eunomia

mepex

Understanding Used and Waste Textiles Exports from the Nordics

Final Report

November 2026



Report For

The Norwegian Retailers' Environment Fund (Handelens Miljøfond)

The Nordic Council of Ministers

Shape Foundation

Project Team

Amie Walley

Jessica Fairbrother

Peter Jones

Vita Ellis

Lydia Gardiner

Approved By



Peter Jones

(Project Director)

Acknowledgements

Our thanks to Mepex, JEUNES VERTS, Zero Waste Germany, Polish Zero Waste Association (PZWA), Žiedinė ekonomika, Ecological News (Zero Waste Alliance Ukraine), Godambari Sustainable Solutions, Hitbhav Engineers, Sustainable Development Policy Institute (SDPI) and Autoren(werk).

Eunomia Research & Consulting Ltd
37 Queen Square
Bristol
BS1 4QS
United Kingdom

Tel +44 (0)117 9172250
Fax +44 (0)8717 142942
Web www.eunomia.eco

Eunomia has prepared this report with due care and thoroughness, and in accordance with industry best practice. In preparing this report, Eunomia may have relied upon, and presumed accurate, information provided by the client and other sources. Except as otherwise stated in the report, Eunomia does not verify the accuracy or completeness of any such information. If the information is determined, following publication, to be obsolete, false, inaccurate or incomplete then it is possible that our observations and conclusions, as expressed in this report, may change. To avoid any doubt, Eunomia makes no warranty or guarantee (further to this disclaimer statement), whether expressed or implied, as to the content of this report, to the extent permitted by law.

Executive Summary

Across the Nordic region, the systems that have previously dealt with used textiles are facing a period of change. Consumption of textiles is increasing due to cheap fast fashion. At the same time, policies require more separate textile collection. This is changing the quantity and composition of used textiles.

High labour costs lead Nordic countries to export most textiles unsorted, principally to European neighbours with established sorting industries ("Tier 1" countries). Textiles are then often traded to other European destinations and around the world ("Tier 2" countries). However, there are concerns about what happens when textiles leave Europe and whether genuinely circular outcomes are achieved.

This study was commissioned to improve understanding of how used and waste textiles collected in Denmark, Finland, Iceland, Norway and Sweden are managed after export. The research combined analysis of international trade data, country-level stakeholder engagement across key importing countries, and a large-scale track-and-trace exercise involving 200 tagged clothing items. Together, these methods provide one of the most detailed examinations to date of the pathways followed by Nordic used textiles.

The study was delivered jointly by Eunomia and Mepex. Eunomia led the overall study design, trade data analysis, evidence synthesis and reporting. It was further supported by research partners in key export destination countries. Mepex led engagement with Nordic stakeholders, coordinated textile tagging activities across the Nordic countries, supported the collection of country-level evidence from Nordic collectors and exporters, and provided expert input throughout the design and delivery of the research.

The findings show that textile exports play an important role in supporting reuse and extending garment lifetimes. They supply affordable clothing and recycling feedstock to international markets. However, there are risks around management of lower-grade textiles, and uncertainty regarding final environmental outcomes once materials move beyond Tier 1 countries.

Approach

The study combined three complementary strands of research:

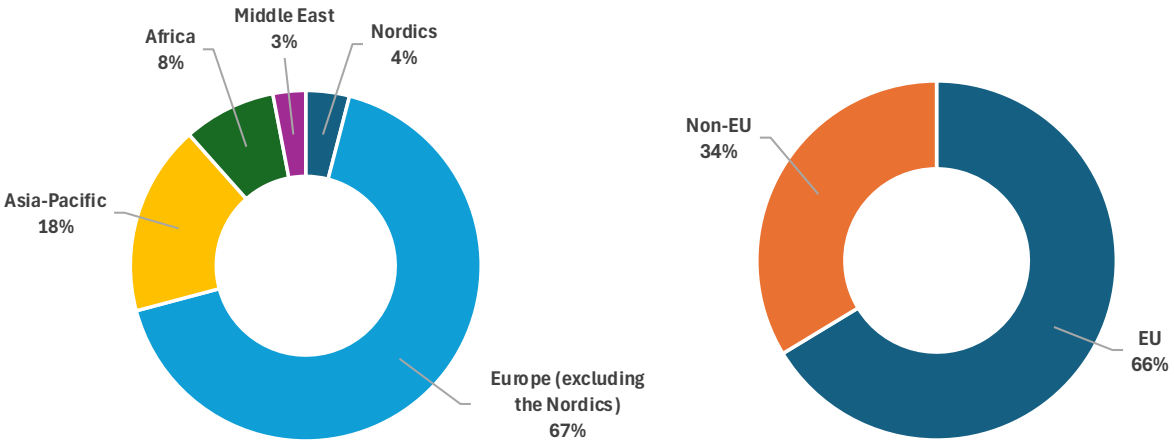
- Analysis of UN Comtrade trade data to identify major export routes and destination countries.
- Stakeholder engagement and country-level research across key Tier 1 and Tier 2 importing countries, including Poland, Lithuania, Germany, Pakistan, India, Togo and Ukraine.
- A six-month track-and-trace exercise involving 200 clothing items tagged in the Nordic countries, to provide direct evidence of subsequent textile movements.

Key Findings

The research shows that Nordic used textiles move through a complex, international network of sorting, reuse, recycling and redistribution. The track-and-trace exercise provides a particularly tangible picture of these flows, following 200 garments from across the five Nordic countries.

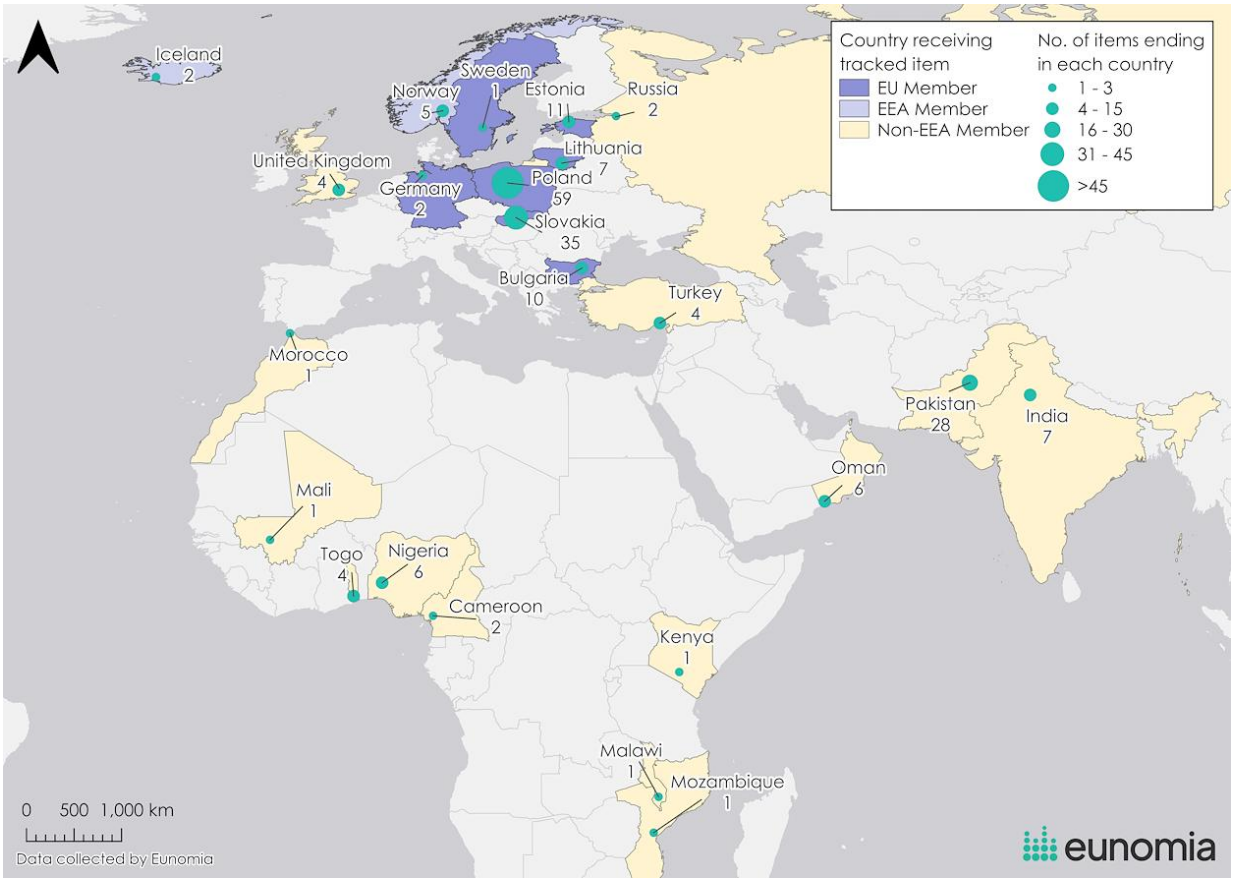
Europe was the largest recorded destination region, accounting for 71% of the tracked sample (although this figure is somewhat inflated due to not all items having reached a final destination after 6 months). Some items (4%) returned to the Nordics after sorting. Asia-Pacific (18%) was the second-largest destination region. Africa accounted for 9%, while the Middle East accounted for 3%. Expressed in EU terms, 66% had a recorded endpoint in the EU or EEA, while 34% had a recorded endpoint outside of the EU or EEA.

Figure E- 1: Regional distributions of tracker endpoints (%)



At a country level, Poland was the biggest recorded endpoint, with 59 trackers, or 30% of the sample. Slovakia was the second-largest, with 35 trackers, or 18%, followed by Pakistan with 28 trackers, or 14%. This concentration is important because improved end-market information from a small number of countries could substantially increase the Nordic countries' ability to monitor export. In particular, facility-level investigation in the principal destination countries could clarify what activities occur after arrival and whether clothing underwent sorting, was sent for local reuse or recycling, entered storage, or became waste. It could also provide information regarding onward export destinations and enable further information to be gathered.

Figure E- 2: Final location of 200 trackers, scaled by number of devices in each country



The results of this project are explored further in Section 2.2.

Taken together, the research identifies six key findings:

1. **Nordic textile exports are channelled through European sorting hubs.** Nordic textiles are commonly exported to countries such as Poland, Lithuania and Germany for sorting and redistribution, rather than directly to their eventual reuse or recovery markets.

2. **Textile journeys are more complex than trade statistics suggest.** After sorting, garments can move through multiple countries, wholesalers and markets. Bilateral trade statistics therefore capture only the first part of a lengthy journey.

3. **Most tracked textiles remained within Europe, but some went to destinations outside Europe.** 71% of tracked garments had their last recorded location in Europe, while others reached markets across Africa, Asia and the Middle East. Pakistan alone accounted for 14% of all tracked garments, while African countries accounted for 9% and the Middle East for 3%.

4. **The sector remains reliant on non-European markets, especially for the lowest grades and recycling.** International markets provide important outlets for collected textiles, supporting reuse and recycling activities. However, lower-grade textiles may face greater challenges in achieving positive end-of-life outcomes. Demand may be affected by quality, style or condition. 56% of Grade D garments had a recorded endpoint outside Europe, compared with 24% of Grade A, 17% of Grade B and 33% of Grade C garments. However, exports outside Europe were not limited to lower-quality clothing. Higher-grade garments also reached African and Asian markets, showing that these markets can provide viable reuse opportunities for a range of textiles.

5. **The pathway followed by textiles is influenced by quality, country of origin, market demand and processing capacity.** The pathway taken by a garment reflects a combination of quality, market demand, seasonality, country of origin, established trading relationships and available sorting and processing capacity. Some countries play specific roles in the global market (e.g. India is a major recycler). The tracking exercise also found significant differences between the destinations of garments originating in different Nordic countries. Specialist sorting facilities use knowledge of different markets to match garments with places where there is demand for them.

6. **Traceability declines significantly beyond the first sorting stage.** Trade statistics cannot reliably follow Nordic-origin garments through these subsequent movements, while tracker locations rarely confirm whether an individual garment was ultimately reused, recycled, stored, disposed of or exported again. Importantly, the tracking exercise did not directly document dumping, uncontrolled burning or environmental leakage at African or Asian endpoints. It therefore highlights the *risk* of poor downstream outcomes where lower-grade textiles reach markets with limited treatment infrastructure, but does not suggest that such outcomes are common.

Recommendations

The findings point to three priorities for Nordic policymakers. The aim should not be to restrict beneficial trade in used textiles. Instead, it should be to recognise that changes in Nordic textile waste mean that current systems need to change if they are to ensure that textiles are more reliably matched with viable markets, while minimising the export of textiles to countries where they have little prospect of reuse or recycling. It will be increasingly important that appropriate arrangements are in place for material that cannot be reused, and that there is greater assurance regarding the fate of used textiles.

Key Policy Objective 1: Reduce the quantity of low-grade textiles exported to developing countries

Used-textile exports provide important reuse opportunities and benefits in receiving countries, but lower-grade textiles may be at greater risk of rapidly becoming waste, especially where market demand is limited. This can be environmentally problematic where waste-management systems and infrastructure are lacking. Effort is required to improve how exported textiles are described, strengthen accountability for their downstream management and ensure receiving facilities can appropriately manage imports.

- **Recommendation 1: Establish a clearer approach to describing the quality and content of used-textile consignments.**
- **Recommendation 2: Strengthen Nordic downstream accountability for low-grade textiles.**
- **Recommendation 3: Develop minimum standards for receiving facilities**

Key Policy Objective 2: Improve domestic management of lower-grade textiles

Requiring greater accountability for exports may limit markets, and would therefore need to be supported by additional Nordic and European capacity. Changes in textiles composition may also change how attractive Nordic textiles are to importers. Increased domestic capacity would reduce the risk of stockpiling, disposal or disruption to existing collection systems.

- **Recommendation 4: Expand regional recycling capacity.**
- **Recommendation 5: Use EPR schemes to create stronger incentives for quality and circularity.**

Key Policy Objective 3: Increase domestic markets for used textiles, particularly higher grades

Alongside improving the management of lower-grade material, Nordic countries should seek to increase domestic demand for good-quality second-hand textiles. This will extend garment lifetimes before export needs to be considered.

- **Recommendation 6: Increase support for domestic reuse markets.**
- **Recommendation 7: Use EPR schemes to support reuse and repair.**

Table of Contents

Executive Summary **1**

1.0 Introduction **7**

1.1 Project Overview 7

1.2 Project Approach 7

1.3 Background 8

1.4 Policy Context 10

1.4.1 Waste Shipment Regulation 10

1.4.2 Waste Framework Directive 11

1.4.3 Ecodesign for Sustainable Products Regulation 12

1.4.4 Basel Convention 12

1.4.5 Import Restrictions 13

1.4.6 Conclusions 14

2.0 Phase 1: Understanding Flows of Used and Waste Textiles **15**

2.1 Methodology 15

2.1.1 Global Textile Trade Data 16

2.1.2 Country-Level Data Collection and Stakeholder Research 20

2.1.3 Track and Trace 21

2.2 Results 28

2.2.1 Key Findings 28

2.2.2 Global Textile Trade Data 31

2.2.3 Country-Level Data Collection and Stakeholder Research 33

2.2.4 Track and Trace 38

3.0 Phase 2: Key Challenges to Circularity and the Environment **61**

3.1 Environmental Impacts and Benefits of Used-Textile Exports in the Nordics 61

3.2 Environmental Impacts and Benefits of Nordic Used-Textile Exports in Importing Countries 64

3.3 Policy Recommendations 69

3.3.1 Key Policy Objective 1: Reduce the Quantity of Low-Grade Textiles Exported to Developing Countries 69

3.3.2 Key Policy Objective 2: Improve Domestic Management of Lower-Grade Textiles 72

3.3.3 Key Policy Objective 3: Increase Domestic Markets for Used Textiles, in Particular Higher Grades 74

Appendices 76

A.1.0 List of Stakeholders 77

A.2.0 Partner Research Guides 78

A.3.0 Country-Specific Summaries 96

A.4.0 Track and Trace 121

1.0 Introduction

1.1 Project Overview

This project aimed to develop a robust understanding of how used and waste textiles from the Nordic region are managed once they leave the country where they were in use. The Nordic countries are:

- Denmark
- Finland
- Iceland
- Norway
- Sweden

In pursuing this aim, this study clarifies the scale of the challenge and highlights key issues emerging along the value chain when such clothing is collected for recycling or reuse. This work improves the understanding of where exports of these textiles have the potential for harmful impacts so that they can be managed and mitigated.

The overarching objective was to gather sufficient, high-quality information to understand the fate of discarded clothing from the Nordic countries. Focusing on clothing, which represents more than 75% of all textiles placed on the Nordic markets, this study investigates exports flow to their primary trading partners and beyond. This includes mapping export flows, estimating volumes, and identifying the characteristics that drive these movements or influence their environmental outcomes.

By developing this evidence base, the study highlights the key challenges within the textiles value chain that contribute to environmental harm and benefits. Building on these findings, it proposes targeted policy recommendations that are relevant to both EU-level and Nordic decision-makers. These recommendations focus on addressing the identified challenges, supporting more sustainable management of used clothing, and reducing the negative environmental impacts associated with current export practices.

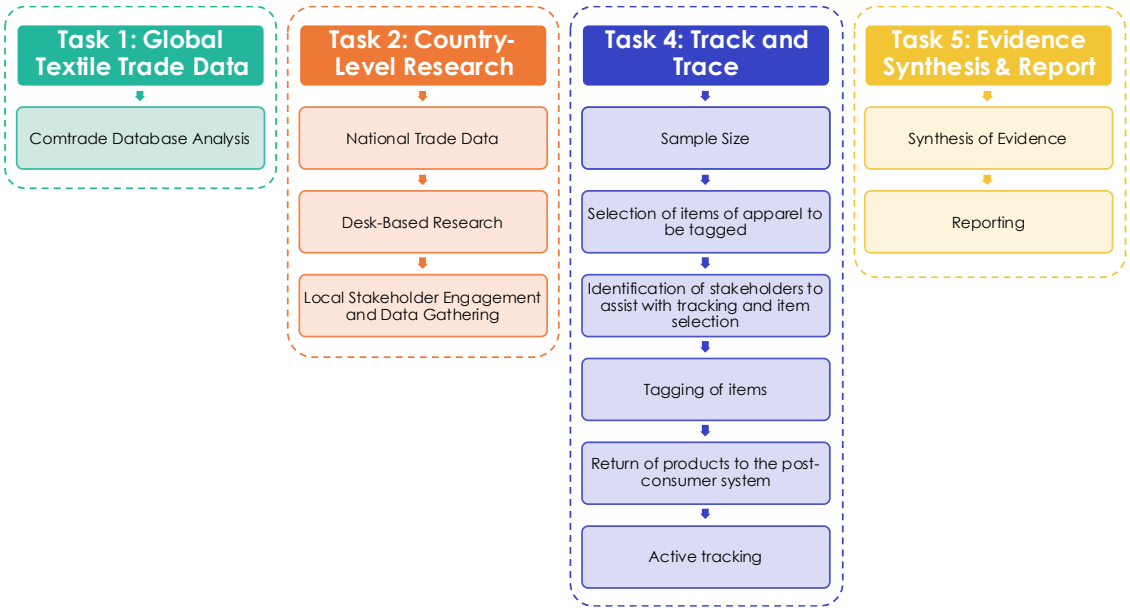
1.2 Project Approach

This project has been delivered through a structured, multi-phase methodology designed to build a comprehensive understanding of discarded clothing exports from the Nordic region. An overview of the methodology is shown in Figure 1-1 below, and more detail is provided in Section 2.1 of this report.

The research uses primary and secondary research methods to develop an overarching understanding of where textile exports flow to once they have left the Nordic region, the quantities that are exported and the characteristics that determine their end destinations. Methods used include existing data gathering and analysis (e.g. UN Comtrade) and interviews with industry representatives, NGOs, and other stakeholders in exporting and importing countries.

The more novel component of this research is a “track and trace" exercise, which was undertaken to test and validate the findings from the initial desk-based research. This exercise is the largest known study of its kind, using 200 digital trackers to sample the flows of used textiles from the point of export in the Nordic countries, to their suspected final destinations abroad, as captured by our track and trade data. Such research has the potential to reshape our understanding of where discarded textiles end up and can be used to guide decision makers toward mitigating the harmful impacts of textile exports.

Figure 1-1: Research methodology



The study was delivered jointly by Eunomia Research & Consulting and Mepex. Mepex led engagement with Nordic stakeholders, coordinated textile tagging activities across the Nordic countries, supported the collection of country-level evidence from Nordic collectors and exporters, and provided expert input throughout the design and delivery of the research. Eunomia led the overall study design, international trade data analysis, evidence synthesis and reporting.

1.3 Background

The European Union (EU) is endeavouring to improve the sustainability of textiles across the continent through its Sustainable and Circular Textiles Strategy.[1] Tackling textile waste is important because of the significant tonnage of material it represents (some 5 million tonnes per annum across Europe) and the environmental impacts of producing new textiles. According to the European Commission:

> *"EU consumption of textiles has, on average, the fourth highest impact on the environment and climate change, after food, housing and mobility. It is also the third highest area of consumption for water and land use, and fifth highest for the use of primary raw materials and greenhouse gas emissions."*[2]

The urgency of addressing how waste textiles are managed is growing. The EU's introduction of policies such as setting design requirements to extend product lifespan; the introduction of Extender Producer Responsibility rules for textiles; restrictions on the export of textile waste; and incentivising circular business models are all valuable steps. However, the amount of textile products that Europeans buy has reached a record level; and the recent introduction of an EU-wide requirement for separate collection of textile waste is expected to increase the quantities gathered, which will then need to be managed.

[1] European Commission (2022) *EU Strategy for Sustainable and Circular Textiles*. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0141&qid=1768920413316
[2] European Commission (no date) *Sustainable and Circular Textiles Strategy*. Available at: https://environment.ec.europa.eu/strategy/textiles-strategy_en

Limited markets for used textiles in Europe have meant that large quantities of discarded textiles are exported to countries outside the EU for reuse, particularly to Africa and Asia. The alternative of recycling within Europe would be on a lower tier of the waste hierarchy and is in any case inhibited due to underdeveloped end-of-life infrastructure. Recent estimates suggest that the EU generates 6.95 million tonnes of textile waste annually, of which only 28% is collected for reuse or recycling,[3] with less than 1% of used clothing being recycled into new garments.[4]

Analysis by the European Environment Agency (EEA) highlights the scale of exports. The tonnage has nearly doubled in the last two decades, rising from 760k tonnes in 2005 to 1,370k tonnes in 2023.[5] An increase in textile collections due to recent policies may add to the tonnage exported.[6] This trend accentuates concerns about the degree to which exports serve a useful purpose for the countries that receive them, or whether they represent passing the environmental burden of used textiles from Europe to other regions. Limited data makes it difficult to know the proportion that is deemed unsuitable for reuse and is disposed of through problematic waste facilities such as open dumpsites or unlined landfills.

While many textile consignments are classified as suitable for reuse by exporters, their actual resale potential in receiving countries can be strong, reflecting well-developed markets for used textiles in many African countries. However, where European pre-sorting is not well aligned with local market demand, items may be of insufficient quality, or they may simply not align with local consumer preferences, which can reduce their likelihood of being sold through local reuse markets. It is evident that a significant share of exported textiles finds it way into local reuse markets, where they can provide affordable clothing and other useful products, while also supporting economic activity. At the same time, the impacts on local textile industries are complex and can vary between countries and market segments. Several countries, including Rwanda, Uganda, Tanzania, Nigeria and Ghana, have debated restricting or banning imports of used clothing to protect domestic textile industries from the disruptive effects of these inflows. Where textiles cannot be sold in local reuse markets due to quality or demand mismatches, appropriate downstream management and recycling routes therefore become important.[7]

Although the EEA has provided initial estimates of export volumes, substantial gaps remain in understanding the true scale and nature of the problem. Existing trade statistics and commodity codes do not reliably reflect the quality or eventual treatment of exported textiles, and transparency is limited once materials move beyond the first intermediary, whether within or outside the EU. Despite suggestions that textiles originating from Nordic countries are sufficiently high quality to avoid being sent for reuse or disposal in non-EU markets,[8] a clearer understanding of the fate of these materials is needed, or Nordic countries are at risk of overlooking the need for effective mitigation measures.

As regulation aimed at addressing textile exports continues to evolve, Nordic and wider European policymakers will benefit from the improved insight into the movement and fate of used and waste textiles that research like this endeavours to provide.

---

[3] EEA (2024) *Management of used and waste textiles in Europe's circular economy*. Available at: https://www.eea.europa.eu/en/analysis/publications/management-of-used-and-waste-textiles-in-europes-circular-economy

[4] Textile Exchange (2024) *Materials Market Report.* Available at: https://textileexchange.org/app/uploads/2024/09/Materials-Market-Report-2024.pdf

[5] EEA (2025) *EU Export of used textiles.* Available at: https://www.eea.europa.eu/en/circularity/sectoral-modules/textiles/eu-export-of-used-textiles

[6] EEA (2025) *Consumption of clothing, footwear, other textiles in the EU reaches new record high.* Available at: https://www.eea.europa.eu/en/newsroom/news/consumption-of-clothing-footwear-other-textiles-in-the-eu-reaches-new-record-high#:~:text=Textile%20waste%20and%20exports&text=In%202022%2C%2085%25%20of%20all,mainly%20African%20and%20Asian%20countries.

[7] Fashion Law Academy Africa (2025) *A Review of the Economic Impact of Second-Hand Clothing Bans in Africa.* Available at: https://www.fashionlawacademyafrica.com/post/a-review-of-the-economic-impact-of-second-hand-clothing-bans-in-africa#:~:text=Some%20African%20countries%20have%20imposed,the%20second%2Dhand%20clothing%20trade.

[8] Nordic Co-operation (2016) *Exports of used textiles by Nordic charities give net sustainability benefits.* Available at: https://www.norden.org/en/news/exports-used-textiles-nordic-charities-give-net-sustainability-benefits#:~:text=Altogether%20the%20reuse%20and%20recycling,due%20to%20offset%20new%20production.

1.4 Policy Context

The policy environment governing exports of used textiles from the Nordic countries is undergoing rapid and significant change. Across the European Union and internationally, regulators are moving toward tighter controls on textile waste separation, classification, sorting, traceability and export. These developments are highly relevant to the Nordic region, where growing volumes of post-consumer textiles are entering collection systems at the same time as scrutiny of export practices and downstream environmental outcomes is intensifying. This section outlines the principal regulatory developments shaping this landscape. Table 1-1 below outlines the obligations of the Nordic countries and third countries in relation to the policies and regulations outlined within this section.

Table 1-1: Policy developments relevant to used textiles and textile waste

Policy / regulation	EU Member States (inc. Sweden, Denmark, Finland)	Non-EU EEA countries (inc. Norway, Iceland)	Third destination countries
Waste Shipment Regulation (WSR)	🟢 Directly bound.	🟡 Applies through the EEA Agreement once incorporated.	🟡 Indirectly affected.
Waste Framework Directive (WFD)	🟢 Directly bound.	🟡 Applies through the EEA Agreement once incorporated.	⚪ Not bound.
ESPR for Textiles	🟢 Directly bound.	🟡 Expected EEA relevance, but not yet incorporated.	⚪ Not bound.
Basel Convention	🟢 Directly bound.	🟢 Directly bound.	🟡 Applies if the country is a Base Party.
Import restrictions	🟡 Indirectly affected depending on rules of third countries.	🟡 Indirectly affected depending on rules of third countries.	🟢 Directly bound if import restrictions are in place.

1.4.1 Waste Shipment Regulation

A targeted revision to the Waste Shipment Regulation (WSR), Regulation (EU) 2024/1157, aims to strengthen controls on waste exports in general. The scale of the problem it seeks to address is considerable: EU exports of waste of all types to non-EU countries increased by 72% between 2004 and 2023. It has reached approximately 35 million tonnes per year, of which 49% is destined for non-OECD countries.[9] The revised WSR came into force on 20 May 2024 and provides a new driver to improve the governance of used and waste textile flows.

[9] European Commission (2024) *New Regulation on waste shipments enters into force.* Available at: https://environment.ec.europa.eu/news/new-regulation-waste-shipments-enters-force-2024-05-20_en

Under the new WSR rules, exports of waste textiles to non-OECD countries are only be permitted where those countries have formally notified the European Commission of their willingness to receive waste and have demonstrated the capacity, through an independent audit of waste management facilities, to manage it in an environmentally sound manner, including providing documentation "broadly equivalent" to EU standards. A list of eligible non-OECD importing countries will be adopted in November 2026 and updated at least every two years; exports of waste to countries not on this list will be prohibited from 21 May 2027.[10] By the application deadline of 21 February 2025, 13 non-OECD countries[11] have included textile waste within their formal request for inclusion on the approved list.[12]

In addition to the approved-country mechanism, the WSR imposes stronger due diligence obligations on exporters. All EU companies exporting waste outside the EU will be required to ensure that receiving facilities are subject to independent audits confirming that waste is managed in accordance with the principle of environmentally sound management. From May 2026, shipping procedures will also be digitised through a central EU electronic system, increasing traceability across the supply chain.

1.4.2 Waste Framework Directive

On its own, the WSR does not address one of the key concerns regarding used textiles: distinguishing used goods from waste. This distinction is commercially and legally consequential: textiles exported as reusable products are not wastes, and therefore not subject to waste shipment controls.

Fortunately, greater clarity is provided through revisions to the Waste Framework Directive (WFD).[13, 14] Under Article 22d, one key measure was to define all separately collected textiles be as waste, regardless of source or condition, until they have been through a sorting process.[15] It further specifies that textiles must be sorted before export, tightening the conditions under which exported textiles can be classified as reusable products rather than waste.

In addition, under Article 11, Member States have been required since 1 January 2025 to establish separate collection systems for textiles for reuse and recycling. While data on tonnage is not yet available, it is expected that this obligation will have significantly increase the volume of textiles entering formal collection, sorting and treatment systems across the Nordics and across the EU more broadly.

Recent reforms also require member states to establish Extended Producer Responsibility (EPR) schemes for textiles, in line with a mandatory framework.[16] Under this framework, economic operators placing textiles on the EU market are required to finance the costs of separate collection, sorting and treatment of textile waste. The fee structure is calibrated to reflect the circular design of products. Member States have until 17 June 2027 to transpose the revised directive into national law and until 17 April 2028 to establish operational EPR schemes.

The introduction of EPR is likely to have structural implications for Nordic textile flows over the medium term. By requiring producers to finance collection, sorting, reuse and recycling, EPR creates stronger

---

[10] European Commission (n.d.) Implementation of the Waste Shipment Regulation. Available at: https://environment.ec.europa.eu/topics/waste-and-recycling/waste-shipments/implementation-waste-shipment-regulation_en

[11] Bosnia and Herzegovina, Egypt, Georgia, India, Malaysia, Moldova, Morocco, Nigeria, Pakistan, Saudi Arabia, Taiwan, Tunisia and Ukraine.

[12] CIRCABC (2025) *Waste types requested in country applications received by July 2025*. Available at: https://circabc.europa.eu/ui/group/636f928d-2669-41d3-83db-093e90ca93a2/library/022468a4-c3de-4bef-893c-40d845aceb2a/details

[13] European Commission (2008) *Consolidated text: Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.* Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02008L0098-20251016

[14] European Commission (2025) *Revised Waste Framework Directive enters into force to boost circularity of textile sector and slash food waste*. Available at: https://environment.ec.europa.eu/news/revised-waste-framework-directive-enters-force-2025-10-16_en

[15] There is, however, a derogation from this requirement, so that where an item is not considered a waste if it is directly handed over by the end users and professionally assessed as fit for re-use by the re-use operator.

[16] European Commission (2025) *Revised Waste Framework Directive enters into force to boost circularity of textile sector and slash food waste*. Available at: https://environment.ec.europa.eu/news/revised-waste-framework-directive-enters-force-2025-10-16_en

incentives for investment in domestic and European processing capacity and for developing higher-value recovery pathways. In the short term, however, the separate collection mandate is likely to increase textile volumes entering Nordic collection systems before sufficient domestic sorting and recycling capacity has been built out, and before changes in product design can extend product lifetimes or improve recyclability. Without an increase in demand for used textiles within the EU, reliance on export markets as an outlet for collected material may increase.

1.4.3 Ecodesign for Sustainable Products Regulation

Additional policy pressure on textile volumes and composition is emerging through the Ecodesign for Sustainable Products Regulation (ESPR)[17] which entered into force in July 2024. While the ESPR primarily targets upstream product design and production practices, several of its provisions have downstream relevance for the composition and volume of textiles entering reuse and waste streams.

Most directly, the ESPR introduces a prohibition on the destruction of unsold consumer textile and footwear products. This ban applies to large enterprises from 19 July 2026 and to medium-sized enterprises from 19 July 2030; small and micro enterprises are exempt. Companies are also required to publish annual disclosure reports on unsold product volumes, disposal methods and management measures, and will be subject to reporting requirements under the Digital Product Passport system. Textiles and footwear are identified as priority product groups in the ESPR Working Plan for 2025–2030, and sector-specific ecodesign delegated acts setting requirements for durability, recyclability and recycled content are expected by 2027.

By redirecting unsold textiles away from destruction and toward reuse or recycling channels, the ESPR is likely to increase the volumes of pre-consumer textiles entering collection and sorting systems over time. The precise effects on export flows remain uncertain, but the regulation reinforces the broader policy direction toward greater accountability for textile product lifecycles.

1.4.4 Basel Convention

Beyond EU borders, international policy discussions are also converging toward tighter regulation of used textile trade. Under the Basel Convention, controlled wastes are subject to prior informed consent (PIC) procedures requiring the approval of exporting, transit and importing countries before shipment.[18] The 17th Conference of the Parties (COP-17) to the Basel Convention, held in April/May 2025, agreed to include used textiles and textile waste in the work programme of the Open-Ended Working Group for 2026–2027. The COP invited Parties to submit comments by 15 November 2025 on experiences and challenges related to the trade in used textiles, with a view to developing options for consideration at COP-18. This process was preceded by formal proposals from Denmark, France and Sweden calling on the EU to submit a joint proposal to bring mixed textile shipments under Basel PIC procedures, a step that would require exporters to obtain prior written consent from importing country governments for all transit and destination countries.[19]

Industry stakeholders have expressed concern that extending PIC procedures to used textiles could undermine legitimate trade. The Secondary Materials and Recycled Textiles Association (SMART), for example, has called on UNEP and Basel Parties to maintain a clear distinction between reusable goods

[17] European Commission (2024) *Regulation (EU) 2024/1781 of the European Parliament and of the Council of 13 June 2024 establishing a framework for the setting of ecodesign requirements for sustainable products, amending Directive (EU) 2020/1828 and Regulation (EU) 2023/1542 and repealing Directive 2009/125/EC*. Available at: https://eur-lex.europa.eu/eli/reg/2024/1781/oj/eng

[18] Basel Convention (2025) *Used textiles and textile waste*. Available at: https://www.basel.int/Implementation/Usedtextilesandtextilewaste/Overview

[19] Centre for Resilience and Sustainable Development (CRSD) (2024) *Reforming textile trade codes to be fit for purpose for the circular and sustainable textile economy*. Available at: https://www.landecon.cam.ac.uk/sites/default/files/2024-11/Textile%20Trade%20Codes_Challenge%20Note_FINAL.pdf

and genuine waste in international frameworks, and has cautioned against classifying second-hand textiles as waste.[20] The Environmental Investigation Agency (EIA), conversely, has argued that all textile waste should be treated at a minimum as "other waste" controlled under Annex II and subject to PIC, given the difficulty of distinguishing recoverable from unrecoverable material in mixed bales.[21]

These international discussions remain unresolved, but the trajectory is toward greater scrutiny of the used textiles trade, particularly for mixed, low-grade, unsorted or lightly sorted flows. Some sorting and quality control is already implicit in the green-list shipment framework: green-listed waste must be correctly classified, sufficiently uncontaminated, destined for recovery and accompanied by the required shipment information. However, the revised EU textiles waste framework strengthens this position by requiring separately collected used and waste textiles to be sorted before shipment, and by treating separately collected used textiles as waste unless they have been directly and professionally assessed as fit for reuse at the collection point or have undergone sorting and preparation for reuse. EU Member States must transpose these requirements by 17 June 2027, with incorporation into the EEA agreement (for Norway and Iceland) currently under scrutiny by the EEA EFTA.

In parallel, Regulation (EU) 2024/1157 on waste shipments increases traceability and downstream assurance obligations for green-listed waste shipments, including electronic Annex VII documentation, contracts, receipt and recovery confirmations, record keeping, and, for exports outside the EU, a requirement to demonstrate environmentally sound management at the receiving facility, normally supported by independent facility audits. The deadline for EU Member States to transpose these requirements was 21 May 2026, with incorporation into the EEA agreement (for Norway and Iceland) currently under scrutiny by the EEA EFTA. The result is therefore not a wholly new obligation to sort textiles across the Nordics, but a significant increase in the evidential, classification, record-keeping and downstream assurance requirements attached to exporting used and waste textiles.

1.4.5 Import Restrictions

A further dimension of the evolving regulatory landscape is the growing willingness of importing countries to restrict used textile imports on both environmental and industrial policy grounds. Since 2016, several countries in sub-Saharan Africa, including Rwanda and Nigeria, have sought to phase out used clothing imports to protect nascent domestic textile industries.[22] While most East African Community countries ultimately reversed planned bans following threats to their access to the US African Growth and Opportunity Act (AGOA), import tariffs and regulatory scrutiny in the region remain elevated.

This trend is not confined to Africa. Across multiple importing regions, measures including import bans, elevated tariffs and tighter customs classification controls are reducing market access for low-quality or poorly sorted textile bales. The EU's largest used textile export markets are currently Africa and Asia, with each receiving approximately 44% of EU used textile exports by volume as of 2023.[23] Trade data does not distinguish between first export and subsequent re-exports, nor does it always identify whether clothing consignments have been processed within another EU country before being exported outside of the bloc. Therefore, it is not clear what quantity of these exports remain in Africa and Asia, nor is it certain whether clothing bales have been sorted within the EU before being exported for resale or further processing. Across both Europe and Africa, governments are introducing new policies and regulatory measures to strengthen oversight of textile flows and improve environmental outcomes. These

[20] Singsit, J(2025) SMART warns labelling used textiles as waste could ruin reuse sector. *Just Style*. Available at: https://www.just-style.com/news/smart-textiles-label-waste/
[21] Environmental Investigation Agency (2025) *EIA Submission to Basel Convention Secretariat – Textiles*. Available at: https://eia-international.org/report/eia-submission-to-basel-convention-secretariat/
[22] The Fashion Law Academy Africa (2025) *A Review of the Economic Impact of Second-Hand Clothing Bans in Africa*. Available at: https://www.fashionlawacademyafrica.com/post/a-review-of-the-economic-impact-of-second-hand-clothing-bans-in-africa
[23] EEA (2025) *EU Export of used textiles*. Available at: https://www.eea.europa.eu/en/circularity/sectoral-modules/textiles/eu-export-of-used-textiles

developments are likely to increase expectations around ensuring used garments reach appropriate markets, traceability, reporting and accountability throughout textile value chains.

For Nordic exporters, this creates a more uncertain and fragmented international market. Export routes that currently depend on intermediary or weakly regulated markets may become less viable, while evidence of quality sorting, bale composition and downstream environmental management will increasingly be required at both the EU export stage and the destination-country import stage.

1.4.6 Conclusions

Taken together, these regulatory developments point toward a transition period characterised by both rising supply and tightening export controls, creating pressure on domestic and European markets and infrastructure. In the short term, mandatory separate collection requirements are expected to increase the volume of textiles entering Nordic collection systems, while limited domestic and European recycling capacity (estimated at approximately 1.3 million tonnes EU-wide)[24] may mean that reliance on non-EU export markets as a major outlet for collected material could continue or increase.

From the medium term onward, however, the policy direction in the EU and more widely is increasingly aligned toward restricting problematic waste exports, strengthening traceability, and encouraging the development of regional circular textile systems. The revised WSR, the WFD EPR provisions, and potential Basel Convention controls collectively represent a regulatory convergence around the principle that the EU should not export waste to third countries. They also increase scrutiny on the quality of textiles that are exported for reuse and their suitability for the markets into which they are sold. At the same time, policymakers in Africa and Asia are increasingly placing controls on imports of used clothing, or banning imports altogether. These measures have the potential to address challenges arising from the purchase of second hand clothes in countries with poor waste management systems. However, such countries face waste management challenges in respect of all end of life clothes. It should not be inferred from these measures that all exports of second hand clothes to less developed countries inherently create problems for those countries.

This evolving landscape directly informs the analytical priorities of the present study. Issues such as quality classification, bale composition, resale potential, end-destination tracking and downstream treatment conditions are no longer solely matters of commercial practice: they are becoming central regulatory concerns that will shape the future legality, viability and governance of used textile exports from the Nordic region.

[24] EEA (2024) *Management of used and waste textiles in Europe's circular economy*. Available at: https://www.eea.europa.eu/en/analysis/publications/management-of-used-and-waste-textiles-in-europes-circular-economy

2.0 Phase 1: Understanding Flows of Used and Waste Textiles

2.1 Methodology

This section provides a detailed breakdown of the steps taken to achieve the objectives of the research, expanding on the overview given in Figure 1-1and Section 1.2.

Desk-based research

The first phase of this study involved gathering and reviewing existing information on textile exports from the Nordic region. This included analysis of UN Comtrade data and other publicly available sources, such as reports published by the European Environment Agency (EEA) and other recent studies on international trade data. This desk-based research was undertaken to establish a baseline understanding of known export flows, data gaps and existing evidence on the fate of used textiles from Nordic countries.

Interviews

Building on this foundation, the second phase focused on primary research with those engaged in the used textiles industry to address the data gaps identified during the initial review. Eunomia developed survey instruments and interview templates tailored to areas where substantial gaps had been identified, in order to build on the findings from the global trade data analysis. These tools were shared with project research partners (see Table 2-1 below), who conducted national-level research and stakeholder engagement within their respective regions. Stakeholders interviewed included textile sorters and exporters, waste and used-textile associations and civil society organisations involved in the handling of used Nordic clothing (see Table 3-1 in Section A.1.0 for the full list of stakeholders interviewed).

