication, which is a frequent use of LCAs.

Secondly, it is a rather resource demanding activity that takes time to develop internally. The use of LCAs will most likely increase in the future.

LCAs can be challenging to work with during development due to their retrospective nature. There is a need for faster, more reliable and visually apprehensible data on a conceptual level when having to decide between concepts. Challenges not only appear when choosing concepts, but also when it comes to comparing suppliers or competitors. An industry standard regarding sustainability performance - where especially scoping is more streamlined - could make the choice of more sustainable suppliers or products easier.

Despite the retrospective nature of LCAs, once carried out for one product, they can make sustainability improvements for the next product generation much easier.



Sustainability comes with a higher price tag – but the extra costs will have to be a shared responsibility.

The general view among respondents is that bearing the increased costs of more sustainable products will have to be a joint effort between both producers and procurers, but it is still a topic open for discussion.

If the higher costs becomes solely the responsibility of the producers and happens too drastically, it will result in a higher price tag for the end users. Companies that have taken bigger steps towards more sustainable products expect a competitive advantage in the future, but this is not currently guaranteed. At the same time, sustainability is also considered just another cost factor that companies must pay for, if requirements come into effect. However, it is expected that sustainability requirements will be implemented in the future, and this is where some of the current investments can be earned back in the long term.



You can either look at sustainability as an additional cost or a necessary investment.

Demand is coming from everywhere – but the financial incentive is still not there.

Sustainability demands seem to come from everywhere, and it is hard to pinpoint one single driver behind them. The combination of all demands put together is most likely the driving force behind the trend.

Although sustainability is the talk of the town, the market has yet to create a serious pull. Being selected because you are sustainable - or being deselected because you are not sustainable enough - is not yet a thing, although examples do exist.

Some sort of sustainability fee or toll is most likely a thing that would really make a difference, because there is still no doubt that companies' financial goals come before their sustainability goals. With this, sustainability would shift from an added cost to a necessary investment.

Examples of drivers



End users

There is an increasing focus on the amount of waste that especially single-use devices generate. End-users are questioning the environmental impact of the medical devices they use.

Investors

ESG is a term that has escalated in the investor world since companies that perform well on all three axes of sustainability tend to perform better overall.

Comitted Personnel

More and more personnel from medical device manufacturers have a desire to incorporate more sustainable practices and products within their organizations.

Tenders

Sustainability criteria are being implemented in tender processes, which provides a bigger economical incentive.

Regulation

Regulations are becoming more focused on sustainability and the bar is being continually raised. Continuous progress is necessary to keep the head above the water.

Organization

Sustainability has reached top management of bigger corporations and is not likely to disappear. Sustainability targets are being implemented throughout organizations.

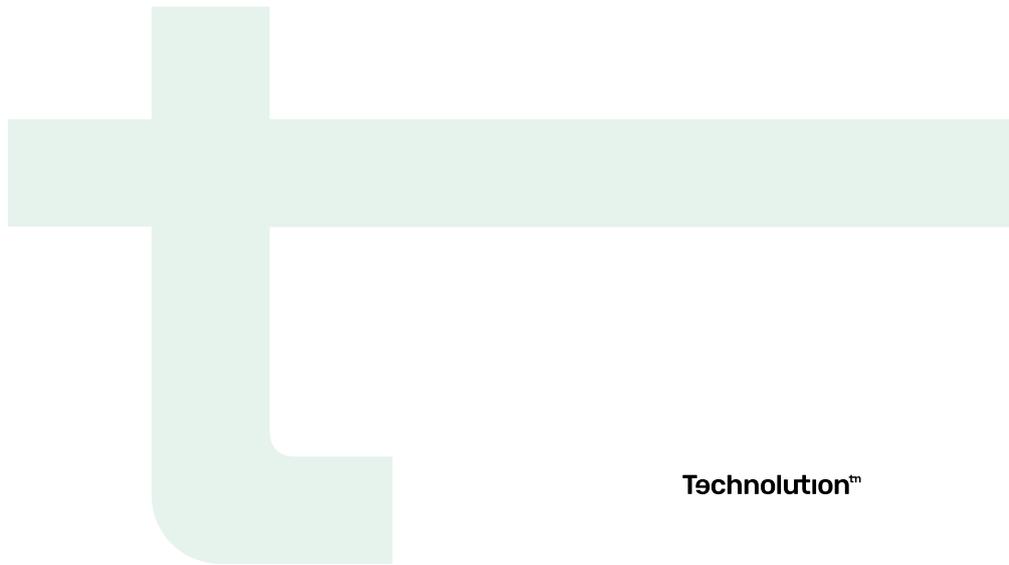
We feel the urgency and are ready to move – but we are not completely sure about the direction.

