



Nordic Council
of Ministers

Harmonisation and development of plastic statistics in the Nordics



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Executive summary

Reliable plastic statistics are essential for effective policy responses to the growing global plastic pollution crisis. Despite ambitious Nordic and EU targets on plastics, existing data remains fragmented, incomplete, and difficult to compare across countries, significantly limiting policy impact. To address these challenges, the Nordic Council of Ministers launched an initiative that identified high-level recommendations, this project was initiated to build on some of these. The key priorities are:

- Identify and prioritise key plastic data points crucial for policy monitoring and evaluation.
- Assess the availability and comparability of prioritized data, as well as the cost-efficiency of improving these data across the Nordics
- Provide concrete guidance on where development and harmonisation of data across the Nordic countries can have the greatest impact at the lowest cost.

The data prioritisation process was split into a three-step process:

1. Data prioritisation: 37 plastic-related data points were selected based on mentions in EU, Nordic and global policy documents and strategies.
2. Data availability mapping: Each data point was assessed across countries for availability, comparability and documentation.
3. Cost-benefit analysis: Each data point was ranked by cost and a weighted value of benefits e.g. environmental impact and policy relevance.

Insights from desktop research and interviews were finally validated in a Nordic workshop held in March 2025 with representatives from Sweden, Norway, Iceland and Finland.

Harmonising and developing data offers high value but demands coordinated national action

The analysis confirms that few plastic data gaps offer true quick wins. Most high-value data gaps already have raw data somewhere in the Nordic region, but misaligned definitions and fragmented reporting limit their comparability. Key conclusions:

- Waste-related data—such as collection and recycling—are the most readily available (43% fully available), driven by EU and national reporting requirements. Yet comparability across countries remains weak due to inconsistent definitions and reporting practices.
- Market, production and trade data show strong long-term potential for continuous tracking though emerging models such as the one in development by UNTAR and UNEP. However, such data require reliable plastic-content estimates across HS/CN and PRODCOM codes.
- Sector-specific waste data, such as from construction or textiles, are also highly relevant, but need significant investment in data collection, modelling and harmonised methodologies.
- Meanwhile, intermediate use, recyclability and in-use stock data consistently score low in both value and feasibility due to vague definitions and limited demand.

The analysis highlights priorities for harmonisation and development across the Nordic countries.

- In the short term, aligning definitions and reporting templates for waste-related statistics offers the greatest value, given their policy relevance and higher availability.
- Medium-term efforts on the other hand should centre on developing shared methodologies for estimating plastic shares in production, market and trade flows. Delivering on this ambition will require not just technical alignment, but also sustained national engagement and structured Nordic cooperation.

1 Introduction

Reliable plastic statistics are crucial for addressing the global plastic pollution crisis, yet existing data is fragmented and often not comparable across countries (OECD, 2022b). The Nordic countries have initiated a joint effort to close critical data gaps by prioritising, harmonising, and developing key plastic statistics. This report presents the results of the initiative's first two phases and sets a clear path towards robust, harmonised data for effective policy action.

One critical area of readiness is data. The UNEA mandate emphasises the need for countries to map plastic production, use and waste generation to support implementation, ensure comparability, and evaluate global progress (UNEP, 2022). This requires more than sporadic reporting – it requires coherent, standardised, and policy-relevant statistics.

The Nordic region is well positioned to contribute. Strong public institutions, environmental commitment, and digital capabilities create favourable conditions for evidence-based plastics governance. However, significant variation remains in how data is measured, estimated, and reported across the Nordics – and the full extent of these discrepancies is not yet fully understood.

Meanwhile, global plastic pollution is accelerating rapidly and is now recognised as one of the major environmental crises of our time (UNEP, 2022). Plastic production has increased exponentially – from 2 million tonnes in 1950 to over 460 million tonnes in 2019. Of this, only around 9% is recycled, with the vast majority accumulating in landfills, incineration plants, and ecosystems (OECD, 2022b; Ritchie et al., 2023). If trends continue, plastic production could almost triple by 2060, dramatically amplifying its environmental impacts (OECD, 2022a). Impacts on biodiversity, ecosystems, and climate stability (OECD, 2022a).

Addressing this crisis requires reliable and harmonised statistics to support evidence-based policymaking at global, regional, and national levels. However, current data on plastic flows – such as production, consumption, waste generation, and recycling – remains fragmented, inconsistent, and difficult to compare between countries. Reliable and harmonised plastic statistics are urgently needed to:

- **Measure** plastic impacts on environment, economy, and society.
- **Prioritise**, identify and focus efforts on policies and actions that effectively reduce plastic pollution.

- **Continuously monitor** progress, evaluate the effectiveness of interventions, and improve governance.

In response to these challenges, the Nordic Council of Ministers launched a regional initiative to systematically improve and harmonise plastic data across the Nordic countries. This report is a part of the second project under the initiative and builds on some of the challenges identified and high-level recommendations set out in the first project under the Nordic initiative, as outlined in the Nordic Council of Ministers' 2024 summary report.^[1] The Nordic initiative can directly support international policy efforts, including the ongoing UN negotiations toward a legally binding global plastics treaty (UNEP, 2022).

