

IMPLEMENTING ESG PRACTICES AT NORTHPAL APS: A CASE STUDY OF SUSTAINABLE PALLET PRODUCTION

Katarzyna WŁODARCZYK^{1*}, Agata GÓRSKA²

¹ University of Szczecin; katarzyna.wlodarczyk@usz.edu.pl, ORCID: 0000-0002-6020-8378

² Northwood Pallets Producer Sp. z o.o., Poland; info@northwood.pl; Northpal ApS, Denmark;
agata@northpal.dk, ORCID: 0000-0001-5626-8928

* Correspondence author

Purpose: This article (constituting a case study) aims to present Northpal ApS's approach to implementing a sustainable production model, in which the values of environmental protection, care for employees and transparency of management are the foundation of a long-term development perspective.

Design/methodology/approach: This article first presents a theoretical discussion of the ESG concept, based on literature and online resources. Next, in conjunction with the theoretical considerations, the empirical section presents the case of a Polish Danish company operating in the pallet market.

Findings: The results of the analysis indicate that a strategic approach to ESG is not only a tool for building a competitive advantage for the company but can also be a catalyst for innovation and industrial transformation.

Practical implications: The text presents specific activities in the area of environmental protection, social responsibility and corporate governance carried out by the company in question, as well as discusses the challenges related to the formal confirmation of implemented practices through certification.

Originality/value: The case study discusses how the company integrates the principles of sustainable production, circular economy and ethical management, and how it builds the perception of its brand by conscious consumers. The practices implemented by Northpal can be treated as a reference model for other manufacturing companies, especially in the wood and logistics sectors.

Keywords: Research and Development, Competitiveness, Innovation, Sustainable Business, Circular Economy.

Category of the paper: Case study.

1. Introduction

In the era of global environmental challenges and changes in social expectations in this area, manufacturing companies are obliged to look for innovative solutions that combine economic efficiency with responsibility for the environment. The ESG concept – understood as the co-existing environmental, social and governance criteria – provides a framework for managing sustainable development in companies. This article first presents a theoretical discussion of the ESG concept, based on literature and online resources. Next, in conjunction with the theoretical considerations, the empirical section presents the case of a Polish Danish company operating in the pallet market. Northpal ApS – the company presented in the study is an example of a company that, although formal ESG certification is currently in the preparatory phase for implementation in business practice, is already implementing real actions and practices in accordance with ESG guidelines. This article (constituting a case study) aims to present Northpal ApS's approach to implementing a sustainable production model, in which the values of environmental protection, care for employees and transparency of management are the foundation of a long-term development perspective. Therefore, the article is an attempt to find an answer to the question: can modern manufacturing companies that have decided to voluntarily implement ESG practices in their operations increase their competitiveness on the market compared to companies that do not yet apply such practices?

2. ESG reporting obligation and principles of operation for sustainable development - current approach

The implementation of ESG principles in manufacturing companies is currently closely linked to EU regulations (Gniadkowska-Szymańska, 2025). The Corporate Sustainability Reporting Directive (CSRD, 2022/2464/EU) plays a key role in this regard. It obliges large companies and listed companies operating in the European Union to regularly disclose environmental and social risks associated with their operations and to report the actual impact on the natural and social environment (European Commission, 2025a; Sadowski, 2023).

Reports on the activities of companies must be prepared in accordance with the European Sustainability Reporting Standards (ESRS), which ensure comparability and transparency of data between companies. The first group of entities, including the largest companies already reporting under the NFRD, i.e. the Non-Financial Reporting Directive. Non-Financial Disclosures Directive — full name: Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 was the first EU piece of legislation to oblige large companies to disclose non-financial information, such as:

1. environmental data (E),
2. social and labour issues (S),
3. respect for human rights,
4. counteracting corruption,
5. corporate governance (G).

It will be covered by new regulations for the financial year 2024, and the reports will be published at the end of 2025. In the coming years, this obligation will be extended to all large companies, small and medium-sized listed companies, as well as non-EU companies with significant revenues in Europe. The reporting standards are developed by EFRAG (European Financial Reporting Advisory Group) and are aimed at ensuring consistency and comparability of disclosures across the European Union (European Commission, 2025a).

