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The purpose of this report is not to highlight an exact number, but rather to demonstrate the untapped potential that Nordic companies possess. As the 400 companies have very large net revenues and hold a large amount of inventory, the nominal total effect becomes considerable. It should be highlighted that a significant share of these companies' business takes place outside the Nordics, and that many of these companies already have introduced efficient inventory management to a certain extent.

Note 1: Companies within the top 100 in each country that pose little relevance to inventory management have been excluded.

Note 2: The analyzed data primarily includes subsidiary data when available, to ensure as relevant industry classifications as possible.

01. Key Insights

The Unnecessary Report demonstrates the untapped potential of Nordic companies, revealing how effective inventory management can unlock billions in value, reduce environmental impact and enhance competitiveness of Nordic companies in a global business landscape.

The 2024 edition of The Unnecessary Report shows that...

8 million square meters of Nordic inventory and inventory space are unnecessary.1



This would be as many as 1.9 million table tennis tables, or 31,000 tennis fields.²



By applying efficient inventory management and optimization, these companies could free up EUR 23 billion...

Which could be invested to strengthen the Nordic region, and result in...

Projects to improve and future-proof Nordic businesses

Sustainability initiatives to combat climate change

390,000

NEW JOB OPPORTUNITIES³

02. Efficient Inventory Management and Optimization – A Crucial Component for Competitiveness

In the wake of the Covid-19 pandemic and geopolitical uncertainties, the global landscape is undergoing significant transformation, and Nordic businesses are navigating a period of change. In The Unnecessary Report, we explore how Nordic companies can turn adversity into opportunity by optimizing supply chain and inventory management to stay competitive.

When we first published The Unnecessary Report in 2019, we analyzed Sweden's 100 largest companies and highlighted potential improvements in resource efficiency and inventory management.⁴ By 2021, we expanded our study to include the 100 largest companies in Sweden, Finland, Denmark and Norway,⁵ addressing new challenges as global disruptions became more frequent.

The pandemic underscored the importance of robust and adaptable supply chains, with efficiency taking priority. Efficiency minimizes unnecessary resource allocation, which is vital for competitiveness. Visibility and resilience support supply chain efficiency by helping track and anticipate disruptions and ensuring stability in case of unexpected disruptions, respectively.

Adding to this, Environmental, Social, and Governance (ESG) considerations have gained prominence, driven by customer, employee and investor expectations, along with regulatory pressures. Companies are now expected to integrate sustainability into supply chain strategies to enhance their market position and competitiveness.

In the 2024 edition of The Unnecessary Report, we revisit the untapped potential of Nordic companies, focusing on resources that could be freed through increased efficiency. Our analysis covers the 100 largest companies in Sweden, Denmark, Norway and Finland across the sectors Consumer Goods, Industrial & Natural Resources, Retail, Tech & Life Science and Wholesale & Professional Services.⁶ We find that inefficiencies remain prevalent – and even that the level of unnecessity has increased from 2021 to 2024, underscoring the urgent need for action.

Our analysis reveals that the 400 companies are using at least 8 million square meters of unnecessary inventory space. Efficient inventory management could free up nearly EUR 23 billion. This substantial amount can be used to fund investments to enhance competitiveness, such as creating 390,000 new jobs.

8 million square meters of

inventory space is unnecessary.

Quality over quantity is key. Achieving the right inventory mix ensures maximum resource efficiency, keeping Nordic companies competitive and forward-thinking.



03. Unnecessary Inventory in the Nordics

The 400 largest companies in the Nordics together possess an unnecessary inventory space of 8 million square meters. To put this into perspective, it can be compared with 10,000 handball courts.⁹ Remarkably, this space also accounts for one-fifth of the area of Paris, the host city for the 2024 Summer Olympics.¹⁰ Clearly, this surplus space is preventing companies from achieving optimal efficiency.

Excess inventory often results from inaccurate customer demand forecasting, seasonal demand changes, shipping delays and manufacturing issues. These factors can lead to overstocking and product obsolescence as businesses strive to maintain high service levels or prepare for supply chain disruptions.

Since our last report in 2021, the unnecessary inventory space in the Nordics has increased by approximately 16%. While global events such as the pandemic, geopolitical conflicts and the shift from global to regional economic dynamics have had profound implications, this increase is concerning. It highlights a trend that is unsustainable over time. And it is essential to question whether these external factors fully explain the rise in unnecessary inventory, since addressing this issue is crucial for Nordic companies to maintain their competitive edge.