Our project consists of two phases and this report presents the results from phase 1 and parts of phase 2:

- **Phase 1** focused on identifying the most relevant plastic data flows, assessing the availability and comparability of current data, and evaluating the cost–benefit of harmonising and increasing the availability of each data point.
- **Phase 2** consisting of a Nordic expert workshop. This to provide a status on the harmonisation and demand of plastic statistics in the Nordics as well as a description of the challenges and recommendations moving forward.

Other results from phase 2 are available in the report [Nordic plastic statistics](#).

1.1 Objective & scope

The overarching aim of this project is to support the development and harmonisation of plastic-related statistics in the Nordic region, with the long-term goal of enabling each country to establish a national inventory on plastics. To achieve this, the project has been structured around two main objectives:

- **To prioritise** the most important plastic-related data and flows to improve or harmonise across the Nordic countries – such as production volumes, consumption by sector, trade flows, waste generation and recycling.
- **To initiate** development and harmonisation efforts for a selection of these priority data points, including testing of methodological approaches and data frameworks.

1. The 2024 Nordic Council of Ministers' summary report (*"Better and harmonized statistics on plastic material flows"*) identified nine key statistical challenges—from poor traceability of waste exports and limited polymer-level product data to inconsistent methods. It recommended, among other actions, (i) strengthened Nordic coordination on statistical methods (e.g. adapting UNITAR's Plastic-KEYs, harmonising CN-code use), (ii) more detailed digital waste-shipment data, and (iii) regular updates of key indicators (Nordic Council of Ministers, 2024). This report follows up by prioritising data points, assessing their status across Nordic countries, and providing a cost–benefit screen—validated in a regional expert workshop—as input to the next phase of harmonisation.

Leakage of plastics to the environment, as well as microplastic, is excluded from the scope of this project.

The geographic scope includes Sweden, Norway, Denmark, Finland, Iceland. Greenland was excluded early on due to limited availability of key informants. Due to differences in institutional structures and data availability, some components of the analysis have focused on a subset of these countries.

1.2 Glossary

Table 1 An overview of key terms used in the report.

Term	Definition
Data point	A single quantifiable observation or metric, such as "tonnes of plastic waste generated per year". Serves as input to indicators.
Indicator	A summary measure, derived from one or more data points, that tracks change over time or compares performance against targets (e.g. plastic-packaging recycling rate) (Eurostat, 2014).
Extended Producer Responsibility (EPR)	Extended Producer Responsibility (EPR) is a policy approach that holds producers accountable for their products throughout the entire lifecycle, including after consumer use. This includes responsibility for collection, treatment, and recycling. EPR aims to promote sustainability, increase recycling, and reduce environmental impact.
Material Flow Analysis (MFA)	A systematic, mass-balance-based method for quantifying material stocks and flows within a defined time and space boundary (Eurostat, 2020).
Primary plastic	Plastic polymerised for the first time from virgin fossil or bio-based feedstock.
Secondary plastic	Reprocessed from post-consumer or post-industrial plastic waste for use as a raw material.
Put on Market (POM)	The mass (or number of units) of plastic products supplied for the first time for distribution, consumption or use in a given market during a defined period ('placing on the market').

2 Phase 1 – Prioritisation of plastic data in the Nordics

The first phase of the project focused on identifying and prioritising the most important plastic-related data across the Nordic countries. This enables targeted efforts in developing and harmonising Nordic plastic statistics.

The phase followed a structured three-step approach visualised in Figure 1:

1. **Data Prioritisation:** A systematic mapping of plastic-related policies, legislation, strategies and targets was conducted at the global, EU and national levels. This resulted in the identification of data points, from which 37 were prioritised based on legal significance and Nordic relevance.
2. **Data Availability Mapping:** For the prioritised data points, the availability, comparability, and gaps in existing data were assessed.
3. **Cost–Benefit Analysis:** A targeted evaluation of the costs and expected benefits of closing identified data gaps was carried out, focusing on environmental impact, regulatory compliance and policy value.

Key insights from Phase 1

- **Waste-related indicators stand out as shared priorities**
Indicators such as collection, recycling are most established across countries and anchored in legal mandates.
- **Availability and comparability vary significantly**
Several high-priority indicators suffer from fragmented reporting or unclear definitions, especially trade, Put On Market, and waste generation.
- **Few data points are both high-impact and low-cost**
Few "*quick wins*" exist in terms of filling gaps in data. Nevertheless, potential for cost-effective efforts exist by aligning existing reporting formats and definitions between the Nordic countries.
- **Production and trade data offer high strategic value**
These data are already collected through existing product classifications, enabling immediate use with less additional cost than new data collection initiatives. When plastic content can be reliably estimated, they serve as critical inputs for modelling material flows and informing strategic decisions.