Table 1 presents a comparison of the key characteristics of the CSRD directive and the reporting principles under the ESRS standards.

Table 1.
Comparison of CSRD and ESRS

Element	CSRD (Directive 2022/2464/EU)	ESRS (European Sustainability Reporting Standards)
Legal nature	EU Directive (obligation to implement into national law)	Technical standards adopted by the European Commission
Purpose	Expanding ESG reporting obligations and ensuring non-financial transparency	Unify ESG reporting methods and metrics
Scope	All large companies, listed companies in the EU, and ultimately also selected companies from outside the EU	Specific disclosure requirements in areas E (environment), S (social), G (corporate governance)
Developing body	European Commission	EFRAG (European Financial Reporting Advisory Group)
Obligation to use	Yes, for companies that meet the CSRD criteria	Yes, as a tool for fulfilling the CSRD obligations
Implementation schedule	From the financial year 2024 (reports in 2025) for the largest companies, then gradual expansion	Applied in parallel with the entry into force of the CSRD (from 2024/2025)
Importance for practice	Imposes ESG reporting obligations	Specifies <i>how</i> companies should report (content, indicators, format)

Source of the study: based on the European Commission, 2025a.

The process of implementation of the CSRD Directive and related ESRS standards has been spread over time and provides mechanisms to facilitate the adaptation of companies. Public consultations on the amendments to the ESRS were conducted between 31 July 2025 and 29 September 2025., which indicates the dynamic nature of the legislative process and the readiness of the European Commission to adapt regulations to the needs of the market. As part of the work on the introduction of the CSRD, the so-called "quick-fix" was also introduced¹ in the form of delegated acts, which are to provide greater flexibility for companies

¹ "quick-fix" means, in the context of European Union law: A temporary, simplified or accelerated change of rules to address problems or facilitate the implementation of existing regulations – before the full targeted solutions come into force.

with the so-called "wave one"². As a result, companies reporting according to the CSRD rules for the financial year 2024 will not be burdened with additional requirements in 2025 and 2026 beyond what is absolutely required. In addition, a solution called "stop-the-clock" has been used³, which delays the entry into force of reporting obligations for companies from the second and third waves (wave two and wave three). The aim of this approach is to balance regulatory ambitions with the real organisational capabilities of companies.

The EU public debate has also included proposals for simplification, m.in. limiting the full requirements of the CSRD primarily to large entities (e.g. more than 1000 employees), which would reduce the administrative burden for smaller companies and allow them to gradually adapt to the new reporting rules (European Commission, 2025a).

3. ESG, circular economy and pallet industry

The concept of Environmental, Social, Governance (ESG) refers to the three dimensions of sustainable development: environmental, social and corporate governance. It therefore includes three dimensions of sustainability management (United Nations, 2004; Hajos-Iwańska et al., 2025):

1. environmental (E), which focuses on reducing greenhouse gas emissions, energy and resource efficiency, and reducing waste,
2. social (S), which focuses on the well-being and safety of workers, gender equality and relations with the local community, and
3. management (G), in which transparency of decisions, business ethics and oversight mechanisms play an important role.

In the European Union, ESG policy is closely linked to the circular economy (CE) (Kulczycka, 2019), the strategic foundations of which are set out in the Circular Economy Action Plan (European Commission, 2020) which is part of the European Green Deal. This document emphasizes the need to design products with a long-life cycle, ease of repair, reuse and recycling in mind, which reduces pressure on natural resources and minimizes waste (European Commission, 2020). It also stresses the need to reduce the waste of raw materials and to develop new business models that are based on circularity rather than a linear take-use-

² The term "wave one" refers to the first group of companies required to report under the CSRD, which includes large listed companies and entities already covered by the NFRD (Non-Financial Reporting Directive). These companies are required to prepare the first sustainability reports for the financial year 2024, to be published in 2025 (European Commission, 2025a).