Consider EUR 23 billion – an amount sufficient to create 390,000 full-time jobs, surpassing the entire population of Malmö, Sweden's third-largest city. Now, consider the 8 million square meters of unnecessary inventory space. This vast space could be reimagined as some of the most famous landmarks in the Nordics. Like 198 Tele2 Arenas, 472 BLOX buildings, 164 Oslo Opera Houses or 466 Helsinki Central Library Oodi structures.¹¹

The alternative uses of EUR 23 billion provide many great opportunities for businesses – and in extension the whole Nordic economy – to grow. Inefficient inventory management causes many disadvantages, ranging from economic and strategic to sustainability challenges.

Direct economic gains

Efficient inventory management plays a crucial role in enhancing a company's economic performance. By optimizing inventory, companies can **increase revenue** by ensuring that in-demand products are always available, thereby avoiding missed sales opportunities. Holding fewer goods also **reduces costs** associated with warehouse space, obsolescence and transportation, distribution, and administrative expenses. Furthermore, with less capital tied up in inventory, companies can free up resources, indirectly lowering costs and enabling more efficient capital use, which leads to higher returns.

Indirect economic gains

From a strategic standpoint, efficient inventory management unlocks both capital and time. By investing in accurate forecasting and planning processes, companies can effectively reduce inventory levels. A leaner, more accurate inventory requires less management, allowing companies to focus on enhancing customer service and shifting resources from administrative tasks to more strategic initiatives.



Insights from the Expert:

04. How Efficient Inventory Management Helps Reduce Environmental Impact

Efficient inventory management is not only important from an economic and strategic perspective, but also from a sustainability perspective. Nathalie Johansson, Senior Supply Chain Specialist & Service Manager at Optilon, gives her top three pieces of advice on how to work with inventory management to reduce a company's environmental impact.

1. Forecast, plan and manage for an efficient supply chain

Efficient inventory management helps to optimize the flow of materials throughout the supply chain. Companies should aim to strategically forecast, plan and manage their supply chains to be as efficient as possible, to avoid unnecessary production, transportation, inventory and waste – thereby reducing their overall environmental impact and costs. Efficient planning prevents the need for reactive measures like emergency shipments with air freight, which are costly both environmentally and financially.

Adding to this, freeing capital that otherwise would be tied up in excessive inventory enables companies to make investments in important areas, such as in sustainable raw materials or other green initiatives.

2. Find the balance between high availability and the right stock, to reduce waste

The Covid-19 pandemic and ongoing geopolitical tensions have caused disruptions in global supply chains. While many companies started to increase their stock levels as a response, the true solution lies in taking a more strategic approach to inventory management.



It's important to be smart about which items to keep in stock, focusing on the most critical items rather than increasing inventory across the board.

Companies should also use proper IT tools to manage geolocations and quickly identify potential issues or delays in lead times. This way, they can mitigate potential disruptions in the supply chain in a timely manner, instead of buying excessive inventory that risks going to waste.

3. Collaborate cross-functionally to achieve truly efficient inventory management

Having an ongoing dialogue between the supply chain, sales, marketing and operations teams is crucial to effectively planning and executing supply chain activities. This is especially important for products with short shelf lives or life cycles.

By integrating with both customers and suppliers, companies can gain valuable input to align demand with inventory levels - thereby preventing overproduction and excessive transportation, stock and waste.



05. Country Comparison

No matter how big a company is or where it is located, operates or seeks to expand, implementing efficient inventory management has a substantial effect on cost, revenue and profitable growth. If all Nordic unnecessities were removed, it would lead to a more thriving economy across the region.

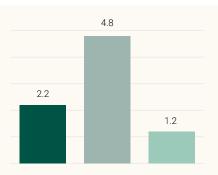
All companies want to make use of their resources where they are of most importance. While this could be as simple as putting the milk on the shelf before it expires, the positive effects extend beyond just that. The inventory space freed up from not holding unnecessary stock could now be sold, leased out or used for something completely different. Efficient inventory management has some obvious effects already when scraping the surface, but it is when we dig even deeper into it that we start to see the snowball rolling.

As we stated earlier, the Nordic countries differ in size. But just because some are larger than others, does not mean that the cost of insufficient inventory management is any less. The economic structures of the countries are similar. We are all economically strong, reliant on global trade, technologically and digitally advanced, with well-developed infrastructure and institutions.