Table 2-1: National-level research partners

Partner name	Type of organisation	Country/region
Mepex	Consultancy	Nordics
Polish Zero Waste Association (PZWA)	NGO	Poland
Zero Waste Germany	NGO	Germany
Žiedinė ekonomika	NGO	Lithuania
Ecological News (Zero Waste Alliance Ukraine)	NGO	Ukraine
JEUNES VERTS	NGO	Togo

Partner name	Type of organisation	Country/region
Godambari Sustainable Solutions	Consultancy	India
Hitbhav Engineers	Consultancy	India
Sustainable Development Policy Institute (SDPI)	Non-profit organisation	Pakistan

The third and most novel component of this research involved a track and trace exercise, which was conducted over a 6-month timeframe. This involved attaching electronic tracking devices to a sample of 200 apparel items. The trackers were applied to items across the five Nordic countries in approximate proportion to population. The sample was designed to reflect a mix of clothing types and conditions. The movement of these items through the collection, sorting, export and potential reuse or disposal pathways provided practical, real-world evidence to complement and validate the broader research findings.

Finally, a synthesis of all data gathered through the project was undertaken to evaluate the implications of the findings for policy development. This report synthesises the insights from each phase to provide a clearer understanding of the fate of discarded clothing exported from the Nordics, as well as the environmental and policy challenges associated with current practices and how they could be addressed.

2.1.1 Global Textile Trade Data

Comtrade is the most comprehensive global database of trade flows, and thus served as a foundational resource during the initial phase of this study. Early analysis revealed discrepancies between reported import and export figures, introducing uncertainty into the research process. To address this, an in-depth review was conducted into the methodologies used by countries which report to the Comtrade database, as well as best practices for interpreting its data. This provided an understanding of the limitations of Comtrade data and their potential impact on the broader study.

Insights from this review were then applied to extract the most reliable data available, which was subsequently validated through supplementary research. This enabled the identification of the top importing countries of used textiles from the Nordics with greater confidence and accuracy.

Understanding discrepancies in the UN Comtrade database

Eunomia first reviewed the guidance published by the United Nations Statistics Division (UNSD) in order to understand how countries report data to Comtrade.[25,26,27] A literature review was then conducted to understand issues with the database, primarily from research papers and supplemented by UNSD

[25] UN Statistics Division (UNSD) (2019) *Methodology Guide for UN Comtrade User on UN Comtrade Upgrade 2019*. Available at: https://comtradeapi.un.org/files/v1/app/wiki/MethodologyGuideforComtradePlus.pdf
[26] UNSD (n.d.) *Data explorer: About the data*. Available at: https://comtrade.un.org/labs/data-explorer/About.html
[27] HM Government (2024) *Asymmetries: methodology notes*. Available at: https://www.gov.uk/government/publications/asymmetries-in-international-trade-in-goods-statistics-methodology-notes/asymmetries-methodology-notes

guidance.[28] Finally, the Comtrade database was used to explore and put into context some of the issues identified through this research.[29]

Whilst Comtrade data is the most comprehensive tool for understanding global trade flows today, several issues arise when attempting to track the global mass flow of goods. There are often situations where the quantity of goods a country reports that it has exported to a partner does not match the quantity reported as imported by the partner country. This results in an asymmetry in Comtrade import and export data. These differences arise from the fact that data is reported on a country-by-country basis and the producers of the Comtrade data mostly take the reports at face value rather than seeking to match, correlate and correct the information provided.

The main differences in reporting approaches are:

- The application of different criteria for partner attribution in import and export statistics; and
- The application of different reporting conventions at a country-specific level.

In this study, the UN Comtrade database was used to identify the destination of used textile exports from the Nordic countries, drawing on (a) reported export data from the Nordics and (b) import data from receiving countries. Asymmetries between these two data sets therefore had the potential to obscure trade flows, and affect the accuracy of the export-flow mapping that is central to this study.

The Comtrade database recommends reporting the last known (final) destination for partner country exports, while for imports it is recommended to use the country of origin, i.e. either the country where the good was wholly produced or where the last substantial transformation took place. If this information is not known, a reporting country may use the country of consignment, i.e. the last country in which a commercial transaction (e.g. sale or processing) or a stoppage unrelated to transport took place, for both exports and imports. Therefore, depending on the information available to the importer/exporter, asymmetries may occur between data reported by exporting and importing countries.

Moreover, reporting countries may choose to use different definitions of 'partner' under their respective reporting conventions. For example, some countries may choose to report 'country of consignment' for intra-EU imports rather than the 'country of origin'. The conventions followed by the Nordic countries within scope of this study are outlined in Table 2-2 below.

[28] Chen, C., et. Al. (2022) Advancing UN Comtrade for Physical Trade Flow Analysis: Review of Data Quality Issues and Solutions. *Resources, Conservation and Recycling Vol 186.* Available at: https://www.sciencedirect.com/science/article/pii/S0921344922003597
[29] UNSD (n.d.) *UN Comtrade Database*. Available at: https://comtradeplus.un.org/

Table 2-2: Import/export partner attribution for Nordic and EU countries in Comtrade[30]

Country	Convention used for imports	Convention used for exports
Finland	Country of origin/consignment for intra-EU	Country of last known destination/consignment for intra-EU
Denmark	Country of origin/consignment for intra-EU	Country of last known destination
Sweden	Country of consignment	Country of last known destination
Norway	Country of origin/consignment for intra-EU	Country of last known destination/consignment for intra-EU
Iceland	Country of origin	Country of last known destination

Other reasons for asymmetries in the Comtrade data include miscalculation, deliberate misevaluation, timing differences (a lag between goods being exported and their arrival in the destination country might result in trade data being reported in different years) and fraud or smuggling.

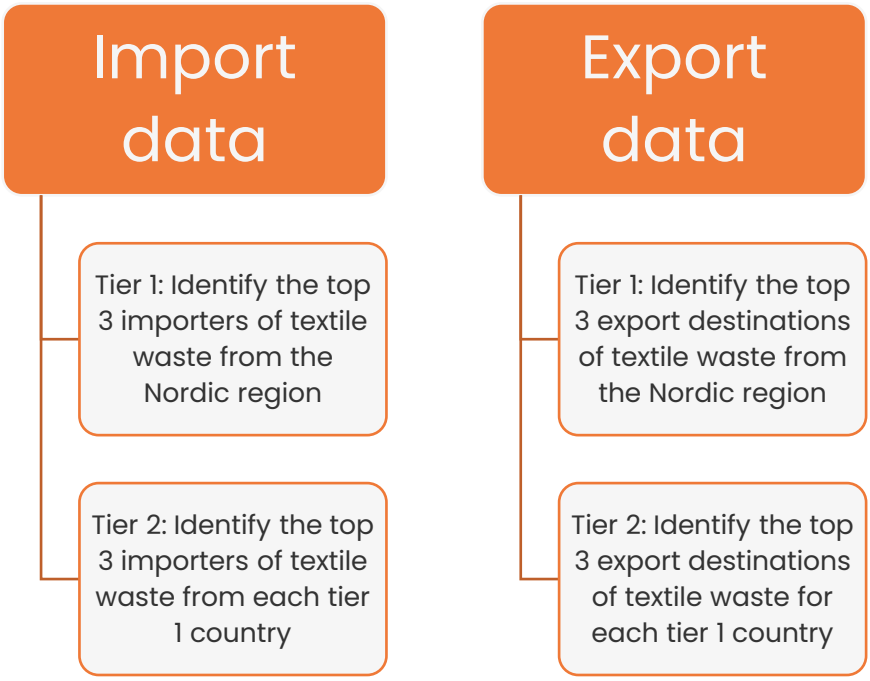
Whilst it is not possible to directly ascertain from the Comtrade database whether the reporting country or its partner provides more accurate data, it is important to look at both export data reported by the Nordic countries and import data reported by their trading partners. Because reporting practices differ across countries, looking at only one side of the trade flow may lead to gaps or inconsistencies. Export data alone may miss downstream destinations if goods are re-exported, while import data may underrepresent Nordic origins if shipments are recorded by last transit country rather than country of origin. Analysing both datasets gives a more complete and accurate picture of actual trade relationships, to better identify patterns, minimise the effects of data asymmetries, and more confidently identify the key destination markets for used textiles exported from the Nordics.

Using the UN Comtrade database

Based on this research, a tiered approach was developed to build a full picture of textiles exports from the Nordic countries. This is outlined in *Figure 2-1* below.

[30] UNSD (2016) *IMTS: National Compilation and Dissemination Practices (NCDP) survey*. Available at: https://comtrade.un.org/survey/Reports/byCountry

Figure 2-1: Approach to Comtrade data analysis



It was decided to look at both Tier 1 and Tier 2 because many of the countries to which Nordic countries send used and waste textiles were understood to act as sorters of clothing that is then exported again. Looking only at Tier 1 countries would therefore provide an incomplete picture of end destinations. However, going beyond Tier 2 would have made the connection with Nordic countries too indirect to be informative.

To identify the Tier 1 importers, the import and export datasets were analysed separately. This involved extracting the full dataset for the five Nordic countries across three years (2021, 2022 and 2023) using the following search filters:

- HS (as reported) Commodity Codes: 6309 (Textiles; worn clothing and other worn articles); 6310 (Rags; used or new, scrap twine, cordage, rope and cables and worn out article of twine, cordage, rope or cables, of textile materials)
- Periods: Year and month

For exports, the following filters were used:

- Reporters: Denmark; Finland; Iceland; Norway; Sweden
- Partners: All
- Aggregate By: Reporter; Commodity code

For imports, the following filters were used:

- Reporters: All
- Partners: Denmark; Finland; Iceland; Norway; Sweden
- Aggregate By: Partner; Commodity code

This produced six datasets, from which the net weight of used and waste textiles exported from each Nordic country was aggregated so that the top export destinations of textile waste could be identified for the whole region. This approach was chosen over extracting data for each Nordic country individually, as the project's primary aim was to understand the flow of textiles from the entire region, with differences between individual countries being a secondary consideration. Some Nordic countries report more exports than others, and so a focus on the top importers/export destinations at the country level

could have skewed the analysis away from the partner countries with the greatest tonnage and towards those that appeared at the top of each country's list of partners, even if they received a relatively small amount of textiles. The top Tier 1 destinations were identified based on the average quantity of imports/exports across the three reporting years.

To identify the top Tier 2 countries, this exercise was then repeated, changing the 'Reporter' and 'Partner' filters from the Nordic countries to the top three Tier 1 countries. It was decided that a larger number of Tier 2 countries should be brought into the scope of the study because of uncertainty over whether Nordic textiles would flow to the biggest Tier 2 receivers. A wider sample increased the likelihood of covering countries receiving significant quantities of textiles from the Nordic countries.

2.1.2 Country-Level Data Collection and Stakeholder Research

The aim of this task was to gather more detailed data and qualitative insights on textiles exports flows. National-level research partners carried out research and stakeholder engagement in the Tier and Tier 2 countries identified in the previous stage of this work (see Table 2-1). Broadly, partners followed a prescribed method, although with flexibility to adapt this based on understanding of the local context and initial findings.

Eunomia drew up provisional sets of data requests and interview questions for each Tier of countries to guide the partners (see Appendix A.2.0) and undertook an initial mapping exercise to identify suggested stakeholders within each country. The key research questions that this phase of the study sought to address are as follows:

1. For the Nordic countries:
    a. What volumes and types of used textiles are collected in the Nordics?
    b. How are used textiles processed and managed after collection?
    c. What factors determine export decisions and destinations?
    d. Where do used textiles go, and how are export markets evolving?
    e. How traceable are exported textiles?
    f. How are textiles treated in destination markets, and is this information known?
    g. What are the impacts, benefits and challenges of used textile exports?
    h. What improvements are needed in the used textile export system?
2. For Tier 1 countries:
    a. What volumes of used textiles are imported, and what proportion of this comes from Nordic countries?
    b. What is the quality and condition of imported Nordic textiles?
    c. How are imported used Nordic textiles processed and managed domestically?
    d. What happens to imported used Nordic textiles after processing?
    e. What are the main export destinations and market channels of used Nordic textiles?
    f. How traceable are textile flows and end destinations of used Nordic textiles?
    g. Are Nordic textiles treated differently from other imported textiles?
    h. What are the benefits, risks, and future opportunities associated with used textile trade with the Nordics?
    i. How do policy and regulatory frameworks shape used textile management, and what improvements could increase the sustainability of imported used textile management?
3. For Tier 2 countries:
    a. How important are used Nordic textiles within the country's overall import market?
    b. How does the origin of imported used textiles affect their quality and subsequent treatment?
    c. What role does the informal sector play in the used textile value chain?
    d. What proportion of imported used Nordic textiles ultimately enters domestic reuse markets?

e. How are unsold, low-value, and waste textiles managed?
f. How have used textile import and management systems changed over time?
g. What determines whether imported used textiles are reused, re-exported, or discarded?
h. What are the main challenges associated with imported used textiles?

The research partners first reviewed the suggested list of stakeholders for interview, supplementing these using their understanding of the local used textiles market. The research partners then identified national databases and other data sources, to identify data on trade flows of used textiles from the Nordics. They then conducted the interviews to test findings and answer any remaining data queries.

Relevant stakeholders included:

- Actors sorting/exporting textiles (incl. charities and commercial organisations);
- Used/waste textile associations or similar representative bodies;
- Textiles producer responsibility organisations;
- Trade bodies; and
- Actors importing used textiles (inc. NGOs/charities - in particular, those operating in developing country end-markets).

Each research partner engaged with approximately five stakeholders. A full list of stakeholders is provided in Appendix A.1.0. Interviews were transcribed before being consolidated and analysed as part of this report. Full country-level summaries can be found in Appendix A.3.0

2.1.3 Track and Trace

The aim of this task was to gather primary data on the end destinations of used Nordic textiles, through the application of electronic tags to track items' journeys. It was recognised that a practicable sample size could only give a limited picture, and that the results could not be fully representative. The exercise was, however, intended to supplement the data collected during the previous tasks of this project, and provide evidence regarding which countries function as final destinations for Nordic exports and what factors may influence the end destination.

The methodology for this exercise is outlined below, alongside the risks considered and the steps taken to mitigate them.

Sample size

Similar track and trace exercises have previously been conducted in the electronics sector, to examine the extent of illegal exports of e-waste. Several studies carried out by the Basel Action Network used samples of ~200 items. This was a practicable number for the current study's budget and ability to access used textiles.[31,32,33]

The 200 tags had to be allocated across the Nordic countries. We assumed that population size would roughly correlate to generation of used textiles, even if there were differences in how effective each country was in capturing textiles for reuse/recycling. We considered assigning in proportion to population of each country (see Table 2-3). However, this approach would have assigned only three tags to Iceland,

[31] BAN (2016) *Disconnect Goodwill and Dell, Exporting the Public's E-Waste to Developing Countries*. Available at: https://s3.amazonaws.com/ban-reports/Trash+Transparency/Disconnect+-+Goodwill+and+Dell+Exporting+the+Publics+E-waste+to+Developing+Countries+Report+-+Web+Version.pdf
[32] BAN (2016) *Scam Recycling e-Dumping on Asia by US Recyclers*. Available at: http://wiki.ban.org/images/1/12/ScamRecyclingReport-web.pdf
[33] BAN (2018) *Holes in the Circular Economy: WEEE Leakage from Europe*. Available at: http://wiki.ban.org/images/f/f4/Holes_in_the_Circular_Economy-_WEEE_Leakage_from_Europe.pdf

which was unlikely to generate a meaningful result. The allocation was therefore instead designed to give a more useful sample size across each country.

Table 2-3: Number of tags assigned to each country

Country	Population	%	Proportion of tags based on population	Actual number of tags deployed
Denmark	5,857,000	21%	42	42
Finland	5,541,000	20%	40	40
Iceland	372,520	1%	3	39
Norway	5,408,000	20%	39	39
Sweden	10,420,000	38%	76	40
Total	**27,598,520**	**100%**	**200**	**200**

Selection of items for tagging

Sorters and/or exporters were identified in each Nordic country, and were asked by Mepex to assist with identifying and supplying items for tagging. With support from these partners, the tracking exercise was designed to include a variety of apparel items in order to be as representative as possible, including:

- Different product types (e.g., dresses, jeans, t-shirts); and
- Items of different condition.

The split between product types and condition differed slightly between countries, but the general approach was to select items across five distinct product categories (tops, jumpers, skirts/dresses, trousers/shorts and jackets/coats) based on availability and apply a 50/50 split between good condition items and poor condition items. In practice, different organisations and regions used different grading criteria. However, for the purposes of this study, the following grading system[34] was used, due to its simplicity and wide applicability:

- **Grade A or Excellent/Like New:** Items in almost new condition with minimal signs of wear. They may appear unworn and have no significant flaws.
- **Grade B or Good/Very Good:** Items with moderate signs of wear but still in good condition. There might be slight fading, minor pilling, or small imperfections.
- **Grade C or Fair:** Clothing with noticeable wear, fading, or defects. These items may still be functional but may require some repairs or alterations.

[34] Bank & Vogue (2023) *The World of Graded Goods: Understanding Second-Hand Clothing Grading*. Available at: https://www.bankvogue.com/blog/graded-goods-explained/

- **Grade D or Poor:** Items in poor condition with significant wear, stains, tears, or other defects. They may be suitable for upcycling or used for fabric recycling.

Partners were asked to aim for approximately a 50:50 split between higher quality (grade A-B) and lower quality (grade C-D) items. The overall product split for the tagging exercise is shown in Table 2-4 below, using product types based on the Refashion classification system.[35]

[35] Refashion (2025) *Nomenclature Refashion*. Available at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fpro.refashion.fr%2Fapp%2Fuploads%2F2025%2F10%2Fen_nomenclature_refashion_2025.xlsx&wdOrigin=BROWSELINK

Table 2-4: Distribution of tags across product type and grade

Product category	Product type	List of eligible products	Specific exclusions	Number of clothing items	
				Grade A-B	Grade C-D
Tops	T-shirt type tops (fabric in jersey or pique knit)	T-shirt (regards of its shape: cross-over, top with straps, backless, V-neck, tank top, etc.), polo shirt (long and short sleeves), rugby shirt, fine turtle neck top, tunic dress, sports shirt, striped sweater, undershirt, technical textile T-shirt (thermal/UV, firming, slimming), posture-correcting T-shirt)		20	20
	Shirt-like tops (woven fabrics)	Shirt, blouse, tunic, loose-fitting jacket, other woven top	Leather jacket		
Jumper-type top (knit based)		Thick or thin knit pull-over (long-sleeve, short sleeve, sleeveless, cross-over, poncho, turtle neck, V-neck, round neck, etc.), sweatshirt, twin-set, bolero, cardigan (thick of thin knit), tracksuit top, jogging top - excl. big coat-type tops		16	14
Skirts/dresses	Skirts	Skirt, culottes, short skirt - including in tulle (tutu type)	Leather skirt	20	20
	Dresses	Long, short, medium length dress - including knitted-dress – gowns, wedding dresses, beach dresses	Leather dress		
Trousers/shorts	Denim trousers	Trousers, short-leg trousers, capri trousers, below-knee pantaloons, jeans, jodhpurs, combat trousers, chinos, sirwal style trousers - all in denim		25	25

Product category	Product type	List of eligible products	Specific exclusions	Number of clothing items	
				Grade A-B	Grade C-D
	Everyday trousers (woven fabrics) - excl. denims trousers	Trousers, short-leg trousers, capri trousers, below-knee pantaloons, jeans, jodhpurs, combat trousers, chinos, sirwal style trousers - excl. denim	Leather trousers		
	Shorts, bermuda shorts - including in denim	Shorts, bermuda shorts - including in denim	Leather shorts and bermuda shorts		
Jackets/coats	Jackets and light jackets	Jacket, short jacket, light jacket, waistcoat, ultralight padded jacket, poncho	Leather jacket or real fur jacket	20	20
	Coats	Coat, thick vest-type coat, cape, poncho, duffel coat, sheep skin jacket, overcoat, oilskin, parka coat, winter jacket (bomber, baseball)	Leather coat or real fur jacket		

Tagging and tracking of items

The sorting/export partners were responsible for tagging the clothing items at the point of sorting or export. Each partner was provided with Samsung Smarttag2 trackers. This model of tracker was selected for two primary reasons.

- Battery life: the batteries had an expected life of over one year, significantly reducing the risk of battery depletion during the six-month tracking period.
- A research partner, Autoren(werk), was selected to gather the tracking data and had experience of similar studies and had developed code capable of automatically scraping the location history from numerous of this model of tracker. They were also able to present the results in a dashboard, including full location histories and a global map interface. This automation removed the need for regular manual checks (although in practice checks were carried out, as explained below).

Each tracker was numbered and placed in a pin case for protection. The choice of a tracker from a recognised brand and the use of a protective case were both intended to mitigate any risk of a malfunctioning or damaged battery resulting in a fire.

The pin case enabled each tracker to be securely attached to a label or hem within an item of clothing. The partners ensured that the tags could easily be seen by anyone processing or purchasing the item, by securing the tags in prominent locations (see Figure 2-3) in order to mitigate ethical and safety risks and ensuring no end user could be unaware that the item of clothing had been tagged.

Figure 2-3: (a) Pair of men's jeans tagged before export



Figure 2-3: (b) Women's coat tagged before export



Each partner was provided with a set of instructions, and a tracking spreadsheet which contained the following fields:

- Clothing category;
- Product line;

- Product description;
- Colour;
- Men's/women's;
- Grade; and
- Other notes.

The partners were also asked to take pictures of the items and to share these with Eunomia. This enabled Eunomia to establish that a reasonable range of item types and conditions had been included.

While it would have been feasible to leave all tags active for the whole 6-month period, in practice the trackers were reviewed weekly to determine whether any appeared to have reached a residential address. When this occurred, the relevant tracker was removed from the Samsung account. Although it was not possible to identify the individual who had purchased the clothing items, this precaution was taken to mitigate potential ethical concerns associated with the use of tracking devices in the study – e.g. to ensure that the tracker would not accidentally be used to track an individual's movements.

Measures were also taken to reduce the risk of trackers being removed by sorters. For example, textiles handled through UFF-Humana, the receiving facility in Poland was informed about the project and asked to instruct its sorting staff not to remove the trackers. Bilingual notices in Polish and English were also placed inside the relevant collection bag, asking staff to leave the trackers attached and otherwise handle the garments as normal. This approach was intended to ensure that the instruction reached the person undertaking the sorting even if it was not passed on by management or the bag remained in storage before processing. Nevertheless, it cannot be confirmed that the instruction was received or followed in every case. Tracker removal therefore remains a potential source of attrition and may have resulted in the number of onward journeys from European sorting facilities being underestimated. Accordingly, a last recorded location at a sorting facility should not automatically be interpreted as the garment's final destination, nor should the predominance of European endpoints be taken to mean that all associated items remained within Europe. Further onward movement, including export to markets outside Europe, may have occurred after a tracker was detached or stopped accompanying the garment.

It was also decided that ethical conduct of the study required that tags should not be concealed in clothing but should be clearly visible, except for jackets and trousers were there were placed in the pockets. Each tracker case was labelled with a QR code (see Figure 2-4) that linked to a web page. The page explained the purpose of the study, and gave contact details for the project team. This ensured that anyone who had purchased a tagged item could contact the team so that the tracker could be deactivated promptly. The benefits of transparency from this approach were deemed to outweigh the risk that clearly visible tags might be removed prior to an item reaching its final destination. In practice, few tags appear to have been removed before reaching an end destination.

Figure 2-4: QR code sticker attached to tag



2.2 Results

This section presents the findings from the three strands of research undertaken for this study: analysis of international trade data, country-level research and stakeholder engagement, and the track-and-trace exercise. Taken together, these evidence sources provide complementary insights into the pathways followed by used textiles exported from the Nordic countries, from initial export through to sorting, redistribution and, where possible, end destinations.

The following sections summarise these six key findings before presenting the detailed evidence from the trade data analysis, country-level research and track-and-trace exercise and the relevant challenges and data gaps.

2.2.1 Key Findings

Finding 1: Nordic textile exports are channelled through European sorting hubs

Evidence from the trade data, stakeholder research and track-and-trace exercise indicates that most Nordic used textile exports are not sent directly to their final destination markets. Instead, they are channelled through a network of European sorting and redistribution hubs, particularly in Poland, Lithuania and Germany. Here, textiles are sorted, graded and prepared for onward sale, re-use, recycling or export.

As discussed further in Section 2.2.2, UN Comtrade analysis identified Lithuania, Poland and Germany as the most common direct export destinations ("Tier 1 countries") for Nordic textiles. However, these countries are themselves major exporters of textiles, including of textiles that they import, sort and ship onward. Analysis of the destinations they export to ("Tier 2" countries) shows that major recipients include Pakistan, Togo, India, Ukraine and the United Arab Emirates (see Section 2.2.2, Table 2-5).

Country-level data and stakeholder research reinforce this finding (see Section 2.2.3.2). In Lithuania, an estimated 92-99% of imported used textiles are subsequently exported after sorting, while Poland exports large quantities of sorted textiles to the Tier 2 countries identified above. Germany similarly functions as a key sorting and redistribution centre.

The track-and-trace exercise provides further evidence of these pathways. Poland was the most frequently recorded destination in the tracking dataset, accounting for 30% of all tracked items (see Section 2.2.4.1, Table 2-6). Some tracked garments were then observed continuing to other destinations.

Together, these findings suggest that European sorting hubs play a critical role in the management of Nordic used textile exports. However, they also highlight a key traceability challenge: once textiles enter these redistribution networks, their onward movements become increasingly difficult for Nordic exporters to track, despite efforts on their part to do so. This limitation is explored further under Finding 6.

Finding 2: Textile journeys are more complex than trade statistics suggest

The results of the country-level data and stakeholder research (see Section 2.2.3.2) and the track-and-trace exercise (see Section 2.2.4) shows that textile movements are often considerably more complex than can be directly inferred from trade statistics alone.

The track-and-trace exercise demonstrated that many textiles pass through multiple countries, sorting facilities and market channels before reaching their eventual destination. Several tracked items were observed passing through Tier 1 countries such as Poland, Bulgaria, Slovakia, Lithuania and Estonia before being moved to new destinations (see Section 2.2.4.2), sometimes passing through several different countries before reaching an apparent end destination. This demonstrates that the first importing country shown in trade statistics is often not representative of the final destination of textiles.

Finding 3: Most tracked textiles remained within Europe, but some continued to destinations outside Europe

The track-and-trace exercise found that most tracked textiles remained within Europe during the monitoring period (see Section 2.2.4.1, Table 2-6). However, this finding may be affected by the fact that not all items appeared to have reached a final destination within the six month study period.

Poland was the most frequently recorded destination, accounting for 59 tracked items (30% of the sample), while Bulgaria, Sweden, Germany and Lithuania also featured prominently among identified locations (see Section 2.2.4.1, Table 2-6).

However, the tracking exercise also showed that some textiles ultimately travelled beyond Europe. Tracked items were identified in countries across Africa, Asia and the Middle East including but not limited to Nigeria, Togo, India, Pakistan and Oman, demonstrating that a proportion of Nordic textiles enter wider global networks (see Section 2.2.4.3). These findings are consistent with the trade flow analysis, which suggested that European sorting hubs send significant amounts of material to destinations in Africa, Asia and the Middle East (see Section 2.2.2, Table 2-5).

Finding 4: The sector remains reliant on non-European markets especially for lowest grades and recycling

Although many tracked textiles remained within Europe, the wider analysis indicates that non-European markets play a crucial role in managing textiles that cannot be absorbed by European reuse markets.

This can be inferred from the trade flow analysis, but is evidenced more directly by the track-and-trace exercise provides direct evidence of these pathways. For example:

- Tag 1 (a Grade C men's jacket from Norway) travelled from Norway to a sorting facility in Włocławek, Poland, before being re-exported to Karachi, Pakistan (see Section 2.2.4.2).
- Tag 48 (a Grade C knitted top from Denmark) was tracked via the same Polish wholesaler before arriving at a second-hand clothing market in Lagos, Nigeria (Section 2.2.4.2).
- Tag 22 (a Grade A jacket from Norway) moved through Poland and Lithuania before reaching Togo, demonstrating that even higher-grade garments can ultimately be sold through non-European markets (see Section 2.2.4.2).

The distribution of tracker endpoints further supports this finding. Pakistan was the third most common destination country overall, accounting for 28 tracked items (14% of all trackers) (see Section 2.2.4.1, Table 2-6), while Africa accounted for 9% of recorded endpoints and the Middle East 3% (see Section 2.2.4.1, Figure 2-6). Grade D items were significantly more likely to reach non-European destinations than grades A-C, with 56% of Grade D items ending outside Europe (see Section 2.2.4.1, Table 2-7). The stakeholder interviews show that different countries play distinct roles, which affect the types of textiles they receive.

While the study identifies pathways through which textiles may become waste in destination countries, the available evidence generally does not allow the final fate of individual garments to be verified. Findings relating to disposal should therefore be interpreted as indicators of potential outcomes and risk rather than confirmation of actual treatment.

Finding 5: The pathway followed by textiles is influenced by quality, country of origin, market demand and processing capacity

The tracking and interview evidence suggests that the route taken by textiles after collection is shaped by a combination of textile quality, country of origin, market demand and available processing capacity.

The quantitative analysis of the tracking data identified statistically significant differences according to the country in which items were originally collected. Items originating in Iceland and Sweden were significantly more likely to remain within Europe than items originating in other Nordic countries. Conversely, items originating in Finland were significantly more likely to end up outside Europe. This suggests that factors such as collection systems, sorting arrangements, exporter relationships and established trade routes may influence the pathways followed by textiles.

In addition, Table 2-7 (see Section 2.2.4.1) shows clear differences in the destinations reached by different textile grades, with lower-grade items more likely to be identified outside Europe than higher-grade items. In particular, Grade D items had the highest proportion of non-European destinations, suggesting that international markets play an important role in managing textiles with more limited reuse potential.

Processing capacity is also an important factor. Poland and Lithuania act as major redistribution hubs due to their extensive sorting infrastructure. Poland has an estimated textile sorting capacity of around 200,000 tonnes per year (see Section A.3.1.1), while Lithuania's largest operators have a combined sorting and preparation-for-reuse capacity of approximately 80,400 tonnes per year (see Section 2.2.3.2). This exceeds their domestic needs, and enables them to provide grading services and to allocate textiles to different markets according to demand.

Stakeholders reported that destination choices are driven by market conditions, including demand for particular product categories, prevailing prices, the availability of reuse outlets and access to recycling infrastructure. India, for example, has a significant textile recycling industry, focusing on deconstructing items so that the yarn can be rewoven. Other destinations, such as Togo and Pakistan, use exports both to meet domestic demand and to sort for resale to other countries. As a result, textile pathways are not fixed but are determined by the interaction of material quality, established trading networks, commercial demand and processing capacity.

Finding 6: Traceability declines significantly beyond the first sorting stage

The research identified traceability as a significant challenge within international used-textile value chains. Trade statistics are the most reliably collected information, and can be used to identify major Tier 1 export destinations. Comparing import and export figures for Tier 1 countries can indicate which countries function as sorters and redistributors of textiles. However, the data does not allow clear inferences to be drawn about what happens to Nordic textiles once they move beyond Tier 1 (see Section 2.2.2.1).

Similarly, the country-level research found limited transparency regarding the downstream management of textiles after sorting and redistribution. It is rarely clear to Tier 2 importers where the textiles they receive originated. This makes it difficult to determine whether Nordic textiles are more or less likely than exports in general to ultimately be reused, recycled, re-exported or disposed of (see Section 2.2.3.4).

The track and trace exercise demonstrated that many Nordic textiles passed through sorting and wholesale facilities, but it was not always possible to determine the final outcome. For some, the last recorded location was a sorting facility, warehouse, trading area or other intermediary location, rather than a clothes shop, private residence or confirmed recycling or disposal destination (see Section 2.2.4.5).

Overall, the findings suggest that there is reasonable visibility over the initial stages of Nordic textile exports, but significantly less certainty regarding downstream pathways and end-of-life outcomes. Improving transparency and traceability beyond the first sorting stage therefore remains a key challenge for understanding the environmental and social impacts of textile exports.

2.2.2 Global Textile Trade Data

The top three importers of/export destinations for used textiles from the Nordic countries are shown in Table 2-5, alongside the average net weight of the textiles that each received across the three-year period (2021-23).

Whilst Sweden was not identified as a top export partner in the data reported by the Nordic countries, it was a top importer in the data reported by Tier 1 countries. Sweden and Poland are highlighted in blue to show that these countries each appear in two tiers (i.e. Sweden is a Nordic country and a Tier 1 country, and Poland is in both Tier 1 and Tier 2). Sweden is likely to be receiving material from other Nordic countries before exporting it on. Poland is a major sorting hub, and may be receiving material after it has undergone initial sorting in another country – or may be acting as a final destination.

- UN Comtrade data indicates that the most common direct export destinations ("Tier 1 countries") for Nordic textiles are Lithuania, Poland and Germany. However, these countries are significant exporters of used textiles, and so it cannot be assumed that Nordic textiles remain within the Tier 1 countries that receive them.
- The largest export partners of the Tier 1 countries (hereafter referred to as "Tier 2 countries") are Pakistan, India, Togo, Ukraine and the United Arab Emirates (UAE), although the Comtrade database does not hold information to show what proportion of textiles exported from Tier 1 to Tier 2 countries are of Nordic origin.

These indicative flows were used as the starting point of the investigation into export quantities from the Nordics, import and export dynamics in receiving countries, and end-of-life treatment.

Table 2-5: Top importers/export destinations of used textiles from the Nordics (weight-based average for 2021-2023) (UN Comtrade)

Key

Country also appears in the previous tier

Tier	Country	Net weight (thousand tonnes) as reported by exporting countries	Net weight (thousand tonnes) as reported by importing countries
1	Lithuania	16,168	16,915
	Poland	22,277	16,066
	Germany	17,521	9,026
	Sweden		13,207
2	Netherlands	88,691	72,645
	Poland	84,494	73,145
	Pakistan	47,481	53,657
	Ukraine	35,183	29,758
	United Arab Emirates (UAE)	33,211	9,827
	Togo	31,880	32,372
	Belgium	30,801	21,348
	India	29,973	38,603
	Turkey	26,701	29,679

This data served to focus the primary research conducted in the next stage of this project by identifying and classifying Tier 1 and Tier 2 countries, and enabling hypotheses to be developed for testing in the primary research:

- **Hypothesis 1:** The Nordics export substantial volumes of used textiles to the Tier 1 countries (Lithuania, Poland and Germany), making these countries key entry points for Nordic textile exports into wider international markets.
- **Hypothesis 2:** The Tier 1 countries function as major intermediary or "transit" hubs, where significant quantities of Nordic used textiles are sorted, graded, stored, processed, or otherwise prepared before being re-exported to onward destinations in Tier 2 countries.
- **Hypothesis 3:** The Tier 2 countries receive significant volumes of Nordic used textiles, either indirectly through Tier 1 countries or through more complex trade routes. These countries may act as final destinations, where textiles are resold, reused, recycled, downcycled or disposed of, or as additional transit hubs that facilitate further redistribution to other markets.

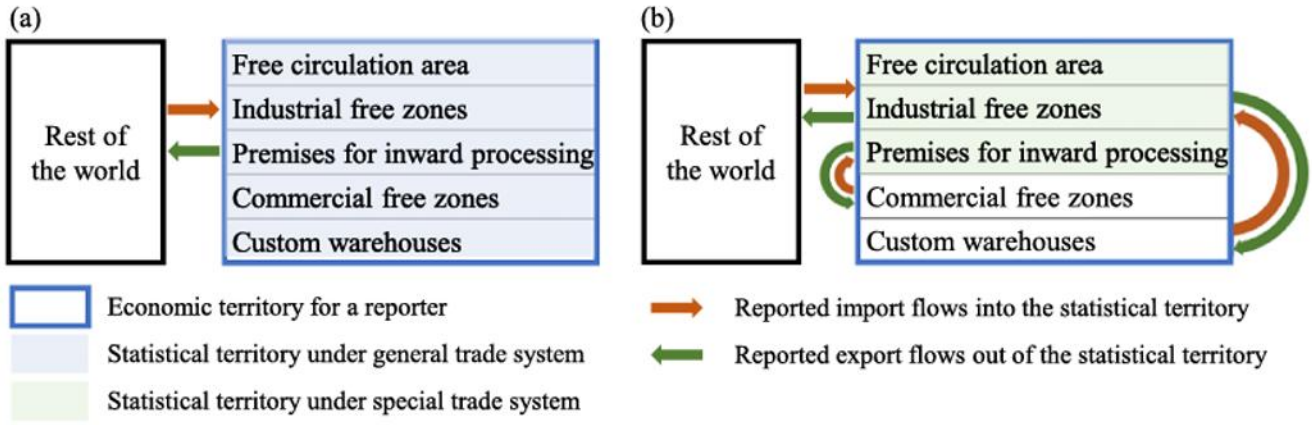
The primary research was used to test these hypotheses, with further analysis conducted upon conclusion of the track and trace exercise.

2.2.2.1 Challenges and Data Gaps

UN Comtrade is the most comprehensive publicly available source for mapping international used-textile trade, but several methodological and reporting limitations affect the reliability and comparability of the data. Bilateral import and export figures frequently differ because countries apply different commodity classifications, reporting conventions and partner-country definitions. Timing differences can also arise when goods leave one country in one reporting year but arrive in another the following year. In addition, missing or anomalous quantity and net-weight data may be estimated by Comtrade, meaning that some reported flows do not represent quantities directly submitted by national authorities.

Re-exports present a particular challenge for tracing Nordic textiles. Although countries have been encouraged to report re-exports separately since 2019, this remains inconsistent. Imports are generally attributed to the country of origin, while exports are recorded against the last known destination. Consequently, when textiles pass through sorting or redistribution hubs, the importing and exporting countries may identify different trade partners. Differences between general and special trade systems (see **Error! Reference source not found.**), and between the use of country of origin and country of consignment (last known destination where processing took place), can create further discrepancies, particularly within Europe and free-circulation areas. Use of the special trade system may also result in goods held in customs warehouses being omitted until they enter free circulation.

Figure 2-5: (a) General and (b) special trade systems[36]



Reported quantities may additionally be affected by calculation errors, limited national validation systems, misclassification and potentially informal or illegal trade. In the used-textile sector, a particular concern is that textile waste may be declared as reusable clothing to avoid shipment controls or importing-country requirements. However, Comtrade data alone cannot distinguish deliberate misclassification from administrative errors or other reporting differences.

These limitations mean that discrepancies between reported Nordic exports and partner-country imports cannot be attributed to a single cause, nor can one reporting flow automatically be considered more reliable than the other. Comtrade is therefore suitable for identifying indicative trade volumes, major partners and potential transit hubs, but it cannot provide a complete account of the origin, route or final destination of Nordic used textiles. The analysis should consequently be interpreted alongside country stakeholder evidence and the track and trace findings. Comext may provide a more extensively validated source for examining intra-EU trade, although further assessment of its methodology would be required.

2.2.3 Country-Level Data Collection and Stakeholder Research

2.2.3.1 Nordic Countries

At present, the largest actors typically collect between several thousand and 12,000 tonnes annually, with Human Bridge in Sweden, Fretex in Norway, UFF in Finland and Røde Kors in Denmark among the largest collectors.

Across the Nordic countries, used textile collection systems are undergoing significant change as mandatory separate textile collection and emerging producer responsibility requirements increase the volumes of textiles entering collection systems. Collection systems have broadened in scope, increasingly accepting not only reusable clothing but also damaged textiles and household textiles, resulting in larger volumes of lower-value and non-reusable material entering the system. Stakeholders across Sweden, Denmark and Norway reported that municipal collection systems in particular are associated with higher contamination rates and lower average quality, which is challenging for existing business models.

After collection, most textiles undergo only limited domestic handling before export. While some organisations undertake basic screening to remove contamination and obvious waste, there is a clear

[36] Chen, et al. (2022) Advancing UN Comtrade for Physical Trade Flow Analysis: Review of Data Quality Issues and Solutions. Available at: https://www.sciencedirect.com/science/article/pii/S0921344922003597

tendency across the Nordics towards exporting textiles for further sorting in counties with lower labour costs. Domestic fine sorting has declined in Denmark and Finland, with several organisations closing or scaling back sorting operations on economic grounds. As a result, large quantities of textiles are exported either unsorted ("original") or only lightly pre-sorted to sorting facilities in Eastern and Central Europe.

Some collectors in Sweden undertake more rough sorting before export than others. Iceland has only one actor exporting textiles, which removes waste and some textile waster before export. presents a more mixed picture, with most actors relying on export-based sorting but a small number of emerging businesses, such as Retextile, seeking to undertake more processing domestically.

Export decisions are primarily driven by collection route and economics. Some higher-quality garments collected through charity shops or dedicated resale channels may be retained for domestic second-hand markets – as may some donated items from bring banks in areas known to yield high quality items. However, material that is collected via most bring banks and municipal collections are generally exported without being sorted. Interviewees consistently highlighted the high labour cost in the Nordic countries as a reason why domestic sorting is commercially unviable. Export markets provide access to lower-cost sorting operations, larger resale networks and established downstream markets for lower-value textiles, whilst having the knowledge of the markets and different qualities needed in different countries. Regulatory considerations are also becoming increasingly important. In particular, current arrangements rely on exported textiles being classified as products for reuse. There is uncertainty over whether, in the future, additional sorting requirements may be imposed before material can be exported as non-waste. If so, it is unclear whether this level of sorting will be viable, or whether arrangements will have to be made to export more textiles as waste.

Nordic stakeholders identified the principal destinations for exports as sorting centres in Poland, Bulgaria, Slovakia, Lithuania, Latvia, Estonia and Germany. Stakeholders reported increasing reliance on these sorting hubs as collection volumes continue to grow and textile quality declines. Available evidence suggests that there are several possible pathways for exported textiles. The highest-quality items are reused through second-hand markets, principally in Europe. Other fractions are recycled into fibres or other materials, downcycled into products such as cleaning cloths, or sent for energy recovery and disposal. Stakeholder research suggests that a growing share of exported material is being directed towards recycling and downcycling rather than reuse.