³ The term "stop-the-clock" refers to the European Commission's decision to temporarily suspend the entry into force of ESG reporting obligations for some companies covered by the CSRD. This mechanism is intended to enable companies from the so-called second and third waves ("wave two" and "wave three") a longer preparation period for the implementation of ESRS standards and non-financial reporting systems (European Commission, 2025b).

throw scheme. In practice, this means that manufacturing companies should treat waste not as a problem, but as a resource that can be reintegrated into the value chain (European Environment Agency, 2023).

According to data from the European Environment Agency, the material circularity rate in the EU in 2023 was only 11.8%, which means that only a small proportion of the materials used in the economy are reused (European Environment Agency, 2023).

For the pallet industry, which is characterized by the high reparability and reusability of products, this represents an important opportunity to position itself as an industry that supports circular goals and is in line with European sustainability strategies. This situation generates both challenges and opportunities for the timber and logistics industries. The production of wooden pallets is one of the sectors that naturally fits into the assumptions of the circular economy. Wooden pallets can be repaired and reused many times, and at the end of their life cycle, the wood can be recycled or used as energy biomass (Sowa, 2023). LCA (Life Cycle Assessment) studies confirm that with the right repair and recovery system, wooden pallets have a smaller carbon footprint than alternative plastic pallets, especially over a long period of use (Stern, Becker, 2021). Moreover, industry analyses indicate that up to 95% of wooden pallets in Europe are recovered and repaired, which makes this branch of logistics one of the most adapted sectors to the requirements of circular economy⁴. The pallet industry is thus a model example of how EU policy objectives can be translated into practical operational actions in industry (United States Department, 2020).

4. Northpal ApS Case Study

In this study, in order to assess the implementation of ESG activities in the organization, an analysis of the operation of Northpal ApS was conducted. To this end, the company's internal documents, including sustainability policies, quality reports and internal procedures related to the acquisition of raw materials and energy management, were first analyzed. Particular attention was paid to the documentation relating to compliance with environmental and social standards, as well as to the company's preparations for the reporting requirements resulting from the CSRD Directive and ESRS standards (European Commission, 2025a). Secondly, semi-structured interviews were conducted with management representatives, including those responsible for environmental policy, human resources and compliance issues. The interviews allowed us to capture the strategic perspective, including the goals that Northpal associates with the implementation of ESG, and the organizational and financial barriers that emerged during the implementation phase. Thirdly, the company's external communication was analyzed – in particular the content contained on the official website, promotional materials and information addressed to contractors and customers. This analysis made it possible to assess

how the company communicates its ESG activities, and what elements of the narrative are emphasized in building the image of an environmentally and socially responsible brand. Ultimately, all the data collected were embedded in the context of the EU regulatory framework (CSRD, ESRS, EU Taxonomy), which allowed them to be systematized according to the non-financial categories required by the reporting standards. As a result, the analysis was not limited to the company's internal perspective but also considered compliance with growing regulatory and market expectations (European Commission, 2025c).

Northpal ApS is a Polish Danish company operating in the wooden pallet production sector, whose activities are based on the principles of sustainable development and circular economy. The company is licensed to manufacture and repair DS (Dansk Standard) pallets, which are widely used in logistics in Scandinavia and Northern Europe. Northpal Activities range from the manufacture of new pallets compliant with DS 364.1:1983⁴ to the refurbishment and repair of used units, which is in line with the model of extending the life cycle of products and minimizing the environmental footprint. The company emphasizes that "bæredygtig production" (sustainable production) and "ESG-rapportering" are an integral part of its business. Northpal ApS also exposes a close connection with the local environment — both in Denmark and in Poland, where it develops cooperation with business partners, local governments and local communities.

The company declares that its business is based on three pillars, aligned with ESG, namely:

1. environment: production using renewable energy sources, certified wood, closed loop materials,
2. society: safe working conditions, integration of foreign workers, support for local communities,
3. corporate governance: governance transparency, ESG compliance, anti-corruption policies and ethical purchasing.

With these activities, Northpal is an interesting example of a medium-sized company that, although the formal ESG certification process is ongoing, is already implementing CSRD and ESRS compliant activities and communicating them transparently to stakeholders.