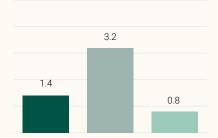
This also means that the gains from efficient inventory management are relatively similar across the countries. However, the largest companies – and the industries they operate within – differ. This creates some interesting differences among us.

Total Economic Effect - In EUR billion

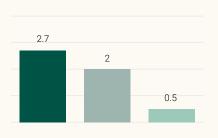
In **Sweden**, up to EUR 8.1 billion could be unlocked by applying more efficient inventory management, which can be compared to 6.4 billion in 2021. The total economic effect corresponds to 1.5% of Sweden's total GDP and is almost equal to the total annual spending on the juridical system.



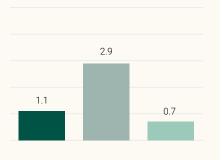
Looking at **Finland**, the 100 largest companies have the potential to free a total of EUR 5.4 billion, which would be equal to 2% of the country's entire GDP. This is an increase of EUR 1.6 billion since 2021.



Turning to **Norway**, the total economic effect from the 100 largest companies amounts to 5.2 billion, which is a vast increase of EUR 1.8 billion since 2021. The total number represents 1.2% Norway's GDP. This is a significantly lower share than for the other Nordic countries, largely because of Norway's oil reserves and its effect on the total economy.



Lastly, **Denmark** can unlock EUR 4.7 billion through efficient inventory management. It is the only country that has become less unnecessary compared to 2021, when the total economic effect amounted to 5.4 billion. The 2024 number makes up more than a third of the total sales of Novo Nordisk's medicine Ozempic, which has been a large driver in the Danish economy.¹²



Revenue increase

Working capital decrease

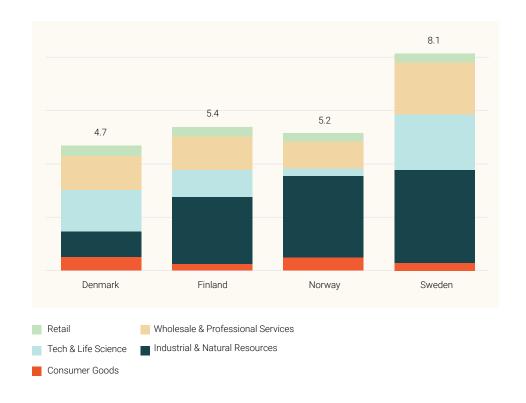
Cost decrease



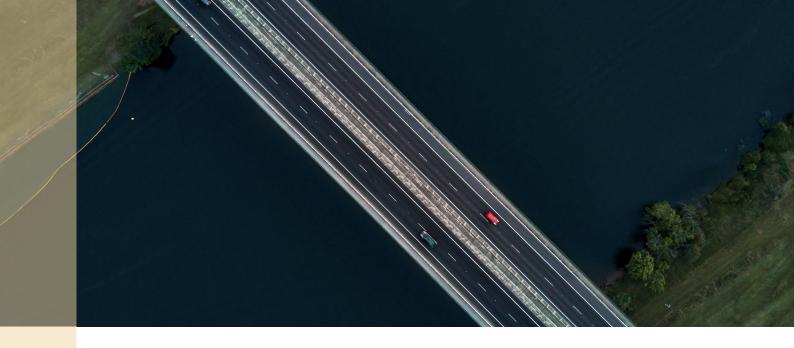
Total Economic Effect per Country & Sector - In EUR billion

In all Nordic countries except for Denmark, the Industrial & Natural Resources sector is the most unnecessary. Just like in the 2021 report, traditional industry has most room for improvement and most to gain from streamlining its inventory management. Denmark stands out with the Tech & Life Sciences sector being most unnecessary, which is largely driven by the substantial size of Danish medical companies.

When looking solely at potential inventory reduction, the relationship between the sectors changes – as we will see in the next chapter.







06. Sector Comparison

"Less, but right, is more" is a statement that holds true in most business operations, particularly in inventory management. The shorter the shelf life of a product, the more cost-effective its sale becomes. While simplified, this perspective serves as a valuable guideline for optimizing inventory strategies and has the potential to significantly boost efficiency and financial performance.