Traceability of exported textiles is variable. Some actors, including Fretex, Retextile, Myrorna, Humana Sweden and Sorpa, maintain relatively robust systems for partner reporting, audits and documentation of downstream treatment. However, even among these organisations, visibility often weakens beyond the first sorting stage. Other actors receive only limited information on destinations, while organisations operating through traders or commercial intermediaries may have little or no insight into where textiles ultimately end up. Consequently, there is considerable uncertainty regarding the environmental performance of exports, particularly where textiles pass through multiple markets and intermediaries.

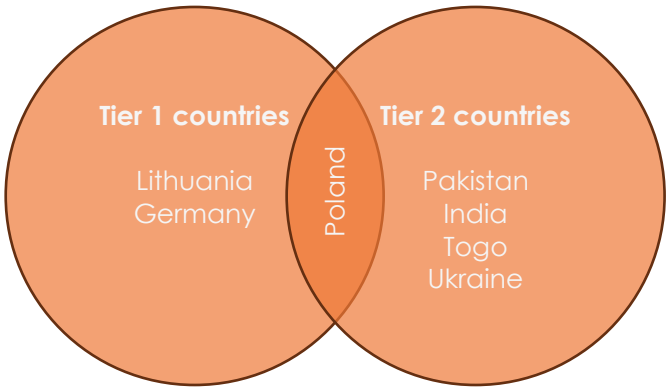
Interviewees identified both significant benefits and significant challenges associated with textile exports. Export markets currently provide an essential outlet for volumes that cannot be absorbed domestically and support charitable business models, specialised sorting operations and extensive reuse networks. Without these markets, considerably larger quantities of textiles would likely be sent directly for disposal. At the same time, stakeholders described growing challenges arising from declining textile quality, contamination, inadequate recycling infrastructure and increasing regulatory complexity. Many argued that collection requirements have expanded much faster than the capacity to sort, recycle and market collected textiles, creating increasing dependence on international export markets to absorb lower-grade material.

Across all Nordic countries, stakeholders highlighted the need for greater regulatory clarity, improved traceability and stronger downstream accountability. There were widespread calls for clearer definitions of waste and reusable products, more consistent guidance regarding pre-export sorting requirements, and harmonised implementation across countries. Interviewees also emphasised the need for expanded domestic sorting and recycling infrastructure, stronger markets for recycled fibres, and investment

support through forthcoming textile EPR schemes. Better communication with consumers was identified as a further priority, particularly to reduce contamination and improve the quality of collected textiles. Overall, the interviews suggest that while export markets remain critical to the functioning of Nordic textile systems, significant improvements are required if these systems are to deliver greater value retention, transparency and environmental performance in the future.

2.2.3.2 Importing Countries

To complement the Global Textile Trade Data analysis and provide a robust understanding of the destination markets for used textiles exports, a programme of country-level research across seven priority countries was conducted. This research was undertaken by in-country partners with established expertise in textile reuse, waste management, recycling systems and informal sector dynamics. The selection of countries was informed by the trade analysis and designed to capture the major destination markets for used textiles exported from the Nordics.



Tier 1 countries

Tier 1 countries are significant European collection, sorting, processing and redistribution hubs, with relatively well-developed infrastructure for managing used textiles. Both Lithuania and Germany receive substantial volumes of used textiles from the Nordic regio, although the available data are not directly comparable. In Lithuania, Nordic countries accounted for 40.3% of total used textile imports in 2025 (21,679 tonnes) while Germany imported approximately 2,780 tonnes of textile-related materials from the four Nordic countries in 2024.

Lithuania's Nordic imports increased between 2023 and 2025, while Germany's identified imports declined in 2025. In both countries, textiles are predominantly sorted and graded according to quality, type, composition and intended end use. Lithuania has approximately 80,400 tonnes of combined sorting and preparation-for-reuse capacity, while Germany has substantial collection and sorting infrastructure and is developing advanced fibre recovery and recycling technologies. Available evidence suggests that Nordic textiles are generally perceived as being of relatively high quality in Lithuania, although there is insufficient evidence to substantiate this systematically; no specific evidence was identified that Nordic textiles are treated differently from other imported textiles in Germany.

Following processing, higher-quality textiles are generally directed towards European reuse markets, while lower-grade material is exported to markets in Africa, Asia and the Middle East. Lithuania exports 92–99% of its imported used textiles by weight, with Pakistan, Togo, Ukraine, Benin, Kenya and other non-European markets among the principal destinations. Germany exported approximately 452,000 tonnes of used clothing and textile-related materials in 2023, with the Netherlands and Poland acting as major logistics, sorting and redistribution hubs. Both countries therefore perform an important economic function within the wider used-textile value chain. However, the principal limitation is traceability: commercial confidentiality, indirect trade routes, broad customs classifications and inconsistencies between statistical sources make it difficult to determine the precise origin, routing and ultimate fate of Nordic textiles. Germany's research explicitly identifies a “Nordic blind spot”, while Lithuania similarly lacks sufficient information to precisely track textile flows.

Overall, the Tier 1 countries appear to provide substantial economic and operational benefits through established collection, sorting, reuse and redistribution infrastructure, with Germany additionally developing advanced recycling capacity. The principal risks relate to the onward movement of lower-value textiles to markets with less developed waste-management infrastructure and the limited ability to establish what happens to residual materials after export.

Tier 2 Countries

Tier 2 countries, Poland, Pakistan, India, Togo and Ukraine, perform a more diverse range of roles, but generally have a greater focus on receiving, processing, redistributing or consuming imported used textiles, with substantial variation in the scale and maturity of domestic reuse, recycling and waste-management systems.

Poland is itself a major European sorting and redistribution hub, receiving 18,703–22,356 tonnes of Nordic used clothing annually between 2023 and 2025, while Pakistan, India, Togo and Ukraine are primarily downstream markets or processing destinations. Poland exports approximately 170,000 tonnes of used textiles annually after sorting, whereas Ukraine functions primarily as a final destination, with total commercial and humanitarian imports of approximately 112,000–130,000 tonnes annually between 2021 and 2025 and negligible commercial exports. Nordic textiles represent a very small proportion of Pakistan's overall imports, while the research does not establish a specific volume of Nordic textiles entering India or Togo. In these countries, therefore, Nordic textiles form part of much larger international textile flows and are frequently difficult to distinguish from textiles originating elsewhere.

The quality and condition of imported Nordic textiles vary according to the country and supply chain. In Poland, higher-grade material is generally retained for European reuse markets, with lower grades exported onwards. In Pakistan, imported consignments are graded A, B and C, with approximately 60–70% reported as suitable for reuse. In Ukraine, commercially imported textiles are predominantly graded, with an estimated 5–10% non-reusable or unmarketable fraction, although stakeholders reported that some unsorted consignments from Denmark and Sweden can contain higher waste fractions. In Togo, Nordic textiles were generally perceived by interviewees as higher quality (Type A), although broader evidence suggests that a considerable share of imported second-hand clothing can be unsuitable for resale. In India, some stakeholders reported that Nordic and other European clothing can be less suited to destination markets because of factors such as winter-weight clothing, style and composition. These findings indicate that quality, condition, seasonality, market demand and the extent of prior sorting influence whether textiles are reused, re-exported, recycled or discarded.

Domestic management also differs considerably across Tier 2 countries. Poland has substantial manual sorting capacity and acts primarily as a redistribution hub. Pakistan undertakes manual sorting, grading, reuse, re-export and mechanical recycling, while India has established sorting and recycling clusters, including Panipat, where imported textile waste is converted into fibres, yarns, blankets, carpets, wipers and other products. Togo undertakes local sorting, repair and alteration but has limited industrial-scale textile recycling capacity. Ukraine undertakes relatively limited domestic processing because most imports arrive already sorted, disinfected and baled; its emerging recycling sector remains small and is constrained by infrastructural and legislative barriers. The informal sector and informal disposal pathways are particularly relevant in destination markets, although the extent of these activities cannot be systematically quantified from the available evidence.

The principal difference from Tier 1 is therefore the greater exposure to downstream waste-management risks and weaker end-of-life traceability. In Poland, the principal concern is the lack of information on residual waste and the apparent reliance on incineration for material unsuitable for reuse. In Pakistan, residual textiles may enter landfill, mixed municipal waste, open dumping or informal burning. In Togo, limited waste-management and recycling infrastructure contributes to dumping, landfill and open-air burning. In Ukraine, more than 90% of municipal waste is disposed of in landfills and there is no comprehensive national system governing textile waste management. India has more developed recycling infrastructure, but traceability is rapidly lost once imported materials are mixed with domestic textile waste streams. Across Tier 2, there is also limited visibility of the ultimate fate of textiles after resale, re-export or processing.

Overall, the research suggests that Tier 2 countries derive significant economic and social benefits from the used-textile trade, including affordable clothing, employment, reuse, redistribution and recycling. However, the environmental risks are greater where low-value or non-reusable material enters countries with limited recycling and waste-management infrastructure. No evidence was identified that Nordic textiles create disproportionate environmental or social challenges compared with other European-origin

textiles. The main challenges are instead associated with limited traceability, inconsistent quality, inadequate distinction between reusable textiles and waste, insufficient recycling capacity, informal disposal and limited monitoring of end-of-life outcomes. Improvements in customs classification, data collection, supply-chain traceability, textile waste management, recycling infrastructure and regulatory frameworks would increase the sustainability of imported used-textile management.

2.2.3.3 Summary

Overall, the findings broadly support the assumptions underpinning the three hypotheses. The analysis confirms that Poland, Lithuania and, to a lesser extent, Germany receive substantial volumes of used textiles from the Nordic countries and function as important sorting, processing and redistribution hubs within the wider international used-textile trade. The evidence from Poland and Lithuania is particularly strong, demonstrating significant Nordic import volumes alongside substantial sorting capacity and high levels of re-export to markets in Europe, Africa, Asia and the Middle East. The research also provides evidence of onward flows from these Tier 1 countries to Tier 2 countries, including Ukraine, Pakistan, Togo and India, supporting the assumption that Nordic textiles may reach these markets through intermediary countries and more complex trade routes. However, the available trade data cannot reliably establish the proportion of textiles reaching Tier 2 countries that originated in the Nordic countries, as material is frequently consolidated, sorted and re-exported through international hubs, resulting in the loss of information on its original provenance. The findings therefore validate the overall structure of the hypothesised trade network, but indicate that it should be understood as a complex, multi-stage and interconnected system rather than a simple linear Nordic – Tier 1 – Tier 2 pathway. The principal limitation is consequently not a lack of evidence for international redistribution, but the limited traceability of Nordic-origin textiles once they enter wider European and global trading networks.

2.2.3.4 Challenges and Data Gaps

Across the countries reviewed, the principal challenge is limited transparency and traceability across international used-textile value chains. Data on textile imports, sorting, reuse, recycling and disposal are often highly aggregated, inconsistent between statistical sources, or unavailable due to commercial confidentiality, making it difficult to accurately track material flows or determine the original country of collection, once textiles have passed through European sorting and trading hubs. This is particularly relevant to Nordic exports, which are frequently consolidated with textiles from other countries before onward shipment. As a result, there is limited visibility of the proportion of Nordic-origin textiles that are reused, recycled, re-exported or ultimately become waste. This lack of end-to-end traceability is compounded by gaps in customs classifications, particularly where reusable textiles and textile waste are recorded under the same categories, and by limited monitoring of humanitarian or other informal flows.

A second major challenge is the management of lower-quality and non-reusable textiles once they reach destination markets. While countries such as Germany, Poland and Lithuania have substantial sorting, reuse and, increasingly, recycling capacity, lower-value fractions are often exported onwards to markets where waste-management and recycling infrastructure is much less developed. In Ukraine, Pakistan and Togo, limited domestic recycling capacity, regulatory barriers and reliance on landfill, dumping or open burning increase the risk of environmental impacts from residual textiles. Even where recycling and recovery activities exist, these are often small-scale, predominantly mechanical and unable to absorb all residual material. The research also highlights wider market pressures, including competition with domestic textile production and increasingly low-cost new clothing, as well as concerns over the quality, seasonal suitability and economic value of imported textiles.

Overall, the challenges identified appear to arise primarily from structural weaknesses in the global used-textile trade and waste-management system rather than from Nordic exports specifically, with the key issues being traceability, transparency, management of residual waste, uneven recycling capacity and limited visibility of textiles' ultimate end-of-life fate.

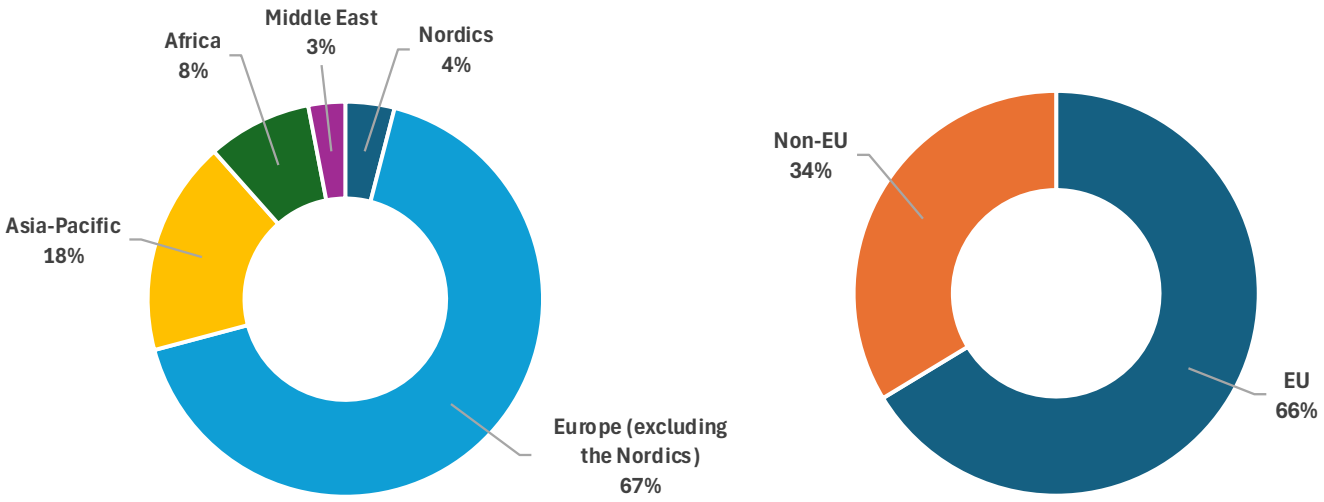
2.2.4 Track and Trace

The track and trace exercise was undertaken to test the wider study's desk-based assessment of how discarded clothing moves from the Nordic region into domestic and international markets. A total of 200 digital trackers were deployed across Denmark, Finland, Iceland, Norway and Sweden. The supplied results assign each tracker an origin country, a clothing category, quality grade and a recorded destination country / region. A tracker's last recorded country may indicate where the associated clothing was located at a particular point in the tracking period, but the supplied evidence does not establish whether the garment was subsequently reused, resold, sorted, recycled, stored, disposed of or moved onward.

2.2.4.1 Overall Distribution of Tracked Clothing Items

Figure 2-6 shows the final destination of items tracked in the track and trace exercise. Europe was the largest recorded destination region, accounting for 71% of the tracked sample. Within this, the Nordics accounted for 4% of endpoints. Asia-Pacific was the second-largest destination region, with 18%. Africa accounted for 9%, while the Middle East accounted for 3%. Expressed in EU terms, 66% had a recorded endpoint in the EU or EEA, while 34% had a recorded endpoint outside of the EU or EEA.

Figure 2-6: Regional distributions of tracker endpoints (%)



The 200 trackers recorded destinations in 23 countries. The 54 trackers not received in the five main destination countries were distributed across 18 countries, showing that there is a long tail of less frequent destinations. *Table 2-6* shows the five largest destination countries, which accounted for 72% of the trackers.

Table 2-6: Top five end destinations

End destination	Number of trackers	Share of total trackers
Poland	59	30%
Slovakia	35	18%
Pakistan	28	14%

Estonia	11	6%
Bulgaria	10	5%
Total	**143**	**72%**

The predominance of EU endpoints shows that the environmental management of Nordic discarded clothing is not solely an issue associated with long-distance exports to other world regions. Within the tracked sample, most endpoints remained within Europe, meaning that traceability, end-market verification and assurance of appropriate treatment within European value chains are central to understanding environmental outcomes. However, some recorded European endpoints may reflect the point at which a tracker was removed during professional sorting rather than the end of the associated garment's journey. Removing foreign objects from clothing is a routine part of sorting and quality-control processes. A sorter encountering a tracker may therefore have detached it before the garment was transferred to a thrift store, wholesale customer or onward export market. In these cases, the tracker would remain at the sorting facility or cease transmitting with the garment, meaning that the recorded data would not reveal its complete onward journey, although measures were taken to reduce this risk (see Section 2.1.3). At the same time, the 67 trackers that were received in countries outside Europe, representing 34% of the sample, demonstrate that oversight may need to extend across more geographically distant markets.

The grade of clothing appears to affect the destination, although European countries are the most common destination for all grades. Descriptively, a higher percentage of grade A and B items remained in Europe than items in other grades, while the percentage of grade C and D items with endpoints outside Europe was somewhat higher (see Table 2-7). However, only the association for grade D was statistically significant: grade D items were more likely to end outside of Europe than items in grades A to C ($p = 0.004$).

Table 2-7: Percentage of trackers ending their journeys in European and non-European countries, by grade

Grade	% trackers in European countries	% trackers in non-European countries
A	76%	24%
B	83%	17%
C	67%	33%
D	44%	56%

Country of origin was also correlated with endpoint (see Table 2-8). Items originating in Iceland ($p = 0.006$) and Sweden ($p = 0.017$) had a higher probability of remaining in Europe than items originating in the other Nordic countries. Items originating in Finland had a higher probability of ending up outside Europe ($p < 0.001$) than items from other Nordic countries. These results may reflect differences in the collection systems, export partners and trade routes used in each country. These results should be

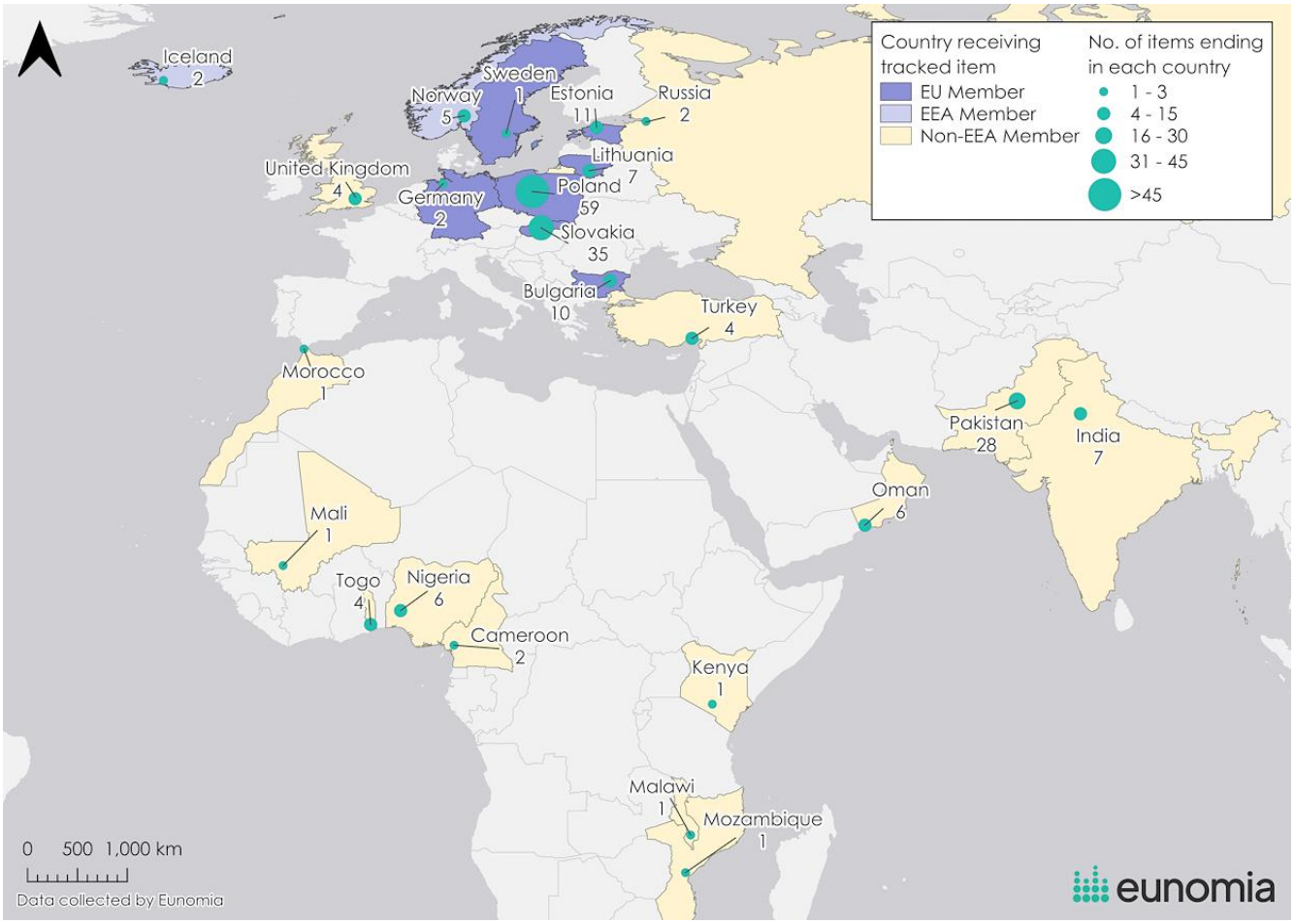
interpreted within the limits of the 200-item sample and should not be treated as estimates of the destination profile of all used textiles exported by individual Nordic countries.

Table 2-8: Percentage of trackers ending their journeys in European and non-European countries, by origin country

Origin country	% trackers in European countries	% trackers in non-European countries
Denmark	69%	31%
Finland	43%	58%
Iceland	97%	3%
Norway	74%	26%
Sweden	90%	10%

At destination country level (see Figure 2-7), Poland was the largest recorded endpoint, with 59 trackers, or 30% of the sample. Slovakia was the second-largest, with 35 trackers, or 18%, followed by Pakistan with 28 trackers, or 14%. Estonia accounted for 11 trackers, or 6% and Bulgaria received 10 trackers, or 5%. This concentration is environmentally relevant because it identifies a limited number of countries in which improved end-market information could substantially increase visibility over exports from the Nordics and their ultimate destination. In particular, facility-level investigation in the principal destination countries could clarify what activities occurred after arrival and whether clothing remained in use, underwent sorting or recycling, entered storage, moved onward or became waste.

Figure 2-7: Final location of 200 trackers, scaled by number of devices in each country



The results do not establish that any particular destination was associated with poor environmental performance. Rather, they show where better monitoring verification could have the greatest impact on understanding of environmental outcomes.

Beyond the main recipients, the distribution was geographically dispersed. This dispersion creates a different environmental governance challenge: assurance systems may need to address numerous smaller destination flows alongside the larger, concentrated pathways. However, the limited sample means that countries represented by only one or two trackers should not be inferred to be substantial Nordic textile destinations without supporting trade-flow evidence.

2.2.4.2 Textile Journeys

The tracker-level journey records provide evidence that a proportion of the tracked clothing did not move directly from a Nordic country to a single end market. Instead, the recorded journeys include movements through ports, sorting and wholesale facilities, second-hand clothing shops, logistics centres in intermediate destinations.

Poland, Bulgaria, Slovakia, Lithuania and Estonia appear repeatedly as intermediate or processing locations. For example, several trackers originating in Norway were recorded moving to sorting or wholesale facilities in Welnica, Poland. Some remained in Poland, while others were subsequently recorded in Cameroon and the United Kingdom. Similarly, trackers from Norway and Denmark were recorded passing through Polish wholesalers, second-hand shops, warehouses or ports before moving to Pakistan, Nigeria, Togo, Morocco or Mali.

Several tracker journeys illustrate this pattern particularly clearly.

- Tag 1, a grade C men's jacket originating in Norway, was recorded moving from Norway to a used clothing wholesaler in Wloclawek, Poland, before reaching an industrial trading estate in Karachi, Pakistan and going offline. The eventual use or disposal of the garment in Pakistan was not established; however, the story is clear. Having been sorted in Poland, the item was re-exported to find a second life outside of Europe.
- Tag 48, a grade C knitted top originating in Denmark, was recorded at the same used clothing wholesaler in Wloclawek, Poland, before reaching a second-hand clothing market in Lagos, Nigeria.
- Tag 22, a grade A jacket from Norway, was recorded in Poland and subsequently Lithuania before reaching Togo.

These observations add important detail to the country-level endpoint analysis. While the records may not enable identification of the type of processing that occurs at every intermediate stop, they tend to confirm the hypothesis that countries identified in trade data as an export destination may function as a sorting, consolidation, retail or re-export location rather than the place in which the clothing is ultimately used or discarded. Conventional bilateral trade statistics therefore capture only one stage of a longer chain. The tracker data do not provide a complete account of all transactions or transport legs, but they show that the movement of used clothing often has many stages beyond the first identifiable destination.

The data also indicate that transit did not always follow a simple progression from northern Europe to one destination region.

- Tag 8, a grade A jacket originating in Norway, was recorded moving through Lithuania and Belgium before reaching Benin. The item then moved across the border to Nigeria before returning to Benin.
- Tag 74, a grade C top from Denmark, was recorded moving from Poland to Bulgaria and subsequently to Norway.
- Tag 2, a grade B jacket from Norway, was recorded in Bulgaria before returning to Norway.

The available evidence does not explain the commercial transactions or decisions underlying these movements, but the patterns demonstrate that clothing can be redirected, returned or redistributed after entering an international chain.

The journey records indicate that used clothing shops were another intermediate stage rather than always a confirmed end use. Some items were recorded moving between multiple shops.

- Tag 42 moved between second-hand clothing shops in Wloclawek and Zdunska Wola before returning to a wholsesaler in Wloclawek, Poland.
- Tag 57 moved between shops in Wloclawek and Lask before returning to Wloclawek, Poland.
- Tag 68 moved between shops in Inowroclaw and Wloclawek, Poland.

Other items remained in second hand shops for several months, and appeared to remain unsold at the end of the tracking period, including tags 21 (grade A) and 72 (grade C) in Poland. These observations suggest that placement in a second-hand shop does not confirm reuse by a consumer. An unsold garment may be transferred, exported again, recycled, discarded or remain in storage, but the supplied data do not consistently establish which of these outcomes followed.

The records also highlight the relationship between garment condition and value-chain pathways, without establishing a causal relationship. Several grade D garments with holes, extensive wear or stains were recorded in used-clothing markets or storage areas in Pakistan. However, some Grade A garments were also recorded at uncertain locations or remained within sorting and wholesale chains in Europe. Conversely, lower-grade garments travelled to retail or commercial locations outside Europe. The data therefore do not support a simple assumption that grade alone determines where, or even whether, an item is reused or discarded.

From an environmental perspective, the use of European countries as intermediate sorting locations has both potential benefits and risks. Sorting can support more efficient allocation of clothing by separating items according to condition, quality and suitability for different reuse or recycling markets. Where this process directs reusable garments towards viable end markets and non-reusable textiles towards appropriate recycling or treatment, it may support product-life extension and more effective resource recovery. However, the tracking data do not establish that the observed sorting activities consistently achieved these outcomes.

Sorting may also result in clothing being redistributed several times before reaching its recorded endpoint, either within Europe or elsewhere. These additional movements increase transport and handling impacts. More importantly, each transfer between sorters, wholesalers, retailers, ports and downstream traders may reduce visibility over the garment's ultimate destination and management route. Responsibility for verifying whether clothing is reused, recycled or discarded may consequently become divided across several organisations and jurisdictions.

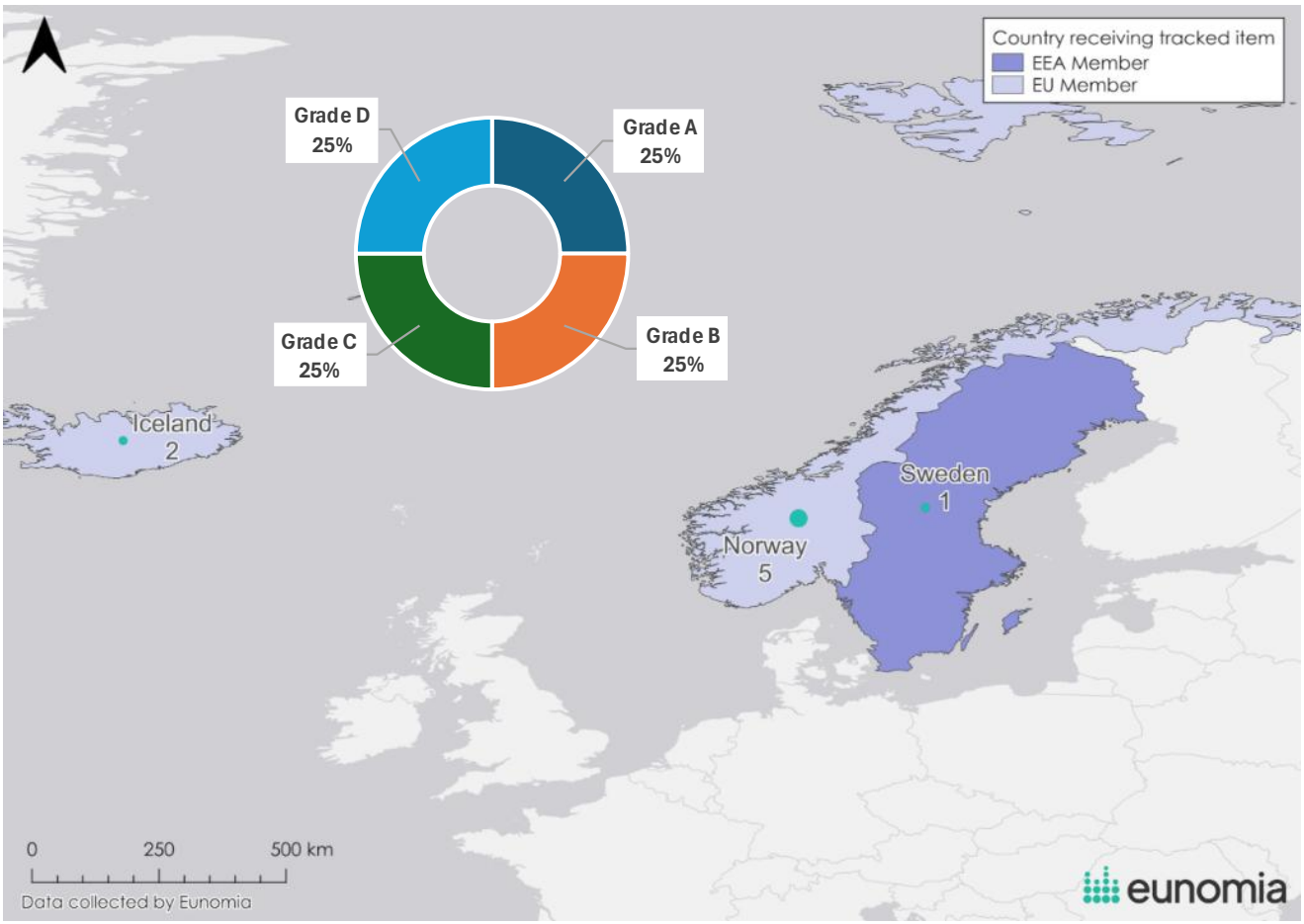
The environmental performance of an intermediate sorting stage should therefore not be assessed solely by the volume of clothing transferred for onward sale or export. Effective oversight requires evidence that sorting decisions are linked to garment quality, appropriate end-market demand and lawful downstream management. In particular, transfer to a European sorting facility should not automatically be considered to have been reused or recycled, as clothing may subsequently be re-sorted, exported, remain unsold or enter a waste-management pathway.

2.2.4.3 End Destinations

The Nordics

Eight trackers, or 4% of the sample, had recorded endpoints within the Nordic region: five in Norway, two in Iceland and one in Sweden. The distribution of items ending their tracked journey in each Nordic country is shown in Figure 2-8, including the split by grade of all items ending in the Nordic region.

Figure 2-8: Map of the Nordics showing quantity of clothes ending their journey in each country (scaled by number of items) and split of grades for all of the Nordics



Of the five trackers recorded in Norway, two appeared to have been sent for recycling, comprising one grade A and one grade B item. Of the remaining three, one grade A item was recorded at an energy-from-waste (EfW) facility, whilst the other two, graded B and C, were exported to Bulgaria before returning to Norway, but their final management routes could not be determined.

Of the two trackers recorded in Iceland, one grade C item was located in a residential area. This may indicate that the item entered a second-use pathway, although the tracking data do not confirm this outcome. The other, a grade D item, remained at its original location, but its location data did not update after April. The grade D item recorded in Sweden appeared to have been sent for recycling or EfW, although the location data does not allow us to distinguish between these treatment routes.

From an environmental perspective, these findings indicate that textiles remaining within, or returning to, the Nordic region do not necessarily enter reuse or recycling pathways. The limited observations also show no clear relationship between item grade and recorded outcome. The items graded A, B and D appeared to enter recycling or EfW pathways, while one grade C item may have entered second use. Given the small number of observations and uncertainty surrounding several outcomes, no broader conclusion can be drawn regarding the relationship between grade and final management route in the Nordics.

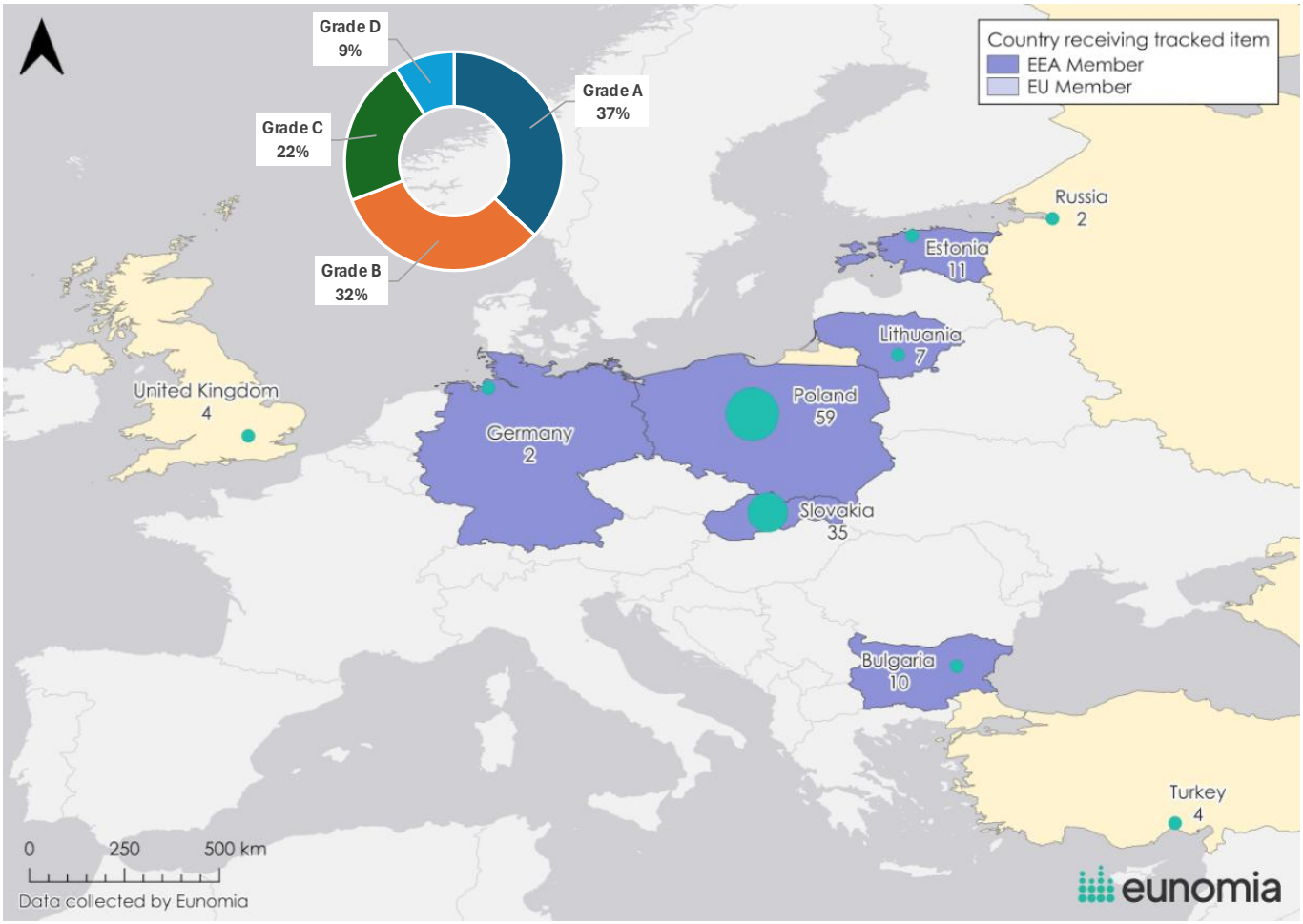
The findings may also point to variation in how clothing grades are assigned. An item that is new and retains its original tags may be considered grade A based on its physical condition. However, factors such as material quality, fashionability and the availability of a viable domestic end market may affect how its reuse potential is assessed. Together with the uncertainty in several tracker outcomes, these findings underline the need for:

- Clearer standardisation of the criteria used to classify clothing quality, condition and reuse potential; and
- Stronger outcome verification that determines the end use of varying grades of clothing.

Europe (excluding the Nordics)

A total of 133 trackers, representing 67% of the sample, were classified as having endpoints in European countries outside the Nordic region. Poland was the largest destination, accounting for 59 trackers, followed by Slovakia with 35, Bulgaria with 10, Estonia with 11, Lithuania with seven, Türkiye with four, and the United Kingdom, Germany and Russia with two each. However, this total includes trackers for which the location history was incomplete or unavailable (see Section 2.2.4.5 for data gaps and uncertainties); consequently, not every classified endpoint could be verified from a complete journey record. The figures should therefore be interpreted as the distribution of destinations recorded in the aggregate dataset, rather than as independently verified final endpoints.

Figure 2-9: Map of Europe showing quantity of clothes ending their journey in each country (scaled by number of items) and split of grades for all of Europe (note, this excludes the Nordics)



The trackers assigned to European endpoints outside the Nordic region covered all four quality grades. Of the trackers in this regional group, 37% were grade A, 32% were grade B, 22% were grade C and 9% were grade D. Grades A and B together accounted for 69% of the non-Nordic European endpoint group.

The predominance of higher-grade items may indicate that clothing considered to have greater reuse potential was more likely to remain within European second-hand markets. If these items entered

continued use, retaining them within Europe could support product-life extension while avoiding onward transport to more distant markets. However, a European endpoint does not confirm a beneficial environmental outcome. Higher-grade garments were also recorded at sorting, wholesale and uncertain locations, where the data do not establish whether they were subsequently sold, reused, exported, recycled or discarded. Some lower-grade garments were recorded at retail or residential locations, while others were associated with recycling or disposal-related locations. The findings therefore suggest a possible relationship between higher grade and retention within European value chains, but do not demonstrate a consistent relationship between grade and final management outcome. These results underline the need for stronger verification of outcomes at European sorting, wholesale and retail locations.

Some clothing reached or was recorded near recycling and landfill facilities in Europe. Six tags were located in landfill locations, including one grade A item in Poland (see Figure 2-11 (a)), four items graded B and C in Slovakia (see Figure 2-11 (b)) and one grade B item Estonia. Two tags appeared to have entered recycling facilities in Slovakia (grade C) and Poland (grade B). These findings are environmentally important because they may indicate that some tracked garments entered waste-management pathways rather than reuse markets.

Figure 2-11: Grade A item recorded at a landfill in Poland



Tag 12

- **Grade A**
- **Women's blouse**
- **Originating from Norway**
- **Disposed of in Polish landfill**

Figure 2-11: Grade B item recorded at a landfill in Slovakia



Tag 150

- **Grade B**
- **Men's trousers**
- **Originating from Sweden**
- **Disposed of in Slovakian landfill**

Among the trackers ending in Poland, the findings indicate a range of possible outcomes beyond disposal. Trackers were last recorded at second-hand clothing shops, wholesalers, sorting facilities, ports, logistics locations, residential areas and a furniture factory. Several items remained at second-hand shops or appeared to have gone unsold and were sent back to wholesalers, while others ended at residential locations that may be consistent with purchase or second use. However, neither placement in a shop nor a residential endpoint confirms that the clothing was reused. Similarly, the presence of a tracker at or near a recycling, industrial or disposal location does not establish the treatment applied to the associated garment without supporting verification.

The trackers ending in Slovakia were recorded at sorting facilities and residential locations, as well as the clothing recycler and landfill. A substantial number had not provided an updated location since March or April. Consequently, some Slovakian endpoints may represent the last available transmission rather than the final management outcome. The available evidence suggests that the tracked items entered a mixture of sorting, potential reuse, recycling and possible disposal pathways, but many outcomes remain uncertain.