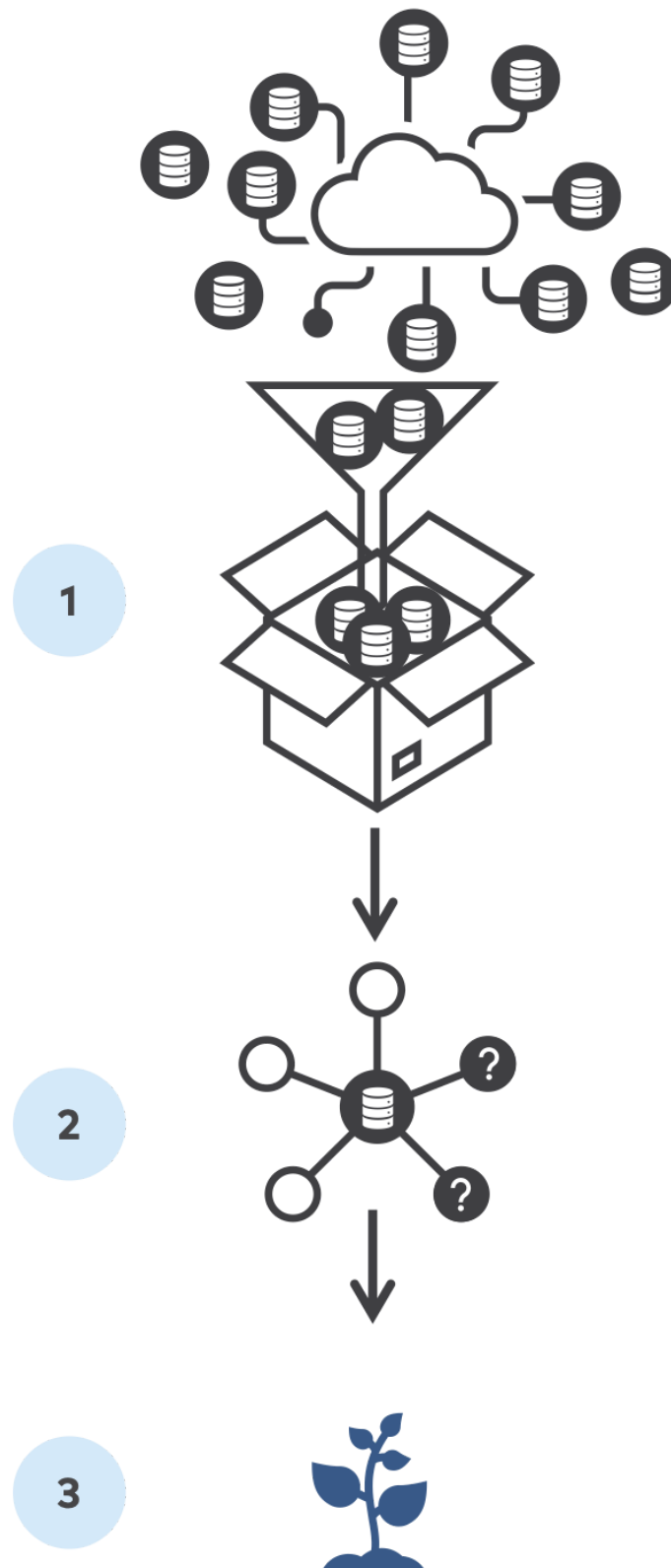


Figure 1 Phase 1 three step process visualisation.

2.1 Data Prioritisation

This first step aimed to systematically identify which plastic-related data are most relevant to harmonise across the Nordics, based on policy relevance.

Summary

A structured policy-to-data mapping process identified 37 high-priority plastic data points, selected based on their presence in global, EU and Nordic strategies and their link to measurable indicators.

- **Waste treatment and packaging** data were most anchored in legal mandates and widely referenced in both EU and national strategies.
- **Trade, intermediate use and stock** data showed lower and more fewer policy references.
- **Sectoral analysis** highlighted packaging as the most universally prioritised sector, followed by construction, textiles and transport.

This highlights the need for clearer definitions and shared methodologies to support future harmonisation and development efforts of plastic statistics.

The prioritisation followed a clear four-step process (Figure 2). First, relevant plastic policies and strategies were reviewed. Second, measurable indicators were identified and broken down into underlying statistical data points. Third, unique data points were filtered. Finally, these were linked to a prioritisation matrix based on relevance and policy demand.

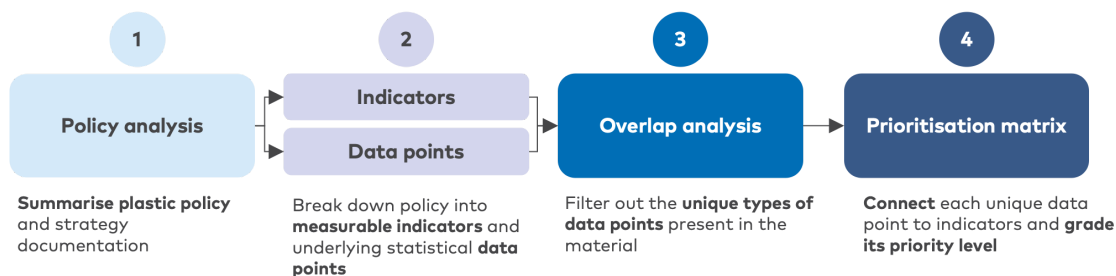


Figure 2 Overview of the prioritisation process for plastic-related data.^[2]

2. The full list of the reviewed policy and strategic documents can be found in Appendix A

This resulted in a **shortlist of 37 priority data points** for further analysis as shown in Table 3.