Northpal has consistently implemented practices to reduce the negative impact on the environment. The key element is the full use of renewable energy sources. The company declares that 100% of the energy consumed in production processes comes from its own photovoltaic installations, which supports the reduction of emissions compared to traditional fossil fuels.

⁴ DS 364.1:1983 is a Danish technical standard developed by the *Danish Standards Association* that specifies quality requirements, dimensions and strength parameters for wooden transport pallets with dimensions of 800×600 mm. The standard defines, m.in, the permissible dimensional tolerances, the types of wood used, the rules of assembly and the conditions for admission to marketing in the pallet exchange system in the Nordic countries (Danish Standards Association, 1983).

The company has also implemented the principles of the circular economy (CE) through the development of a repair and refurbishment system for DS pallets, which significantly extends their life cycle and reduces the need for new raw materials. In terms of timber harvesting, Northpal uses only certified FSC and PEFC sources, which ensure responsible management of forest resources and compliance with international standards for biodiversity protection.

Industry literature emphasizes that wooden pallets are highly repairable and reusable, and in life cycle analyses (LCAs) they show an environmental advantage over plastic pallets, especially in terms of energy and material recycling (Stern, Becker, 2021; United States Department of Agriculture, 2020). Northpal products meet the requirements of DS 364.1:1983, which defines quality standards for 800×600 mm pallets (Danish Standards Association, 1983). The requirements of the standard are met through strict quality control of raw materials. The wood used to produce pallets comes exclusively from FSC and PEFC certified sources, which guarantees its appropriate technical parameters and humidity, and thus the durability and stability of the product. The production process involves precise cutting and assembly of elements according to specified dimensional tolerances, while each batch of products is subjected to technical inspection in terms of load-bearing capacity, rigidity and quality of joints.

In the social dimension, Northpal pursues a policy based on inclusivity and equality. The company employs employees from Georgia, providing them with legal working conditions, social integration and health and safety training conducted in their native language. These activities not only support the safety of employees but also foster the creation of a work environment based on mutual respect and trust. Northpal also has a transparent pay policy, which increases trust among employees and reduces the risk of inequality. In addition, she is involved in initiatives supporting local communities in Poland, e.g. through cooperation with local governments and support for local events. Such activities are in line with broader trends in corporate social responsibility (CSR), which emphasize the role of enterprises in building bonds with the community in which they operate.

Northpal's ownership model is based on the cooperation of Polish and Danish capital, which is conducive to the exchange of experience and best practices. In the area of corporate governance, the company declares compliance with the CSRD framework, implementing solutions that prepare for full ESG reporting in accordance with ESRS. Northpal also conducts regular quality and compliance audits, which increase the transparency of all processes (both administrative and production) and minimize operational risk. Anti-corruption policies and ethical purchasing policies have also been implemented, which strengthens the company's credibility in relations with business partners. A special element is the preparation of a reporting infrastructure enabling the collection of environmental and social data in such a way that it is consistent with regulatory requirements and investor expectations.

An analysis of Northpal ApS's implemented ESG practices shows that these actions not only respond to regulatory requirements but also fit into changing consumer attitudes. Consumer research at the European level indicates that transparency and authenticity in ESG are becoming one of the key factors building brand loyalty. According to a 2024 PwC report, the average willingness of European consumers to subsidize sustainable products is +9.7% (PwC, 2024). On the other hand, Eurobarometer and European Environment Agency (2024) show that around 60% of Europeans are willing to pay a higher price for environmentally friendly products, although this trend has weakened as a result of inflationary pressures. McKinsey (2025) analyses, on the other hand, highlight that consumers are becoming increasingly price-sensitive, but still prefer brands with a clearly communicated ESG profile, especially if it is associated with transparency and consistency. Similar trends are visible on the Polish market. Exorigo-Upos research (2024) shows that 64% of e-consumers indicate the environmental and social responsibility of brands as an important criterion when choosing a product. At the same time, about 40% of respondents declare their readiness to subsidize ecological packaging, which confirms that even in the conditions of growing price pressure, some consumers see value in sustainable products.