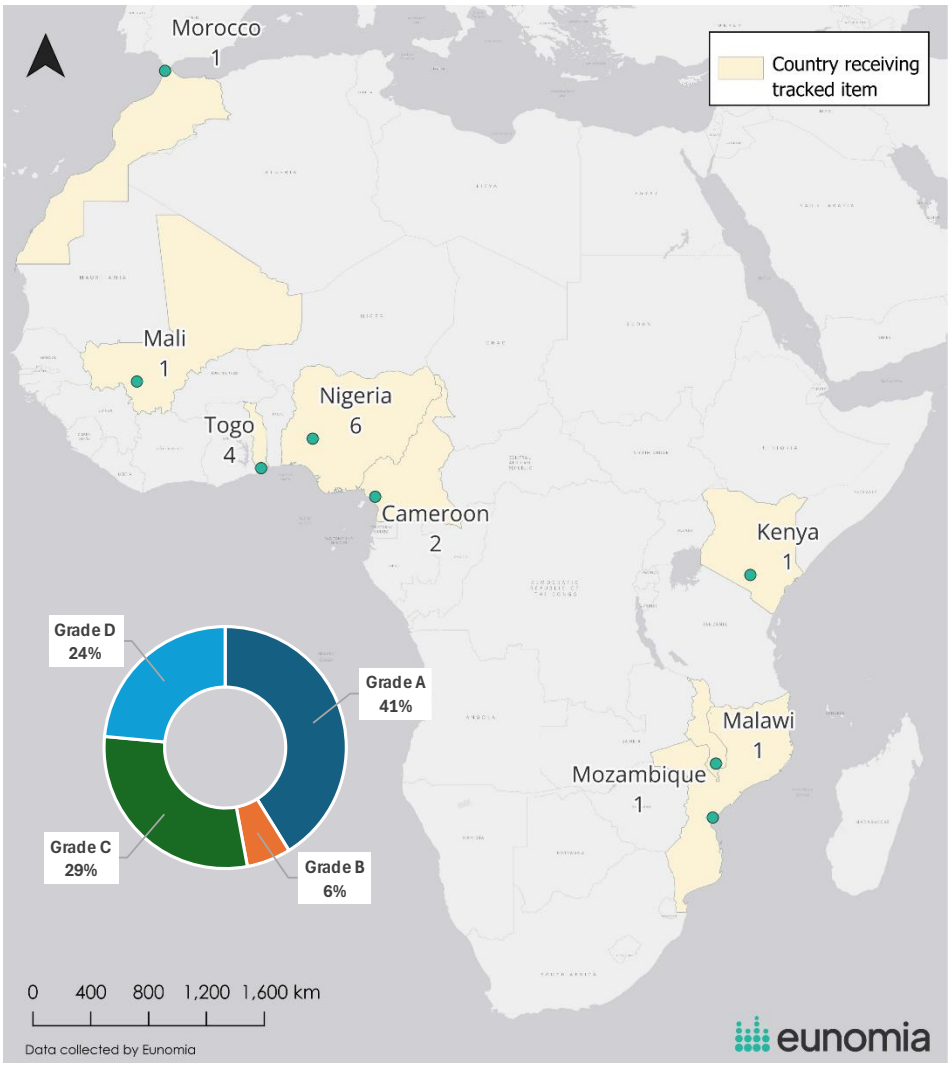
Trackers ending in Bulgaria were commonly associated with sorting facilities or locations for which the subsequent activity could not be determined. In Estonia, recorded endpoints included sorting facilities and residential areas. Trackers ending in Lithuania frequently stopped transmitting after arrival, including several for which no signal had been received since February. The records for Germany and Russia and similarly identify endpoint countries but do not consistently confirm the subsequent use or treatment of the garments. The records for the United Kingdom and Türkiye identify ports as the last tracked location,

indicating that these are likely to be transit countries and the items did not reach their true end destinations over the six month duration of this study.

Africa

Fifteen trackers, representing 9% of the sample, were classified as having recorded endpoints in Africa. These comprised six trackers in Nigeria, four in Togo, two in Cameroon and one each in Kenya, Malawi, Mozambique, Mali and Morocco. The results were therefore geographically dispersed, with most African destination countries represented by only one tracker. The tracker coordinates offer limited insight into the subsequent management of garments at their recorded African endpoints. In many cases, limited Google Maps coverage of businesses and residential areas prevented the activity at, or near, the recorded location from being reliably identified. The distribution of items ending their tracked journey in each African country is shown in Figure 2-12, including the split by grade of all items ending in Africa.

Figure 2-12: Map of Africa showing quantity of clothes ending their journey in each country (scaled by number of items) and split of grades for all of Africa



In Nigeria, four trackers (grades A-D) ended their recorded journeys at second-hand clothing markets in Lagos and Kano. The available journey records indicate that the items had been sorted in Poland and transported through Benin before entering Nigeria. One item was recorded in a residential area, which may indicate that the garment entered second use. However, the location evidence does not confirm that the item was purchased or worn.

These movements are particularly significant because second-hand clothing is listed as an import-prohibited product under Nigeria's customs regime. The applicable framework is the Nigeria Customs Service Act 2023 (Act No. 35 of 2023),[37] which replaced the former Customs and Excise Management Act and provides the statutory basis for customs controls, restrictions and enforcement.[38] The recorded movement of used clothing through Benin before its arrival in Nigerian second-hand markets may therefore indicate a route that bypassed Nigeria's formal import controls.

However, the tracker evidence alone does not establish the customs status of the consignments, the border crossing used, the documentation submitted or the parties responsible. It should therefore be treated as evidence of a potentially non-compliant trade pathway, rather than proof of misconduct.

The findings nevertheless raise important questions about the responsibilities of organisations throughout the value chain. Collectors, sorters, exporters, brokers, carriers, importers and downstream traders may feel that their responsibility ends when clothing is transferred to the next commercial operator or reaches the first declared destination, but their choice of commercial partner may lead to sub-optimal outcomes. Although the precise legal obligations of each party depend on its role, contracts and the jurisdictions involved, appropriate due diligence should include checking whether the goods may lawfully be imported into the intended destination and whether any planned onward trade complies with the requirements of subsequent receiving countries.

From an environmental perspective, potentially non-compliant routes may weaken traceability and accountability for the final management of exported textiles. If clothing moves outside formal customs and reporting systems, it may be more difficult to establish whether garments are suitable for reuse, whether they were sold, and how unsold or unusable items were managed. This does not demonstrate that environmental harm occurred in Nigeria, but it highlights the importance of taking steps to ensure compliant outcomes, including how any waste arising at the end of the chain is managed.

The four trackers ending in Togo (grades A, C, C and D) had uncertain final outcomes. They each remained in known sorting countries (Poland, Bulgaria and Slovakia) for a period of time, before being transported to Togo. For the remaining African destinations, endpoint descriptions included residential, commercial, port or otherwise unspecified locations. These locations may be consistent with trade, storage or possible use, but the evidence does not confirm what activity took place.

The African endpoint group included seven grade A items, one grade B item, four grade C items and three grade D items. The presence of seven grade A items suggested that the clothing tracked to Africa included a substantial share of higher-grade garments, rather than being limited to lower-grade items. This indicates that sorting centres in Eastern Europe may be using market knowledge to direct different grades of textiles towards markets where there is demand for them, rather than simply sending lower-quality textiles to Africa. At the same time, several lower grade items were described as worn, stained or damaged, including items that ended their tracking journeys in Malawi, Kenya and Cameroon. Given the small and dispersed sample, caution should be used in inferring any broader conclusions regarding the relationship between garment grade, destination country and final outcome.

The principal finding is the limited visibility of outcomes after the trackers reached African destinations. The data indicate that clothing entered second-hand trading, commercial or potentially residential contexts, but generally do not establish whether it was reused, remained in storage, was traded onward or became waste. However, no evidence directly documents dumping, environmental leakage or disposal at the African endpoints.

The absence of confirmed disposal does not establish that all items achieved successful reuse. An item entering a second-hand market may remain unsold or become waste at a later stage. Conversely, a

[37] WIPO (2023) *Nigeria Customs Service Act, 2023, Act No. 35 of 2023*. Available at: https://www.wipo.int/wipolex/en/legislation/details/22694
[38] International Trade Administration (2023) *Prohibited and Restricted Imports*. Available at: https://www.trade.gov/country-commercial-guides/nigeria-prohibited-and-restricted-imports

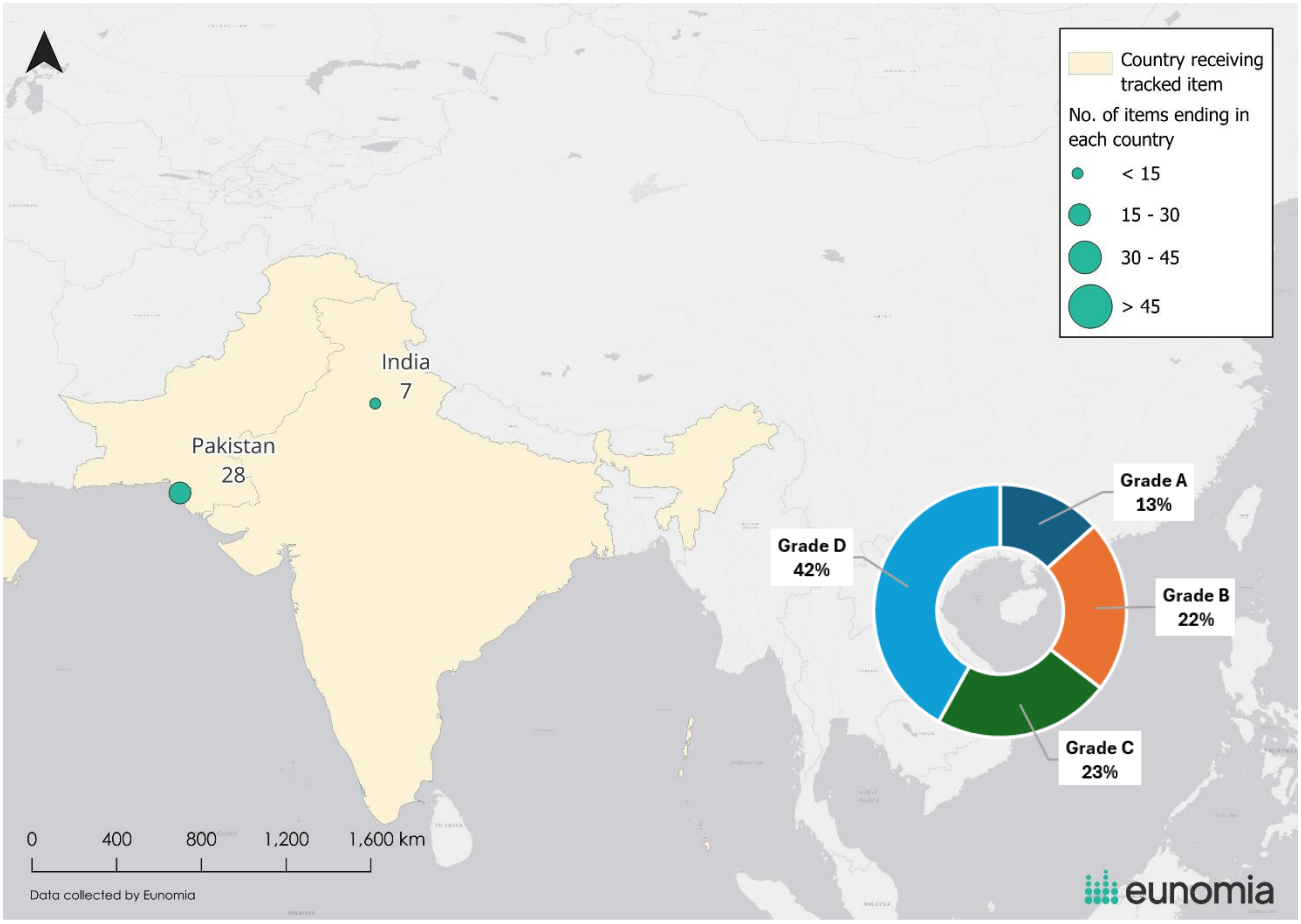
tracker ending in a residential or commercial area may have been associated with continued use, but this cannot be verified from location alone. These findings underline the need for:

- Stronger verification of whether garments reaching African endpoint markets are sold and reused.

Asia-Pacific

35 trackers, representing 18% of the sample, were classified as having recorded endpoints in the Asia-Pacific region. Pakistan was the principal destination, accounting for 28 trackers, while seven were recorded in India. Pakistan therefore accounted for 14% of the tracked sample and approximately 48% of the 58 trackers with endpoints outside Europe. The distribution of items ending their tracked journey in each Asia-Pacific country is shown in Figure 2-13, including the split of items by grade.

Figure 2-13: Map of Asia-Pacific showing quantity of clothes ending their journey in each country (scaled by number of items) and split of grades for all of Asia-Pacific



Within Pakistan, several trackers ended in or near known used-clothing markets and commercial areas. Other endpoints were recorded near textile-related businesses, including a textile export centre and a fabric-dyeing specialist. These records provide evidence that part of the tracked sample reached commercial textile or used-clothing networks. However, they do not establish whether the individual garments were sold, reused, processed, stored or discarded. Journey tracking records were also incomplete, as several items originating from Finland had missing data before the first available location in Pakistan.

The seven trackers ending in India were associated with textile traders, warehouse-type buildings or possible residential locations. These endpoints may indicate that the garments entered trading or storage

networks, and possible resale or continued use. The limited number of observations prevents broader conclusions regarding outcomes in India.

The Asia-Pacific endpoint group comprised 13% grade A items, 22% grade B items, 23% grade C items and 42% grade D items (see Figure 2-13). Several grade D garments ending in Pakistan were described as heavily worn, stained, damaged or overwashed and were recorded in used-clothing market or storage contexts. This may indicate that garments in poor condition remained within commercial trading networks, although the data do not establish whether they subsequently found a second use, were recycled or were sent for disposal.

The results reveal a substantial gap between evidence that a garment entered a used-clothing market and evidence that it was ultimately reused. The concentration of endpoints in Pakistani markets, shops and storage locations indicates intended or possible resale, but successful second use cannot be assumed. If garments were unsuitable for the receiving market or remained unsold, waste could have arisen at the endpoint, although the supplied data do not establish that this occurred.

The concentration of 28 trackers in Pakistan makes the country an important priority for further end-market research. Such investigation should distinguish between active retail, storage, textile processing, confirmed purchase, onward trade and disposal. These findings underline the need for:

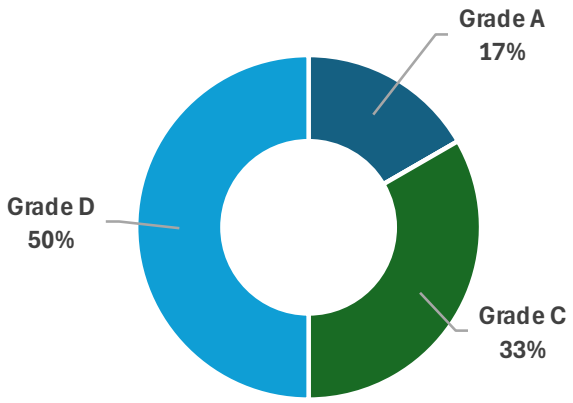
- Verification of whether garments reaching used-clothing markets and shops are sold and enter continued use; and
- Closer examination of the outcomes of damaged and lower-grade clothing in receiving markets.

Middle East

Six trackers, representing 3% of the sample, were classified as having recorded endpoints in the Middle East. All six originated in Finland and were recorded in Oman. The findings therefore relate to one geographically concentrated pathway and should not be treated as representative of textile movements from the Nordic region to the Middle East more broadly.

The Middle Eastern endpoint group included one grade A item, two grade C items and three grade D items. The grade D garments were described as worn, faded, stained, damaged or overused. Nevertheless, the set is too small to establish a relationship between quality grade and destination or outcome. The data also do not demonstrate that lower-grade garments were discarded in Oman. The split by grade of all items ending in the Middle East is shown in Figure 2-14 below.

Figure 2-14: Split of grades for all clothes ending their tracking journey in the Middle East*



**Note: all trackers that ended their journeys in the Middle East were located in Oman*

Almost all of the trackers ending in Oman were recorded at or near a used clothing wholesaler and a port. This may indicate that the garments entered a textile trading, storage or redistribution location. However, the available evidence does not establish the activities undertaken at the site or whether the garments were subsequently sold, reused, processed, discarded or exported.

One tracker ended at a possible residential area, but the available information was insufficient to determine whether the item entered second use. Another had not provided location data since April and also had missing earlier tracking data. These limitations mean that the recorded Oman endpoints may represent the last available observations rather than confirmed final outcomes.

The concentration of trackers near a textile trading and port location suggests that some Oman endpoints may have represented a commercial or logistical stage rather than confirmed use or treatment. If garments were subsequently redistributed, the environmental outcome may have occurred elsewhere. However, no onward movement should be assumed where it was not recorded.

2.2.4.4 Illustrative Tracker Journeys

The preceding sections describe the (often lengthy) journeys of individual trackers, including movements through sorting facilities, wholesalers, shops, warehouses and ports. Mapping selected journeys provides a clearer illustration of the distances travelled by Nordic used-textile exports, the role played by intermediary countries and the routes taken by garments on their way to their last recorded locations.

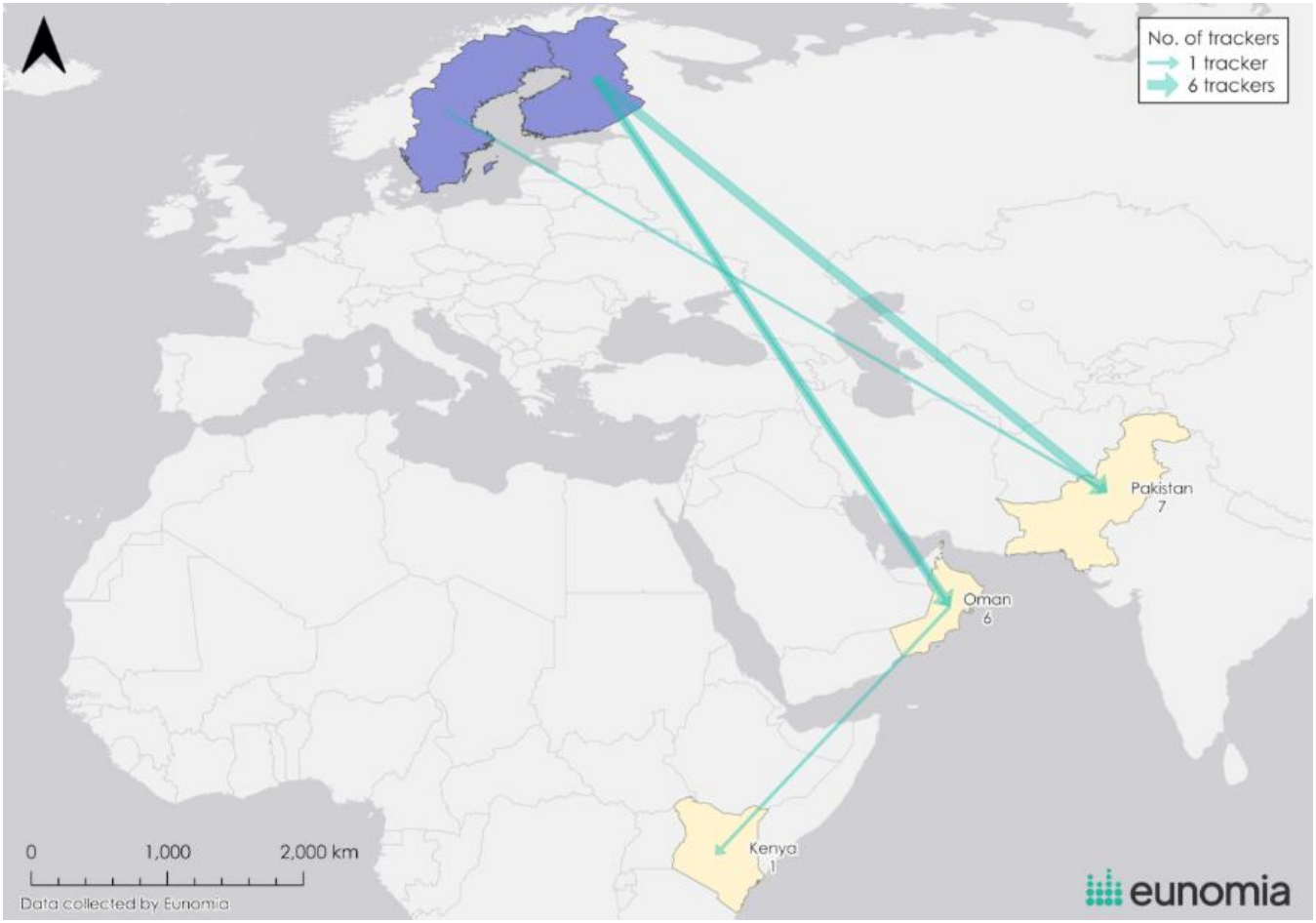
The three maps presented in this section highlight different aspects of these movements:

- The first shows trackers that travelled from the Nordic region to countries outside Europe, without a recorded intermediate stop at a European sorting or redistribution location.
- The second focuses on Grade D items and shows the different pathways they follow: some remained within Europe, some passed through European countries before leaving Europe, and others travelled beyond Europe without a recorded European intermediate stage.
- The third shows two garments that moved through European markets before returning to the Nordic region, illustrating that international used-textile journeys were not always linear and did not necessarily result in a stable end market outside the country or region of origin.

Direct movements to countries outside Europe

Figure 2-15 shows 14 trackers that travelled from the Nordic region to countries outside Europe without a recorded intermediate stop in another European country. The arrows are scaled according to the number of trackers following each route.

Figure 2-15: Map showing direct movement of trackers to countries outside Europe



The mapped journeys were strongly concentrated among items originating in Finland. Six trackers travelled from Finland directly to Oman, while a further tracker travelled from Finland to Oman and subsequently continued to Kenya (see Figure 2-17a). Six trackers travelled directly from Finland to Pakistan (see example of Grade D item in Figure 2-17b), while one tracker travelled from Sweden to Pakistan. Oman and Pakistan were therefore the principal first recorded destinations outside Europe shown on the map.

Figure 2-17a: Grade D item exported to Oman and re-exported to Kenya



Tag 93

- **Grade D**
- **Men's jeans**
- **Originating from Finland**
- **Stained and worn out**

Figure 2-17b: Grade D item exported to Pakistan



Tag 110

- **Grade D**
- **Women's blouse**
- **Originating from Finland**
- **Heavily stained**

These movements differ from the multi-stage journeys described elsewhere in the report, in which garments identifiably passed through sorting or wholesale facilities in European countries. The routes shown in Figure 2-15 may have undergone screening, grading or sorting within Finland or Sweden; or they may have undergone sorting during brief residences in ports, warehouses or logistics facilities. However, there is no evidence from the tracker data that this occurred.

Pakistan received six trackers directly from Finland and one directly from Sweden. Elsewhere in the tracker data, Pakistan also received garments that appear to have been sorted in Europe, including in Poland, Bulgaria, Lithuania and Estonia, showing that Nordic garments entered Pakistan through several different routes.

The direct route from Finland to Oman also accounted for six trackers, with one more passing through Oman before continuing to Kenya. This shows that Oman is not necessarily a final destination for used textiles. The wider analysis found that trackers in Oman were commonly recorded near a used-clothing wholesaler and port. These locations may be consistent with sorting, wholesale, storage or onward redistribution, although the tracking evidence does not establish the activity undertaken there or show whether the garments remaining in Oman were ultimately reused, processed, stored or discarded.

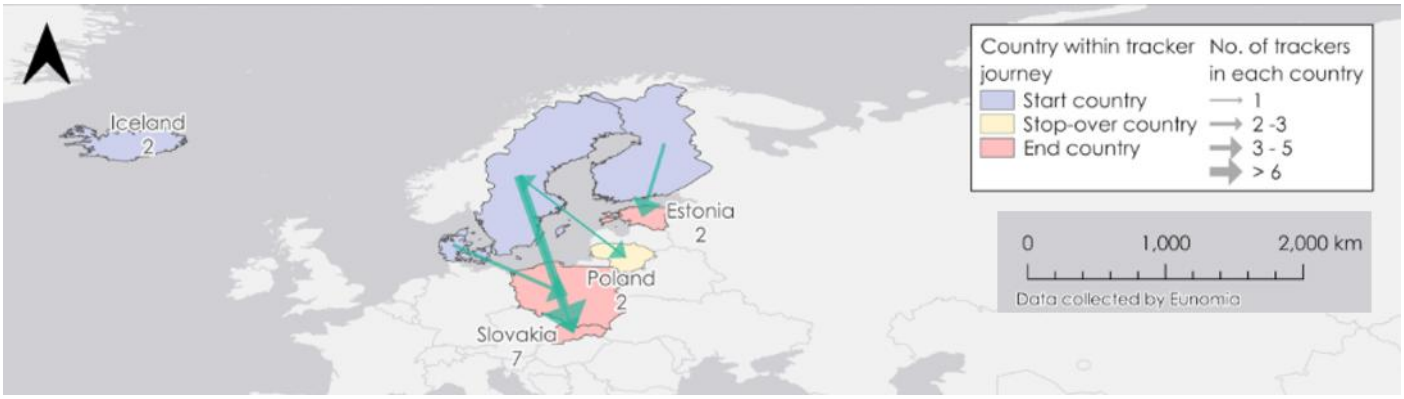
The routes shown in the map are relevant to understanding where decisions about the suitability of textiles for reuse or recovery were made. Sorting is normally the point at which garments suitable for reuse are distinguished from lower-grade fractions requiring repair, recycling or disposal. Where garments travelled outside Europe without a recorded European sorting stage, the detailed sorting may have occurred in the Nordic country of origin or after arrival in the receiving country. The tracker data do not distinguish between these possibilities.

Destinations and pathways of Grade D items

Figure 2-18, Figure 2-21 and Figure 2-24 map the journeys of 32 items classified as Grade D. These garments did not follow a single route or converge in one type of destination. Instead, the map identifies three broad patterns: items that remained within Europe, items that passed through European countries before travelling outside Europe, and items that reached countries outside Europe without a recorded European intermediate stage.

Grade D items remaining in Europe

Figure 2-18: Map showing journeys of Grade D items remaining in Europe



Fourteen Grade D items had last recorded locations within Europe, including the Nordic region. Six items originating in Sweden were last recorded in Slovakia (see example in Figure 2-20a). A further Swedish item followed a more complex European journey, travelling from Sweden to Lithuania, returning to Sweden and subsequently continuing to Slovakia. Two Danish items were last recorded in Poland (see Figure 2-20b), while two Finnish items were last recorded in Estonia.

Two Grade D items originating in Iceland remained within the Nordic region and appeared to enter domestic disposal or other end-of-life pathways. These items provide a contrast with the Grade D garments exported to other European or more distant markets. They show that some lower-grade textiles were managed domestically rather than being sent abroad in search of a reuse, processing or treatment route.

Figure 2-20a: Grade D item remaining in Europe



Tag 126

- **Grade D**
- **Men's shorts**
- **Originating from Sweden**
- **Poor-quality material**

Figure 2-20b: Grade D item remaining in Europe



Tag 66

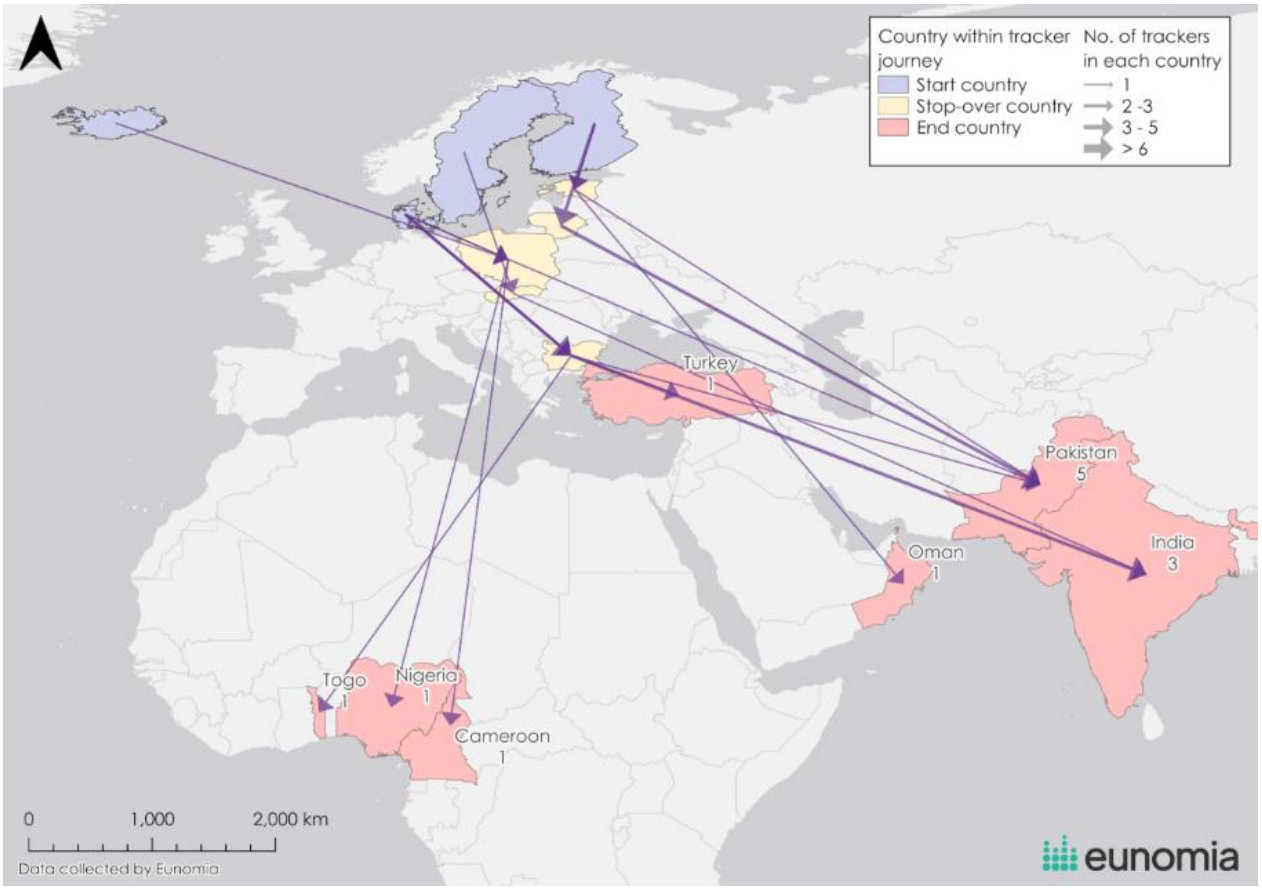
- **Grade D**
- **Women's dress**
- **Originating from Denmark**
- **Heavily stained**

The European endpoints demonstrate that Grade D items were not uniformly exported to more geographically distant markets. Poland, Estonia and particularly Slovakia were important destinations for lower-grade garments. The activities undertaken at these endpoints were not verified in every case. Some locations may have represented sorting, storage, resale, recycling or disposal, while others may simply have been the last location transmitted by the tracker.

The Grade D classification indicates that an item was assessed as being in relatively poor condition, but it does not by itself establish whether the garment was reusable or had become waste. The map therefore shows where these items travelled, rather than how they were ultimately managed.

Grade D items passing through European countries before leaving Europe

Figure 2-21: Map showing journeys of Grade D items passing through European countries before leaving Europe



Twelve Grade D items passed through at least one European country before reaching a recorded endpoint outside Europe. Bulgaria was an important intermediate country for garments originating in Denmark. Two items travelled from Denmark through Bulgaria to India (see example in Figure 2-23a), while other items continued from Bulgaria to Pakistan, Türkiye and Togo.

Poland performed a similar intermediary role. One Danish item travelled through Poland before reaching Nigeria (see Figure 2-23b), another continued through Poland to Pakistan, and an Icelandic item

Figure 2-23a: Grade D item exported to Bulgaria and re-exported to India



Tag 71

- **Grade D**
- **Women's skirt**
- **Originating from Denmark**
- **Heavily stained**

Figure 2-23b: Grade D item exported to Poland and re-exported to Nigeria



Tag 43

- **Grade D**
- **Men's jeans**
- **Originating from Denmark**
- **Large tear**

travelled through Poland before reaching Cameroon. Lithuania also appeared as an intermediate country for two Finland-origin garments subsequently recorded in Pakistan, while Estonia was an intermediate location for another Finland-origin garment travelling to Pakistan. One item originating in Sweden passed through Slovakia before reaching India.

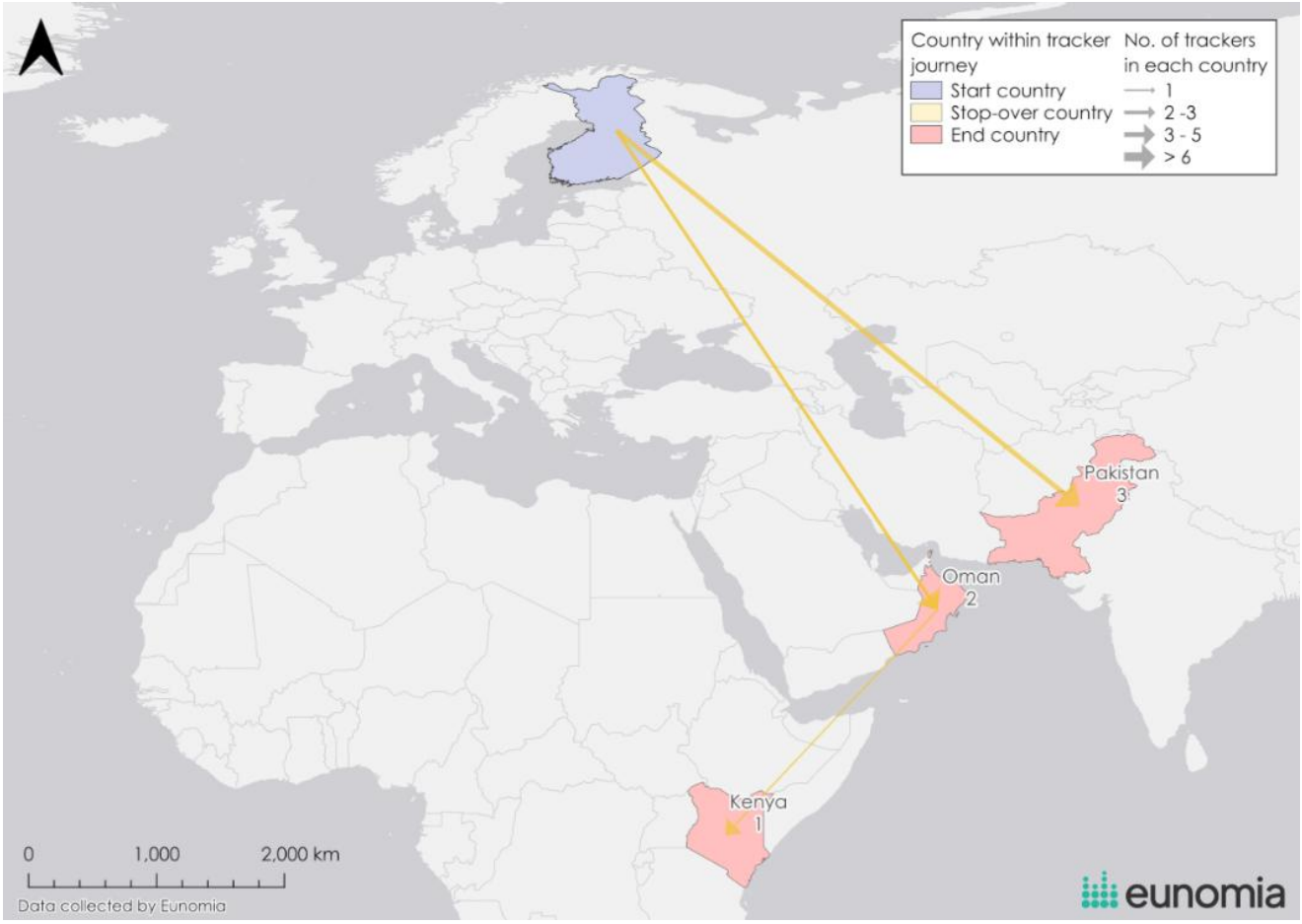
These journeys illustrate the role of European countries in sorting, consolidating and redistributing Nordic textiles and determining their end destinations. The locations and dwell periods captured for some trackers are consistent with movements through sorting or wholesale networks. However, the tracker records do not establish the exact activity undertaken during every intermediate stop. Some countries may have performed a logistical or storage function rather than detailed sorting.

The routes also show why the first importing country cannot automatically be treated as the garment's final destination. A garment initially exported to Poland, Bulgaria, Lithuania, Estonia or Slovakia may subsequently leave Europe and enter a market in Africa or Asia-Pacific. Bilateral trade data recording only the first movement from the Nordic country would not reveal the complete journey.

The environmental outcome of these intermediate stages remains uncertain. European sorting may have enabled lower-grade garments to be matched with markets in which they retained commercial or functional value, avoiding immediate disposal in Europe. Conversely, onward export does not confirm that the garments were ultimately sold or reused. Their arrival in a market, warehouse or commercial area establishes continued movement through the used-textile trade, but generally does not reveal whether that movement resulted in reuse, recycling or disposal.

Grade D items travelling outside Europe without a recorded European intermediate stage

Figure 2-24: Map showing journeys of Grade D items travelling outside Europe without a recorded European intermediate stage



Six Grade D items travelled to countries outside Europe without a recorded intermediate stop in another European country. Three travelled directly from Finland to Pakistan (see Figure 2-17b), while two travelled directly from Finland to Oman. Another Finland-origin garment travelled through Oman before reaching Kenya.

These journeys overlap with the direct movements presented in Figure 2-15. The overlap confirms that some of the textiles travelling directly from Finland to Pakistan and Oman were classified as Grade D. Pakistan consequently received Grade D items through several distinct routes: directly from Finland, through Bulgaria or Poland from Denmark, and through Estonia or Lithuania from Finland.

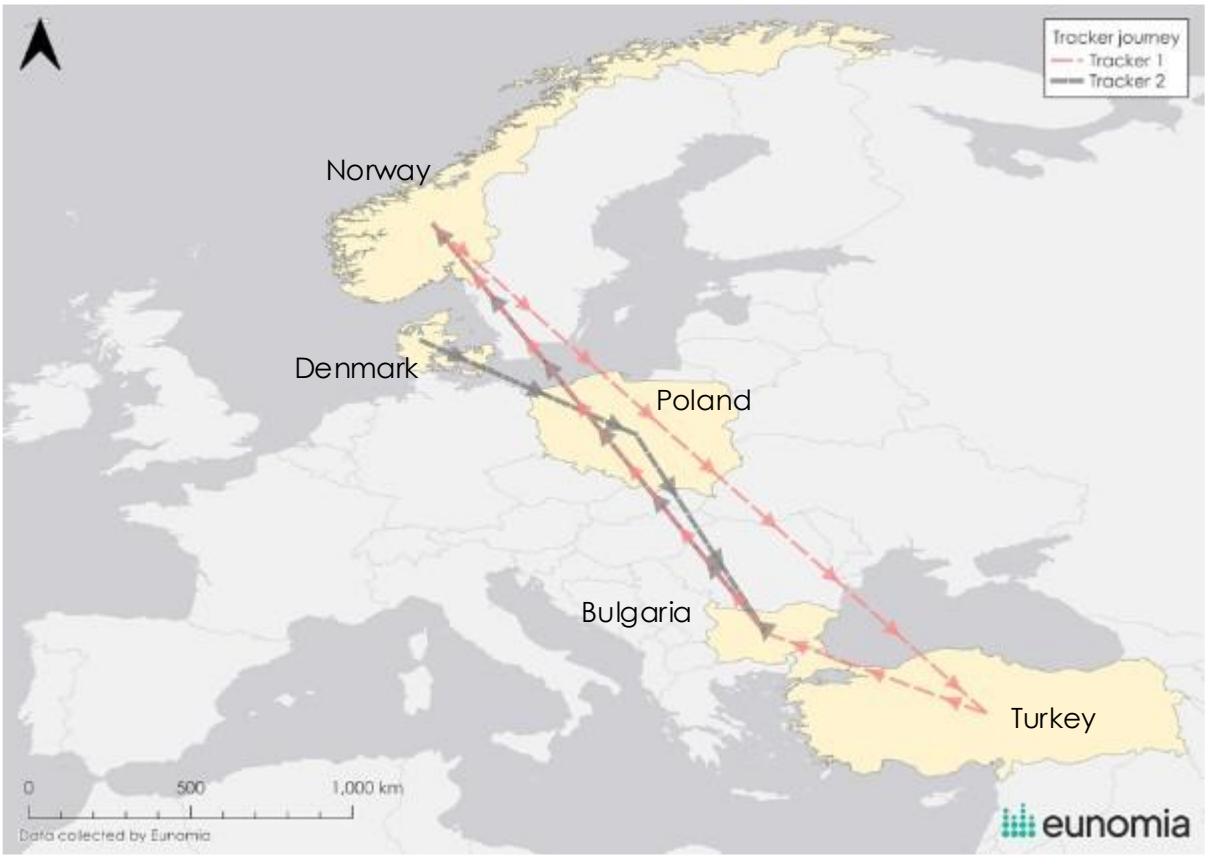
The routes to Oman similarly included Grade D items travelling directly from Finland, as well as one garment that continued from Oman to Kenya. Another Grade D tracker moved from Finland through Estonia before reaching Oman. The different pathways reinforce the possibility that Oman performed more than one role within the value chain, potentially including wholesale, storage and onward redistribution.

The direct movements create uncertainty over where the garments underwent detailed sorting. Arrival in Pakistan, Oman or Kenya does not establish the final environmental outcome. Grade D garments may retain reuse potential in these markets. However, the available evidence does not confirm whether these particular items were sold, repaired, repurposed, recycled or discarded.

Garments returning to the Nordic region

Figure 2-25 shows two garments that travelled through other European countries before returning to the Nordic region. One tracker followed the route Norway to Istanbul, then Bulgaria, before returning to Norway. The other travelled from Denmark through Poland and Bulgaria before also reaching Norway.

Figure 2-25: Map showing journeys of garments travelling through Europe before returning to the Nordics



The Norway-origin garment had already been placed in a Norwegian second-hand shop before export but was not sold. It subsequently travelled to Istanbul and Bulgaria before returning to its original location in Norway.

The tracker data do not establish what activities took place in Istanbul or Bulgaria. The garment may have entered sorting, wholesale, storage or potential resale networks, and its movement could reflect further attempts to identify a viable buyer or destination after it remained unsold in Norway. However, its eventual return suggests that the supply chain considered Norway to be the most favourable market.