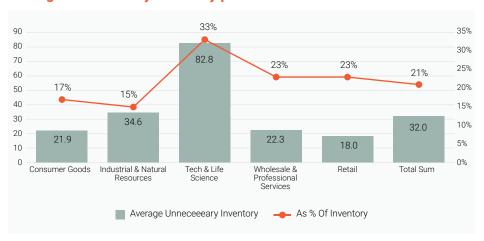
In inventory management, even the most flawless systems require regular adjustments – consider it a fundamental principle. Two ways to look at inefficiencies are relatively – the percentage of unnecessary inventory out of total inventory – and absolutely – the total amount of unnecessary inventory. Combining these perspectives challenges companies to make strategic cuts and adjustments, even when it feels counterintuitive, to identify hidden efficiencies and free up capital.

In the previous chapter, we highlighted the capital that could be unlocked through smarter inventory management. This included revenue increases, cost savings from fewer unnecessary goods, and reducing working capital as fewer goods are held in inventory. Now, we turn our focus to a detailed analysis of inventory itself and the extent of unnecessary items.



Our examination of the 400 largest Nordics companies shows that their inventories are on average valued at EUR 155 million. Compared to the 2021 report, the 2024 analysis shows an increase in average unnecessary inventory from EUR 28 million to EUR 32 million per company, meaning that 1 out of every 5 items is unnecessary. And this is just the tip of the iceberg. By integrating strategic inventory management, companies can achieve additional cost savings and potential revenue increases, resulting in a total financial impact of EUR 58 million per company.

Average Unnecessary Inventory per Sector - In EUR million



The **Consumer Goods** sector holds the second least unnecessary inventory in absolute terms. Despite this, the level of unnecessary inventory is still significant. Companies in this sector typically hold on average EUR 22 million in excess inventory, which represents 17% of their total inventory of EUR 129 million.

The **Industrial & Natural Resources** sector has substantial inventory holdings, averaging EUR 230 million. Despite this large amount, the unnecessary inventory is on average EUR 35 million per company, making up a relatively low 15% of the total.

The **Tech & Life Science** sector stands out as the most inefficient sector in both absolute and relative terms. Companies in this sector hold the second-highest average inventory levels at EUR 250 million, with 33% classified as unnecessary. This results in an average of EUR 83 million in excess inventory per company.

The **Wholesale & Professional Services** sector holds an average of EUR 110 million. Out of this, 23% are considered unnecessary, which corresponds to an average of EUR 22 million.

Lastly, the **Retail** sector holds the lowest inventory levels, with an average of EUR 100 million. However, 23% of this inventory is considered unnecessary, amounting to on average EUR 18 million per company.

The Drivers for the Tech & Life Science Sector's Unnecessary Inventory

The Tech & Life Science sector's high level of unnecessary inventory can be attributed to several factors: rapid product obsolescence, complex global supply chains and tight regulatory requirements. In the tech industry, fast-paced innovation often leads to overstocking of obsolete products. Meanwhile, life sciences require additional inventory to comply with standards and buffer against potential shortages. Adding to this, challenges such as uncertain demand forecasting, custom components and strict quality controls further contribute to excess stock in both sectors.

Case Studies Across Three Sectors

07. Putting Efficiency and Availability into Practice

Consumer Goods

Company A

Company A is a leading manufacturer of building products in the consumer goods sector. Inventory levels relative to the number of products sold had been high over time and were managed manually. Through an automated planning process, inventory management was streamlined, allowing planners to devote more time to strategic work. Within a year, the new process had a major impact. Product availability increased from 94% to 97%, but even more remarkable was the

reduction in inventory value. Inventory levels were reduced by over 50%, freeing up capital and resulting in significant cost savings in warehouse space, inventory obsolescence, and distribution.

50% inventory reduction

Retail Company B

An e-commerce company, Company B, experienced rapid sales growth which led to increased complexity in its inventory management. This had consequences for the daily workload of the planners, who had been working with a traditional method and were lacking modern planning tools. After implementing a new, modern inventory management system, the company managed to free 20% of the capital tied up in its warehouses, while increasing product capital freed up availability from 75 to 95%.

Industry and Natural Resources Company C

Company C, a manufacturer of sealing solutions for cables and pipes, also experienced strong growth in inventory management needs. Significant growth for the company, combined with an inventory management approach better suited to smaller firms, led to planners struggling with the new complexity. They faced challenges in ensuring that the right product was available when needed, despite substantially increasing inventory

investment. When the company decided to phase out manual stock planning and implement an automated process, it saw substantial results. Company C was able to free up 25% of its inventory while increasing product availability to 98%.