For Northpal, this means that transparent communication of ESG activities – such as the use of renewable energy, certification of raw materials or the circular economy model – can be an important part of building a competitive advantage. Consumer price sensitivity limits the scale of subsidies they are able to accept, but consistency and authenticity in ESG activities strengthen trust and brand loyalty.

The implementation of ESG practices at Northpal ApS should be analyzed in a broader regulatory context that sets directions for the entire wood and logistics industry. The EUDR (EU Deforestation Regulation), which formally entered into force on 29 June 2023, is particularly important. This regulation is aimed at limiting imports and placing on the EU market of products from areas associated with deforestation or forest degradation. Initially, the EUDR was supposed to apply from 30 December 2025, but due to administrative and technological burdens, the deadline for its application was postponed. In September 2025, the European Commission proposed another postponement until 30 December 2026, which requires approval by the European Parliament and the Council of the EU (EU Trade, 2025).

For a manufacturer of wooden pallets such as Northpal, this regulation is crucial, as it covers, m.in, HS 4415 (wooden pallets). A company that uses only certified wood (FSC, PEFC) is in a privileged position, as meeting the traceability and due diligence standards required by the EUDR is in line with already established practices. At the same time, however, the new requirements create challenges related to the documentation of the supply chain, the interoperability of IT systems and the potential costs of certification.

At the same time, an important element of the regulatory environment is the agreement of May 2024 on the interoperability of ESRS (European Sustainability Reporting Standards) and ISSB (International Sustainability Standards Board) standards. This agreement reduces the risk

of duplication of reporting obligations and makes it easier for companies operating in global markets to report within a uniform framework (Reuters, 2024). For Northpal, which operates at the intersection of the Polish, Danish and wider European markets, the integration of these standards means greater consistency and efficiency of reporting, as well as the possibility of better positioning towards investors and foreign contractors.

To sum up, the implementation of ESG at Northpal is not just a matter of complying with regulations but is a strategic element of building a competitive advantage in the face of tightening legal requirements. The company takes advantage of the fact that practices based on renewable energy sources and certified raw materials not only respond to the EUDR targets but also allow it to prepare for harmonized reporting requirements resulting from the CSRD, ESRS and ISSB.

5. Summary and Conclusions

The analysis of the Northpal ApS case study indicates that the implementation of ESG practices in the manufacturing industry is not only a reaction to EU regulations but can become a strategic tool for building company value both now and in the long term. The company shows that even before the formal reporting obligation resulting from the CSRD directive, it is possible to develop consistent activities that simultaneously respond to the expectations of stakeholders and support long-term competitiveness.

Based on the analysis, the following recommendations were formulated:

A. On environmental issues:

1. deepening investments in renewable energy sources, e.g. photovoltaic installations, which will reduce CO₂ emissions and become independent of energy costs,
2. use of raw materials from only FSC/PEFC certified sources, which will minimize the risks associated with the EUDR regulation and support the responsible management of forest resources,
3. development of DS pallet repair and renovation systems as a practical implementation of the circular economy (CE),
4. implementation of monitoring of environmental indicators (emissions, material recovery), in line with the recommendations of the LCA literature (Stern, Becker, 2021; United States Department of Agriculture, 2020).

B. in the field of social issues:

1. developing programs for the integration of foreign workers, m.in. through OHS training in their native languages,
2. the use of a transparent remuneration policy that strengthens the internal trust of employees and reduces the risk of inequalities,

3. involvement in local initiatives that build a bond with the environment and strengthen the image of a socially responsible brand.
- C. On corporate governance issues:
4. conducting regular quality and compliance audits, increasing the transparency of processes and minimizing operational risks,
 5. implementing and maintaining anti-corruption policies and ethical purchasing principles, which are the foundation of transparent organizational governance,
 6. preparing for full compliance with ESRS requirements, which will avoid costly adjustments in the future and increase the attractiveness of the company and its activities in the eyes of investors.

The example of Northpal ApS therefore shows that a systemic approach to ESG can bring multidimensional benefits: from increasing operational efficiency, through strengthening the competitive position, to building lasting consumer trust. For this reason, the practices implemented by Northpal can be treated as a reference model for other manufacturing companies, especially in the wood and logistics sectors.

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