The second tracker travelled from Denmark through Poland and Bulgaria before reaching Norway. Unlike the first item, this garment returned to the Nordic region but not to its country of origin. Its journey further demonstrates that an export may be redirected several times as sorters and traders attempt to find a market for an item.

Taken together, the two routes show that international used-textile flows do not always progress from a Nordic collection point through a European sorter to a third country end market. There is sufficient demand for second hand garments in the Nordics for items to be directed there after moving through international sorting or trading networks. A return to the Nordic region does not itself establish what happened next. The garments may have been offered for resale again, stored, recycled or sent for end-of-life treatment.

The small number of return journeys are environmentally relevant because they involve items undergoing transportation, handling and storage, only to return to the Nordic region. The data does not demonstrate whether the relevant garments ultimately found a reuse market in the Nordics, but it appears improbable that they would have been shipped to the region simply for disposal.

2.2.4.5 Challenges and Data Gaps

The tracker data provides valuable insights into the journeys undertaken by Nordic textiles. However, inherent limitations in geographical tracking, combined with the six month duration of the tracking exercise, limit the conclusions that can be drawn.

A number of trackers were last recorded in residential or mixed residential and commercial areas. These locations may be consistent with purchase, household use or small-scale resale, but they do not confirm that the associated garment entered second use. A residential location could also indicate storage, informal trading, an imprecise location signal or the position of the tracker after separation from the garment. If an item was disposed of through informal dumping or fly-tipping, the site of disposal might be near or within a residential area. Similar caution is appropriate to endpoints described as shopping districts, warehouse-type buildings or textile trading areas. These descriptions provide useful contextual evidence, but are unlikely to indicate the garment's final outcome.

Sorting and wholesale operations appear to play a central role in several recorded pathways. Trackers were associated with sorting or wholesale locations in Bulgaria, Estonia, Slovakia, Poland and Lithuania, indicating that intermediate processing and redistribution were important features of the tracked value chains. Nevertheless, the presence of a tracker at or near a sorting facility does not establish how the accompanying garment was assessed or managed. The garment may have been selected for domestic resale, onward export, recycling or disposal, but the dataset does not consistently provide evidence of the decision taken.

Sorting is an intermediate activity rather than an outcome in itself. Where tracking ended at a sorting or wholesale facility, it was not possible to establish the subsequent pathway. Classifying these items as successfully reused or recycled would overstate the certainty offered by the available evidence.

There is a related uncertainty around locations associated with recycling, energy-from-waste or landfill. References to named waste-management facilities may provide evidence of a possible treatment pathway, but the strength of that evidence varies. A tracker located within a facility boundary may

support a stronger classification than one recorded nearby. Even where the facility association is reliable, some sites host several activities. The site alone may not establish whether the garment was recycled, incinerated, stored, rejected or ultimately transferred elsewhere.

The ability to interpret tracker coordinates also varied geographically. It generally became more difficult to identify the processing activity or end use associated with a location as trackers moved further from Europe. In some non-European destinations, limited online mapping information regarding businesses, markets and residential areas prevented coordinates from being linked reliably to an identifiable organisation or activity. Even where a nearby business or market could be identified, geographic proximity alone did not establish that the garment entered that location or underwent the activity associated with it.

This uneven availability of contextual information creates a potential geographical bias in the strength of the findings. European tracker locations were often easier to associate with named sorting facilities, wholesalers, second-hand shops or waste-management sites, while endpoints further from Europe could often only be classified as falling within broadly commercial, residential, warehouse or trading locations, with inferences drawn based on this information. Consequently, there is more uncertainty about the fate of items with destinations outside Europe.

The records also demonstrate substantial variation in data completeness. Some trackers provided relatively detailed country-by-country histories, while others had missing periods, no recorded journey before the endpoint or no updates after a particular month. Several groups of trackers appear to have stopped transmitting at approximately the same stage of the study. For example, multiple trackers recorded in Lithuania, Estonia and Slovakia ceased providing updated locations in February, March or April. Tags 97 and 176 had no usable location data.

The apparent clustering of discontinued transmissions is important because it may reflect common technical or operational factors, such as conditions experienced by trackers travelling on a particular shipment or pathway, or a practice of removal of tags at particular locations. Where several trackers ceased transmission shortly after reaching a particular facility or country, their last recorded locations may represent a common point at which visibility was lost rather than a shared final outcome.

Tracker attrition also limits the interpretation of regional endpoint figures. An item last recorded at a sorting facility may subsequently have been sold, recycled, discarded or exported again. Similarly, a tracker ending at a port, warehouse or commercial location may have been in transit when transmission ended. The aggregate destination classifications should therefore be understood as the distribution of recorded endpoints, including incomplete records, rather than as a complete distribution of verified final fates.

There was also uncertainty associated with the grading of garments. Stakeholders responsible for attaching the trackers were provided with a classification key to support the assignment of grades A to D. However, clothing quality and reuse potential can be difficult to classify consistently, even when common guidance is available. Assessors may need to consider several characteristics, including physical condition, staining, damage, material quality, repairability, style and potential demand in an end market. The relative importance given to these characteristics means that classification is somewhat open to interpretation.

For example, an item may appear to be in very good physical condition, or may even retain its original tags, but have limited reuse potential because of poor material quality or a lack of market demand. Conversely, a visibly worn item may remain functional, repairable or suitable for a particular second-hand market. The assigned grade may therefore reflect a combination of observable condition and assessor judgement rather than a wholly objective measure.

This complexity limits the extent to which the suitability of recorded management routes can be assessed. Some grade A and grade B items were associated with recycling or energy-from-waste locations, while some grade C and D items may have entered second use. These observations could reflect differences in market demand, material quality, sorting decisions or the practical interpretation of

the classification key. Without verified treatment outcomes and further information on how the grading criteria were applied in each case, it is difficult to determine whether disposal or energy recovery in Europe was appropriate for the condition and reuse potential of an individual garment.

The grading uncertainty also constrains analysis of whether lower-quality garments were disproportionately exported to destinations where their final management was less visible. Descriptive differences between grades and destination regions may reflect genuine sorting practices, but they may also be influenced by assessor judgement, clothing category, shipment composition or the availability of particular end markets. Grade should therefore be treated as a recorded assessment of quality and condition, rather than as a definitive indicator of reuse potential or the most environmentally appropriate management route.

The tracking results could also be affected by separation of the tracker from the garment. If separation occurred, the movement or endpoint of the device might not reflect the movement or fate of the associated clothing. This possibility may be relevant to unusual endpoints, prolonged stationary periods or waste-management locations, although we have not assumed separation has occurred without supporting evidence.

Taken together, these limitations mean that the tracking exercise provides stronger evidence about the geographic reach and structural complexity of the value chain than about the final environmental fate of every garment. The data demonstrate movement through multiple countries, sorting operations, wholesale and retail locations, trading areas and possible waste-management sites. The evidence is less complete regarding whether individual garments were ultimately reused, recycled, treated through energy recovery, disposed of or moved onward after the final tracker transmission.

These uncertainties do not diminish the value of the exercise. Instead, they identify where future tracking, classification and reporting systems could be strengthened. In particular, the findings support:

- Supplementing coordinate data with confirmation from facilities, traders or receiving organisations; and
- Establishing a common framework for the classification of clothing.

3.0 Phase 2: Key Challenges to Circularity and the Environment

3.1 Environmental Impacts and Benefits of Used-Textile Exports in the Nordics

Exports are integral to the current management of used textiles collected in the Nordic countries. Collection volumes have increased, while domestic capacity for detailed sorting and recycling remain limited. Without domestic sorting, the ability to fulfil potential local demand for second hand clothes is constrained. Export markets therefore provide an outlet for textiles that cannot currently be sold or processed economically within the Nordic region.

The environmental effects of these exports are mixed. Where exported garments achieve continued use or appropriate material recovery, exports can extend product lifetimes, retain value and prevent premature disposal. However, exports also increase transport and handling, involving long transport distances (often by air) to their destination. They reduce visibility over downstream outcomes and may transfer responsibility for managing lower-grade and non-reusable textiles to other countries. The net environmental effect depends not only on the quality of exported material and its downstream fate, but also on whether adequate measures are in place to prevent the transfer of disproportionate environmental and waste management burdens to destination countries.

Enabling the collection and diversion of used textiles

A principal benefit of export markets is that they allow Nordic collection systems to handle volumes that exceed domestic reuse and processing capacity.

Major Nordic organisations each collect several thousand tonnes of textiles annually, with the largest handling approximately 12,000 tonnes. As separate collection systems expand, these organisations are receiving a broader range of materials, including damaged clothing, household textiles and other items that are not suitable for immediate resale. International markets provide an outlet for a significant proportion of this collected material. Without access to these markets, Nordic stakeholders indicated that larger quantities would likely be sent directly to energy recovery or disposal, or accumulate within collection and storage systems. Exports can therefore support the diversion of textiles from immediate end-of-life treatment in the Nordic countries.

Most Nordic textiles undergo only basic handling before export, and many Nordic organisations rely on international operators to undertake detailed sorting. Iceland exports most of the small amount of textiles that are collected because it has limited domestic infrastructure, while stakeholders in Denmark and Finland reported that domestic fine-sorting operations have closed or reduced capacity because of high labour costs. Norway and Sweden also depend substantially on export-based sorting, despite some domestic processing and emerging initiatives.

Export markets therefore support the economic viability of Nordic collection systems. However, export does not necessarily mean that disposal has been avoided. If exported textiles prove unsuitable for reuse or recycling, disposal may occur immediately after sorting or following attempted sale in another country. The environmental benefit therefore depends on whether exports genuinely enable a higher-value outcome rather than merely relocating the point at which waste is disposed of.

Extending garment lifetimes through access to international reuse markets

The most significant potential environmental benefit of exporting used textiles is the extension of garment lifetimes. Nordic demand for second-hand textiles is unlikely to be sufficient to absorb all the potentially

reusable clothing collected in the region. Exporting garments to markets with different consumer preferences, price structures and demand can provide further opportunities for reuse.

The track and trace exercise found exported Nordic garments in second-hand shops, markets, wholesale networks and possible residential locations across Europe, Africa and the Asia-Pacific region. These observations demonstrate that Nordic textiles enter extensive international trading networks and reach locations where continued use is possible. Clothing grade did not appear to dictate the market, indicating that reuse opportunities are not necessarily restricted to items with the highest quality grades.

Where an exported garment is purchased and worn again, export can retain its functional value and delay the environmental impacts associated with end-of-life treatment. Continued use may also reduce or delay demand for new textile production, although the extent of this substitution was not assessed in the study.

The track and trace findings also show that entry into a second-hand market is not equivalent to verified reuse. Some garments appear to have remained in shops for several months; others moved between retail outlets or returned to wholesalers. Some were last recorded at storage, sorting, logistics or commercial locations. Residential endpoints are an indication that a garment was purchased and used, but this cannot be confirmed from location data alone.

Exports therefore create opportunities for product-life extension, but the scale of the realised benefit remains uncertain. Garments exported with the intention of reuse may remain unsold, be re-exported, enter recycling or downcycling, or ultimately require disposal. The distinction between intended and successful reuse is central to understanding the environmental performance of Nordic exports.

Access to specialised sorting and processing capacity

Used-textile exports allow Nordic collectors to access specialised sorting capacity in other European countries. UN Comtrade data identified Lithuania, Poland and Germany as major direct destinations. The track and trace exercise confirmed the importance of Poland and Lithuania, but also highlighted flows through Slovakia, Bulgaria and Estonia.

These countries often provide sorting services. Access to specialised sorting can produce an environmental benefit where it prevents reusable garments from being discarded and directs non-reusable materials towards appropriate recovery. Labour-intensive sorting can identify distinctions in condition, style, composition and marketability that are not captured by broad quality grades. This may enable some garments considered low-value in Nordic markets to find a viable second use elsewhere. After sorting, items may be directed towards local resale, other European markets, markets in Africa or the Middle East; or to recycling or downcycling operations in South Asia

However, the export of unsorted or lightly pre-sorted textiles also means that decisions about reuse potential and waste status are frequently taken after material has left the Nordic region. Nordic collectors and exporters may know the identity of the first sorting partner but have limited information about subsequent buyers, processing facilities or disposal routes. The sorting process may divide a consignment into several fractions that are transferred through different countries and operators, further reducing visibility.

The environmental benefit of international sorting therefore depends on the outcomes achieved for all fractions, not only those sold for reuse. A sorting facility may successfully recover a substantial reusable fraction while also generating non-reusable residues that require recycling, energy recovery or disposal. Data on the quantities exported to various countries do not reveal the balance between these outcomes.

Reducing immediate disposal in the Nordic countries

Used-textile exports reduce the volume of collected material requiring immediate treatment within the Nordic region. This can reduce pressure on energy-from-waste and disposal systems and preserve the possibility that garments or fibres will remain in use.

The importance of this benefit is illustrated by the small number of tracked garments that remained within, or returned to, the Nordic region. Of the eight trackers with Nordic endpoints, two appeared to enter recycling in Norway, one grade A garment was recorded at an energy-from-waste facility, and one garment in Sweden appeared to have entered either recycling or energy recovery. Two additional garments returned to Norway after passing through Bulgaria, but their final outcomes could not be established. Organisations such as UFF Norway buy textiles for the Norwegian market from the international sorting centres, and it is reasonable to infer that this kind of organisation may have repurchased the garments.

These observations are not representative of the Nordic textile system as a whole, but they demonstrate that textiles retained domestically do not automatically achieve reuse. A garment may be in good physical condition and still lack a viable domestic resale market. Export can therefore offer an alternative to domestic recycling, energy recovery or disposal, including for some garments assigned higher quality grades.

At the same time, avoiding disposal in the Nordic countries should not be interpreted as avoiding disposal altogether. Tracker observations at landfill-related locations in Poland, Slovakia and Estonia indicate that some exported garments may subsequently enter waste-management pathways elsewhere. Although proximity to these facilities does not conclusively establish treatment, the observations tend to confirm that export does not guarantee an outcome higher in the waste hierarchy.

Transport and handling impacts

Exporting used textiles creates environmental impacts through transport, packaging, storage and repeated handling. These impacts can extend beyond the first journey from a Nordic collector to an importing country because garments may pass through several sorting, wholesale and retail stages.

The track and trace exercise documented movements from Nordic countries to European sorting hubs and then onward to destinations in Africa and South Asia. Individual garments moved through wholesalers, warehouses, shops, ports and logistics facilities before reaching their last recorded locations. Some moved among several European countries, while others returned to the Nordics.

For example, trackers were observed moving through sorting and wholesale facilities in Poland before reaching Pakistan, Nigeria, Togo, Cameroon, Morocco or Mali. Other garments moved between second-hand shops and wholesalers within Poland, suggesting repeated attempts to identify a buyer or suitable market.

Additional transport is will not generally to outweigh the environmental benefit of reuse. If a garment achieves substantial further use, the limited impacts associated with transportation may well be offset by the benefits of meaningful product-life extension. Conversely, repeated transport and handling cause additional environmental costs if a garment remains unsold or ultimately requires disposal.

The environmental performance of export pathways therefore cannot be assessed on distance alone. It depends on whether the movement results in continued use, material recovery or another beneficial outcome, as well as on the number of intermediate stages involved.

Reduced visibility and fragmented responsibility

The trade analysis and track and trace exercise both show that the first importing country is often not the final destination. Nordic textiles are sorted, stored, sold, re-exported or divided into several fractions after their initial transfer. Conventional bilateral trade data capture only part of this process and cannot identify what proportion of textiles re-exported from an intermediate country originated in the Nordic region.

Traceability differs among Nordic organisations. Some collectors and exporters maintain long-standing relationships with sorters and receive reports on downstream treatment, in some cases encompassing the entire value chain. Less commonly, they may rely on brokers or traders and have little visibility beyond the first commercial transfer. Even organisations with stronger systems may lose sight of textiles after they are divided and sold by their initial sorting partner.

The tracker data improved understanding of physical movements but did not resolve uncertainty over final management. The last recorded location may represent a confirmed endpoint, an intermediate stage, storage or simply the point at which a tracker stopped transmitting. A location at or near a shop, residence, recycling facility or landfill does not, by itself, establish the garment's fate.

Responsibility can also become fragmented as textiles pass through multiple actors and jurisdictions. Collectors, exporters, sorters, wholesalers, retailers and downstream traders may each control only one stage of the journey. This makes it difficult to attribute responsibility for verifying reuse or managing residual waste.

Overall impacts and benefits in the Nordics

Used-textile exports provide clear operational and potential environmental benefits to the Nordic countries. They provide the capacity to support expanding collection systems, provide access to specialist sorting and international reuse markets, and reduce the quantity of textiles requiring immediate domestic energy recovery or disposal. They can also enable garments with limited Nordic demand to remain in use elsewhere.

These benefits are accompanied by material environmental risks and uncertainties. Exports add transport and handling impacts, move sorting and economic activity outside the Nordic region, and reduce visibility over final outcomes. Most importantly, the export of low-grade or lightly sorted textiles may transfer responsibility for unusable fractions to countries with different levels of treatment capacity.

The environmental case for Nordic used-textile exports is therefore strongest where garments are suitable for the receiving market and achieve continued use or appropriate material recovery. It is weakest where textiles pass through multiple intermediaries, have limited reuse potential and ultimately require treatment at the destination. The current evidence confirms the importance of export markets but does not establish the proportion of exports falling into each of these categories.

3.2 Environmental Impacts and Benefits of Nordic Used-Textile Exports in Importing Countries

Nordic used-textile exports have environmental and economic effects throughout the countries that receive, sort, trade, process and ultimately manage them. Importing countries are not a single category. Some, particularly in Central and Eastern Europe, operate as sorting and redistribution hubs. Others provide domestic second-hand markets, recycling or downcycling capacity. Some countries combine these functions or act as further transit points.

Exports can benefit importing countries by supplying reusable clothing, supporting employment and economic activity, and providing feedstock for recycling and lower-value applications. However, they can also generate residual waste and transfer sorting and disposal costs to downstream businesses and public waste-management systems.

The distribution of benefits and impacts depends principally on whether the quality of the textiles received matches expectations, the suitability of the items for available markets and the infrastructure available to manage unsold or non-reusable fractions.

Supplying reusable clothing to additional markets

Nordic exports supply garments to second-hand markets that may have different demand and purchasing conditions from those in the Nordic region. The track and trace exercise found garments at second-hand shops, markets and commercial locations in Europe, Nigeria and Pakistan, as well as possible residential locations across several destination countries.

Where these garments are purchased and used, exports extend their functional lives and preserve the resources already embodied in them. Importing markets may therefore provide reuse opportunities for garments that are physically wearable but no longer economically viable in Nordic second-hand markets.

The tracker findings also show that exports to more distant markets are not limited to the lowest garment grades, but reflect sorters' understanding of suitability for different markets. Seven of the 15 items with African endpoints were grade A. The European endpoint group contained textiles across all four grades, with grades A and B accounting for 67.1% of the group. Pakistan and India also received a mixture of grades.

These findings indicate that Nordic exports can provide importing markets with textiles that retain substantial reuse potential. At the same time, they demonstrate the limitations of grade as a predictor of outcome. Higher-grade garments were found at uncertain, wholesale and disposal-related locations, while lower-grade garments entered retail and trading networks.

A garment reaching a shop or market has entered a potential reuse pathway, but this does not confirm that it was sold or used. Several tracked garments remained in European shops for extended periods, moved between shops or returned to wholesalers. The same uncertainty applies to garments recorded in African and Asian markets. The environmental benefit in importing countries therefore depends on actual market absorption rather than on the volume offered for sale.

Supporting sorting and redistribution activities

The exports support substantial sorting, wholesale, logistics and redistribution activity in importing countries. This is especially evident in Poland and other European countries that receive material directly from the Nordic region.

Poland was the largest country-level endpoint in the tracker sample, accounting for 60 trackers, and repeatedly appeared as an intermediate location. Trackers were recorded at sorting facilities, used-clothing wholesalers, shops, warehouses, ports and logistics centres. Some garments remained in Poland, while others travelled onward to Pakistan, Nigeria, Togo, Cameroon, Morocco and Mali.

Lithuania, Slovakia, Bulgaria and Estonia also appeared as sorting, storage or redistribution locations. These observations broadly support the conclusion that the Nordic used-textile trade depends on a network of European hubs that grade material and connect it with downstream markets.

This activity can produce environmental benefits by improving market matching. Detailed sorting allows garments to be differentiated by condition, style, material, season and potential destination. A garment with little value in one country may be commercially viable in another. Sorting can also identify textiles suitable for recycling or downcycling rather than disposal.

However, the sorting process generates residual fractions. Imported consignments may contain stained, damaged, contaminated or otherwise unsaleable material that must be managed locally. The environmental performance of an importing hub therefore depends on the outcomes of all sorted fractions, not simply the quantity subsequently sold or re-exported.

The tracker observations demonstrate this range of possible outcomes. Garments in European importing countries were recorded at shops, residential locations, recycling facilities and landfill-related locations. Others stopped transmitting at sorting facilities or warehouses, leaving their eventual fate unknown. European imports therefore support reuse and resource recovery, but also result in some treatment and potential disposal within the receiving countries.

Supporting employment and commercial activity

Used-textile exports support economic activity throughout the importing value chain. Sorting, grading, transport, wholesale, retail, repair, recycling and downcycling all require labour and infrastructure. Both formal enterprises and informal-sector actors can participate in these activities.

For European importing countries, Nordic textiles provide feedstock for established sorting and redistribution industries. In destination markets such as Pakistan, Nigeria and Togo, imports supply second-hand markets and related trading networks. In Pakistan and India, trackers were also recorded near textile businesses, traders and warehouse-type facilities, indicating that some garments entered wider textile-processing or commercial networks.

These activities can create income while supplying affordable clothing and secondary materials. Labour-intensive sorting and resale may also enable greater value to be extracted from each consignment than would be possible through less detailed processing.

However, importing businesses assume financial and operational risks. Mixed bales may contain garments of varying quality, and the proportion suitable for resale may not be known until sorting occurs. Buyers may pay for and transport an entire consignment but derive value from only part of it. The remainder must be redirected to another market, recycled, downcycled or treated as waste.

As a result, the economic benefits and environmental costs of Nordic exports may fall on different actors. Reusable garments generate revenue for traders and retailers, while local authorities, waste operators or downstream communities may bear some of the costs associated with unsold and non-reusable fractions.

Providing recycling and downcycling feedstock

Nordic exports can supply importing countries with textiles for recycling and downcycling. Stakeholders reported that a growing share of material is directed towards fibre recovery, industrial wiping cloths and other lower-value products as average textile quality declines.

These pathways can prevent immediate disposal and reduce the use of some virgin materials. Recycling may retain textile fibres within productive use, while downcycling can extract residual value from textiles that are unsuitable for wear. In this respect, importing countries provide processing capacity that remains limited in parts of the Nordic region.

The environmental benefits depend on the process and resulting output. Fibre-to-fibre recycling can retain more material value than conversion into wiping cloths, insulation or filling. Downcycling may only delay disposal if the resulting product cannot be recycled again. Recycling and processing can also generate emissions and residual waste of their own.

The track and trace exercise provides limited evidence of specific recycling outcomes. Some garments were recorded at or near apparent recycling facilities in Europe, while others reached textile-related businesses in Pakistan and India. In most cases, however, the exact activity applied to the garment could not be verified.

Consequently, Nordic exports clearly enter markets in which recycling and downcycling take place, but the proportion actually processed through each route remains uncertain. Nor is there sufficient evidence to determine the environmental performance of the facilities involved.

Generating residual waste in importing countries

The main adverse environmental impact for importing countries arises where exported garments cannot be sold, reused or recycled. Such items become residual waste after import, requiring collection, transport and treatment in the receiving country.

The risk is greatest for low-grade textiles and mixed consignments that have undergone limited sorting before export. Several grade D garments recorded in Pakistan were described as heavily worn, stained, damaged or overwashed. Damaged lower-grade garments were also tracked to African and European destinations. Their presence in commercial locations suggests that traders may attempt to find markets for them, but it does not establish that these attempts are successful.

The tracker study did not directly document open dumping, uncontrolled burning or environmental leakage at the African or Asian endpoints. It also did not confirm that the lower-grade garments observed in those markets were discarded. The results should therefore not be interpreted as evidence that Nordic exports generally cause these outcomes. Nevertheless, the absence of a confirmed disposal event does not establish that a garment achieved successful reuse. Where lower-grade garments remain unsold, importing businesses or local waste-management systems must manage them. The environmental effect depends on the availability and quality of local infrastructure.

European sorting hubs generally have formal recycling, energy-recovery and disposal routes, although this does not mean that all outcomes retain textile value. In some developing-country destinations, access to controlled waste treatment may be more limited or uneven. Residual synthetic textiles may be of particular concern because they contain plastic fibres and can persist in the environment if not appropriately managed.

The environmental burden is therefore not determined solely by the volume of textiles imported. It also depends on the proportion unsuitable for local markets and the conditions under which that fraction is treated.

Receiving the consequences of declining textile quality

Stakeholders across the Nordic countries reported a decline in the average quality of collected textiles, except for Iceland, where stakeholders indicate that it has been possible to increase quality. Quality decline reflects systems receiving more damaged and contaminated material, in addition to low-cost, low-quality and short-lived garments forming a growing part of the used-textile stream. Because much of this material is exported for sorting, importing countries experience the downstream consequences of these changes.

Different end markets may continue to find uses for garments considered low-grade in the Nordic region. However, there is a limit to the capacity of international reuse markets to absorb declining-quality material. Where the quantity of low-value textiles increases faster than demand or processing capacity, more material may remain unsold or require lower-value treatment.

This creates a tension within the export system. Mixing some lower-grade garments with higher-quality textiles may make consignments commercially workable and enable garments with different characteristics to find appropriate markets. However, if the proportion of low-grade material is greater than anticipated, the costs of sorting and managing residuals may outweigh the value of the reusable fraction.

The environmental impact in importing countries therefore reflects upstream changes in the composition and quality of textiles placed on the Nordic market. Although the waste-management consequences arise after export, their origin is partly connected to garment production, consumption and collection patterns in the exporting countries.

Traceability gaps and uncertain final outcomes

The environmental impacts of Nordic textile exports are difficult to allocate between countries because they pass through multiple jurisdictions. The first country of import may sort and re-export the material (incurring some emissions along with economic benefits) while reuse or disposal occurs elsewhere. The recorded endpoint country (which may only be the last place from which a tracker transmitted).

This uncertainty is particularly significant outside Europe. In Africa, most destination countries were represented by only one tracker, and limited information about businesses and specific locations constrained interpretation. The records generally established that garments entered commercial, market, port or possible residential settings but did not show whether they were sold, stored, re-exported or discarded.

Pakistan provides a more concentrated set of observations, with 26 trackers. Several were recorded in or near used-clothing markets and textile-related commercial areas. However, the data did not enable a reliable distinction to be made between active resale, storage, processing and disposal. Four trackers that reached India similarly reached traders, warehouse-type buildings or possible residential locations without confirmed outcomes.

Potentially informal or non-compliant trade routes create additional uncertainty. Trackers were observed moving through Benin into Nigerian second-hand markets, despite restrictions on used-clothing imports in Nigeria. The data do not establish the legal status of the consignments or responsibility for these movements. However, flows outside formal customs and reporting channels may make it more difficult to identify downstream operators and verify how unsold textiles are managed.

Uneven distribution of environmental benefits and burdens

The benefits and burdens of Nordic used-textile exports are not necessarily distributed evenly across the value chain. Nordic collectors benefit from access to international markets and avoid some domestic sorting and treatment costs. Importing businesses benefit from reusable garments and commercial opportunities, but assume the costs and risks associated with sorting, attempted resale and residual management.

Where garments are successfully reused, the trade can provide environmental, social and economic value to both exporting and importing countries. Where they cannot be reused or recovered, the importing country may receive little benefit while becoming responsible for disposal. This imbalance is most significant in the event that low-grade fractions are sent to countries with limited capacity for controlled treatment. The Nordic origin of individual garments may also become impossible to identify after textiles are mixed, sorted and re-exported. As a result, the cost of managing residual waste can become separated from the organisations and markets that originally placed, collected and exported the textiles.

The current evidence does not quantify this transfer of costs or establish that it occurs across all export pathways. It does show that the environmental benefits of exports are easier to identify at the point of collection and sale than the environmental costs arising from unsold fractions at the end of the chain.

Overall impacts and benefits in importing countries

Nordic used-textile exports can deliver substantial benefits to importing countries. They supply reusable clothing, support sorting and retail activity, create employment and provide material for recycling and downcycling. Importing markets can extend the lives of garments that would otherwise have limited prospects for reuse within the Nordic region, thereby reducing the environmental costs of textile use in the Nordics.

At the same time, importing countries assume responsibility for assessing the quality of incoming material, finding markets for reusable garments and managing non-reusable fractions. Where textile quality is poor, demand is insufficient or treatment infrastructure is limited, exports can result in waste-management costs and environmental risks at the destination.

The evidence does not justify characterising the export trade as either wholly beneficial reuse or the systematic transfer of waste. Both outcomes can occur within the same value chain and even within the same consignment. The critical distinction is between exports that result in continued use or appropriate material recovery and exports that transfer low-value textiles without a viable downstream route.

The findings indicate that this distinction is currently difficult to make with confidence. Visibility can weaken beyond the first sorting stage, trade data do not capture complete journeys, and tracker endpoints rarely confirm final treatment. This uncertainty is especially important for low-grade textiles and for exports that ultimately reach countries where appropriate disposal infrastructure may be limited. It provides the central environmental context for the policy objectives and recommendations set out in the following section.

3.3 Policy Recommendations

3.3.1 Key Policy Objective 1: Reduce the Quantity of Low-Grade Textiles Exported to Developing Countries

The track and trace exercise and research carried out in receiving countries indicate that used clothing exports can support reuse and provide benefits in receiving countries by supplying clothing for local second-hand markets. However, some items, especially lower-grade clothing, may be less suitable for reuse and may face a higher risk of becoming waste after import. This is of particular concern where local reuse markets are unable to absorb the material or where waste-management infrastructure, such as incinerators and sanitary landfills, is limited.

Nordic exporters currently often have long-established relationships with the sorters they use in third countries, but rely on trust and relevant information from third party audits for information on how the material received is managed. It may therefore be beneficial to create more formal requirements on exporters regarding the standards that their initial receivers must meet in order for exports to be permissible.

Recommendation 1: Establish a clearer approach to describing the quality and content of used textiles consignments

The track and trace exercise found only limited correlation between grades and outcomes. There is no widely adopted approach to grading the quality of used textiles, and this makes it difficult to understand what outcomes may be reasonable to expect for any particular item. However, stakeholders have indicated that a simple quality grading system, such as the A, B, C, D system used in this study is insufficiently granular to provide more than a basic framework. In practice, quality is often graded using a score card on test loads at sorting plants, and the process is used to set prices.

At present, the outright quality of consignments is of less significance than there being a clear specification that is understood between buyer and seller. There is often an ongoing process of dialogue between buyers and sellers. This is the case both between the Nordics and Tier 1 importers, and between Tier 1 and Tier 2. For exports to Africa, it can take several consignments before the European exporter and African wholesaler are able to fully match their contents to the market's needs – previous research has found that almost all textiles can have some value in certain African markets, and so the issue is often the price.[39]

However, as exports of textiles from Nordic countries change composition due to increased collections, it will be necessary to find ways to communicate more clearly between buyers and sellers regarding the composition of consignments. Nordic exporters should therefore work with their key buyers to develop more standardised descriptors for composition and quality, both for individual items and unsorted loads or lightly pre-sorted loads. This would facilitate trade and avoid Tier 1 importers receiving a blend that they are unsuited to receiving. The descriptions should be aligned with forthcoming Waste Shipment

[39] Watson, D. et al (2016) *Exports of Nordic Used Textiles Fate, benefits and impacts*. Available at: https://norden.diva-portal.org/smash/get/diva2:1057017/FULLTEXT03.pdf

Regulation classification requirements, so that loads that should be classified as waste can be differentiated from non-waste used textiles suitable for re-use.

If this approach is successful, it could be repeated between Tier 1 and Tier 2 countries.

Recommendation 2: Strengthen Nordic country downstream accountability for low-grade textiles

Nordic governments should require exporters and sorting organisations that export textiles to establish formal agreements with downstream partners, specifying how low-grade and non-reusable waste textiles will be managed. These agreements should include minimum requirements for recycling, recovery and disposal routes, reporting obligations, and restrictions on environmentally harmful disposal practices. This could build on previous Nordic work to develop common criteria for textile collection, reuse and recycling, including the Nordic Textile Reuse and Recycling Commitment and associated certification system.[40]

Stakeholder interviews highlighted that visibility can decline beyond the first sorting stage and that organisations may lack information on the ultimate fate of exported textiles. There were also concerns around the export of worn synthetic textiles, particularly those containing plastic fibres, to countries where waste management collection arrangements and disposal infrastructure are less developed. Strengthening contractual requirements would improve transparency and help to ensure that exported textiles are managed in accordance with Vision 2030, which aims to make the Nordic Region the most sustainable and integrated region in the world.[41]

One stakeholder noted that successful transactions depend on suppliers' ability to meet buyer expectations. Therefore, any measures implemented in the Nordic countries should avoid altering the textiles in a way that could prevent them from meeting importers' specifications.

Potential measures under this recommendation could include:

- **Mandatory downstream management plans for all exports, or only for the lower-grade fraction, for Nordic collectors/sorters.** This could help to ensure that textiles are only exported to facilities/countries with adequate treatment options for lower grade textiles. A management plan could include a list of companies with which exporters have agreements; and a system of reporting to monitor how those companies manage material downstream. Limiting this approach to lower grade items would reduce the scope that management plans would have to cover, but could necessitate an increase in local sorting to enable lower grade material to be separately identified. This would require financial support to offset the currently high costs of domestic sorting, as well as the development of sufficient recycling capacity within the Nordics to manage lower grade textiles retained for domestic treatment. There is also a risk that retaining some of the higher quality low grade material within the Nordics could reduce the quality of textiles exported, potentially resulting in lower prices offered by receiving facilities outside the Nordics.

- **Reporting requirements on recycling, disposal and re-export outcomes for Nordic collectors and sorters.** This could help to improve the visibility of the fate of used textiles and help identify grades or types of textiles that are more likely to be recycled, disposed of or re-exported. This information could then be used to target other measures towards improving the management and outcomes of these textiles. However, additional reporting requirements could increase the administrative burden on Nordic collectors and sorters.

[40] Nordic *Co-operation (2017) The Nordic textile reuse and recycling commitment – a certification system for used textiles and textile waste*. Available at: https://www.norden.org/en/publication/nordic-textile-reuse-and-recycling-commitment-certification-system-used-textiles-and

[41] Nordic *Co-operation (no date) Vision 2030: The Nordic Region will become the most sustainable and integrated region in the world*. Available at: https://www.norden.org/en/information/vision-2030-nordic-region-will-become-most-sustainable-and-integrated-region-world

- **Initiatives addressing overconsumption and ultra-fast-fashion business models.** Increasing consumer awareness of the impacts of frequent purchasing, supporting more sustainable business models and exploring policy measures that encourage producers and retailers to reduce the supply of low-quality, short-lived garments could help to reduce the quantity of lower grade textiles that require management, and the challenges that these then pose for the textile sorting and reuse system.

Recommendation 3: Develop minimum standards for receiving facilities

Nordic countries should work with the EU and directly with key Tier 1 importing countries to establish minimum management standards for facilities receiving used textile exports. Several stakeholders noted concerns regarding the management of low-grade textiles once exported, while increasing international scrutiny of textile exports is likely to place greater emphasis on environmental performance in destination countries.

Potential measures under this recommendation could include:

- **For Tier 1 facilities receiving Nordic textiles, minimum standards for sorting and segregation of reusable and non-reusable textiles.** This could help to ensure that textiles are only exported to facilities with appropriate sorting, recycling, export and disposal capabilities. Requirements could potentially be risk based and proportionate, with stronger evidence and monitoring requirements for exports to destinations where there is a higher risk of mismanagement. However, there is a small risk that mandatory plans could reduce the number of receiving facilities available for Nordic used textiles and the requirements could potentially reduce the prices offered by receiving facilities, creating additional financial pressures for Nordic exporters. In addition, if stricter export controls are introduced, additional domestic or regional treatment capacity will be required to manage displaced materials.

- **Reporting requirements on recycling, disposal and re-export outcomes for receiving facilities.** This could help to improve the visibility of the fate of used textiles beyond the first sorting stage. However, additional reporting requirements could increase the administrative burden on receiving facilities and may ultimately reduce the prices they are willing to pay for Nordic textiles.

- **Periodic auditing of receiving facilities and downstream partners.** If facilities are not managing used textiles as per the agreed managements plan, actions could be taken to address this, with the ultimate sanction being that they are no longer permitted to receive exports.

- **Traceability systems documenting the fate of residual fractions.** This would focus on trying to improve Nordic exporters' visibility of exports to Tier 2 countries and beyond. The goal would be to reduce the risk of negative environmental and social impacts arising from Nordic textiles, while encouraging more appropriate management and disposal routes, both at Tier 1 and Tier 2. Understanding if residual fractions are managed in established disposal facilities such as engineered landfills or energy from waste facilities, or if they are disposed in open environments or in less controlled facilities, could help to focus actions on the grades and types of textiles most likely to be disposed of inappropriately.

Standards development could be led by the industry, or Nordic governments could establish requirements and a monitoring programme. The Netherlands introduced mandatory textile EPR in 2023, requiring producers to finance collection and treatment systems while meeting escalating reuse and recycling targets, including fibre-to-fibre recycling requirements. As part of the scheme, producers are required to demonstrate what happens to collected textiles and report annually against performance targets.[42] The Nordics could seek to replicate this model.

[42] Netherlands Enterprise Agency (No Date) *Collecting and recycling textiles (UPV)*. Available at: https://business.gov.nl/regulations/collecting-recycling-textiles-upv/

If Nordic governments choose to take a role, actions could include:

- **Requiring enhanced reporting on the fate of exported textiles and their grades.** Improving the granularity of data on the types and grades of textiles exported could help to focus other recommendations and measures towards lower grade textiles. This could be addressed through sampling at Tier 1 receiving facilities and requiring similar sampling at Tier 2 (and subsequent) destinations, provided that sampling is undertaken with sufficient independence. Information about destinations could support fee modulation to increase EPR fees for types of textiles that are less attractive to end markets. Greater understanding of what leads to items becoming waste could help make the case for action to be taken to increase the attractiveness of items (e.g. funding repair so that items can be reused). Enhanced reporting on the fate of exported textiles could also help to assess if other recommendations or measures are succeeding, or if improvements are needed.

- **Tracking of destinations for lower-grade fractions.** This could help to ensure that grading is verified through outcomes, and that reasonable choices are being made by sorters. This is important to help verify that Tier 1 receiving facilities are reaching the standards set in Recommendation 2 and countries with adequate treatment infrastructure.

- **Investigating cases where exports to European sorting hubs appear inconsistent with reported pathways**. This could help to improve the quality of export data, by ensuring that exporters are recording their counterparties correctly.

- **Periodic audits and follow-up studies**. Audits could help to identify facilities that are not managing used textiles as per the agreed managements plan, actions can then be taken to address this. Assessing whether materials are being recycled, re-used or disposed could provide greater insight into which types and grades of textiles are most likely to be disposed of. This information could then be used to target other recommendations and measures towards preventing the inappropriate disposal of these textiles.

Such standards could help level the playing field, reducing the competitive advantage of locations that currently have lower environmental requirements or weak enforcement.

3.3.2 Key Policy Objective 2: Improve Domestic Management of Lower-Grade Textiles

Stakeholders reported that export markets currently absorb material that cannot be economically managed within Nordic countries, while recycling infrastructure remains underdeveloped. Collection volumes are increasing faster than treatment capacity, and if fewer lower grade textiles are exported from the Nordics as per the recommendations under Key Policy Objective 1, more domestic capacity will be required to treat the additional material remaining in the Nordics.

Recommendation 4: Expand regional recycling capacity

It is possible that not all downstream recipients will be willing/able to meet the more stringent requirements suggested in Recommendations 2 and 3. This could limit the amount of downstream sorting capacity that is available. There is also a shortage of recycling capacity for textiles in the Nordics more generally. Policymakers should therefore take steps to encourage investment in Nordic and other European country recycling capacity as they explore introducing restrictions on textile exports.

Stakeholders consistently highlighted that export markets are needed because certain recovery operations are not economically viable within the Nordic region. Taking steps that might restrict exports without creating alternative treatment capacity creates a risk of stockpiling, increased disposal, or system disruption.

Potential measures under this recommendation could include:

- **Investment support for textile recycling infrastructure.** Priority should be given to textile-to-textile recycling that retains material value, with downcycling into rags considered as a lower priority option or last resort where higher value recycling is not feasible. Domestic waste treatment routes would also need to be established for textiles that do not meet the minimum requirements for recycling and are ultimately rejected at recycling facilities.

- **Development of cross-border Nordic recycling markets.** Recognising that there can be economies of scale in sorting and distribution, and that smaller Nordic countries (e.g. Iceland) may struggle to establish viable facilities, cross-border collaboration could enable Nordic countries to increase their collective self-sufficiency as efficiently as possible.

- **Domestic recycling targets for the Nordic countries.** Targets could be set nationally, or for the region as a whole, depending on the structure of any cross-border regional arrangements.

Measures of this kind would require funding. A key source of potential future funding would the EPR schemes for textiles that are in development.

Recommendation 5: Use EPR schemes to create stronger incentives for quality and circularity

The Nordics are in the process of developing textiles EPR schemes. Denmark and Sweden are moving towards EPR implementation, while Norway has completed the consultation process for its EPR proposal. Finland and Iceland are at earlier stages of developing their EPR requirements.