Companies recognize the need to act on sustainability and experience strong motivation from employees that has increased within the last 2-3 years. Regulatory changes and tender requirements are coming, but exactly how they will turn out is still not crystal clear. Sustainability is currently a very dynamic field that is lacking some harmonization. The respondents are therefore sitting on the edge of their chairs, ready to make the leap.

Many resources are used on keeping an eye on the horizon in order to stay up to date, when regulatory demands are put into effect. For companies further along in their sustainability journeys, future regulatory demands can act in their favor due to sustainability being a competition parameter.

Companies report a need to continue working with sustainability regardless of the lacking direction since this is seen as an unavoidable trend on a global scale that will continue to rise in importance. At the same time, it is also reported that since the direction is not yet set, there is room to wait a little longer. Pilot projects are launched to gain experience with different aspects of working with sustainability, as well as to engage employees that are passionate about the topic. Projects are launched within all life cycle stages of the devices from development to end-of-life (EOL).

In general, pilot projects are an excellent way for companies to keep the “sustainability muscle” fit and ready for the moment, when the big leap is to be made.



We are leading the trend in the Nordics – but the European market is minimum market size.

There seems to be an agreement among the respondents that the frontline of sustainability in MedTech is located in the Nordic countries.

Companies with development across the globe look towards the Nordics, because it is assumed that the sustainability trend will spread across the globe from here.

Companies will struggle to deliver unique products to the relatively small market present in the Nordic countries. If the requirements are too strict, they will be ruled out of supply. It is less risky to stop selling to e.g. Denmark, than to risk sales on a global scale.

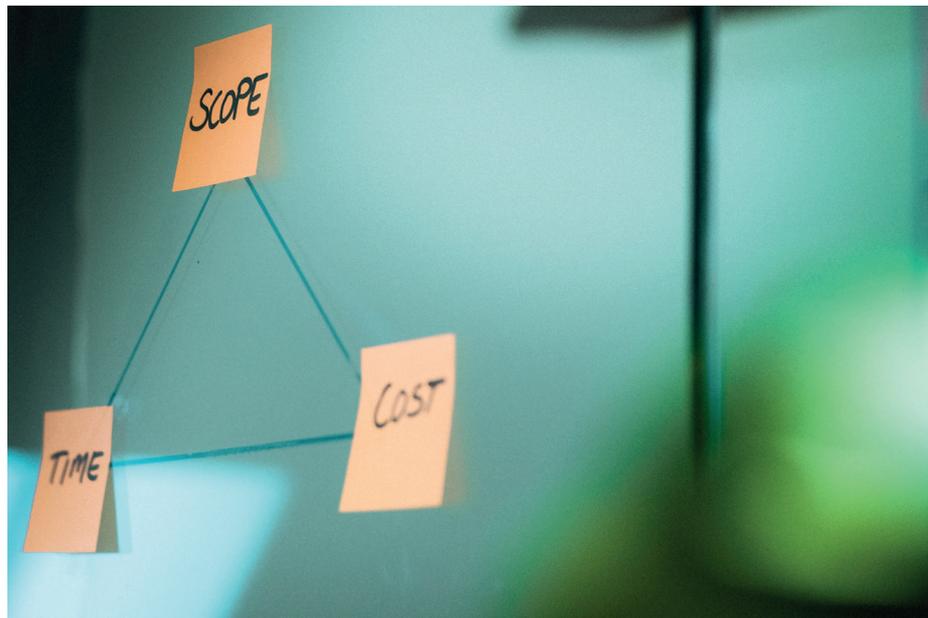
A harmonization of requirements to at least the European market size is therefore necessary for companies to develop more sustainable products optimally. However, being a first mover in an area that everyone in the industry agrees is the right way to go, gives Danish MedTech companies an opportunity to make an impact on the direction of sustainability in the future.

There might still be some low hanging fruits – but even packaging is challenging to change.

The respondents have started their sustainability efforts with the lowest hanging fruits, but are running out of sustainability initiatives that do not also come with costs savings (e.g. at the operational level such as production).

Packaging is mentioned as a low hanging fruit, but even here it is challenging to make changes. This is due to documentation demands regarding performance. Furthermore, primary packaging is particularly challenging. It is very resource demanding to change anything in the packaging system, after it has entered the market. Respondents also report that working with sustainable packaging has been more challenging than expected. The product side has yet to mature to include the same level of sustainability demands.