Key sectors

Table 2 summarises the sectors most frequently mentioned in major plastics-related frameworks, policies and strategies. The analysis confirms that the packaging sector stands out as the most universally referenced. This reflects the sector's central role in plastic consumption, short product life cycles, and policy-driven targets.

Table 2 Industry overview^[3]

Industry	Top consuming sectors	EU CE action plan	UNITAR Plastic Keys	Policy review	Global Plastic Agreement
Packaging	✓	✓	✓	✓	✓
Construction	✓	✓	✓	✓	
Transportation	✓	✓	✓		
Textile	✓	✓	✓	✓	✓
Consumer & institutional	✓		✓		
Electrical & electronics	✓	✓	✓		
Fisheries & aquaculture				✓	✓
Agriculture				✓	✓
Industrial machinery	✓		✓		

3. This is a summary of sources used to identify the industries that are the most relevant to plastic data:

- Top consuming sectors: [Global Plastic Production by industry sector \(Statista, 2017\)](#), Annual global plastic use (OECD (2022) – processed by Our World in Data)
- [EU Circular Economy Action Plan](#)
- UNITAR & UNEP (forthcoming 2025) Statistical Guideline for Measuring Flows of Plastic throughout the Life Cycle (draft, not yet public). Geneva: UNITAR.
- Sweco's review, see chapter 2.1, Data Prioritisation

Construction, transportation, and textiles also emerge as high-consuming sectors, cited in at least four of the five sources. These industries are significant plastic consumers and face increasing regulatory and sustainability scrutiny, particularly in relation to material efficiency and waste reduction.

Other sectors, such as consumer and institutional, fisheries and aquaculture, and agriculture, are referenced less consistently but still appear in multiple contexts. Their inclusion typically reflects environmental leakage concerns (e.g. fishing gear) or more targeted policy interests.

Industrial machinery and electrical & electronics are noted primarily in analytical frameworks like UNITAR or specific policy reviews, indicating a more specialised – but potentially underexplored – area for future data development.

By identifying the industrial sectors most frequently mentioned across frameworks, this overview supports the prioritisation of sector-specific data and helps align future statistical efforts with strategic policy needs.

The data prioritisation matrix form

The final prioritisation matrix evaluates data points based on their presence in policy documents, lifecycle relevance, and geographical demand. This ensures focus on the most policy-relevant and harmonisation-ready statistics.

Figure 3 Structure of the prioritisation matrix. The matrix links raw data points to policy-relevant indicators across different lifecycle stages. A scoring system ranks each data point based on mandate strength and regional demand.

MFA Category	Data point(s)	Indicator	Prioritisation	Geographical application
We use the categorisation of how plastic materials move through different stages of a lifecycle connect the data to the plastic lifecycle	These are the raw figures or measurements collected by each country measured in units or by weight.	These are the metrics that are referred to in policy documents . These are sometimes equal to one data point but can also be a calculated result derived from multiple underlying data points. In the table relayed as a unique ID number.	A grading system to indicate the prioritisation of the data point according to a three-grade system: 1. <i>"EU mandate"</i> 2. <i>"National mandate in any Nordic country but not EU"</i> 3. for the rest	In this category we describe which Nordic countries (and/or EU) refer to the data points through the indicators mentioned in policy documents.

Data Prioritisation – Results

The result from the first data prioritisation step was a data prioritisation matrix, following the structure shown in Figure 3, and a final list of 37 in-demand data points based on their use in indicators within the underlying policy documents as can be seen in the data prioritisation matrix in Table 3.^[4]

4. The prioritisation was based on the number of connected indicators in the data points, whether the data point is linked to an EU mandate or a national mandate in any Nordic country, and finally, its relevance to a high-level plastic economy MFA overview.

Table 3 Full data prioritisation table

MFA Category	Data point	Indicator(s) in policy documents	EU	NO	SE	FI	DK	IS	Global	MFA Relevant
Production	<i>Plastic packaging produced</i>	3	•	•						•
Production	<i>Production of primary plastic</i>	4					•		•	•
Production	<i>Production of primary bioplastic</i>	5	•		•	•	•			•
Production	<i>Secondary plastic production (plastic raw material)</i>	10	•	•	•	•	•		•	•
Put on market (POM)	<i>Plastic packaging POM</i>	14	•	•	•	•	•	•		•
Put on market (POM)	<i>Plastic POM</i>	6	•	•	•	•	•		•	•
Put on market (POM)	<i>PCR content in plastic packaging POM</i>	1	•	•						
Put on market (POM)	<i>Plastic bags sold</i>	6	•	•	•		•	•		
Put on market (POM)	<i>Reusable plastic packaging POM</i>	3	•		•			•		

Trade	<i>Plastic waste imported</i>	1	.					.	.
Trade	<i>Plastic packaging exported</i>	2	.						
Trade	<i>Plastic packaging imported</i>	2	.						
Waste collection	<i>Plastic packaging waste collected</i>	3	.	.			.		.
Waste collection	<i>Plastic waste collected</i>	5	.	.	.		.	.	.
Waste collection	<i>Single-use plastic bottles (up to 3 litres) collected</i>	2	.						
Waste collection	<i>Single-use plastic bottles (up to 3 litres) PET collected</i>	2	.				.		
Waste generated	<i>Plastic waste generated</i>	1						.	.
Waste treatment	<i>Plastic packaging recycled</i>	8	.	.	.	.	.		.
Waste treatment	<i>Plastic waste recycled</i>	7	.	.	.		.	.	.
Waste treatment	<i>Plastic waste to landfill</i>	2	.				.		.