As part of this study, stakeholders identified declining textile quality as a growing challenge. Forthcoming EPR systems provide a possible mechanism to influence product design, through internalising the costs of waste management within the cost of production, and ultimately in the price that consumers pay. The resulting funds can be used to support collections and infrastructure. Potential measures under this recommendation could include:

- **Use of EPR revenues to enhance sorting and recycling infrastructure**. At present, labour costs in the Nordics make local sorting uncompetitive, and result in widespread use of export routes, resulting in the challenges and benefits described above. Measures such as increasing Recommendations 2 and 3 above could reduce the cost advantage of exports. EPR schemes could, however, be required to support domestic sorting and recycling, notwithstanding any price advantage that may still come from exports. The motivation would be to demonstrate increased domestic reuse, greater certainty regarding recycling and the avoidance of risks relating to exports. Funding could also support innovation to tackle difficult to recycle textiles. In addition, EPR fees could be directed so as to create greater financial stability for collectors and reuse organisations. EPR revenues could also support tracing and monitoring of exported textile streams to improve oversight of downstream management.

- **Eco-modulation of EPR fees based on textile performance**. France's textile EPR system already uses eco-modulation to place a lower fee on products that demonstrate greater durability and use recycled materials, thereby incentivising consumers to choose them. It correspondingly imposes higher charges for products that are difficult to recycle.[43] France is also introducing additional EPR penalties for ultra-fast fashion.[44]

[43] Refashion (No Date) *Our areas of action*. Available at: https://refashion.fr/en/nos-champs-daction

[44] Intertek (2026) *France Adopts Landmark Law Targeting Ultra-Fast Fashion*. Available at: https://www.intertek.com/products-retail/insight-bulletins/2026/1548-france-adopts-landmark-law-targeting-ultra-fast-fashion/

Adopting this approach in the Nordics would help shift costs upstream to producers while creating incentives to place higher-quality products on the market. It could also reduce the price advantage of ultra-fast fashion and incentivise consumers away from purchasing such items.

3.3.3 Key Policy Objective 3: Increase Domestic Markets for Used Textiles, in Particular Higher Grades

Recommendation 6: Increase support for domestic reuse markets

Nordic governments should explore measures to increase demand for higher grade second-hand textiles and extend product lifetimes before export becomes necessary. In addition, policymakers should take steps to encourage investment in Nordic and other European repair capacity as they explore introducing restrictions on textile exports.

Stakeholder interviews highlighted that reducing or removing taxes that apply to used textiles could encourage domestic repaid and reuse. They suggested that reducing financial barriers to the circulation of used clothing could improve the economics of reuse and encourage second-hand markets.

Potential measures under this recommendation could include:

- **Support for domestic repair businesses and social enterprises**. Support could be via grants, training or business support for SMEs and social enterprises. Similar action has been taken by the French government, which launched a national "Repair Bonus" for textiles and footwear in November 2023. Consumers receive a discount of €6-25 when using accredited repair providers, with the scheme financed through the textile EPR system. More than 550,000 products were repaired during the first full year of operation, demonstrating strong consumer uptake.[45] Another approach would be to develop larger-scale repair and refurbishment capacity, encompassing automated sorting, washing, grading and repair systems, as part of business models that enable large volumes of textiles to be prepared for resale. Support could prioritise regions where access to repair services is currently limited and explore opportunities to integrate repair into existing reuse and collection networks.

- **Tax incentives or VAT reductions for second-hand retail**. Reducing tax on second-hand goods could improve their price competitiveness relative to new products. Sweden has already reduced VAT on repair services for goods, including clothing and footwear.[46] The policy was introduced to make repair more economically attractive compared with replacement. These economic measures would need to be designed to avoid unintended impacts on existing retail and charity models.

- **Research into end-of-waste criteria for repaired textiles to facilitate reuse.** Clearer end-of-waste criteria could provide greater certainty over when repaired or refurbished textiles cease to be considered waste. This could help facilitate cross-border movement and commercial resale while ensuring that second hand products placed back on the market meet quality and safety requirements. However, any criteria would need to be designed carefully to avoid creating additional administrative or regulatory barriers to reuse.

- **Public awareness campaigns promoting reuse and repair**. Campaigns could increase awareness of the environmental and economic benefits of repairing and reusing textiles, while providing consumers with practical information on where and how to access these services. Campaigns

[45] Republique Francaise (2023) *Repair Bonus: financial assistance to patch your clothes and shoes.* Available at: https://www.service-public.gouv.fr/particuliers/actualites/A16951?lang=en
[46] Circle Economy (2024) *Swedish government tax break programme for repair*. Available at: https://circle-economy.com/knowledge-hub/article/3624?n=Government-tax-break-program-for-repair&title=Swedish-government-tax-break-programme-for-repair

could also promote behaviour change around purchasing, care and extending the lifetime of textiles.

Increasing domestic reuse could reduce pressure on export markets and improve value retention within the Nordic region.

Recommendation 7: Use EPR schemes to create stronger incentives for quality and circularity

Recommendation 5 is also relevant to achieving Key Policy Objective 3, in particular through fee modulation. Fee modulation could be designed to effectively create a price floor and make it less attractive to place clothing onto Nordic markets that is unlikely to have a long life and be suitable for reuse after its first owner. This may also increase the market for good quality used clothes in the Nordics, helping to sustain a local reuse and repair sector.

The following potential measures could be considered as part of the future design of EPR schemes, subject to relevant EU/EEA requirements and national frameworks:

- **Use EPR to establish a price floor for new clothing**. Modulated EPR fees could increase the cost of placing lower-quality new garments on the market. This could widen the price differential between new and second-hand clothing, making reuse more economically attractive. It would also encourage longer retention of new clothes by their original owner and gradually increase the quality of second-hand items.

- **Support easy access to quality second hand clothes**. To meet potential increased demand for second-hand products, Nordic countries could explore how access can be provided to quality-checked and repaired second hand clothes, especially for people who do not often shop online.

- **Provide funding for Nordic repair activities.** EPR could provide a stable source of funding for repair businesses, social enterprises and community-based initiatives. Compared with reliance on fluctuating second-hand textile markets, EPR offers reduced dependence on resale values, which can vary considerably from year to year. However, allocating EPR revenues to repair could reduce the funding available for collection and recycling infrastructure.

Appendices

A.1.0 List of Stakeholders

Table 3-1: List of stakeholders interviewed

Organisation name	Type of organisation	Country/region
UFF Denmark	Charity / textile collection and second-hand organisation	Denmark
Trasborg	Textile collector, sorter and wholesaler of second-hand clothing	Denmark
Røde Kors Denmark	Charity / second-hand retailer	Denmark
Fida	Charity / second-hand retailer and development organisation	Finland
Suomen tekstiilikierrätys	Textile collection and recycling company	Finland
Red Cross Iceland	Charity / second-hand retailer	Iceland
Sorpa	Municipal waste management and recycling company	Iceland
Fileks	Textile collection, reuse and recycling company	Norway
Fretex	Charity-owned social enterprise, textile collector and second-hand retailer	Norway
Kirkens bymisjon	Charity / second-hand retailer and social enterprise	Norway
Røde Kors Norway	Charity / second-hand retailer	Norway
UFF Norway	Charity / textile collection and second-hand organisation	Norway
Retextile	Textile sorting, reuse and recycling company	Norway
Re-Fresh Global	Circular textile recycling innovator	Germany
RE TREXTIL	Textile recycler	Germany
Ministry of Environment (Lithuania)	Government body	Lithuania
Ecoservisas	Waste management and textile collection company	Lithuania
Humana	Retailer	Ukraine
An anonymous second-hand retail chain	Wholesaler	Ukraine
An anonymous second-hand wholesaler	Wholesaler/ retailer	Ukraine
Re:inventex	Recycler	Ukraine
Fabricraft Impex	Garment manufacturing and export of ready-made garments	India
Flax Apparel	Importer, sorter-grader; involved in resale/export	India
U.S Clothing (India) Pvt. Ltd	Importer, sorter, exporter	India
Kakkar Spinning Mills	Importer, sorter, recycler	India
US International	Importer, sorter, exporter	India
V.K Impex	Sorter, recycler	India
Aemmael Int'l. Company	Importer	Togo
NNAGO SARLU	Importer	Togo
SUNNY & CO	Importer	Togo
UTRADER	NGO Recycling	Togo
NIUTAX	Importer, sorter and distributor	Togo

A.2.0 Partner Research Guides

This appendix contains the topic guides provided to the researchers that undertook primary and secondary research in the Nordic countries and Tier 1 and Tier 2 importers. The topic guides are included so that the reader can understand the background guidance provided and the questions that researchers were asked to address.

A.2.1 Nordic Countries

Introduction

- *Text in **green** is guidance to the interviewer.*

My name is **xxx**, and I'm a researcher from **yyy**. In partnership with Eunomia Research and Consulting, we have been commissioned to complete a study to develop an evidenced understanding of used and waste textiles exports from the Nordic countries by mapping and characterising textiles exports flows from those countries. The project aims to highlight how effective the system is in making sure that the clothing people send for reuse and recycling finds new users, and to examine any challenges in the value chain for discarded textiles.

This interview aims to understand the volumes, destination and treatment of used textiles exports from **country xxx.** We expect the interview to take 45 / 60 minutes.

Your participation in this interview is completely voluntary. Your responses will be securely stored and deleted on completion of this project. Unless you consent to us doing so, research reports will not identify you individually (although we may mention that we have spoken to your organisation). We may use quotes from your interview in the report to contextualise the findings, but we will not attribute comments to you or your organisation without your permission. You can withdraw consent for us to use quotes or references to your organisation up until May 2026.

Check whether the interviewee has returned the consent form here

If the interviewee has returned the consent form, then thank them, and check that they are fine for us to record the interview.

If the interviewee has not returned the consent form, ask them if it is ok to start the recording and ask for consent on the call so that there is proof we have received consent.

Would you mind stating for the recording that you agree to participate in this interview, for it to be recorded and for researchers at **xxx** and Eunomia participating in this research to listen back to it?

Are you happy for us to list your organisation as an interviewee in our publication, or would you prefer to stay anonymous?

May we attribute quotes from this interview to you/your organisation?

Background

The Nordic region plays a significant role in the global trade of used textiles, with substantial volumes exported to other European countries for reuse, sorting, or reprocessing. Analysis of data reported by importing countries to UN Comtrade in 2023 reveals that the top destinations for these exports are Lithuania, Poland, and Germany. These three countries are all high-income European economies, and it is our understanding that, rather than being **final destinations** for disposal or resale, they act as **transit hubs**, where large volumes of textiles are sorted, graded, and redistributed to other countries. Poland is estimated to have an annual sorting capacity of 300,000 tonnes, whilst all three are major exporters of used and waste textiles to areas outside the EU. [47]

Sweden's import data suggests that Sweden receives significant quantities of textiles, particularly from Norway, and appears to be functioning as a regional hub for storage, sorting, or re-exporting textiles, creating a "loop" of trade within the Nordic region.

The role of these transit hubs makes it difficult to give members of the public in each Nordic country transparency regarding the end destination of used textiles from the Nordics. Understanding the flows of material is essential to mapping the flow of textiles, identifying where value is added through sorting and processing, and providing reassurance that the trade yields overall environmental and social benefits.

Further analysis of country-level data shows that Sweden and Norway are the largest exporters among the Nordics, with Sweden exporting over 32,000 tonnes and Norway over 31,000 tonnes in 2023. Iceland, Denmark, and Finland export smaller volumes (3,300 tonnes, 1,700 tonnes and 46 tonnes in 2023 respectively) but still contribute to the overall flow.

These findings underscore the complexity of the used textiles business. Collectors and sorters have an important role in shaping how materials flow through the system. Their activities influence not only the quality and usability of textiles, but also the economic and environmental outcomes of the trade. By understanding how these actors operate, where sorting occurs, how materials are graded, and what drives decisions about redistribution, we can gain **valuable insights into the functioning of the circular textile economy in the Nordics**, highlighting its successes and indicating where there may be scope for improvement.

Table 3-2: Top export destinations of used textiles from the Nordics (2023)

Tier 1 country	Net weight of used Nordic textiles imported (tonnes) (as reported by Nordic countries)	Net weight of used Nordic textiles imported (tonnes) (as reported by each importing country)
Lithuania	17,296	16,243
Poland	24,942	19,346
Germany	16,315	7,379
Sweden	669	12,360

[47] EEA (2024) *Management of used and waste textiles in Europe's circular economy*. Available at: https://www.eea.europa.eu/en/analysis/publications/management-of-used-and-waste-textiles-in-europes-circular-economy

Topic Guide: Nordic collectors/exporters

Question		Sub-Question / *Prompt*
Introduction		
1.	Can you briefly describe your role and how it relates to used textile exports?	
2.	How long have you been involved in this sector?	
3.	Which countries do you operate in?	
Collection		
4.	What is the total weight of used textiles your organisation collects annually?	In which geographies do you collect used textiles? Are you able to share this data with us?
5.	What are the main types of used textiles you collect, e.g. grade, quality?	Are you able to share this data with us?
Processing		
6.	What are the typical steps involved in preparing textiles for export or resale?	
Exporting		
7.	What proportion of the collected textiles are exported?	How much is sold in domestic markets, recycled and disposed of? Are you able to share this data with us?
8.	How much of this is exported as sorted (fully or partially) versus unsorted material?	Are you able to share this data with us?
9.	What are the key characteristics that determine whether an item of clothing is exported or kept for the domestic market (e.g., grade)?	Do these characteristics vary between countries that you export to?
10.	Which countries do you export to, and who are your main partners or buyers?	Are you able to share this data with us? If not, are you able to share whether you are exporting to EU/non-EU countries? If you export through more than one route, how do you decide which clothes to send to which export route?

Question		Sub-Question / *Prompt*
11.	Are there emerging opportunities or markets you are exploring?	Alternatively, have there been changes in the market that have reduced opportunities for clothes to be reused domestically, or in key overseas markets?
Traceability		
12.	Can you trace the final destination of the used textiles that you export, and what their final use or treatment is?	Are you able to share this data with us? What kind of data would help improve transparency in the export process?
13.	How much influence do you have over the final destination and treatment of the textiles once they leave your organisation?	
14.	Do you notice any differences in how Nordic textiles are handled compared to other European textiles by the same buyers? For example, are Nordic textiles more likely to be re-sold rather than recycled?	Are different clothing types treated differently (e.g., exported to different countries)? Are different qualities of clothing treated differently?
15.	How much do the direct export destinations for these textiles change seasonally or from year to year?	Do you have long-term contracts with buyers or are used textile exports based on spot market prices?
16.	If known, how much do the final export destinations for these textiles change seasonally or from year to year?	
Impacts and Opportunities		
17.	What would you say are the benefits of exporting used textiles?	Are there any risks/disadvantages?
18.	Are there any changes in the way exports of used textiles are managed that you would like to see?	

A.2.2 Tier 1 Countries

Eunomia Research and Consulting is conducting a study to develop an evidenced understanding of used and waste textiles exports from the Nordic countries by mapping and characterising used textiles exports flows from those countries. The project aims to highlight how effective the system is in making sure that the clothing people send for reuse and recycling finds new users, and to examine any challenges in the value chain for discarded textiles.

This document has been developed to guide primary researchers in the European countries that are thought to transit high quantities of used textiles from the Nordics, to other countries. Researchers should structure their research according to the following steps:

1) Review stakeholder list (see accompanying spreadsheet).

2) Desk-based research.

3) Conduct interviews with stakeholders.

Please read through this document and **follow the instructions provided before commencing your research**. A short background has been provided to inform researchers of the work conducted to date.

Background

The Nordic region plays a significant role in the global trade of used textiles, with substantial volumes exported to other European countries for reuse, sorting, or reprocessing. Analysis of data reported by importing countries to UN Comtrade in 2023 reveals that the top destinations for these exports are **Lithuania, Poland, and Germany**. These three countries are all high-income European economies, and it is our understanding that, rather than being final destinations for disposal or resale, they act as **transit hubs**, where large volumes of textiles are sorted, graded, and redistributed to other countries. Poland is estimated to have an annual sorting capacity of 300,000 tonnes, whilst all three are major exporters of used and waste textiles to areas outside the EU. [48]

Sweden's import data suggests that Sweden receives significant quantities of textiles, particularly from Norway, and appears to be functioning as a regional hub for storage, sorting, or re-exporting textiles, creating a "loop" of trade within the Nordic region.

The role of these transit hubs makes it difficult to give members of the public in each Nordic country transparency regarding the end destination of used textiles from the Nordics. Understanding the flows of material is essential to mapping the flow of textiles, identifying where value is added through sorting and processing, and providing reassurance that the trade yields overall environmental and social benefits.

Further analysis of country-level data shows that Sweden and Norway are the largest exporters among the Nordics, with Sweden exporting over 32,000 tonnes and Norway over 31,000 tonnes in 2023. Iceland, Denmark, and Finland export smaller volumes (3,300 tonnes, 1,700 tonnes and 46 tonnes in 2023 respectively) but still contribute to the overall flow.

These findings underscore the complexity of the used textiles business. Collectors and **sorters have an important role in shaping how materials flow through the system**. Their activities influence not only the quality and usability of textiles, but also the economic and environmental outcomes of the trade. By understanding how these actors operate, where sorting occurs, how materials are graded, and what drives decisions about redistribution, we can gain **valuable insights into the functioning of the circular**

[48] EEA (2024) *Management of used and waste textiles in Europe's circular economy*. Available at: https://www.eea.europa.eu/en/analysis/publications/management-of-used-and-waste-textiles-in-europes-circular-economy

textile economy in the Nordics, highlighting its successes and indicating where there may be scope for improvement.

Table 3-3: Top export destinations of used textiles from the Nordics (2023)

Tier 1 country	Net weight of used Nordic textiles imported (tonnes) (as reported by Nordic countries)	Net weight of used Nordic textiles imported (tonnes) (as reported by each importing country)
Lithuania	17,296	16,243
Poland	24,942	19,346
Germany	16,315	7,379
Sweden	669	12,360

1) Review stakeholder list

Using desk-based research, an initial list of stakeholders has been identified for each target European country (Germany, Lithuania and Poland). Please review the list for your country and using your expert knowledge, **spend 1-2 hours** deciding on a final list of stakeholders to be targeted for engagement. Stakeholders in your network that have not already been identified may be added. These stakeholders should be involved in importing textiles from the Nordic countries, and partake in at least one of the following activities:

1. Sorting;
2. Storing;
3. Resale in domestic markets;
4. Re-exporting; and/or
5. Recycling, downcycling or disposal.

Once the list of stakeholders has been finalised, **please send this to the Eunomia team for sign-off**.

2) Desk-based research

Desk-based research should be conducted before conducting interviews with stakeholders; **please spend 2-4 hours on this task**, depending on the number of sources that are available. The key research questions to be explored are as follows:

1. What are the total volumes of used textiles your country imports annually? What proportion of these are imported from the Nordics (either directly or indirectly)?

2. What is the quality and grade of textiles imported from the Nordics? How does this compared to other countries that your country imports from?
3. What is the total capacity for processing used textiles in your country (e.g., sorting, washing, or other types of processing)?
4. Does the amount or type of processing tend to differ depending on which country you are importing used clothing from? Does the amount or type of processing tend to differ depending on which country or type of end destination you are exporting used clothing to?

5. What proportion of the used textiles that your country imports are exported to third countries?

6. What proportion of the used textiles that your country imports from the Nordics are exported to third countries?

7. What are the key characteristics that determine whether an item of clothing is exported or kept for the domestic market (e.g., grade)?

8. Which countries does your country typically export to, and who are the main partners or buyers (or what type of stakeholder are they e.g. sorter, distributor, other)?

9. What are the benefits to your country of importing/exporting used textiles? Are there any risks or challenges?

Please record your research in a Word document and send this to the Eunomia team.

3) Stakeholder interviews

The remaining time on this project should be spent conducting interviews with stakeholders shortlisted in step 1 of this research. The following script and interview questions may be used as a guide for conducting these interviews but can be adjusted as the interviewer sees fit. We recommend scheduling 45-60 minutes per interview.

Please send the interviewee the accompanying consent form and ensure that this has been signed and returned before the interview commences. If the interviewee has not returned the consent form prior to the interview, check that they are happy for the call to be recorded and ask for consent at the start of the call (see script below for more guidance).

The completed consent forms and a summary of responses from each interview should be provided in Word and sent to the Eunomia team, alongside transcripts/recordings from the interviews where possible. The following script has been provided as a guide for interviewers:

Introduction

- *Text in **green** is guidance to the interviewer.*

My name is **xxx**, and I'm a researcher from **yyy**. In partnership with Eunomia Research and Consulting, we have been commissioned to complete a study to develop an evidenced understanding of used and waste textiles exports from the Nordic countries by mapping and characterising textiles exports flows from those countries. The project aims to highlight how effective the system is in making sure that the clothing people send for reuse and recycling finds new users, and to examine any challenges in the value chain for discarded textiles.

This interview aims to understand the volumes, destination and treatment of used textiles exports from **country xxx.** We expect the interview to take 45 / 60 minutes.

Your participation in this interview is completely voluntary. Your responses will be securely stored and deleted on completion of this project. Unless you consent to us doing so, research reports will not identify you individually (although we may mention that we have spoken to your organisation). We may use quotes from your interview in the report to contextualise the findings, but we will not attribute comments to you or your organisation without your permission. You can withdraw consent for us to use quotes or references to your organisation up until May 2026.

Check whether the interviewee has returned the consent form

If the interviewee has returned the consent form, then thank them, and check that they are fine for us to record the interview.

If the interviewee has not returned the consent form, ask them if it is ok to start the recording and ask for consent on the call so that there is proof we have received consent.

Would you mind stating for the recording that you agree to participate in this interview, for it to be recorded and for researchers at **xxx** and Eunomia participating in this research to listen back to it?

Are you happy for us to list your organisation as an interviewee in our publication, or would you prefer to stay anonymous?

May we attribute quotes from this interview to you/your organisation?

Topic Guide: Nordic collectors/exporters

Question		Sub-Question / *Prompt*
Introduction		
19.	Can you briefly describe your role and how it relates to used textile processing?	
20.	How long have you been involved in this sector?	
21.	Which countries do you operate in?	
Imports		
22.	What are the total volumes of used textiles your organisation imports annually?	Are you able to share this data with us?
23.	Of this, what are the total volumes of used textiles your organisation imports from the Nordic countries annually? A rough estimate is fine e.g. 20%.	
24.	What are the main types of used textiles you import from the Nordics? What is the quality and grade of these textiles compared to other countries that you purchase from?	Are you able to share this data with us?
25.	What level of processing has the used textiles that you import undergone before you receive them? (e.g., unsorted, baled, sorted)	Does this vary by country that you import from?
Processing		
26.	What are the typical steps you take in preparing textiles for export or resale? (e.g., sorting, washing or other type of processing)	Does the amount or type of processing tend to differ depending on which country you are importing clothing from? Does the amount or type of processing tend to differ depending on which country or type of end destination you are exporting clothing to? What portion of the material you receive is usable and what portion is wasted?
Exporting		

Question		Sub-Question / *Prompt*
27.	What proportion of the textiles that you import are re-exported?	How much is sold in domestic markets, recycled and disposed of? Are you able to share this data with us?
28.	How much of this is exported as sorted (fully or partially) versus unsorted material?	Are you able to share this data with us?
29.	What are the key characteristics that determine whether an item of clothing is exported or kept for the domestic market (e.g., grade)?	Do these characteristics vary between countries that you export to?
30.	Which countries do you export to, and who are your main partners or buyers? (Or what type of stakeholder are they e.g. sorter, distributor, other).	Are you able to share this data with us? If not, are you able to share whether you are exporting to EU/non-EU countries? If you export through more than one route, how do you decide which clothes to send to which export route?
31.	Are there emerging opportunities or markets you are exploring?	Alternatively, have there been changes in the market that have reduced opportunities for clothes to be reused domestically, or in key overseas markets?
Traceability		
32.	Can you trace the final destination of the used textiles that you export, and what their final use or treatment is?	Are you able to share this data with us? What kind of data would help improve transparency in the export process?
33.	How much influence do you have over the final destination and treatment of the textiles once they leave your organisation?	
34.	Do you notice any differences in how Nordic textiles are handled compared to other European textiles by the same buyers? For example, are Nordic textiles more likely to be re-sold rather than recycled?	Are different clothing types treated differently (e.g., exported to different countries)? Are different qualities of clothing treated differently?
35.	How much do the direct export destinations for these textiles change seasonally or from year to year?	Do you have long-term contracts with buyers or are used textile exports based on spot market prices?
36.	If known, how much do the final export destinations for these textiles change seasonally or from year to year?	
Impacts and Opportunities		

Question		Sub-Question / *Prompt*
37.	What would you say are the benefits of exporting used textiles?	Are there any risks/disadvantages?
38.	Are there any changes in the way exports of used textiles are managed that you would like to see?	

A.2.3 Tier 2 Countries

Eunomia Research and Consulting is conducting a study to develop an evidenced understanding of used and waste textiles exports from the Nordic countries by mapping and characterising used textiles exports flows from those countries. The project aims to highlight how effective the system is in making sure that the clothing people send for reuse and recycling finds new users, and to examine any challenges in the value chain for discarded textiles.

This document has been developed to guide primary researchers in the countries that are thought to be 'final destinations' of used textiles from the Nordics using Comtrade data. Researchers should structure their research according to the following steps:

4) Review stakeholder list (see accompanying spreadsheet).

5) Desk-based research.

6) Conduct interviews with stakeholders.

Please read through this document and **follow the instructions provided before commencing your research**. A short background has been provided to inform researchers of the work conducted to date:

Background

The Nordic region plays a significant role in the global trade of used textiles, with substantial volumes exported to other European countries and beyond for reuse, sorting, or reprocessing. Analysis of data reported by importing countries to UN Comtrade in 2023 reveals that the top destinations for these exports are **Lithuania, Poland, and Germany**. These three countries are all high-income European economies, and it is our understanding that, rather than being final destinations for disposal or resale, they act as **transit hubs**, where large volumes of textiles are sorted, graded, and redistributed to other countries. Poland is estimated to have an annual sorting capacity of 300,000 tonnes, whilst all three are major exporters of used and waste textiles to areas outside the EU. [49]

The role of these transit hubs makes it difficult to give members of the public in each Nordic country transparency regarding the **end destination** of used textiles from the Nordics. Understanding the flows of material is essential to mapping the flow of used textiles, identifying where value is added through sorting and processing, and providing reassurance that the trade yields overall environmental and social benefits.

As we move through the trade flow into the next tier of importing countries, the likelihood of capturing data on textiles from only the Nordic countries is reduced and so the importance of collecting primary data becomes clear. An initial analysis of Comtrade data reveals that the top export destinations of used and waste textiles from Germany, Lithuania and Poland are Pakistan, Togo, Ukraine, UAE and India as shown in the table below.

[49] EEA (2024) *Management of used and waste textiles in Europe's circular economy*. Available at: https://www.eea.europa.eu/en/analysis/publications/management-of-used-and-waste-textiles-in-europes-circular-economy

Table 3-4: Top export destinations of used textiles from Germany, Lithuania and Poland (2022)

Importing country	Net weight of used and waste textiles imported (tonnes) (from Germany, Lithuania and Poland)[50]	Net weight of used and waste textiles imported (tonnes) (from Germany, Lithuania and Poland)[51]
Pakistan	50,131	46,172
Togo	30,854	30,666
Ukraine	30,626	24,744
UAE	30,913	5,597
India	30,547	41,897

Tracing the flow of used and waste textiles from the Nordics to Europe and beyond is complex and requires a detailed understanding of the typical trade routes, the quality and grading of textiles exported form the Nordics and ultimately, how these textiles are treated at their final destination. **Importers and sorters have an important role in shaping how materials flow through the system**. Their activities influence not only the quality and usability of textiles, but also the economic and environmental outcomes of the trade. By understanding how these actors operate, where sorting occurs, how materials are graded, and what drives decisions about redistribution, we can gain **valuable insights into the functioning of the circular textile economy in the Nordics**, highlighting its successes and indicating where there may be scope for improvement.

[50] As reported by Germany, Lithuania and Poland
[51] As reported by importing countries (Pakistan, Togo, Ukraine, UAE and India)

1) Review stakeholder list

Using desk-based research, an initial list of stakeholders has been identified for each destination country (Pakistan, Togo, Ukraine, UAE and India). Please review the list for your country and using your expert knowledge, **spend 1-2 hours** deciding on a final list of stakeholders to be targeted for engagement. Stakeholders in your network that have not already been identified may be added. These stakeholders should be involved in importing textiles from Europe, and partake in at least one of the following activities:

6. Sorting;
7. Storage;
8. Resale in domestic markets;
9. Re-exporting; and/or
10. Recycling, downcycling or disposal.

Once the list of stakeholders has been finalised, **please send this to the Eunomia team for sign-off**.

2) Desk-based research

Desk-based research should be conducted before conducting interviews with stakeholders; **please spend 2-4 hours on this task**, depending on the number of sources that are available. The key research questions to be explored are as follows:

10. What are the total volumes of used textiles your country imports annually? What proportion of these are imported from the Nordics or from Germany, Lithuania or Poland?

11. What are the main types (quality and grade) of used textiles your country imports? Are you able to identify the type of textile imports from Nordic countries compared to other countries that your country imports from?
12. What is the total capacity for processing used textiles in your country (e.g., sorting, washing, or other type of processing)?
13. Does the amount or type of processing tend to differ depending on which country you are importing used clothing from?

14. What proportion of the used textiles that your country imports are exported to other countries?

15. What proportion of the used textiles that your country imports from the Nordics are exported to third countries?

16. What are the key characteristics that determine whether an item of clothing is exported or kept for the domestic market (e.g., grade)?

17. How are unsold and waste textile imports treated by your country? (e.g. recycled, landfilled, incinerated, downcycled, etc.)

18. What are the benefits to your country of importing/exporting used textiles? Are there any risks or challenges?

Please record your research in a Word document and send this to the Eunomia team.

3) Stakeholder interviews

The remaining time on this project should be spent conducting interviews with stakeholders shortlisted in step 1 of this research. The following script and interview questions may be used as a guide for conducting these interviews but can be adjusted as the interviewer sees fit. We recommend scheduling 45-60 minutes per interview.

Please send the interviewee the accompanying consent form and ensure that this has been signed and returned before the interview commences. If the interviewee has not returned the consent form prior to the interview, check that they are happy for the call to be recorded and ask for consent at the start of the call (see script below for more guidance).

The completed consent forms and a summary of responses from each interview should be provided in Word and sent to the Eunomia team, alongside transcripts/recordings from the interviews where possible. The following script has been provided as a guide for interviewers:

Introduction

- *Text in **green** is guidance to the interviewer.*

My name is **xxx**, and I'm a researcher from **yyy**. In partnership with Eunomia Research and Consulting, we have been commissioned to complete a study to develop an evidenced understanding of used and waste textiles exports from the Nordic countries[52] by mapping and characterising textiles exports flows from those countries. The project aims to highlight how effective the used textile system is in making sure that the clothing people send for reuse and recycling finds new users, and to examine any challenges in the value chain for discarded textiles.

This interview aims to understand the volumes, destinations and treatment of used textiles exports from **country xxx.** We expect the interview to take 45 - 60 minutes.

Your participation in this interview is completely voluntary. Your responses will be securely stored and deleted on completion of this project. Unless you consent to us doing so, research reports will not identify you individually (although we may mention that we have spoken to your organisation). We may use quotes from your interview in the report to contextualise the findings, but we will not attribute comments to you or your organisation without your permission. You can withdraw consent for us to use quotes or references to your organisation up until 01 May 2026.

Check whether the interviewee has returned the consent form

If the interviewee has returned the consent form, then thank them, and check that they are fine for us to record the interview.

If the interviewee has not returned the consent form, ask them if it is ok to start the recording and ask for consent on the call so that there is proof we have received consent.

Would you mind stating for the recording that you agree to participate in this interview, for it to be recorded and for researchers at **xxx** and Eunomia participating in this research to listen back to it?

Are you happy for us to list your organisation as an interviewee in our publication, or would you prefer to stay anonymous?

May we attribute quotes from this interview to you/your organisation?

[52] Norway, Sweden, Denmark, Iceland and Finland

Question		Sub-Question / *Prompt*
Introduction		
39.	Can you briefly describe your role and how it relates to used textile processing?	
40.	How long have you been involved in this sector?	
41.	Which countries do you operate in?	
Imports		
42.	What are the total volumes of used textiles your organisation imports annually?	**Of this, what are the total volumes of used textiles your organisation imports from the Nordic countries annually *(if known)*?** A rough estimate is fine e.g. 20%. Are you able to share this data with us?
43.	What are the main types of used textiles you import? What is the quality and grade of these textiles?	**What are the main types of used textiles you import from the Nordics *(if known)*?** What is the quality and grade of these textiles compared to other countries that you purchase from? Are you able to share this data with us?
44.	What level of processing have the used textiles that you import undergone before you receive them? (e.g., unsorted, baled, sorted)	Does this vary by country that you import from? Can you provide insights on which countries you tend to receive the highest quality products from vs the lowest quality products?
Processing		
45.	What are the typical steps you take in preparing textiles for export, resale or treatment? (e.g., sorting, washing or other type of processing)	Does the amount or type of processing tend to differ depending on which country you are importing clothing from? Does the amount or type of processing tend to differ depending on which country or type of end destination you are exporting clothing to? What portion of the material you receive is reusable and what portion is waste?
46.	How significant is the role of the informal sector in handling used textile imports?	
Reuse and end-of-life treatment		
47.	What proportion of the textiles that you import are sold in domestic markets?	How much of this is sold as sorted (fully or partially) versus unsorted material? Are you able to share this data with us?

Question		Sub-Question / *Prompt*
48.	Have you observed any changes in how imports of used and waste textiles are managed in your country in recent years?	
49.	How are unsold and waste textile imports treated by your organisation? (e.g. recycled, landfilled, incinerated, downcycled, etc.)	Can you provide a rough estimate for how waste and unsold used textiles are treated by your organisation? What determines whether an item is recycled, landfilled, incinerated, downcycled, etc.?
50.	In your opinion, does this reflect the general trend of how imported textiles are treated in your country?	Can you provide a rough estimate for how waste and unsold used textiles are treated in your country?
Exporting		
51.	Do you export used textiles you receive from abroad?	***Instruction for interviewer: if answer is no, skip to question 20.***
52.	What proportion of the textiles that you import are exported?	Are you able to share this data with us?
53.	How much of this is exported as sorted (fully or partially) versus unsorted material?	Are you able to share this data with us?
54.	What are the key characteristics that determine whether an item of clothing is exported, kept for the domestic market or disposed of (e.g., grade)?	Do these characteristics vary between countries that you export to?
55.	Which countries do you export to, and who are your main partners or buyers? (Or what type of stakeholder are they e.g. sorter, distributor, other).	Are you able to share this data with us? If not, are you able to share whether you are exporting to EU/non-EU countries? If you export through more than one route, how do you decide which clothes to send to which export route?
56.	Are there emerging opportunities or markets you are exploring?	Alternatively, have there been changes in the market that have reduced opportunities for clothes to be reused domestically, or in key overseas markets?
Traceability in the supply chain		
57.	Can you trace the first destination of the used textiles that you import?	Are you able to share this data with us?
58.	Can you trace the final destination of the used textiles that you export or sell domestically, and what their final use or treatment is?	Are you able to share this data with us? What kind of data would help improve transparency in the export process?

Question		Sub-Question / *Prompt*
59.	How much influence do you have over the final destination and treatment of the textiles once they leave your organisation?	
60.	Do you notice any differences in how Nordic textiles are handled compared to other European textiles by the same buyers? For example, are Nordic textiles more likely to be re-sold rather than recycled?	Are different clothing types treated differently (e.g., exported to different countries)? Are different qualities of clothing treated differently?
61.	How much do the direct export destinations for these textiles change seasonally or from year to year?	Do you have long-term contracts with buyers or are used textile exports based on spot market prices?
Impacts and Opportunities		
62.	What would you say are the benefits of importing used textiles?	What do you see as the biggest challenges in managing imported waste textiles effectively?
63.	What changes (policy, infrastructure, technology) would most improve the way used textile imports are handled in your country?	
64.	Are there regulations or government policies shaping how textile waste/unsold imports must be treated?	

A.3.0 Country-Specific Summaries

A.3.1 European Countries

A.3.1.1 Poland

A.3.1.1.1 Research approach

The research underpinning this analysis, which was carried out by the Polish Zero Waste Association, found that there was little transparency regarding the management of second-hand clothing in Poland. The only data available is at a highly aggregated level. Key stakeholders were unwilling to engage, whether in interviews or by sharing operational information, citing the sensitivity and commercial confidentiality of the information involved. Consequently, the conclusions of this research rely heavily on secondary sources, with little opportunity for validation through primary research.

These secondary sources include Polish National Statistics (GUS), international databases such as Comtrade, and industry reports. However, there are inconsistencies between these sources. For example, Comtrade and Polish National Statistics data appear to use different definitions, classification methods, and approaches to recording the movement of goods. As a result, although such sources provide a useful indication of trends and scale, they do not allow for precise tracking of textile flows or a comprehensive mapping of the value chain.

A.3.1.1.2 Poland's role in the used textile sector

Poland is one of Europe's largest hubs for the second hand clothing trade. In addition to second hand clothes that are collected within the country, Poland receives significant volumes of second hand clothing from countries elsewhere in Europe, much of which has been subject to little prior sorting. This material is processed in Polish sorting facilities, and a significant amount of it is then re-exported. Poland is able to play this role due to lower labour costs than some western European countries, which make it an attractive location for large scale manual sorting.

A.3.1.1.3 Mapping of textile flows and value chain

Imports

According to the Polish National Statistics (GUS) Poland's imports of worn clothing from Nordic countries amounts to 18,000 – 23,000 tonnes per year. *Table 3-5* shows the total second-hand clothes imports between 2023 and 2025.

Table 3-5: Total imports to Poland

Country of Origin	2023 import (tonnes)	2024 import (tonnes)	2025 import (tonnes)
Finland	0	0	0
Norway	13,148	15,270	13,957
Denmark	978	3,171	3,632

Country of Origin	2023 import (tonnes)	2024 import (tonnes)	2025 import (tonnes)
Sweden	4,576	3,917	1,491
Iceland	0	<1	<1
Total	**18,703**	**22,356**	**19,080**

Norway is consistently the dominant source of used textile imports from the Nordic region, accounting for approximately 73% of all Nordic imports in 2025. This reflects Norway's long-established role in supplying second-hand textiles to the Polish market and reinforces findings from previous studies that identified Poland as one of the primary destinations for Nordic used textile exports.

The amount of imports from other Nordic countries has changed over time. In 2023, Sweden was the second-largest supplier, contributing around 24% of Nordic imports to Poland. However, Swedish export volumes declined significantly over the following two years. By 2025, Denmark had become the second-largest source, accounting for approximately 19% of Nordic imports, while Sweden's share fell to around 8%. This shift suggests a redistribution of trade flows within the Nordic region, with Denmark increasing its relative importance as a supplier of used textiles to Poland.

Processing

Second hand textiles in Poland are processed at sorting facilities. Out of a total sorting capacity estimated at ~200 000 tonnes per year, two major facilities provide around 70%: Vive (75,000 tonnes) and Wtórpol (65,000 tonnes). However, not all of this is dedicated to managing imports. Wtórpol has long cooperated with the Polish Red Cross[53] by supporting the sorting of donated clothing. The company ultimately purchased the Red Cross's donation bin infrastructure as changing market dynamics led the charity to decide to exit the second hand clothes collection sector.

The sorting process is multi-stage and predominantly manual, designed to classify garments by quality, grade, type, and seasonality. The key stages are:

- basic sorting – after unloading, items are separated into broad categories: women's, men's, and children's clothing, footwear and household textiles.
- main selection - each item is inspected by experienced workers and divided into quality grades (Cream, Grade I, Grade II) as well as clothing type (blouses, trousers, jackets, sweaters, etc.) and by season (summer/winter).
- final selection – a quality assurance stage to check the accuracy of main selection.
- packaging – items are packed into transparent plastic bags or compressed into bales for shipment.
- distribution to end markets or export channels.

Items that cannot be reused are processed into industrial wiping cloths or sent for incineration.

[53] Polish Red Cross (n.d.) *Clothing Collection*. Available at: https://pck.pl/en/co-robimy/zbiorka-odziezy

End use and fate of imported textiles

According to international trade databases such as Comtrade and the Observatory of Economic Complexity (OEC), Poland is one of the world's largest participants in the second-hand clothing trade. In 2024, Poland imported approximately USD 162 million worth of used clothing, making it the sixth-largest importer globally. The same datasets identify Ukraine (USD 14 million), the Netherlands (USD 11.8 million), Belarus (USD 10.8 million), Togo (USD 9.03 million), and Cameroon (USD 8.83 million) as the principal destinations for Polish exports of used clothing by trade value. However, Polish National Statistics (GUS) provide a different perspective when exports are analysed by physical volume rather than monetary value. Measured in tonnes, the largest destinations for Polish used textile exports in 2025 were Pakistan, Togo and India, indicating that a significant share of lower value exported textiles is directed towards markets outside Europe. *Table 3-6* below provides an overview of the main export destinations for polish used textiles

Table 3-6: Exports from Poland (top 3 countries)

Destination country	2023 export (tonnes)	2024 export (tonnes)	2025 export (tonnes)
Pakistan	21,653.5	21,496.8	21,322.6
Togo	17,595.1	17,564.7	20,433.2
India	8,723.9	12,589.8	18,597.2

The export patterns visible in the national statistics are consistent with broader trends in the global second-hand textile trade. The majority of Poland's exports are directed towards Tier 3 countries, particularly in Africa and Asia, where demand for affordable second-hand garments remains high. In 2025, Poland exported approximately 169,239 tonnes of used textiles in total. Pakistan and Togo each received around 12% of total exports, while India received approximately 10%. Even the largest destination countries receive only a modest share of total export volumes, demonstrating that export flows are diversified across numerous end markets rather than concentrated in a single destination. This suggests that Poland's used textile exports largely follow established global trade routes while maintaining a relatively fragmented destination profile.