The low hanging fruits therefore lie in the development of new products, and not retrospectively.

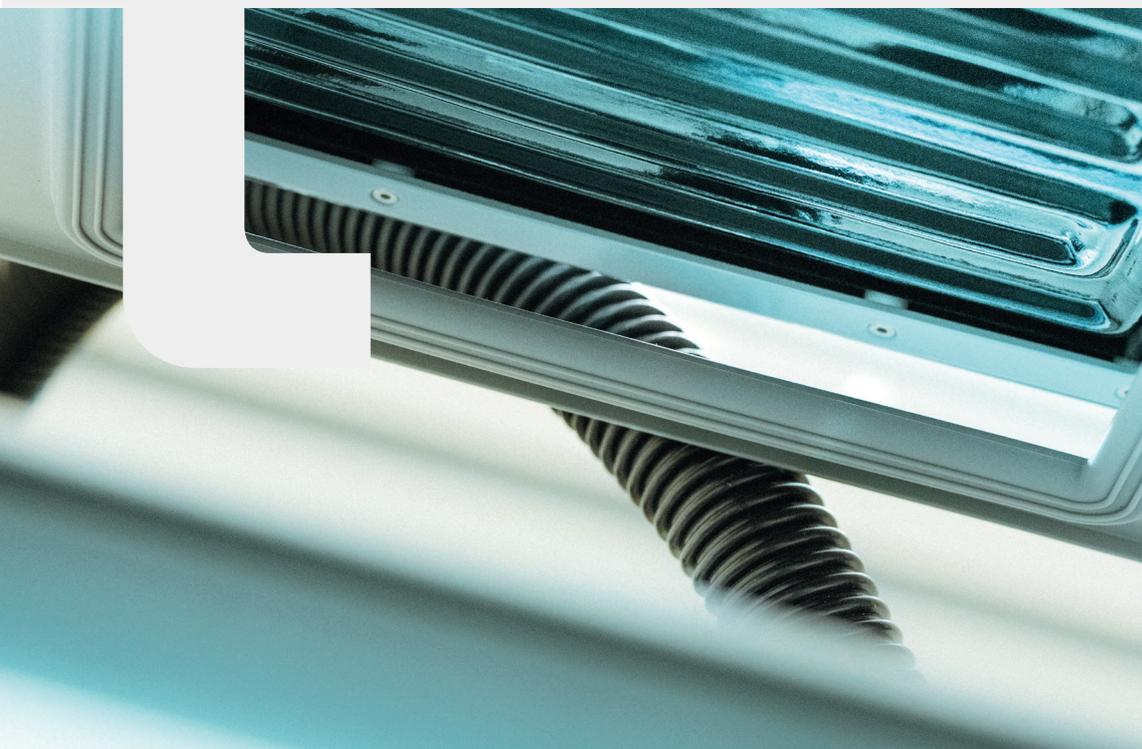


We can make the necessary product changes – but it requires a long transition time.

Medical devices are notorious for long development phases compared to e.g. consumer products. It usually takes several years to develop a new medical device, and it is therefore important to know the sustainability requirements well in advance.

The urgency is therefore emphasized, since the decisions made today takes several years to materialize. Even 2030 seems right around the corner.

Furthermore, it takes time to develop and substitute today's fossil fuel based materials with greener alternatives. There is a pipeline of materials coming, but experience working with them as well as a steady and affordable supply chain needs to be established to be completely reliable in product use.



Conclusions

There are several important learnings from the responses given by the Danish MedTech companies in this whitepaper. Sustainability is coming to the MedTech industry, and Denmark and the other Nordic countries are placed firmly at the frontline of this exciting and developing new area.

Start now - the specific direction will come later

In general, the respondents are well suited to the sustainability journey, but sustainability will become a competitive advantage in the future. The cost of doing nothing will be higher so rather start sooner than later.

Conducting pilot projects is a great way for MedTech companies to get hands-on knowledge with sustainability in product development. And, when going all-in, the development of new products is at the moment a low hanging fruit compared to making existing products more sustainable.

Set concrete requirements for products

To make sustainability a priority it needs to be more explicitly stated in e.g. the specification requirements of new products. This allows for the placement of sustainability responsibility but it also allows for the right training for the right people. If there is a requirement, someone will have to be responsible for it.

Measure environmental impacts to improve

Sustainability needs to be data-driven in order to make real changes. Environmental impacts need to be quantified in order to know where the resources should be directed.

By having data to support the sustainability decisions it also translates easier into future business cases.

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If you are interested in more – please reach out to Christoffer Thomsen at cet@technolotion.dk.