Waste treatment	<i>Plastic waste to incineration</i>	3	.			.	.
Waste treatment	<i>Recycled plastic entering construction products</i>	1	.			.	
Waste treatment	<i>Plastic that meets recycling criteria</i>	7	.		.	.	.
Waste treatment	<i>Single-use plastic bottles (up to 3 litres) recycled</i>	4	.	.	.	.	

The highest-priority data points are those required by EU law and reflected in multiple Nordic national strategies – e.g., plastic packaging produced, and plastic waste recycled. The highest demand overlaps occur in the waste treatment and packaging stages, suggesting alignment and potential for regional harmonisation. Several indicators appear only in one national policy, signalling areas of lower current alignment but potential long-term relevance.

Below follow some key insights from the policy review and prioritisation matrix:

- **Few data points have universal policy reference**

Only a limited number of data points are referenced across global, EU, and national policy documents. These mainly concern plastic packaging (including bottles) and high-level statistics such as plastic waste generated, plastic waste recycled, and plastic placed on the market. These data points are in high demand but may also be among those for which data is, at least partially, already available.

- **End-stage waste statistics, raw material production, and packaging data dominate policy attention**

Waste treatment, plastic raw material production, and packaging account for the highest number of policy-linked data points. This reflects a clear regulatory focus on the beginning and end of the plastic lifecycle, while data is especially lacking for intermediary market aspects of non-packaging plastics.

- **Trade-related data is inconsistently covered**

Trade data points – such as primary plastic imported or secondary plastic exported – are referenced in few or no national strategies. This suggests a lack of coordinated policy demand in this area, potentially due to lower direct relevance for domestic plastic management. A similar, though less pronounced, pattern is observed for waste trade data.

- **Put on Market (POM) data points are numerous but potentially fragmented**

There is a wide variety of Put On Market-related data points (e.g., plastic bags sold, reusable packaging, PET bottles), but their policy references vary significantly across countries. This fragmentation highlights the need for more consistent definitions, classifications, and data collection approaches to enable harmonisation.

The prioritisation matrix provides a robust foundation for identifying which plastic data points are most critical to harmonise. However, prioritisation alone is not enough and understanding the actual availability and comparability of these data points across Nordic countries is essential. Therefore, the next step assesses the current Nordic plastic data availability landscape to provide an overview of the current situation and identify where harmonisation can realistically begin.

2.2 Data Availability Mapping

The second step aimed to assess how accessible and comparable the prioritised plastic data are across the Nordic countries, in order to identify gaps, inconsistencies, and opportunities for harmonisation.

Summary

The data availability analysis highlights fragmented availability and suggests that plastic data availability in the Nordics tends to align with areas covered by EU and national legal mandates.

- **Waste-related data** are the most developed – 43% of waste indicators were reported as available, compared to only 17% for production and market data.
- **Market, production and trade** data are often missing or inconsistently reported.
- **Comparability remains limited** even where data exist, due to variations in definitions, scope and reporting methods.

These gaps highlight the need to align existing datasets and improve coverage in underdeveloped areas.

Clear gaps by country and data type

Through interviews and email correspondence with the Nordic countries Sweco assessed the data availability across the 37 prioritised data points across Sweden, Norway, Iceland, Denmark, and Finland.^[5]

As shown in Figure 4, Sweden, Norway and Iceland accounted for all data points while for Denmark and Finland's availability status is unconfirmed for most data points. Sweden reported 15 data points as available, 14 as partly available, and only 5 as not available. Norway and Iceland showed a similar distribution, though with a larger share of "*partly available*" data points.

5. The interview material was used to evaluate comparability—focusing on scope, definitions, and reporting structures—and the findings were summarised in a matrix that added an availability dimension for each data point to the existing matrix structure.