The data also reveal several notable trends. Exports to India increased significantly between 2023 and 2025, more than doubling over the period. Similarly, exports to Benin and Nigeria grew substantially. In contrast, exports to Ukraine declined from over 15,000 tonnes in 2023 to less than 9,000 tonnes in 2025. Despite these shifts between destination markets, the overall volume of exports remained remarkably stable at approximately 170,000 tonnes per year.

A.3.1.1.4 Key challenges identified

Despite the limited data and lack of willingness amongst key actors in the second hand textiles industry to engage with the research, it is clear that Poland has a substantial sorting and reprocessing industry which deals with significant tonnage of material from the Nordics. While Poland appears to be a growing market for second hand clothes, and also generates used textiles that may be exported in some instances, it seems that the majority of the textiles it imports are sorted and then re-exported, with higher grades being sent for use in Europe and lower grades going to lower income countries. However, it is not possible to closely track flows of used textiles through the country's industry.

This industry does not appear to give rise to significant challenges within Poland. However, it is difficult to assess the extent to which textiles that are imported by Poland become waste requiring disposal, as there is insufficient information regarding the composition of residual waste and no published data from

the industry. Where textiles are deemed to be unsuitable for reuse, it appears that they are more commonly incinerated than recycled, although some are recycled as wiping cloths.

A.3.1.2 Germany

A.3.1.2.1 Research approach

The research that informs this overview was conducted by Zero Waste Germany, with the aim of forming an objective view of how used textiles imported by Germany are currently managed and the impact they have. A combined research approach was applied, which included the collection and analysis of secondary quantitative data and interviews. Quantitative data was drawn from a range of sources including official German statistics, European and international statistics and databases, industry estimates and publicly available information from textile sorting and recycling operators.

To aid understanding of the Germany's second-hand textiles market, two interviews were conducted with a textile recycling innovator and a textile recycler (see *Table 3-7*).

Table 3-7: Overview of German stakeholders interviewed and indicative import quantities for per organisation

Organisation	Type of stakeholder	Description	Annual import quantity (tonnes)
Re-Fresh Global	Circular textile recycling innovator	Re-Fresh Global is a German company redefining cellulose and fiber manufacturing and textile waste infrastructure. The company uses a scalable enzymatic process to convert blended textile waste into Re-SanPulp™ (recycled fiber for nonwovens and textiles) and Re-Celloop™ (cellulose for applications such as cosmetics and packaging), targeting up to 50% cost savings and 85% lower CO_2 emissions compared to virgin materials. Its licensable SMART-UP™ System enables modular microfactory deployment globally, reducing logistics costs and creating regional jobs. This addresses a critical gap: less than 1% of the approximately 92 million tonnes of annual textile waste is currently recycled.	n/a
RE TREXTIL	Textile recycler	RE TREXTIL is a certified recycling company for textiles of all kinds in Polch. They have state of the art sorting facilities, and guarantee a 100% recycling process.	~7,300

Three further interviews were requested, with Jean Bilsheim Textil, Hotex Textilrecycling and Textil-Recycling Remitex GmbH. However, these stakeholders did not respond.

A.3.1.2.2 Germany's role in the used textile sector

Germany plays a significant role in the European used textile market as both a major collector, sorter, processor and exporter of used textiles. The country collected around 175,000 tonnes of used clothing and textile waste from private households in 2023, with collection volumes increasing by 55% between

2013 and 2023. Separate collection is largely based on textile banks/containers, supported by municipal recycling centres, charity shops, retailer take-back schemes and direct deliveries to recyclers. The quantity of material collected is likely to increase if Germany proceeds with plans to introduce an extended producer responsibility scheme for textiles that would require producers to fund the collection and further management of waste textiles.

Germany also acts as a key redistribution hub within international textile value chains. Large volumes of collected textiles pass through industrial sorting facilities where they are separated into reuse, recycling/downcycling and residual waste streams. Historically, over 40% of sorted material entered second-hand reuse markets, while lower-grade material was recycled into products such as insulation and wiping cloths, or sent for energy recovery.

A.3.1.2.3 Mapping of textile flows and value chain

Imports

Germany receives textiles from a range of international sources, including Nordic countries. According to OEC, Germany imported approximately USD 46.7 million of used clothing in 2024. Of this, around USD 6.96 million (14.9%) originated from the four Nordic countries examined:

- Norway: USD 3.59 million
- Sweden: USD 2.51 million
- Denmark: USD 839,000
- Finland: USD 17,400

There are discrepancies between OEC and Destatis import values, especially for Sweden and Norway. These are believed to be due to differences in reporting methodologies, attribution, transit trade or statistical revisions. We have treated Destatis as the primary source. Destatis data shows Germany imported approximately 2,780 tonnes of textile-related materials from Denmark, Sweden, Norway and Finland in 2024.

Table 3-8: Total imports to Germany

Material category	2024 (tonnes)
Used clothing	2,298
Sorted textile materials	310
Synthetic fibre waste	167
Textile waste	5
Total	**2,780**

Used clothing represented 82.7% of all identified textile imports. For 2025, identified imports fell to approximately 2,217 tonnes, driven largely by a 36.8% decline in imports of used clothing. However, imports classified as textile waste increased sharply, largely due to Danish material flows. This shows that

Germany receives not only reusable clothing, but also material destined for industrial sorting, recycling and further processing.

Processing

Germany has a substantial but poorly documented textile processing and sorting sector. Public information suggests national sorting capacity of approximately 191,000 tonnes per year, although the methodology behind this estimate is unclear. Some interviews conducted found some operators capacities:

- Remitex: approximately 30–35 tonnes per day processed.
- Striebel: up to 12,000 tonnes per year sorting capacity.

Interviews detail the use of high-tech pre-sorting, with collectors utilising automatic sorting machines equipped with near infrared technology. This advanced sorting method ensures efficient separation of textiles based on material composition

End use and fate of imported textiles

Germany is a major exporter of used textiles. Interviewers highlighted that, beyond collection and trade, some operators are increasingly involved in advanced textile processing technologies that support fibre recovery and reuse.

In 2023, Germany exported approximately 452,000 tonnes of used clothing and textile-related materials. The main destinations were:

- Netherlands – 16%
- Poland – 15%
- Turkey – 6%
- Belgium – 6%
- UAE – 6%

The top two destinations (the Netherlands and Poland) function as important logistics, sorting and redistribution hubs, receiving large volumes of textiles from Germany before onward export or further processing.

One interviewee explained that textiles are sorted by quality, with the highest-quality items (Quality 1) typically resold within Europe, including Germany, Italy, Romania, Bosnia and Poland. Lower-quality reusable textiles are exported to markets such as Côte d'Ivoire (Quality 2) and Pakistan (Quality 3). In 2024, around 65% of the company's textile input was suitable for resale, while 25% was recycled into products such as cleaning cloths and insulation materials. The remaining 10%, which was heavily contaminated, was sent for thermal recovery.

Interviewees' websites describe a four-stage process for preparing textiles for recycling: mechanical shredding and tearing, enzymatic hydrolysis, filtration, and product preparation. During enzymatic hydrolysis, cellulose from natural fibres is converted into *Re-Celloop™*, while synthetic fibres such as polyester remain intact as *Re-SanPulp™*, retaining their original colour and form. These recovered synthetic fibres can subsequently be spun into new yarns or used in a range of nonwoven applications. *Re-SanPulp™* is primarily utilised in products such as acoustic panels, automotive interiors, furniture materials, and filling products, although it can also be processed into new fabrics and even new fibres

for conventional textile manufacturing. This highlights the growing role of fibre-to-fibre recycling and material recovery technologies within the textile value chain.

A.3.1.2.4 Key challenges identified

The research explicitly identifies a "Nordic blind spot", stating that determining the precise contribution of Nordic textiles would require access to company-level manifests and supply-chain records, which operators have declined to share. As a result, the scale and routing of Nordic textile flows can only be partially assessed through publicly available data.

A major challenge identified is the inability to determine exactly how much textile material originates from Nordic countries once it enters wider European trade networks. Textiles are often aggregated within broad customs categories, making origin tracing difficult. Textiles may enter Germany indirectly through logistics hubs (for example via Dutch ports), meaning official statistics may not accurately reflect the original Nordic source. This contributes to differences between databases and weakens traceability.

German sorting and export companies are described as highly protective of supply-chain information. Details such as Nordic sourcing shares, sorting outcomes, export destinations, and commercial contracts are generally treated as proprietary information and are not publicly disclosed.

Germany is generally well positioned to manage imported textile waste, with significant investment in collection and sorting infrastructure, developing advanced recycling capacity, and a well-regulated waste management sector that helps minimise the risk of environmental harm arising from imports from the Nordic countries. However, as textiles and textile-derived materials may subsequently be traded onwards through international markets, including to countries that are themselves major exporters of used textiles, exports to Germany cannot guarantee that environmental impacts will not occur further downstream in the material's ultimate destination.

A.3.1.3 Lithuania

A.3.1.3.1 Research approach

The research underpinning this analysis, which was carried out by Žiedinė ekonomika found that there was little transparency regarding the management of second hand clothing in Lithuania. Available data is highly aggregated, making it difficult to develop a detailed understanding of material flows and sector practices. Although seven companies were invited to participate in interviews, only one agreed to take part. Most stakeholders were unwilling to engage in interviews or share operational information, citing commercial sensitivity and confidentiality of the information request. As a result, the findings presented in this report rely primarily on secondary sources, with only limited opportunities to validate the analysis through primary stakeholder engagement.

Short interviews were held with the Ministry of Environment and Ecoservisas to obtain some secondary sources. These secondary sources include international databases such as Comtrade, industry reports and second hand clothing websites. Although such sources provide a useful indication of trends and scale, they do not allow for precise tracking of textile flows or a comprehensive mapping of the value chain.

A.3.1.3.2 Lithuania’s role in the used textile sector

Lithuania has historically served as an important hub for the handling and processing of used textiles, particular those originating from the Nordic countries. This has been driven by geographic proximity to the Nordic region which offers significant logistical advantages, including shorter transport distances, lower shipping costs and well-established trade links. The sizeable Lithuanian diaspora living and working in the Nordic countries, and the long-standing social, cultural and commercial connections between

these communities and businesses in Lithuania, are likely to have facilitated the development of trading relationships, information exchange and market access.

A.3.1.3.3 Mapping of textile flows and value chain

Imports

According to the UN Comtrade data, using code 6309, the weight of imported used textiles into Lithuania has decreased from 2023 to 2025, with the value of imported textiles reducing from 70 million USD to 48 million USD. Although the overall weight has reduced, the share of total import from Nordic countries (Denmark, Finland, Norway and Sweden) has increased. The proportion from Finland has increased from 14% to 30% from 2023 to 2025, with tonnage from Norway reducing to less than 1% in 2025. Table 3-9 shows the total second hand clothes imports between 2023 and 2025, and Table 3-10 shows the detailed breakdown from Nordic countries. No specific information was available regarding imports from Iceland.

Table 3-9: Total imports to Lithuania

Year	Total used textile imports (tonnes)	Imports from Nordic countries (tonnes)	Share of total imports from Nordic countries (%)
2023	56,976.0	15,672.8	27.5
2024	53,391.4	16,442.6	30.8
2025	53,779.0	21,679.1	40.3

Table 3-10: Imports from Nordic countries to Lithuania

Year	Denmark (tonnes, % of total Nordic imports)	Finland (tonnes, % of total Nordic imports	Norway (tonnes, % of total Nordic imports	Sweden (tonnes, % of total Nordic imports	Total Nordic imports (tonnes)
2023	773.0 (4.93%)	2,225.5 (14.20%)	2,289.1 (14.61%)	10,385.0 (66.26%)	15,672.8
2024	455.7 (2.77%)	3,404.7 (20.71%)	978.4 (5.95%)	11,603.8 (70.57%)	16,442.6
2025	46.5 (0.21%)	6,590.7 (30.40%)	840.0 (3.87%)	14,201.9 (65.51%)	21,679.1

Sweden consistently has the largest contribution to imports to Lithuania, with over 65% of yearly imports noted from the Comtrade data.

Domestic processing and preparation stages

Anecdotal evidence from experts suggests that the quality and grade of second hand textiles coming from Nordic countries is generally higher than from other regions; however, there is no concrete evidence to support this claim.

Lithuania's largest used textiles handling companies have a combined sorting and preparation-for-reuse capacity of approximately 80,400 tonnes per year, indicating a relatively well-developed reuse infrastructure. Humana Lithuania dominates the sector, accounting for around 65,000 tonnes annually, while other operators such as Novo projektai, Anno, Ecoservice, RePlaza, Tekstilės tvarkymo centras, and Gopala provide additional capacity.

Limited washing infrastructure was identified, with washing operations reported only for Humana Lithuania, suggesting that sorting and preparation for reuse are the primary processing activities within the country's used textiles sector.

End use and fate of imported textiles

Lithuania exports the vast majority of the used textiles it imports, with annual export volumes exceeding 52,000 tonnes between 2023 and 2025 (see Table 3-11). Exports represented 92-99% of imported volumes by weight, highlighting the country's role as a significant sorting and redistribution hub for the international second-hand textile trade. According to expert opinion, sorted textiles are graded into more than 100 categories and directed to different end markets: higher-quality grades are typically exported to Western Europe and some African countries, medium grades to Africa and the Middle East, and lower grades primarily to markets in Pakistan and India. The proportion of exports originating from Nordic countries is not known.

Table 3-11: Total volume exported from Lithuania (2023-2025)

Year	Weight of exported used textiles (tonnes)	Value of exported used textiles (USD)	% of imports (by weight)
2025	52,352	69,318,650	97.3
2024	52,685	79,615,109	98.7
2023	52,331	89,564,425	91.8

Table 3-12: Lithuania's top ten export recipients and tonnage

Rank	2023 (Country, tonnes)	2024 (Country, tonnes)	2025 (Country, tonnes)
1	Pakistan – 8,282	Pakistan – 10,216	Pakistan – 9,343
2	Togo – 7,612	Togo – 6,445	Togo – 7,170
3	Ukraine – 6,040	Ukraine – 6,389	Benin – 6,003
4	Belarus – 4,723	Benin – 5,960	Ukraine – 5,536

5	Benin – 4,118	Belarus – 3,493	United Arab Emirates – 3,671
6	Kenya – 3,024	United Arab Emirates – 3,256	Oman – 2,642
7	United Arab Emirates – 2,134	Kenya – 3,193	Kenya – 2,384
8	Latvia – 1,663	Oman – 2,408	Kyrgyzstan – 2,087
9	Hungary – 1,587	Latvia – 1,441	Zambia – 1,559
10	Zambia – 1,499	Zambia – 1,214	Latvia – 1,341

Table 3-12 shows that Lithuania's top export destinations for used textiles remained relatively stable between 2023 and 2025. Pakistan, Togo, Ukraine, Benin, Kenya, the United Arab Emirates, Latvia and Zambia consistently feature among the leading markets. Pakistan was the largest destination each year, receiving between 8,282 and 10,216 tonnes annually, while Benin increased in importance, rising to third place in 2025. The only new entrant in 2025 was Kyrgyzstan, replacing Hungary. No Nordic countries appeared among Lithuania's top export destinations, despite the Nordic region being a significant source of used textile imports. This highlights Lithuania's role as a redistribution hub, with imported textiles largely exported onwards to markets in Asia, Africa and the Middle East rather than returning to their countries of origin.

According to expert opinion, export destinations are largely determined by textile quality grading, with more than 100 grades prepared to meet the requirements of different markets. Higher-grade textiles are typically exported to Western Europe and selected African markets, while lower-grade materials are primarily directed towards Asian markets, including Pakistan and India. This helps explain the prominence of destinations such as Pakistan in Lithuania's export profile, which remained the largest market throughout 2023–2025, as well as the significant role of other Asian, African and Middle Eastern destinations shown in the table.

A.3.1.3.4 Key challenges identified

Key challenges facing Lithuania's textiles sector include the implementation of extended producer responsibility (EPR), the management of textile waste imports that remain in Lithuania, and cases where imported used textiles or sorted residual materials enter local textile collection streams. While used textiles provide social and economic benefits, lower-value materials may remain in Lithuania and are typically incinerated.

The sector is not very open regarding its activities. Most companies were unwilling to participate in interviews or share operational information, with only one company director agreeing to a detailed interview and one additional company providing limited general comments. This reluctance to engage may reflect the highly competitive nature of the market, as well as the economic pressures and business losses experienced by parts of the sector in recent years. As a result, obtaining detailed and verifiable information on business practices, material flows and market dynamics proved challenging.

No specific challenges related to Nordic countries were identified.

A.3.1.4 Ukraine

A.3.1.4.1 Research approach

To form an objective view of the current situation in Ukraine, a combined research approach was applied, which involved both the collection and analysis of secondary quantitative data and conducting interviews.

The basis for the quantitative analysis was official statistical data obtained from the Ukrainian State Customs Service in response to an EOI. The following datasets were requested and analysed for the period 2021-2025:

- Commercial imports (6309; 6310): broken down by country (country of origin and country of departure), transport mode, weight and customs value.
- Transit flows (6309; 6310): broken down by country (country of origin and country of departure), destination country, transport mode and weight.
- Humanitarian aid (6309; 6310): broken down by country (country of origin and country of departure) , transport mode and weight.

Alongside this, an analysis of the current market and regulatory landscape of Ukraine in relation to the used textiles trade was carried out. Sources reviewed include relevant national legislation, official customs registries, and a comprehensive desk-based market mapping of Ukraine's secondary textile sector. This desktop research was deployed as a filtering mechanism to build a structured sampling framework, enabling researchers to identify, profile, and select the most representative B2B wholesale hubs and B2C retail operators for subsequent in-depth qualitative interviews.

To further understand the functioning of the Ukrainian second-hand textiles market, four in-depth interviews were conducted with representatives of key second-hand textiles operators and waste processors. The organisations represented in these interviews are as follows:

Table 3-13: Overview of Ukrainian stakeholders interviewed and indicative import quantities per organisation

Organisation	Type of stakeholder	Description	Annual import quantity (tonnes/year)
Humana	Retailer	Humana is one of Ukraine's largest second-hand clothing retail chains, operating ~100 stores across 21 cities in Ukraine.	~5,000-6,000
An anonymous second-hand retail chain	Wholesaler	This retail chain operates as an importer and wholesale supplier of used clothing and footwear from Europe, the USA, and Canada.	~180

An anonymous second-hand wholesaler	Wholesaler/ retailer	This anonymous second-hand wholesaler is a leading Ukrainian wholesale supplier and online retailer of second-hand and stock clothing imported from Europe	~240-864
Re:inventex	Recycler	Re:inventex is Ukraine's first and only certified textile waste recycler, providing recycling services for post-industrial and used textile goods.	0

A.3.1.4.2 Ukraine's role in the used textile sector

The combined primary and secondary research identified Ukraine as a country of final destination for used textiles, with only limited quantities transiting through the country.

Secondary research provides a reliable quantitative foundation, with total imports of used textiles (commercial and humanitarian combined) ranging between approximately 112,000 and 130,000 tonnes annually between 2021 and 2025.[54] Primary research supports these findings qualitatively, with stakeholders reporting large and stable inflows, albeit with changing composition.

Table 3-14: Imports of used textiles to Ukraine, by type (2021-2025)[55]

Year	Commercial import (6309, 6310), tonnes	Humanitarian aid (clothing/Shoes), tonnes	Total import
2021	122,380	-	122,380
2022	90,373	22,469	112,842
2023	109,958	20,695	130,653
2024	113,465	15,466	128,931
2025	112,574	16,570	129,144

Quantitative customs data shows that transit volumes are markedly lower. Stakeholder interviews suggest that **imported textiles are almost entirely retained within the domestic market**, with reported export rates of 0%. This strong alignment across data sources increases confidence in the conclusion that Ukraine functions primarily as an end-market where textiles are either resold, redistributed or ultimately enter the waste stream. At the same time, data from the Ukrainian State Customs Service indicates the presence of some limited transit flows. While local operators do not engage in the commercial export of textiles originating from or processed in Ukraine, the country remains a geographical corridor for international

[54] State Customs Service (Ukraine)
[55] State Customs Service (Ukraine)

transit. These transit flows, detailed in the table below, represent goods that cross the border without entering the domestic economy or impacting the national waste management system.

Table 3-15: Transit flows of used textiles through Ukraine, by commodity code (2021-2025)

Year	Commodity code 6309	Commodity code 6310	Total transit
2021	2,723	235	**2,958**
2022	515	51	**566**
2023	257	21	**278**
2024	152	0	**152**
2025	92	0	**92**

A.3.1.4.3 Mapping of textile flows and value chain

Imports

Ukraine's used textile value chain is strongly import-dependent, with the country functioning primarily as a final destination market for used textiles originating from Europe and the Global North. According to one of the interviewees the principal supply chains involve the United Kingdom, Switzerland and a network of European sorting hubs. The most notabe hubs are Poland, Germany and Lithuania, which act as key intermediaries by collecting, aggregating and professionally sorting textiles prior to export to Ukraine.

A clear market shift has emerged in recent years, with some stakeholders indicating that they are moving away from direct sourcing from Nordic countries, such as Sweden and Denmark, towards reliance on the sorting hubs. This is due to less consistent quality in direct sourced material. One participant shared that Nordic countries predominantly export unsorted "original" textiles sourced from municipal collection systems, which isperceived as higher risk due to the prevalence of unsorted inputs and the associated presence of low-quality material. According to one of the interviewees, unsorted consignments from Denmark and Sweden can contain waste fractions of approximately 25–30%, making them economically unattractive. In Ukraine, an ad valorem (percentage) duty rate is applied to goods under the UKT ZED code 6309 00 00 00, which is calculated based on the declared customs value of the goods rather than their weight. Furthermore, goods originating from European Union countries (including Sweden and Denmark mentioned in the report) are subject to special preferential free trade conditions. Their customs duty rate was gradually reduced to 0% over a transitional period, in accordance with the liberalisation schedule. However, these imports remain subject to a special safeguard mechanism in the event that trigger import volumes are exceeded). However, this is not the how it reflects with the market

Some stakeholders identify primary collection countries such as Switzerland, Germany and the United Kingdom as benchmark suppliers of high-quality sorted textiles, supported by more advanced and market-aligned collection systems. Sorting hubs in Poland, Germany and Lithuania also provide textiles that have already undergone professional grading and sorting, making them more suitable for resale and reducing downstream handling costs.

Commercial imports into Ukraine are predominantly comprised of graded textiles (categorised non-officially as Extra, First, or Second grade). These have an estimated 5–10% total fraction of non-reusable

or unmarketable material, generated dynamically across the value chain. Primary field research validates this threshold from two distinct supply chain perspectives:

- wholesale operators (e.g. Rivotex) report an immediate structural textile defect and sorting scrap rate of 5–10% from imported commercial bales

- major retail chains (e.g. Humana) state that approximately 8–9%of the imported goods remain unsold after the discounting cycle. These goods are then sold to subsequent sorting enterprises for further value extraction through reuse, resale, or processing channels. Depending on their condition and marketability, these goods may be sold at further discounted prices, donated, re-exported to other reuse markets, converted into industrial wiping cloths, or processed for fibre recovery.

Similar cascading value-recovery pathways have been documented across second-hand clothing markets globally, including in East Africa, Central America and other markets. However, the pathways followed by residual textile fractions generated by smaller market participants in Ukraine are not systematically monitored. In the absence of nationwide tracking and accessible textile collection and recycling systems, some non-reusable fractions may enter the municipal solid-waste stream. However, the quantity cannot currently be verified

At the same time, one stakeholder identified that humanitarian aid has become an increasingly important import channel, particularly since 2022. These have increased by an order of magnitude and now represent a significant share of total imports. While official trade statistics provide data on the share of humanitarian inflows under a broad 'Clothing/Footwear' category, the reliability of these figures as a quality indicator is fundamentally compromised. Commercial second-hand operators strictly enforce non-official quality grading (e.g., Cream, First, or Second grade) to optimise high ad valorem customs duties. By contrast, humanitarian shipments benefit from simplified, duty-free clearance regulations, resulting in a lack of quality control and a disproportionately high fraction of unusable textile waste entering the domestic system, although the extent of this cannot be reliably quantified due to data limitations.

Domestic processing and preparation stages

Most imported textiles enter Ukraine at an advanced stage of processing, having already been sorted, disinfected and baled prior to export. As a result, domestic activities are primarily focused on downstream preparation for retail and distribution rather than on intensive processing.

These activities typically include unpacking bales, secondary sorting for retail presentation, ironing and redistribution through wholesale and retail channels. Wholesale operators generally rely on the quality control undertaken at European sorting hubs and therefore limit domestic processing to inspection and rapid distribution. Retailers, in contrast, undertake additional preparation to improve product presentation and saleability.

In parallel, a small but emerging recycling sector undertakes activities such as fibre recovery, in which textiles are mechanically processed into secondary raw materials for use in industrial applications. However, this segment remains limited in scale, and currently only processes domestically sourced used textiles. It is constrained by both infrastructural gaps and legislative barriers, particularly those affecting the import of textile waste.

End use and fate of imported textiles

The predominant end use for imported textiles in Ukraine is second-hand resale within the domestic market. Evidence from both primary and secondary sources indicates that almost all imported textiles are absorbed domestically, with negligible levels of transit.

Stakeholders reported that unsold stock may follow several pathways, including price reductions, donation through charitable organisations, conversion into industrial wiping cloths, or (in a few cases) recycling into secondary materials. Where no further reuse or recovery option is available, material may be disposed of, generally to landfill.

However, there is no comprehensive national system governing textile waste management, and the ultimate fate of unsold textiles is not systematically tracked. Given that Ukraine's broader municipal waste system remains heavily landfill-dependent, with over 90% of waste disposed of in landfills, it is highly likely that a significant proportion of textile waste ultimately follows this pathway.

A.3.1.4.4 Key challenges identified

A number of systemic challenges emerge across the textile value chain in Ukraine:

1. First, the absence of a dedicated customs classification for textile waste in Ukraine significantly undermines data accuracy and policy effectiveness. All imported textiles are recorded under codes associated with reusable goods, regardless of condition, preventing meaningful differentiation between products and waste and limiting the ability to assess environmental impacts.

2. Second, there is a critical lack of data on the end-of-life fate of textiles. While stakeholders can track initial supply chains and import origins with relative accuracy, traceability beyond the point of sale is extremely limited. This restricts understanding of reuse, recycling and disposal patterns and weakens the evidence base for policymaking.

3. Third, humanitarian aid flows introduce substantial uncertainty. Due to simplified reporting and limited quality control, these flows may contain higher proportions of unusable textiles, but this cannot be verified due to the absence of systematic data collection and monitoring mechanisms.

4. Finally, the domestic recycling sector remains underdeveloped and constrained by legislative barriers, particularly restrictions on importing textile waste as a raw material. Although there are emerging initiatives demonstrating technical capability, their scale and impact remain limited. This constrains Ukraine's ability to transition towards a more circular textile economy and reinforces its role as a final destination for imported textiles.

A.3.2 Non-European Countries

A.3.2.1 Pakistan

A.3.2.1.1 Research approach

The research that informs this overview was conducted by the Sustainable Development Policy Institute (SDPI). The study combined desk-based research with primary data collection through stakeholder interviews. Desk research was undertaken to examine trade statistics, import and export trends, published literature, government data, and international trade databases. Sources included the Ministry of Commerce and Industry of Pakistan, UN Comtrade, ITC Trade Map, the Federal Board of Revenue (FBR), Pakistan Bureau of Statistics academic literature, and recent sector reports.

To complement secondary information, key informant interviews were conducted with stakeholders involved in the import, processing, recycling, and trading of used textiles. An initial list of 16 stakeholders was identified through online research and professional networks. Following multiple contact attempts, interviews were completed with six stakeholders representing recycling businesses, exporters, traders, and sector experts.

A.3.2.1.2 Pakistan's role in the used textile sector

Pakistan plays a significant role in the global used textile trade, functioning both as a major importer and as a regional processing and re-export hub. Imported used textiles, primarily classified under HS Code 6309, enter Pakistan from around the world imports are either received directly or through intermediary trade hubs such as Dubai. Pakistan does not serve solely as a final destination but also adds value to the materials it imports through sorting, grading, reuse, recycling and re-export activities.

The sector also provides important economic and social benefits. Used clothing offers an affordable source of garments for many Pakistani households and supports a large network of traders, retailers, sorters and recyclers. Estimates suggest that approximately 350–450 businesses operate within the used textile sector, alongside thousands of workers engaged in collection, sorting and processing activities.

In addition to reuse and resale, Pakistan is developing capacity for textile recycling and fibre recovery. However, most recycling activities remain mechanical and relatively small-scale, while advanced recycling infrastructure is still emerging. As a result, Pakistan occupies a critical intermediary position within global used textile value chains, linking exporting countries with regional reuse and recycling markets.

A.3.2.1.3 Mapping of textile flows and value chain

Imports

Pakistan imports substantial volumes of used textiles through a variety of international supply chains. Imports originate directly from countries in Europe, North America, and Asia, as well as through intermediary collection and sorting hubs, particularly Dubai. According to the Ministry of Commerce and Industry, approximately 750 tonnes of used textiles were recorded as having been imported from Nordic countries into Pakistan between 2021-2025, at a value of 350.8 million USD. Data from the Ministry of Commerce monthly statements on imports shows that, between 2023-2025, 14,517,907 tonnes of worn clothing was imported into Pakistan, making the proportion from the Nordic countries very small.[56]

However, interview findings suggest that country-specific tracing of imports is often difficult because many textiles are consolidated and sorted at international trading centres during their transit to Pakistan. As a result, imports recorded as originating from intermediary locations may contain materials collected from multiple countries, including the Nordics, with their original source not being recorded.

Table 3-16 shows the total used textiles imports from the Nordics between 2021 and 2025. Sweden was the largest source, contributing 99% of the Nordic countries' imports into Pakistan and the rest of the Nordics contribute negligible levels (<1%). There were no recorded textile imports from Iceland.

Table 3-16: Total imports to Pakistan

Country of origin	Quantity (tonnes)
Sweden	665
Norway	3

[56] Ministry of Commerce, Monthly Statements (worn clothing). Available at: https://www.commerce.gov.pk/monthly-statements/

Country of origin	Quantity (tonnes)
Denmark	1
Finland	<1
Iceland	0
Total	**670**

Imported consignments generally consist of mixed batches of second-hand garments, including t-shirts, trousers, jeans, dresses, jackets, coats, and skirts. According to interviewees, shipments typically contain a mixture of Grade A, Grade B, and Grade C materials:

- **Grade A:** High-quality reusable garments.
- **Grade B:** Lower-quality but still usable clothing.
- **Grade C:** Poor-quality materials with limited reuse potential, often requiring recycling or disposal.

Processing

Most imported used textiles are processed through the Karachi Export Processing Zone (KEPZ), which serves as the primary sorting and redistribution centre for the sector.

Upon arrival, textiles undergo manual sorting and grading. Workers inspect garments and separate them into categories based on quality, condition, fibre composition, style, and marketability. Interviewees reported that sorting remains highly labour intensive and continues to rely heavily on manual inspection due to limited automation.

The sorting process generates several pathways:

- Reusable garments are prepared for resale or re-export.
- Materials suitable for recycling are separated for fibre recovery.
- Repairable items may undergo minor refurbishment.
- Oversized or low-demand garments may be altered into new products.
- Unusable materials are discarded or converted into industrial wiping cloths and rags.

According to respondents, approximately 60–70% of imported textiles are considered suitable for reuse. Businesses engaged in textile recovery reported increasingly adopting circular economy practices, including the conversion of used textiles into recycled fibres, yarns, mats, cleaning cloths, and industrial rags. Some enterprises have also begun exploring fibre-to-fibre recycling opportunities in response to evolving international sustainability requirements, including those linked to European circular economy and product sustainability policies.

Nevertheless, advanced recycling remains limited due to investment costs that exceed available capital, inadequate technology, and the absence of large-scale automated sorting and washing facilities.

End use and fate of imported textiles

Reuse represents the dominant pathway. Grade A and much of Grade B clothing is sold through domestic second-hand markets or re-exported. Domestic sales occur primarily through markets in Karachi, Lahore, Faisalabad, Rawalpindi, and Islamabad. Interviewees reported that affordable second-hand clothing provides an important source of low-cost garments for many Pakistani households and constitutes the principal livelihood source for numerous traders and retailers.

A significant proportion of imported used textiles is re-exported after sorting and grading. Estimates from some interviewees suggest that between 70% and 80% of imported clothing may ultimately be exported to African markets, while other respondents estimated lower shares. Key destinations include Kenya, Tanzania, Mozambique, Middle Eastern countries, and Asian markets. Pakistan therefore functions as a value-adding intermediary, generating economic returns through processing and redistribution activities before garments reach final consumers. Table 3-17 below provide an overview of the total exports of worn clothing and articles (HS 63090000) in 2024 and 2025, which indicates less is being exported.

Table 3-17: Exports from Pakistan (2024 and 2025)[57]

Total exported from Pakistan in 2024 (tonnes)	Total exported from Pakistan in 2025 (tonnes)
22,714	18,438

Materials unsuitable for direct resale are increasingly diverted to recycling and upcycling activities. Mechanical recycling is the predominant method and includes shredding textiles into fibres for use in rags, stuffing materials, yarn production, cleaning cloths, and other low-value products. Some businesses reported recovering accessories such as buttons and zippers and redesigning oversized garments into children's clothing and household products.

Textiles that cannot be reused, recycled, or upcycled become residual waste. Available evidence suggests approximately 2% of imported clothing may be immediately unsuitable due to poor quality, although actual disposal rates may be higher when unsold, damaged, or contaminated materials are considered. Residual materials are commonly disposed of through landfill, mixed municipal waste streams, open dumping, or informal burning. Stakeholders also noted that unsold seasonal clothing can occasionally be incinerated when market demand is insufficient.

A.3.2.1.4 Key challenges identified

The research did not identify challenges unique to used textile exports from Nordic countries. However, stakeholders highlighted several issues that may also apply to Nordic-origin textiles where these enter broader European collection and sorting systems:

- **Limited traceability of origin:** Interviewees reported that used textiles are often consolidated at international collection and sorting hubs before export. As a result, it is difficult to determine the precise country of origin of garments reaching Pakistan, including those originating from Nordic countries.
- **Potential inclusion of low-quality textiles:** Stakeholders noted that consignments labelled as second-hand clothing can contain varying proportions of low-quality or unusable textiles. In the absence of robust traceability and inspection systems, textile waste may enter Pakistan mixed with reusable garments, increasing waste management burdens.

[57] External trade statistics. Available at: https://www.pbs.gov.pk/external-trade-statistics/

- **Higher procurement costs for European textiles:** Some retailers reported that used clothing sourced from Europe is becoming less competitive due to rising collection and purchasing costs. As a result, some businesses are shifting towards lower-cost imports from China and other Asian countries. Although respondents did not specifically mention Nordic countries, Nordic textiles are likely subject to similar market conditions as other European exports.

- **Lack of visibility over end-of-life outcomes:** Once textiles enter Pakistan's processing and re-export system, there is limited tracking of what proportion is reused, recycled, re-exported or disposed of. This creates challenges for assessing the environmental impacts of Nordic textile exports throughout their full life cycle.

Overall, no evidence was identified that Nordic countries were contributing disproportionately to environmental or social challenges compared with other European exporting countries. The principal issues identified relate to broader international trade, traceability, and waste management systems rather than to Nordic exports specifically.

A.3.2.2 India

A.3.2.2.1 Research approach

The research that informs this overview was conducted by Godambari Sustainable Solutions and Hitbhav Engineers, with the aim of forming an objective view of how India currently imports, sorts, recycles and re-exports used textiles. A combined research approach was applied, which included the collection and analysis of secondary quantitative data from desk-based research and stakeholder interviews. Quantitative data was drawn from a range of sources including Government of India reports, industry websites and interviewee and other relevant websites.

To aid understanding of the India second-hand textiles market, six interviews were conducted with garment manufacturers, importers, recyclers and exporters of waste textiles, as shown in the table below.

Organisation	Type of stakeholder	Description	Annual import quantity (tonnes)
Fabricraft Impex	Garment manufacturing and export of ready-made garments	Fabricraft Impex has been operational for over 20 years.	n/a
Flax Apparel	Importer, sorter-grader; involved in resale/export	Flax Apparel has 18+ years in import/export.	~24,000
U.S Clothing (India) Pvt. Ltd	Importer, sorter-grader; involved in resale/export	U.S. Clothing (India) Pvt. Ltd. has been operational for 50+ years	n/a
Kakkar Spinning Mills	Importer, sorter, recycler	Kakkar Spinning Mills has been operational since the 1980s, and is currently in the 3rd generation of family ownership.	600
US International	Importer, sorter, exporter	US international has been operational for 14 years and, since	1,000

Organisation	Type of stakeholder	Description	Annual import quantity (tonnes)
		June 2026, sources entirely from the United States.	
V.K Impex	Sorter, recycler	V.K Impex has been operational since 2016	2-3 shipping containers

A.3.2.2.2 India's role in the used textile sector

India plays a significant role in global textile flows as both an importer of textile waste and a major processing and redistribution hub. The country imports a wide range of textile waste streams, including pre-consumer manufacturing waste, textile scraps, yarn waste, fibre waste, mutilated rags and worn clothing. Its role differs by material type and import classification.

For wearable used clothing (HS 6309 – worn clothing), India is not primarily an end market, and imports are subject to significant restrictions. Instead, it functions as a sorting and redistribution hub. For textile waste imported under HS 6310 (mutilated rags and textile waste), India acts as a major recycling destination. The country's role is further reinforced by the presence of specialised recyclers which import textile waste directly from European countries and process it into regenerated fibres and yarns. However, once imported materials enter India's recycling system, they are typically mixed with domestic textile waste streams and sorted according to colour and fibre composition rather than country of origin. As a result, traceability is rapidly lost during processing.

A.3.2.2.3 Mapping of textile flows and value chain

Imports

India imports both post-consumer used clothing and a wide range of textile waste materials. Imports are concentrated under two principal classifications:

- HS 6309 (worn clothing): Imported primarily by licensed operators located within Kandla Special Economic Zone (SEZ). Materials are sourced predominantly from North America and Europe through charity networks, commercial collectors and textile aggregators. Imports of wearable used clothing require prior authorisation as India's ITC (HS) import policy classifies HS 6309 as restricted.

- HS 6310 (mutilated rags and textile waste): Imported by recyclers, traders and processors throughout the country. Stakeholders reported that imported materials must generally arrive in mutilated form and comply with fumigation and customs requirements before entering the Domestic Tariff Area (DTA).

- Interviewees described strict controls intended to prevent imported wearable clothing from entering domestic resale channels. They emphasised that they do not participate in illegal diversion and did not identify documentary evidence showing how imported garments may reach informal second-hand markets. Some stakeholders were unwilling to discuss the issue in detail. This report therefore does not conclude that illegal diversion is absent; nor does it assert that it occurs. It records a transparency gap; formal rules are restrictive, while the provenance of clothing in informal second-hand markets is difficult to establish through the interviews conducted.

Imported textile waste reaches recycling facilities via two principal channels:

- Route A: SEZ sorting and mutilation - imported garments are predominantly received in the Kandla Special Economic Zone (KASEZ), where they undergo sorting, grading and processing before being exported to secondary markets in Africa, Southeast Asia and the Middle East. Under Indian regulations, a small share is allowed to be sold into the Indian domestic market, subject to meeting stringent conditions, but there may also be some unauthorised leakage. Non-wearable garments are mutilated and sold into domestic recycling markets. These materials are subsequently transported to recycling centres such as Panipat.

- Route B: direct import by recyclers - large recyclers import mutilated clothing, rags and textile scraps, which are processed through established recycling clusters, particularly Panipat, which is widely recognised as one of the world's largest textile recycling hubs. Imported materials are converted into recycled fibres, yarns, blankets, carpets, wipers and other secondary products. This route bypasses the sorting-for-resale stage associated with wearable used clothing imports.

Domestic processing and preparation stages

Following import, textiles undergo extensive sorting, grading and preparation procedures. Within Kandla SEZ, imported clothing is manually sorted on conveyor systems by large workforces. Garments are classified according to quality grade, garment type, material composition, gender and age category, seasonal suitability and intended end-use. Higher-grade garments suitable for reuse are separated, quality-checked and compressed into export bales.

At facilities such as Kakkar Spinning Mills, materials are first sorted according to colour. More than 44 colour categories are used to facilitate fibre recycling without re-dyeing, reducing water consumption and chemical inputs.