98% product availability



Insights from the Expert:

08. Supply Chain Sustainability

In today's global business environment, sustainability in supply chain management is both a responsibility and a competitive necessity – especially for Nordic companies aiming to lead in this space. We spoke with Franz Rothschild, Senior Supply Chain & Sustainability Specialist at Optilon, to delve into how integrating environmental and operational sustainability can drive value and efficiency.

Why is it important for companies to integrate sustainability into their supply chain management strategies?

Climate change is a major challenge that needs to be solved. Integrating sustainability into supply chain strategies is essential not only for the environment, but also for businesses to remain competitive in a landscape where consumers demand for sustainable products is higher than ever. By placing sustainable supply chains at the core of both the supply chain and overall business strategies, companies can develop concrete action plans that enhance competitiveness and add significant value. This is necessary to meet stricter regulatory requirements and align with market expectations from both customers and investors. Ambitious sustainability goals position companies as leaders, demonstrating a commitment to positive change throughout the entire supply chain.

What are the most significant challenges companies face when trying to reduce greenhouse gas emissions in their supply chains?

Around 80% of a company's greenhouse gas emissions originate from its supply chain, with 90% of these connected to Scope 3 emissions.¹³ Consequently, it's no understatement to say that a major challenge lies in understanding and managing Scope 3.

Companies need to become familiar with the greenhouse gas protocol and assess the materiality of their emissions, considering both upstream and downstream impacts.



Being transparent about sustainability goals is also essential for engaging suppliers and facilitating cooperations.

This can be achieved by including emissions calculations in contracts and setting clear expectations, with both incentives and penalties to encourage compliance and achievement. Sharing experiences, knowledge and skills with partners, and ensuring education on data collection, are also critical components of this process. To overcome these challenges, having the right IT systems in place, as well as competent data analytics and sustainability practitioners, allows companies to ensure actionability and draw the correct conclusions.

What advice would you give to companies just beginning their journey towards a more sustainable supply chain?

For companies starting their supply chain sustainability journey, the first important step is to secure involvement from senior management to champion efforts across the organization. Getting familiar with regulations and certifications and benchmarking against industry leaders are essential next steps. Companies should also map their supply chains comprehensively, covering network design, planning and operation processes to conduct risk assessments. Furthermore, companies should identify scenarios with process efficiencies and potential to reduce material usage, energy consumption, waste and emissions generation. Planning budgets accordingly and engaging external partners can provide valuable support in achieving sustainability objectives. Most importantly, my best advice is to get started before it's too late. Failing to address sustainability can lead to a decrease in market share, a lower investor base, reduced employee retention and diminished operational resilience. Transitioning towards a more sustainable supply chain is a win-win – for the business, customers, employees, investors, and the planet alike.

09. Master the Supply Chain to Unlock Potential

The untapped potential among the 400 largest Nordic companies is bigger than ever. The EUR 23 billion does not only represent capital that can be unlocked by reducing unnecessary inventory, but investments that can be made to secure future economic growth. Inventory management is both a barrier and a springboard for progress, depending on how it is used.

The Power of Efficiency

Inventory management is a critical yet often neglected driver of growth. In an interconnected global economy, every business has the potential to streamline its operations. For smaller firms, this means freeing up resources to hire talent, initiate projects or expand market reach. For industry giants, it also offers the chance to venture into new markets and foster innovation, pushing societal progress forward.

Beyond Immediate Gains

The benefits of efficient inventory management ripple throughout an organization, extending far beyond immediate financial gains. By reinvesting in strategic initiatives and sustainable practices, companies can enhance their overall value and societal contributions. This broader impact encourages smarter decision-making and a more informed approach to growth.

Navigating the Digital Shift

With the digital acceleration, companies face the dual challenge of adapting to new consumer expectations and integrating digital solutions. It puts new requirements on companies to better systematize their delivery and, therefore, their inventory management. Moving forward, this trend will only grow stronger as product availability and shorter lead times are becoming increasingly important. Setting up an organization, process and plan for how to make better use of one's resources have long-gone effects on a company's competitiveness – and by extension on the economy.

A Strategic Vision for the Future

Efficient inventory management is not just a necessity; it is a strategic vision for the future. By implementing robust processes and leveraging technological advancements, companies can enhance their competitive edge and contribute to a resilient economy. The path to success is paved with strategic foresight and operational excellence, ensuring that businesses are prepared for whatever lies ahead.