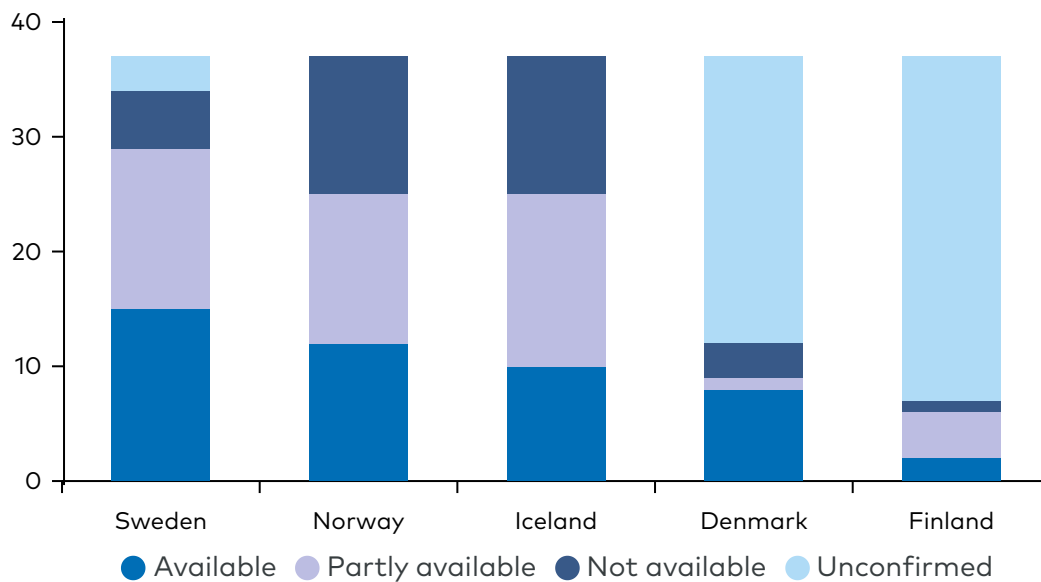


Figure 4 Data Availability by country

In Denmark, 25 data points are marked as “unconfirmed” due to limited response; Statistics Denmark referred to CN nomenclature but did not confirm specific statistics. Finland had 30 unconfirmed data points; while unable to respond directly, Statistics Finland helped identify where relevant data might be located.

This divergence reflects different levels of coordination and institutional engagement with the mapping exercise.

As illustrated in Figure 5, data are more consistently available for waste-related data points – 43 percent of which were available – compared to only 17 percent availability for production and market-related data points. This reflects a systemic emphasis on end-of-life monitoring, which is more strongly regulated under EU waste legislation, and is therefore more developed than monitoring at earlier lifecycle stages.

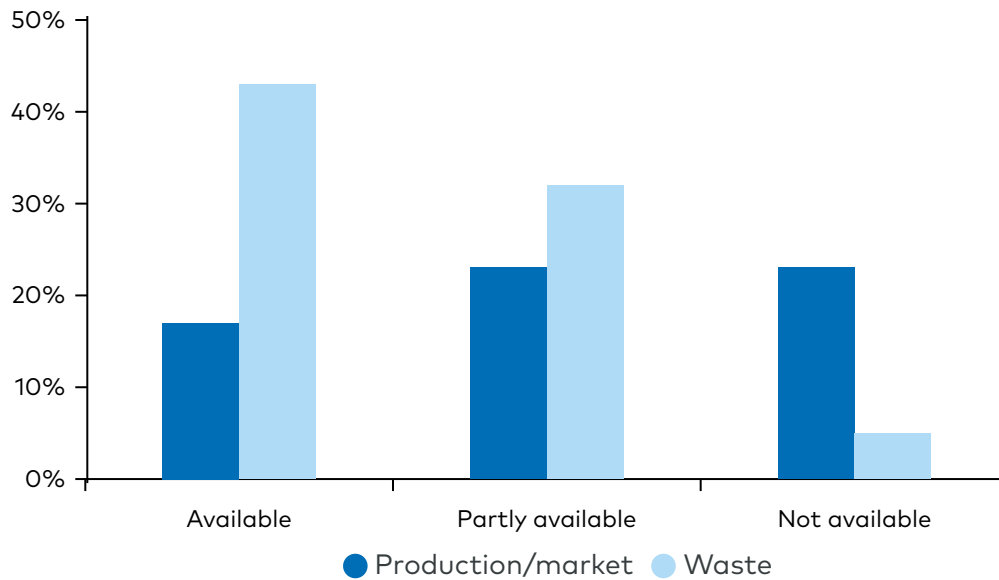


Figure 5 Waste data is significantly more available than production data.

Key insights from comments and interview material^[6]

- **Where data exist, comparability is not guaranteed**

Nordic countries report plastics data under EU directives and EPR schemes, but national differences in methods, classifications and system boundaries mean that figures which appear complete on paper are not always comparable in practice.^[7] Outside legal mandates, fragmentation increases further. The challenge is therefore not just about filling data gaps, but about aligning new and existing data into a coherent and valid Nordic dataset that can support joint policymaking.

- **Data often exist but are unconfirmed due to decentralised ownership or unvalidated links**

In Denmark and Finland, many data points were marked *“unconfirmed”*. This highlights a difference in participation in this project, rather than complete absence of data. This underlines the importance of sustained commitment and capacity among key institutions – in particular national statistical and environmental agencies – to drive Nordic harmonisation of plastic statistics.

6. Margin text are paraphrased summaries of interviews with key informants from each respective country and are not direct quotations.
 7. Similar challenges have been documented in a recent report on Nordic municipal-waste statistics (Grøn Nørholm et al., 2025). The authors show that much of the apparent cross-country variation in per-capita waste generation reflects methodological differences—such as divergent system boundaries and coding choices—rather than true differences in waste behaviour, and they call for clearer, more pragmatic EU guidance and harmonised reporting practices.