End use and fate of imported textiles

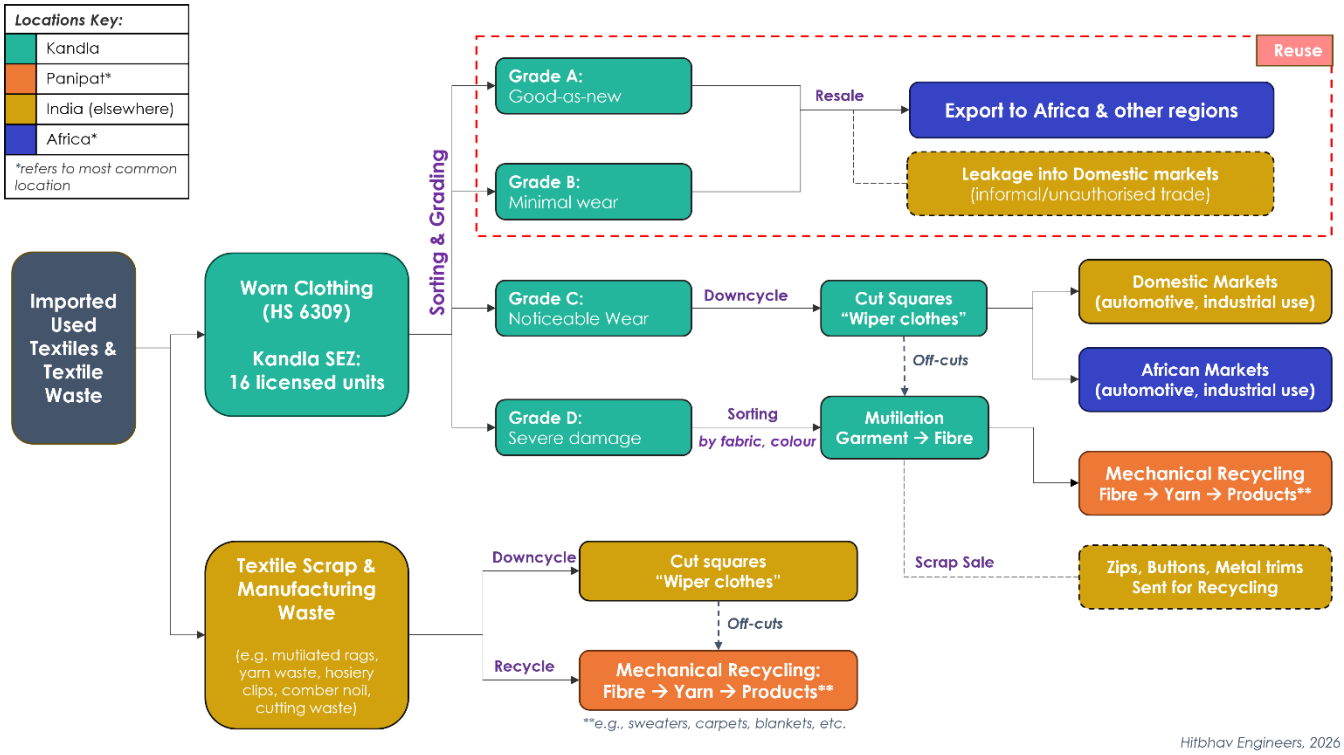
While comprehensive market-wide data on the material flow through different reuse/recycle pathways is not available, stakeholder interviews indicate that over 50% of the imported garments are directed towards reuse via export, and downcycling or recycling collectively forms 30-35% of the share. Data provided by Flax Apparel, one of the major operators in KASEZ, suggests that approximately 60% of imported used clothing is sorted and exported to secondary markets, 20% is converted into industrial wiping cloths, and the remaining 20% is mechanically recycled into fibres.

Grades A and B garments, exhibiting little visible wear, are packed and exported to secondary markets. Export remains the dominant pathway for wearable imports, which is essential for regulatory compliance. Moderately worn garments are converted into industrial wiping cloths. Textiles are cut into standardised pieces and supplied to manufacturing, engineering, construction and automotive industries both within India and overseas. Heavily damaged garments and textile waste are processed through mechanical recycling systems, particularly within the Panipat recycling cluster.

At Kakkar Spinning Mills, after sorting, materials are shredded, fibreised and blended before being spun into recycled yarn. Depending on quality and composition, recovered fibres are used to manufacture blankets, carpets, shawls, sweaters, regenerated yarn and other textile products. Interviewees reported fibre recovery rates of approximately 70-80% of incoming material.

The value chain for imported used clothing is summarised in Figure 3-1.

Figure 3-1: Value chain for imported used textiles and textile waste in India



A.3.2.2.4 Key challenges identified

Stakeholder interviews identified very limited evidence of challenges that are unique to Nordic countries. Most businesses viewed Nordic textiles as part of the broader European sourcing market, and challenges discussed were generally applicable across European suppliers rather than specific to the Nordics. One issue raised by importers was that shipments from Nordic countries often contain a high proportion of winter clothing, which may have lower demand in some export destinations in Africa and Southeast Asia. Some stakeholders also noted that the style and composition of clothing received from Nordic and other European countries may be less suited to their target resale markets compared with clothing sourced from North America.

One importer also highlighted challenges associated with changes in the upstream European used textiles market. According to this stakeholder, improvements in separate collection systems and the growth of domestic reuse and second-hand markets in Europe have reduced the proportion of higher-value garments available in exported textile shipments. The stakeholder reported that declining material quality and associated reductions in profit margins have increased commercial pressures for importers, particularly given regulatory requirements to maintain minimum export shares. They emphasised that businesses may need to adapt their operating models in response to these changes, while also highlighting the importance of ensuring a just transition for the large numbers of workers involved in manual sorting activities.

Stakeholders also noted the importance of distinguishing between reuse-oriented second-hand clothing and textiles imported for recycling. Imported material entering India under HS 6310 was generally viewed as a relatively high-quality feedstock for recycling, whereas quality concerns were more often associated with mixed domestic textile waste streams. While some stakeholders suggested that growing reuse and second-hand markets in Europe may retain a greater share of wearable garments domestically, reducing the availability of reuse-grade clothing for export, imported textile flows were still described as being directed predominantly towards sorting and recycling activities rather than resale. However, these observations reflect stakeholder perspectives and were not supported by quantitative evidence.

In addition, one importer reported a decline in the quality of some European post-consumer textile shipments following COVID-19 and the economic impacts associated with the Russia–Ukraine war. The interviewee attributed this to garments remaining in use for longer before entering export streams, resulting in more heavily worn material. This experience contributed to the company's increasing preference for sourcing from the US rather than Europe. As this observation was based on the experience of one importer, it should not be interpreted as a general trend across European or Nordic-origin textile flow.

A.3.2.3 Togo

A.3.2.3.1 Research approach

The research that informs this overview was conducted by JEUNES VERTS, with the aim of forming an objective view of how used textiles imported by Togo are currently managed and the impact they have. A combined research approach was applied, which included the collection and analysis of secondary quantitative data and interviews. Quantitative data was drawn from a range of sources including trade databases and official statistics, European data, video and field reports and articles and reports from Togolese environmental media.

To aid understanding of the Togo second-hand textiles market, seven interviews were conducted with representatives of key second-hand textiles operators and waste processors, namely:

Organisation	Type of stakeholder	Description	Annual import quantity (tonnes)
Aemmael Int'l. Company	Importer	Importer of user clothing, which oversees grading of goods, packing, and marketing to distributers.	Approximately 600, based on 20-24 containers at 27 tonnes
NNAGO SARLU	Importer	Importer of used clothing.	Approximately 150, comprising seven shipments per annum of 15 to 26.5 tonnes each.
SUNNY & CO	Importer	Importer of used clothing. SUNNY & Co has been in business since 1960 and is one of the oldest and most influential players in the sector in Togo, with a long-standing presence in Benin as well.	Between 500 – 2,000
UTRADER	NGO Recycling	Upcycler / transformer of used textiles into finished products: bags, handbags, school bags, accessories, and material recovery,	n/a

Organisation	Type of stakeholder	Description	Annual import quantity (tonnes)
		using textile waste as insulation in construction.	
NIUTAX	Importer, sorter and distributor	Importer of used clothing. NIUTAX has been active in the sector since 1978. They are one of the longest standing players in Togo's secondhand clothing industry.	Up to 10 containers (or up to 270 tonnes) per month during peak periods

A.3.2.3.2 Togo's role in the used textile sector

In Togo, the second-hand textile sector, commonly known as "friperie," is a key component of trade and clothing consumption. Driven mainly by imports from industrialised countries, it has become the primary source of clothing for a large share of the population. Its success is linked to the affordability and diversity of products available, making second-hand clothing essential in both urban and rural areas.

The market offers a wide range of products, including everyday clothing, brand-name items, children's clothing, shoes, and accessories, meeting diverse consumer needs. The sector is subject to administrative, customs, and health regulations governing imports and distribution. However, its growth presents challenges. Economically, it competes with local textile production and leads to dependence on imports. Environmentally, there are concerns about textile waste, as some imported items cannot be reused. Some unsold products that are deemed unsuitable for the Togolese market, such as winter clothing, are re-exported to Sahelian African countries or Pakistan.

A.3.2.3.3 Mapping of textile flows and value chain

Imports

Despite its largely informal nature, the sector is organised through a structured network managed mainly by Togo's Nigerian community. Clothing arrives at the port of Lomé in compressed bales and is distributed by importers, wholesalers, and retailers to markets across Togo. Some of the material imported to Togo is sent to neighbouring countries, including Burkina Faso, Mali, Ghana, and Nigeria. This distribution chain creates employment and supports thousands of people in Togo. Many of these are women, who play a major role in clothing retail.

In 2023, Togo imported 85,208 tonnes of "worn clothing and other worn articles", for a value 34.8 million USD. According to estimates by The Observatory of Economic Complexity, Togolese imports of second-hand clothing reached about 55.6 million USD in 2024, which makes Togo the world's 29th largest importer of used clothing (out of 214 countries). Used clothes are the 30th most imported product in the Togolese economy.

Further analysis indicates that the main European exporters of used clothing to Togo are Germany, Poland, and France. Some interviewees also identified the UK as a source of imports. However, both Germany and Poland are amongst the biggest export markets for textiles from the Nordics, and it is likely that some of the material sent to Togo would include items sourced from the Nordics. In addition, some importers were able to give views on imports from the Nordics, indicating that they were aware of some material that originated from these countries. Some importers indicated that they have visited their European suppliers to see the merchandise before placing an order.

Video reports and qualitative secondary sources suggest that imported consignments generally consist of mixed used clothing. This is consolidated into bales by wholesalers before being shipped and subsequently sorted locally according to quality and product type.

Interviews conducted with importers, including NNAGO SARLU (TUCA), NIUTAC, Aemmael International Company, and Sunny and Co, indicate that products sourced from Nordic countries are generally perceived to be of higher quality (Type A). However, the Togolese market prefers second hand textiles as they are more affordable. According to respondents, regulations in the Nordics require clothing to undergo disinfection and processing procedures prior to export, which contributes to low levels of unusable material upon arrival. Importers further noted that, while some textiles may ultimately be classified as "waste", the criteria that are applied are quite subjective and the decision to class an item as waste may reflect individual preferences, sorting errors rather than the intrinsic condition of the garment or production errors.

Contrary to the views of those in the industry, environmental studies and published articles highlight that a considerable share of imported second-hand clothing is of poor quality or unsuitable for resale and therefore rapidly enters the waste stream. This suggests a divergence between the perceptions of some market actors and findings reported in the broader literature.

Processing

The domestic processing and preparation of second-hand textiles in Togo is concentrated in sorting facilities, particularly in the Hedzranawoé area. These facilities operate under the supervision of managers who coordinate sorting activities according to the volume of incoming goods. Upon arrival, clothing is sorted into different categories based on quality and potential use. Garments considered to be in good condition are prepared for resale, while lower-quality items are separated for alternative uses. Materials deemed unsuitable for reuse are classified as waste and directed towards disposal or recovery channels where available.

In addition to sorting, repair and alteration activities constitute an important stage in the preparation of second-hand clothing for the local market. Approximately 900 garment workers, including tailors and alteration specialists, are active in the Hedzranawoé market. Their work involves adapting garments to consumer preferences and local demand, thereby extending the useful life and marketability of second-hand clothing.

End use and fate of imported textiles

The majority of second-hand textiles imported into Togo are either reused through domestic consumption and regional re-export markets or ultimately disposed of as waste. According to interviews with market actors, approximately 60–70% of reusable imported clothing is re-exported to neighbouring and regional markets, including Mali, Gabon, Niger, Nigeria, Ghana, the Sahel states, and the Central African Republic. Only 30–40% is retained for consumption within Togo, reflecting the limited capacity of the domestic market to absorb the total volume of imported goods.

Trade data further confirms the role of Togo as a regional redistribution hub for second-hand clothing. In 2024, the country exported USD 7.7 million worth of used clothing, ranking it among global exporters of second-hand textiles. However, exports remain substantially lower than imports (USD 7.7 million exported compared with USD 55.6 million imported), indicating that a large proportion of imported textiles are ultimately consumed, reused, or discarded within Togo.

Although importers estimate that only around 2% of imported clothing is immediately classified as unsellable waste, Togo faces significant challenges in managing textile waste due to the absence of an adequate waste disposal and recycling system. Textiles that are too worn or unsuitable for resale often enter household waste streams, illegal dump sites, gutters, or landfills. Some materials are redirected abroad for further processing, including exports to Canada for industrial applications such as rag production, to Pakistan for shoe reconditioning, and to India and China for conversion into fibres or rugs. There is insufficient data to understand how prevalent each of these pathways may be

In the absence of dedicated textile waste management infrastructure, open-air burning remains a common disposal practice for unsold and unusable garments. This practice has reportedly generated tensions between market operators and municipal authorities. While precise figures are unavailable, some estimates suggest that approximately 40–50% of discarded textiles end up in illegal dumps, drainage channels, or the natural environment, while 30–40% are burned in the open air. A further 10–15% is disposed of in controlled landfills or recovered through informal recycling activities. However, stakeholder also suggested that some textiles that are unsuitable for reuse are repurposed as dusters or rags.

Togo's principal waste disposal facility is the Aképé Technical Landfill (Centre d'Enfouissement Technique d'Aképé, CET-A), which serves as the official final disposal site for Greater Lomé. Operational for several years, the landfill was developed to support environmentally sound waste management practices, including groundwater protection and biogas control. However, the facility is facing increasing pressure due to growing waste volumes, limiting its capacity to effectively manage all waste streams, including non-reusable textile materials.

Togo currently lacks industrial-scale textile recycling facilities capable of processing unusable textiles into new products. Nevertheless, companies such as UTRADER are involved in the collection and recovery of used clothing, textile waste, shoes, bags, and other recyclable materials. These activities contribute to the recovery and redistribution of textile materials; however, the available sources do not provide evidence of industrial processes such as fibre recovery, defibration, or the manufacture of new textile products from waste textiles. However it has been found that discussions are underway within PIA (Adeticope Industrial Platform) with UTRADER to establish a recycling system for textile waste generated by the platform only.

Overall, available evidence suggests that approximately 60–70% of imported textiles are reused through domestic consumption and re-export, while 30–40% ultimately enter disposal pathways, including dumping, landfilling, or incineration.

A.3.2.3.4 Key challenges identified

Key challenges for Togo relating to imports of textiles, including those from the Nordics, include the challenge of managing textiles that are unsuitable for reuse, which overburdens the limited formal landfill Due to limited waste management capacity, informal disposal is common, and results in soil and water pollution. Open-air burning of textiles also contributes to air pollution and poses health risks in affected areas.

There are perceived concerns regarding the quality of imported second hand clothing originating from Germany, Poland, France and the UK. Relatively, little originates directly from Nordic countries, perhaps suggesting that Togo receives lower grade textiles that are perceived as a less common part of Nordic exports. Sorting in intermediary countries is likely to result in higher-quality textiles being retained within European markets. This interpretation is consistent with findings from the Poland case study, which showed that higher-value textiles are extracted during earlier stages of the sorting chain before lower-grade fractions are exported.

Additionally, imported second-hand clothing may create competitive pressures on local textile production, including traditional weaving and loincloth manufacturing, affecting their market viability.

An emerging challenge felt by interviewees is the role of new players; Chinese companies are beginning to affect the sector, not through second hand clothing trade but through the sale of low-cost short lifespan garments that compete with used textiles and are perceived to reduce consumer spending on second-hand clothing, although their impact is minimal as yet.

A.4.0 Track and Trace

A.4.1 Items tagged for tracking

Tag number	Country	Clothing category	Product line	Product description	Colour	Men's / women's	Grade	Other notes
1	Norway	Jackets/coats	Jackets and light jackets	Medium length jacket, thick, winter jacket.	Green	Men's	Grade C	Stain on the back and the arm. Returned to collection and will be exported to Eastern Europe. 375kr, was in a shop in Norway, but was not sold. Came back.
2	Norway	Jackets/coats	Coats	Long fancier coat	Camel	Women's	Grade B	Was in a shop in Norway, but was not sold, came back. Small stain on the front
3	Norway	Jumper-type top (knit based)	Jumper-type top (knit based)	Hoodie, sweatshirt	Red	Women's	Grade B	Multiple small stains, slightly worn out/faded
4	Norway	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	Trousers	Beige	Men's	Grade A	Missing one button in the front.
5	Norway	Jackets/coats	Jackets and light jackets	Light jacket / trench coat	Black	Women's	Grade A	Small thread sticking out of the fabric on the back of the right arm
6	Norway	Skirts/dresses	Dresses	Short length dress	White	Women's	Grade A	Tutu dress, slightly worn, but no mistakes
7	Norway	Jumper-type top (knit based)	Jumper-type top (knit based)	Thick knit pull-over (long sleeve with zipper)	Grey with blue details	Men's	Grade B	Visible stain on the front

8	Norway	Jackets/coats	Jackets and light jackets	Vintage sport jacket (80s)	Purple, red, yellow	Men's	Grade A	Small stains on each arm
9	Norway	Trousers/shorts	Shorts, bermuda shorts - including in denim	Vintage sport shorts	White and blue	Women's	Grade A	Tennis/badminton shorts/skirt
10	Norway	Tops	T-shirt type tops (fabric in jersey or pique knit)	Pique polo shirt	Beige	Men's	Grade B	Small stains on the front, but in good condition
11	Norway	Tops	Shirt-like tops (woven fabrics)	Shirt	White	Women's	Grade A	Knitted top/shirt, very good condition
12	Norway	Tops	Shirt-like tops (woven fabrics)	Blouse top, polyester/silk-like	Pattern, multiple colours	Women's	Grade A	Small loose threads on the bottom and arms (easily removed)
13	Norway	Tops	Shirt-like tops (woven fabrics)	Other woven top / knitted	Black	Women's	Grade A	Wrinkled, otherwise in perfect condition
14	Norway	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	Trousers	Dark blue	Men's	Grade B	Small stains, slightly wear
15	Norway	Trousers/shorts	Denim trousers	Denim / jeans	Blue	Men's	Grade A	Small wear and tears/holes, a bit unclear whether it is intentional or not. Otherwise in good condition.

16	Norway	Skirts/dresses	Skirts	Long skirt	Beige	Women's	Grade A	Perfect condition, small hole in the inner lining
17	Norway	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	Trousers	Black	Women's	Grade A	Perfect condition.
18	Norway	Tops	T-shirt type tops (fabric in jersey or pique knit)	Tank top	White and green	Men's	Grade A	Perfect condition.
19	Norway	Tops	T-shirt type tops (fabric in jersey or pique knit)	Long T-skirts without sleeves	White and grey pattern	Women's	Grade B	Stains on the back, not very visible in their pattern
20	Norway	Jumper-type top (knit based)	Jumper-type top (knit based)	Knitted pull-over, long sleeved	Dark blue	Men's	Grade B	Slightly worn out and faded
21	Norway	Jackets/coats	Jackets and light jackets	Technical trench coat	Dark green/military green	Women's	Grade A	Perfect condition
22	Norway	Jackets/coats	Jackets and light jackets	Winter jacket, medium length	Dark blue	Women's	Grade A	Perfect condition, but missing a belt
23	Norway	Jackets/coats	Jackets and light jackets	Technical sailing jacket	White and dark blue	Women's	Grade B	Good condition, but the white parts looks a bit dirty

24	Norway	Jackets/coats	Coats	Short winter coat	Dark blue	Women's	Grade C	Slightly faded and worn out, missing one button. But still functional as it is.
25	Norway	Skirts/dresses	Dresses	Light summer dress with spaghetti traps	Red	Women's	Grade A	Price tag still on, perfect condition.
26	Norway	Skirts/dresses	Dresses	Long formal dress	Light pink	Women's	Grade B	In good condition, but small stains in front.
27	Norway	Skirts/dresses	Dresses	Summer dress	Blue with floral pattern	Women's	Grade A	Perfect condition
28	Norway	Trousers/shorts	Denim trousers	Black denim trousers	Black	Men's	Grade B	Small hole and wear around the crotch. Wear on the one back pocket.
29	Norway	Trousers/shorts	Denim trousers	Black denim trousers	Black	Men's	Grade B	Minimal signs of wear, almost in perfect condition. Small wear on the one back pocket.
30	Norway	Trousers/shorts	Denim trousers	Denim / jeans	Blue	Men's	Grade B	Wear and a small tear in the crotch and wear on the end of the legs.
31	Norway	Trousers/shorts	Denim trousers	Denim / jeans	Blue	Men's	Grade C	Worn out, fixed in crotch and a hole.
32	Norway	Skirts/dresses	Skirts	Short skirt	Black	Women's	Grade B	Small wear in the back and washed too hard, looks shrunk
33	Norway	Skirts/dresses	Skirts	Short skirt	Black	Women's	Grade A	Wrinkled, otherwise in perfect condition
34	Norway	Jackets/coats	Jackets and light jackets	Suit jacket	Grey	Men's	Grade A	Minimal signs of wear, almost in perfect condition.
35	Norway	Tops	T-shirt type tops (fabric in jersey or	Long T-skirt	Pink	Women's	Grade A	Price tag still on, perfect condition.

			pique knit)					
36	Norway	Tops	T-shirt type tops (fabric in jersey or pique knit)	Polo pique, short sleeves	White	Men's	Grade A	Price tag still on, perfect condition.
37	Norway	Tops	T-shirt type tops (fabric in jersey or pique knit)	T-shirts with short sleeves	Grey	Women's	Grade A	No signs of wears
38	Norway	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	Formal / suit trousers	Grey	Men's	Grade A	No signs of wears
39	Norway	Jackets/coats	Jackets and light jackets	Short winter jacket	White	Women's	Grade A	Slightly stained and a small hole in the back lining of the neck. Otherwise in good condition, no wears
40	Denmark	Tops	T-shirt type tops (fabric in jersey or pique knit)	T-shirt	White	Women's	Grade D	The item has unremovable stains
41	Denmark	Trousers/shorts	Denim trousers	Jeans	Black	Men's	Grade D	Big hole in the groin
42	Denmark	Trousers/shorts	Denim trousers	Jeans	Bright blue	Men's	Grade D	Very worn in the groin

43	Denmark	Trousers/shorts	Denim trousers	Jeans	Black / Very dark grey	Men's	Grade D	Long tear at back pocket
44	Denmark	Jackets/coats	Coats	Short woollen coat	Grey	Women's	Grade C	Used for a long time
45	Denmark	Trousers/shorts	Shorts, bermuda shorts - including in denim	Shorts, jersey knit	Beige	Men's	Grade C	Unremovable stains & signs of long-time use
46	Denmark	Jumper-type top (knit based)	T-shirt type tops (fabric in jersey or pique knit)	Polo shirt, short sleeves	Orange	Men's	Grade B	
47	Denmark	Tops	Shirt-like tops (woven fabrics)	Shirt	Bright brown	Men's	Grade D	Long tear
48	Denmark	Jumper-type top (knit based)	Jumper-type top (knit based)	Sweatshirt	Tinted white	Men's	Grade C	
49	Denmark	Skirts/dresses	Dresses	Short tight dress	Black with bright spots	Women's	Grade A	
50	Denmark	Trousers/shorts	Denim trousers	Jeans	Faded black	Men's	Grade A	
51	Denmark	Trousers/shorts	Shorts, bermuda shorts - including in denim	Shorts, woven	Beige	Women's	Grade A	
52	Denmark	Trousers/shorts	Everyday trousers (woven fabrics) -	Trousers	Grey	Men's	Grade A	

			excl. denims trousers					
53	Denmark	Jumper-type top (knit based)	Jumper-type top (knit based)	Pullover	Dark blue	Women's	Grade B	Minor repair on one sleeve
54	Denmark	Jumper-type top (knit based)	Jumper-type top (knit based)	Thin knit pullover, turtle neck	Red	Women's	Grade B	
55	Denmark	Jumper-type top (knit based)	Jumper-type top (knit based)	Hoodie with pockets in the front	Dark green	Men's	Grade C	Stains of white paint on the sleeves
56	Denmark	Tops	Shirt-like tops (woven fabrics)	Shirt with long sleeves	Blue/white pattern	Men's	Grade A	
57	Denmark	Jackets/coats	Coats	Short coat with extended sleeves	Grey with black sleeves	Women's	Grade C	Sleeves of imitated leather have worn edges
58	Denmark	Jackets/coats	Jackets and light jackets	Winter jacket with hood and knitted waist	Black	Men's	Grade A	
59	Denmark	Jackets/coats	Jackets and light jackets	Light duvet jacket without collar	White with black spots	Women's	Grade A	
60	Denmark	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	Trousers	Dark blue	Women's	Grade C	Dirty at the waist
61	Denmark	Tops	Shirt-like tops	Shirt with long sleeves	White	Men's	Grade A	

			(woven fabrics)					
62	Denmark	Jackets/coats	Jackets and light jackets	Winter jacket with hood and knitted waist	Ochre	Men's	Grade B	
63	Denmark	Skirts/dresses	Dresses	Short summer dress without sleeves	White with blue/green pattern	Women's	Grade B	
64	Denmark	Jumper-type top (knit based)	Jumper-type top (knit based)	Hoodie	Bright grey with vertical white stripes	Women's	Grade B	
65	Denmark	Tops	T-shirt type tops (fabric in jersey or pique knit)	T-shirt with long sleeves	White	Women's	Grade D	Unremovable paint stains on the sleeves
66	Denmark	Skirts/dresses	Dresses	Long dress with ½ sleeves	Rosa	Women's	Grade D	Unremovable stains
67	Denmark	Jackets/coats	Jackets and light jackets	Short jacket with hood and knitted waist	Tinted white with brown stripes on the sleeves	Women's	Grade C	Broken stitching in the armpit
68	Denmark	Trousers/shorts	Shorts, bermuda shorts - including in denim	Sports shorts, jersey knit	Grey	Women's	Grade B	
69	Denmark	Skirts/dresses	Dresses	Short dress without sleeves	Dark blue with bright blue flower-pattern	Women's	Grade B	

70	Denmark	Jumper-type top (knit based)	Jumper-type top (knit based)	Sweatshirt with zipper neck	Bright grey	Women's	Grade B	
71	Denmark	Skirts/dresses	Skirts	Short summer skirt	Pink	Women's	Grade D	Several very dirty spots
72	Denmark	Jumper-type top (knit based)	Jumper-type top (knit based)	Hoodie with zipper in the front	Black	Men's	Grade C	
73	Denmark	Jackets/coats	Jackets and light jackets	Short winter jacket with hood	Evergreen	Men's	Grade A	
74	Denmark	Tops	Shirt-like tops (woven fabrics)	Denim shirt	Faded blue	Men's	Grade C	Very worn in the neck
75	Denmark	Skirts/dresses	Skirts	Very short denim skirt	White	Women's	Grade C	visible tear in front
76	Denmark	Trousers/shorts	Denim trousers	Denim jumpsuit with shoulder straps	Dark blue	Women's	Grade A	
77	Denmark	Skirts/dresses	Skirts	Summer skirt with laces	White	Women's	Grade B	A few stains on one side
78	Denmark	Jumper-type top (knit based)	Jumper-type top (knit based)	Sweater with turtleneck	White	Women's	Grade C	Dirty and with signs of long time use
79	Denmark	Skirts/dresses	Skirts	Short denim skirt	Faded blue	Women's	Grade A	
80	Denmark	Jackets/coats	Coats	Long duvet coat	Dark blue	Women's	Grade D	Extremely dirty. Minor tears on the sleeves
81	Denmark	Jumper-type top (knit based)	Jumper-type top (knit based)	Pullover with long sleeves	Dark blue	Men's	Grade B	
82	Finland	Skirts/dresses	Dresses	Party dress with diamond straps	Black satin	Women's	Grade A	

83	Finland	Jackets/coats	Jackets and light jackets	Ultralight padded jacket	Turquoise	Men's	Grade A	
84	Finland	Trousers/shorts	Denim trousers	Jeans	Denim blue	Men's	Grade B	Slightly worn out on the backside
85	Finland	Trousers/shorts	Denim trousers	Jeans	Denim blue	Men's	Grade D	Worn out, hole in the backside
86	Finland	Jackets/coats	Coats	Winter jacket	Pink, light pink	Women's	Grade D	Worn out, faded colour
87	Finland	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	Striped light summer trousers	Multicolour /striped	Women's	Grade A	
88	Finland	Jackets/coats	Jackets and light jackets	Design blazer	Dark multicolour	Women's	Grade A	
89	Finland	Trousers/shorts	Shorts, bermuda shorts - including in denim	Capri shorts	Light blue	Women's	Grade C	Worn out, stain on the other leg
90	Finland	Trousers/shorts	Denim trousers	Distressed jeans	Light denim blue	Women's	Grade C	Stains on the backside, self-made flaring on legs
91	Finland	Jackets/coats	Jackets and light jackets	Wool poncho jacket	Red with black trimmings	Women's	Grade B	
92	Finland	Jackets/coats	Coats	Winter jacket	Black	Women's	Grade B	Dirty collar
93	Finland	Trousers/shorts	Denim trousers	Jeans	Denim blue	Men's	Grade D	Stains at the front, worn out
94	Finland	Tops	Shirt-like tops (woven fabrics)	T-shirt knit	Flower multicolour	Women's	Grade A	

95	Finland	Skirts/dresses	Skirts	Bodycon skirt	Black	Women's	Grade A	
96	Finland	Jumper-type top (knit based)	Jumper-type top (knit based)	Long sleeve cardigan	White	Women's	Grade B	Minor pilling all over
97	Finland	Skirts/dresses	Dresses	Corduroy long sleeve dress	Black	Women's	Grade B	Slight fading in the colour
98	Finland	Tops	T-shirt type tops (fabric in jersey or pique knit)	Technical textile shirt	Black	Women's	Grade A	
99	Finland	Skirts/dresses	Dresses	Summer dress, crossover back	White/pink/ black stripes	Women's	Grade C	Pilling, stains in the armpits
100	Finland	Skirts/dresses	Dresses	Sleeveless dress, buttons on the front	Green with white dots	Women's	Grade A	
101	Finland	Jackets/coats	Jackets and light jackets	Sherpa jacket/hoodie	White	Men's	Grade C	Worn out, stained collar
102	Finland	Trousers/shorts	Shorts, bermuda shorts - including in denim	Denim shorts	Denim blue	Women's	Grade B	
103	Finland	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	Smart trousers	Brown check	Women's	Grade A	
104	Finland	Jackets/coats	Jackets and light jackets	Ultralight padded jacket	Beige	Women's	Grade D	Worn out, holes and patch ups

105	Finland	Skirts/dresses	Dresses	Cotton long sleeve dress	Black	Women's	Grade D	Overused, holes on the waist seam and all over
106	Finland	Tops	T-shirt type tops (fabric in jersey or pique knit)	Cotton t-shirt	Washed grey	Men's	Grade D	Over washed, holes on the front, very old
107	Finland	Skirts/dresses	Dresses	Cotton long sleeve dress	Multicolour /blue	Women's	Grade D	Overused, holes, stains
108	Finland	Tops	T-shirt type tops (fabric in jersey or pique knit)	Collared shirt	Green check	Men's	Grade A	
109	Finland	Tops	T-shirt type tops (fabric in jersey or pique knit)	Denim like shirt	Light denim	Men's	Grade D	Sweat stains all over, especially in collar
110	Finland	Tops	Shirt-like tops (woven fabrics)	Party blouse	White with shimmer	Women's	Grade D	Sweat stains all over
111	Finland	Jumper-type top (knit based)	Jumper-type top (knit based)	Half turtleneck knit	White	Women's	Grade C	Pilling all over
112	Finland	Jumper-type top (knit based)	Jumper-type top (knit based)	Long sleeve knit	Navy blue with light blue and white stripes	Men's	Grade C	Stained neck collar
113	Finland	Tops	T-shirt type tops	Long t-shirt	Multi-colour	Women's	Grade D	Stained armpits, holes, over washed

			(fabric in jersey or pique knit)					
114	Finland	Jumper-type top (knit based)	Jumper-type top (knit based)	Turtleneck knit	Black	Women's	Grade A	Fur pompoms on shoulders
115	Finland	Jumper-type top (knit based)	Jumper-type top (knit based)	Long sleeve cardigan	Black	Women's	Grade D	Big hole next to the pocket, over washed
116	Finland	Jumper-type top (knit based)	Jumper-type top (knit based)	Long sleeve knit tunic	Yellow	Women's	Grade B	Pilling on the seams
117	Finland	Tops	T-shirt type tops (fabric in jersey or pique knit)	Open front sleeveless vest	Black with silver studs	Women's	Grade A	
118	Finland	Skirts/dresses	Dresses	Maxi dress	Multicolour /orange/dark green	Women's	Grade C	Cut collar, pilling all over
119	Finland	Tops	T-shirt type tops (fabric in jersey or pique knit)	Sleeveless silk-like top	Green multicolour	Women's	Grade A	
120	Finland	Jumper-type top (knit based)	Jumper-type top (knit based)	Wool poncho	Pink	Women's	Grade A	

121	Finland	Jumper-type top (knit based)	Jumper-type top (knit based)	Open front cardigan	Light blue	Women's	Grade D	Pilling all over, over washed
122	Sweden	Tops	T-shirt type tops (fabric in jersey or pique knit)	zip-up velour hoodie	Black	Women's	Grade C	Item has poor-quality material
123	Sweden	Tops	T-shirt type tops (fabric in jersey or pique knit)	long-sleeve polo-style top	blue	Men's	Grade B	
124	Sweden	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	faux leather trousers	Black	Women's	Grade C	
125	Sweden	Trousers/shorts	Denim trousers	jeans	Blue	Men's	Grade C	
126	Sweden	Trousers/shorts	Denim trousers	jeans	Blue	Men's	Grade D	Poor quality
127	Sweden	Jumper-type top (knit based)	Jumper-type top (knit based)	sweatshirt	Blue	Men's	Grade A	Like new
128	Sweden	Jumper-type top (knit based)	Jumper-type top (knit based)	knitted cardigan	White	Women's	Grade A	Like new
129	Sweden	Tops	Shirt-like tops	sleeve button-up shirt	White	Men's	Grade B	

			(woven fabrics)					
130	Sweden	Jackets/coats	Coats	textured coat	Blue	Men's	Grade B	
131	Sweden	Tops	Shirt-like tops (woven fabrics)	blouse	Dark Blue	Women's	Grade C	Item has poor-quality material
132	Sweden	Jumper-type top (knit based)	Jumper-type top (knit based)	knit cardigan	Red	Women's	Grade C	Item has poor-quality material
133	Sweden	Tops	Jumper-type top (knit based)	knit top	Pink	Men's	Grade B	
134	Sweden	Jumper-type top (knit based)	Jumper-type top (knit based)	sweatshirt	Black	Women's	Grade C	Item has poor-quality material
135	Sweden	Trousers/shorts	Denim trousers	jeans	Blue	Women's	Grade C	Item has poor-quality material
136	Sweden	Tops	T-shirt type tops (fabric in jersey or pique knit)	long-sleeve shirt	Dark Blue	Men's	Grade A	Like new
137	Sweden	Tops	Jumper-type top (knit based)	sweatshirt	Dark green	Men's	Grade B	
138	Sweden	Tops	Shirt-like tops (woven fabrics)	striped button-up shirt	White	Women's	Grade C	Item has poor-quality material

139	Sweden	Tops	Jumper-type top (knit based)	long-sleeve top	Blue	Men's	Grade D	Item has poor-quality material
140	Sweden	Jumper-type top (knit based)	Jumper-type top (knit based)	zip-up hoodie	Red	Men's	Grade C	Item has poor-quality material
141	Sweden	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	slim-fit trousers	Grey	Men's	Grade B	
142	Sweden	Trousers/shorts	Denim trousers	denim jeans	Blue	Men's	Grade C	Item has poor-quality material
143	Sweden	Tops	Jumper-type top (knit based)	sweatshirt	Black	Men's	Grade D	Item has poor-quality material
144	Sweden	Tops	Jumper-type top (knit based)	long-sleeve henley top	Grey	Men's	Grade D	Item has poor-quality material
145	Sweden	Jumper-type top (knit based)	Jumper-type top (knit based)	knit sweater	Dark Blue	Women's	Grade D	Item has poor-quality material
146	Sweden	Tops	Jumper-type top (knit based)	long-sleeve top	Red	Men's	Grade A	Like new
147	Sweden	Tops	Jumper-type top (knit based)	knit sweater	Cream	Women's	Grade D	Item has poor-quality material

148	Sweden	Tops	Jumper-type top (knit based)	sweatshirt	Red	Men's	Grade B	
149	Sweden	Tops	Shirt-like tops (woven fabrics)	long-sleeve top	Black	Women's	Grade D	Item has poor-quality material
150	Sweden	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	trousers	Dark Blue	Men's	Grade B	
151	Sweden	Tops	Shirt-like tops (woven fabrics)	long-sleeve utility shirt	Green	Men's	Grade A	Like new
152	Sweden	Jackets/coats	Jackets and light jackets	zip-up sports jacket	Black	Men's	Grade B	
153	Sweden	Tops	T-shirt type tops (fabric in jersey or pique knit)	polo shirt	Black	Men's	Grade D	Item has poor-quality material
154	Sweden	Jackets/coats	Jackets and light jackets	zip-up jacket	Brown	Men's	Grade A	Like new
155	Sweden	Trousers/shorts	Denim trousers	jeans	Blue	Men's	Grade A	Like new
156	Sweden	Trousers/shorts	Denim trousers	jeans	black	Women's	Grade B	
157	Sweden	Tops	Jumper-type top	knitted cardigan	Grey	Women's	Grade C	Item has poor-quality material

			(knit based)					
158	Sweden	Tops	Jumper-type top (knit based)	knitted sweater	Grey	Men's	Grade A	Like new
159	Sweden	Trousers/shorts	Denim trousers	jeans	Blue	Men's	Grade C	Item has poor-quality material
160	Sweden	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	leather leggings	Black	Women's	Grade A	Like new
161	Sweden	Tops	Jumper-type top (knit based)	sweater	Dark Blue	Men's	Grade C	Item has poor-quality material
162	Iceland	Tops	T-shirt type tops (fabric in jersey or pique knit)	t-shirt	white with floral print	Women's	Grade B	
163	Iceland	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	White khaki trousers	Black	Men's	Grade B	Levi´s
164	Iceland	Skirts/dresses	Dresses	Flower party dress	red and black (flower print)	Women's	Grade A	Like new

165	Iceland	Jumper-type top (knit based)	Jumper-type top (knit based)	Baby jumper, knitted	grey	Men's	Grade C	Well worn, hand knitted
166	Iceland	Tops	T-shirt type tops (fabric in jersey or pique knit)	T-shirt	white	Men's	Grade D	stained
167	Iceland	Jackets/coats	Coats	outdoor coat	blue	Women's	Grade B	
168	Iceland	Jackets/coats	Jackets and light jackets	children's jacket	black, white, blue	Men's	Grade D	well worn
169	Iceland	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	light long trousers	green	Women's	Grade C	stained
170	Iceland	Jackets/coats	Jackets and light jackets	Party jacket	Floral	Women's	Grade B	
171	Iceland	Jackets/coats	Jackets and light jackets	vest	black	Men's	Grade B	small stain in front
172	Iceland	Skirts/dresses	Dresses	Long dress	black	Women's	Grade C	well used
173	Iceland	Jumper-type top (knit based)	Jumper-type top (knit based)	Crocheted sweater	black and white	Women's	Grade C	New, but cheap material
174	Iceland	Skirts/dresses	Dresses	Short glitter dress	Red	Women's	Grade A	Like new

175	Iceland	Skirts/dresses	Dresses	Short party dress	black	Women's	Grade C	cheap material
176	Iceland	No data	No data	No data	No data	No data	No data	No data
177	Iceland	Tops	T-shirt type tops (fabric in jersey or pique knit)	Sports wear t-shirt	blue	Men's	Grade A	
178	Iceland	Trousers/shorts	Denim trousers	Denim	Blue	Women's	Grade B	Primark
179	Iceland	Jackets/coats	Jackets and light jackets	Light jacket	black	Men's	Grade A	
180	Iceland	Tops	Shirt-like tops (woven fabrics)	Buttoned shirt	orange and white	Women's	Grade A	Like new
181	Iceland	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	Casual trousers	Green	Women's	Grade B	
182	Iceland	Jumper-type top (knit based)	Jumper-type top (knit based)	Hand knitted	brown	Men's	Grade B	
183	Iceland	Skirts/dresses	Skirts	skirt	light	Women's	Grade D	Cut dress
184	Iceland	Skirts/dresses	Dresses	party dress	black	Women's	Grade C	Like new, but cheap material
185	Iceland	Trousers/shorts	Everyday trousers (woven	Sports wear	grey	Women's	Grade A	

			fabrics) - excl. denims trousers					
186	Iceland	Jumper-type top (knit based)	Jumper-type top (knit based)	oversize sweater	pink, grey and white	Women's	Grade C	well worn
187	Iceland	Skirts/dresses	Skirts	knee length skirt	purple	Women's	Grade A	New with tag
188	Iceland	Skirts/dresses	Skirts	knee length skirt	green	Women's	Grade B	
189	Iceland	Tops	T-shirt type tops (fabric in jersey or pique knit)	Long sleeve sport top	grey	Men's	Grade B	small hole on sleeve
190	Iceland	Jackets/coats	Jackets and light jackets	Fancy jacket	green	Women's	Grade A	
191	Iceland	Jumper-type top (knit based)	Jumper-type top (knit based)	Long sleeve top	blue green	Women's	Grade B	Like new, but bad quality
192	Iceland	Tops	T-shirt type tops (fabric in jersey or pique knit)	Long sleeve jersey	dark blue	Men's	Grade C	Well worn
193	Iceland	Trousers/shorts	Everyday trousers (woven fabrics) - excl.	Sports wear	blue	Men's	Grade B	

			denims trousers					
194	Iceland	Tops	Shirt-like tops (woven fabrics)	Denim shirt	grey	Men's	Grade A	Like new
195	Iceland	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	pattern pants	black and white	Women's	Grade C	Like new, but bad material (Shein)
196	Iceland	Jumper-type top (knit based)	Jumper-type top (knit based)	Thick knitted jumper	white	Women's	Grade C	Well worn and stained
197	Iceland	Trousers/shorts	Everyday trousers (woven fabrics) - excl. denims trousers	Sports wear	black	Women's	Grade C	Well worn
198	Iceland	Jumper-type top (knit based)	Jumper-type top (knit based)	children sweater w/ hood	green	Women's	Grade B	Hand knitted
199	Iceland	Jackets/coats	Jackets and light jackets	children jacket w/ hood	black	Men's	Grade C	Shein, bad material
200	Iceland	Jackets/coats	Jackets and light jackets	West with a hoodie	dark blue	Women's	Grade A	


eunomia