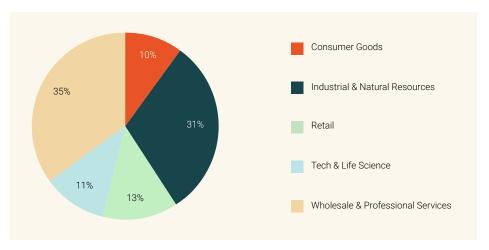
10. Method

The dataset comprises the 100 largest companies in Sweden, Denmark, Norway and Finland, chosen based on their revenue size. Companies whose operations would not be impacted by efficient inventory management have been excluded.

The industry classification of these companies is determined by their core business and primary focus. The Wholesale & Professional Services and Industrial & Natural Resources sectors represent the largest share of the dataset, accounting for 35% and 31% of the analyzed companies. This significantly affects the total cost savings and freed-up capital.

The data, sourced from Dun & Bradstreet, is based on the companies' annual reports for 2023, utilizing the most recent available information. Inventory levels have been calculated as the average of the opening and closing balances to more accurately reflect inventory levels throughout the fiscal year.

Sector Categorization of the 400 Companies - As share of total



Assumptions

The assumptions outlined in this report are derived from insights provided by customers and industry specialists. These assumptions have been deliberately set at conservative levels to prevent overestimation of the impact of enhanced inventory management. The aim of this report is not to present a precise figure but to highlight the potential within the companies analyzed.

Given the substantial size of the companies reviewed, even modest improvements in efficiency could result in significant value gains in absolute terms. It is important to note that several of these companies conduct a considerable portion of their business outside the analyzed countries, and some have already implemented efficient inventory management practices to a certain extent.

In addition to the assumptions stated in the report, an inventory cost of EUR 100 per square meter per year has been used in the calculations. The assumptions beneath have been used in the calculations.

It is important to note that some of the changes observed since the 2021 report can be attributed to high inflation across all Nordic countries. This economic factor has impacted inventory values and management strategies, influencing the overall inefficiency levels across sectors.

Industry	Revenue increase	Inventory reduction	Reduced inventory space*	Reduced distribution and administration*	Reduced obsolescence*	Total cost effect**
Consumer Goods	0.66%	17.00%	1.06%	1.06%	2.13%	4.25%
Industrial & Natural Resources	1.30%	15.00%	0.94%	0.94%	1.88%	3.75%
Wholesale & Professional Services	0.70%	23.00%	1.44%	1.44%	2.88%	5.75%
Retail	0.40%	23.00%	1.44%	1.44%	2.88%	5.75%
Tech & Life Science	0.44%	33.00%	2.06%	2.06%	4.13%	8.25%
Average	0.70%	22.00%	1.38%	1.38%	2.75%	5.50%

^{*}As share of inventory

Endnotes

- 1. Based on insights from industry experts and professionals.
- 2. A table tennis table covers 4 square meters. A tennis court covers 260 square meters.
- 3. Based on a yearly employment cost of EUR 60 000. Rounded number.
- 4. Based on net revenue.
- Based on net revenue.
- 6. Based on net revenue. The latest available annual reports on subsidiary level have been used in the analysis.
- 7. The calculations are based on assumptions from Optilon's data and sector experts. See Method for details. Rounded number.
- 8. Ibid.
- 9. A handball court covers 800 square meters.
- 10. Britannica: Paris: City area, 41 square miles.
- 11. Cision: Tele2 Arena, BLOX: BLOX facts, Operaen: Et operahus for alle, The New York Times: Where Libraries are the Tourist Attractions.
- 12. Novo Nordisk Annual Report 2023.
- 13. Scope 3 emissions are indirect emissions from an organization's value chain activities, which are not directly owned or controlled by the organization itself.

^{**}Total cost effect of the three drivers

Contact

Would you like to get in contact with one of our sales representatives in the Nordics?





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About Optilon

We're not your typical supply chain partner. While others focus solely on implementation, technology, or processes — we do it all.

As an independent supply chain partner with 20 years of industry experience, we've mastered the art of identifying, handpicking, and integrating the best systems available, while developing processes tailored specifically to your needs.

Our strength lies in having the right people with the right expertise to create the most optimized solution for your business, from strategy and tactics to day-to-day operations. To date, we've completed over 1,000 projects for 200 clients, backed by 20+ years of experience.

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