If the data are required by EU or national regulation, we know they exist and are audited

- **"Partly available" often reflects fragmentation or lack of comparability**

This category was commonly applied where:

- Definitions varied (e.g. composition categories differ across waste studies)
- Data were collected only through **one-off research projects**
- Data existed but lacked consistent reporting frequency or geographic coverage.

[Data] have been measured [...], but only as part of short-term projects

- **Waste management dominates available data**

Statistical data are concentrated at the end-of-life stage of the plastic lifecycle. Quantitative information is particularly structured around waste treatment, collection, and recycling – especially for plastic packaging, where such data are tracked through established frameworks. In contrast, earlier stages such as market and production statistics remain less developed and lack equivalent structures. This reflects the EU's historically waste-centric approach to reporting obligations.

Waste composition studies exist but vary in sampling protocol and scope

- **In-use stock and reuse are the least developed areas**

Data points on plastics in use, reuse models, and recyclability received the highest shares of "not available" and "unconfirmed" ratings. These metrics typically fall outside legal mandates and are not covered by existing statistical frameworks. Moreover, concepts like recyclability require common definitions, which further complicates measurement efforts.

Some academic models estimate in-use plastic stock, but there is no harmonised approach

While several high priority data points are already well established through EU directives and national strategies, the analysis highlights critical gaps in comparability, especially for high-level data points or data points outside formal mandates. This reveals not only where harmonisation efforts can begin, but also where targeted investments in data consistency and reporting frameworks are needed to build a functional and more harmonised Nordic plastics statistics system.

2.3 Cost-Benefit Analysis

Summary

The cost–benefit analysis revealed that few data gaps offer both high benefit and low implementation cost. Instead, the most promising candidates for early action are those focused on harmonising and developing methodologies for existing data.

- **Harmonising definitions** for already collected data on plastic waste recycling emerged as the most actionable priority – combining strong policy value with moderate implementation effort.
- **Market, trade and production data** offer long-term potential through existing sources (e.g. CN/PRODCOM codes) but require efforts to ensure accurate plastic-share estimates.
- **Sector-specific waste** flows are also high-value but require greater coordination and investment to close data gaps.
- **Intermediate use, in-use stock, and recyclability** scored low across both dimensions due to unclear definitions, more limited demand, and high methodological complexity.

The analysis suggests focusing early efforts on aligning existing waste data, while preparing scalable methods for more complex flows.

The cost–benefit analysis provides a structured foundation for prioritising the most promising data gaps for harmonisation. Data gaps vary widely in both cost and strategic value. Some offer high policy relevance and are relatively easy to address, while others require significant effort with limited payoff. To prioritise action, Sweco conducted a light cost–benefit analysis (CBA) of the prioritised plastic data points – comparing indicative implementation costs against their strategic policy value.

The goal was to support efficient resource allocation by identifying which data gaps are both high-value and realistically addressable. Each data point was evaluated along two dimensions:

- **Cost of closing the data gap**, including labour intensity, technical complexity, and data quality issues – graded on a five-point scale from readily available to requiring entirely new collection efforts with expert validation.

- **Benefit of closing the data gap**, calculated by combining multiple value aspects – environmental, analytical, policy, and harmonisation relevance – into a single weighted five-grade score.

The resulting cost-benefit matrix provides an overview of which data points offer the greatest cost-effectiveness for further development or harmonisation efforts. A detailed description of the cost-benefit methodology can be found in Appendix B.

Where to focus efforts – Results from the cost benefit analysis

Table 4 summarises seven insights from the cost–benefit analysis, grouped by their relative value and implementation effort. Each is explored in more detail on the following pages.

Table 4 Key insights on where to focus plastic data development efforts

 Strategic insight	1. Few data points offer both high benefit and low cost: Most low-cost but policy-relevant gaps already have some raw data in the Nordics. As a result, no true quick wins exist. The best opportunities lie in refining existing data by aligning definitions and formats through Nordic collaboration, rather than launching entirely new data collection.
 High value, medium effort	2. Harmonising plastic waste recycling data: Recycling data exists across the Nordics but remains incomplete and inconsistently defined. As shown in recent studies (e.g. Grøn Nørholm et al., 2025), inconsistent definitions and reporting—undermine comparability and analytical reliability. This data point is highly relevant for MFA completeness and circular economy targets, offering strong environmental and analytical payoff at moderate cost.



High potential, higher effort

3. **Trade and production statistics:** Trade and production data offer potential for cost-effective continuous monitoring via customs (HS/CN) and industrial (PRODCOM) statistics. Aligning definitions could unlock their full value in national-level MFAs and improve the accuracy of plastic consumption and waste generation estimates. However, these codes often cover goods only partially made of plastic. Reliable estimates require updated plastic-content shares and refined classifications—a scalable, but substantial, methodological effort.^[8] Production data also face quality and confidentiality challenges.
4. **Put-on-market (POM) statistics:** POM data points—such as the high-level Plastic POM, or sub-data points such as PET bottles POM or reusable packaging POM—score highly on policy and analytical relevance but show wide variation in cost. Unlocking their potential requires common definitions and methodologies across countries. Where direct data is missing, estimates based on production and trade statistics (e.g. HS/CN or PRODCOM codes) may serve as proxies— but requires accurate, assumptions and regularly updated estimation models.
5. **Sector-specific waste flows:** Sector-specific waste data can reveal which sectors generate the most plastic waste—supporting targeted policy and circular design incentives. Flows such as agricultural and fishery waste require harmonisation but are essential for addressing leakage and align with upcoming EU directives. They are promising medium-priority investment areas.



Limited value or feasibility

6. **Intermediate use and in-use stock remain low-return targets:** These data points consistently score low on both benefit and efficiency, hindered by vague definitions, sparse demand, and high methodological complexity. They should be deprioritised in the short term.

8. UNITAR has developed a draft statistical framework that links trade and production data to plastic flows using HS and CPC codes. The approach aims to enable low-cost, continuous estimation of plastic quantities across the plastic economy using existing statistics. However, its accuracy depends on the quality and granularity of the underlying data, as well as assumptions about the plastic content of traded and manufactured goods (UNITAR & UNEP, 2025).

Rather than identifying quick wins, the analysis points to the strategic value of harmonising existing data. Plastic waste, production, and trade emerge as priority areas—offering high value if classification, plastic-content assumptions, and reporting standards can be aligned through stronger coordination. These constraints shape both feasibility and the assumptions underlying the next section.

Realising these benefits will require direct collaboration between the responsible authorities in each country to establish common ground and shared direction.

2.4 Assumptions and limitations

This analysis aimed to provide a structured and methodologically grounded basis for identifying and prioritising key data development opportunities in the Nordics. However, several assumptions and limitations should be noted when interpreting the results.

Time constraints and scope

- The analysis was conducted within a clearly defined timeframe, using a consistent framework and methodology across countries. However, the availability of key informants proved to be a limiting factor in some cases – particularly in Denmark and Finland – where some stakeholders were unable to participate during the period when input was needed. This affected the level of detail achievable, especially in the data availability stage.

Limitations in data sources and stakeholder input

- The policy review was based on publicly available documents at the time of writing. While efforts were made to ensure completeness – including outreach to relevant Nordic stakeholders and UNITAR – some relevant policies, including newly adopted ones, may not have been captured.
- The data availability assessment relied on input from national stakeholders. As Denmark and Finland were unable to participate to the same extent as Sweden, Norway, and Iceland, the analysis for these countries is incomplete. In Denmark, Statistics Denmark referred to general CN nomenclature but did not confirm specific data points. In Finland, Statistics Finland could not respond directly but supported the process by indicating where data might be located. As a result, several indicators in these countries are marked as *“unconfirmed”*.

Assumptions underlying the cost-benefit analysis

- The cost-benefit analysis is not a full economic evaluation, but a structured expert assessment. It estimates relative effort and value rather than absolute costs or quantified benefits in monetary terms.
- Scoring of benefits (e.g. environmental, analytical) is inherently more subjective than cost estimation and reflect expert assessment rather than monetised impact.
- Assumptions about what drives cost and benefit – such as institutional complexity or analytical value – may differ across national contexts.

Other factors to consider

- Even when terminology is aligned, indicator definitions may vary in practice, affecting cross-country comparability.
- The findings reflect the current state and may need to be revisited as new data or policies emerge.

Despite these limitations, the framework provides a useful basis for strategic discussions and future investment planning, especially when updated iteratively as new information becomes available.

3 Phase 2 – Development, improvement and harmonisation of plastic data

The second phase of the project marks a transition from identifying gaps to actively closing them, building on the prioritisation and analysis conducted in Phase 1.

Phase 2 builds directly on the outcomes of the cost-benefit analysis and availability mapping, targeting data points that are both high-value and realistically feasible to improve.

The phase began with a Nordic workshop in March 2025, which brought together stakeholders from environmental and statistical authorities across all five countries. The workshop served two purposes: firstly, to validate Phase 1 findings and to identify, in dialogue, the most promising data for early-stage development. Secondly, to inform which data gaps Phase 2 would begin addressing – focusing on those offering the most benefit, feasibility, and alignment with future international standards.

3.1 Nordic Workshop

Summary

The Nordic workshop in March 2025 validated key findings from the data analysis and helped prioritise the most feasible and high-value data gaps for early harmonisation.

- **Waste-related statistics** were consistently prioritised across countries – especially for collection, recycling and incineration – due to strong legal anchoring and existing structures.
- **Market, production and trade data** were highlighted as important but require methodological alignment (e.g. plastic shares in CN/PRODCOM codes). The same was true for sector specific data.
- **Strong demand for coordination emerged**, including shared Nordic frameworks, methodology comparisons, and adapted versions of UNITAR guidance.

The workshop confirmed broad alignment on data priorities, but also underscored that future progress depends on sustained national engagement and flexible, stepwise coordination.

Through collaborative discussion and structured exercises, stakeholders from Sweden, Norway, Finland, and Iceland highlighted both common ambitions and practical challenges. These discussions ensured that the next steps in Phase 2 were grounded in real-world feasibility and national engagement. The workshop included a ranking exercise using a benefit–feasibility matrix, where participants evaluated prioritised data gaps and jointly identified which data points should be developed first. The dialogue also surfaced institutional limitations – such as mandate clarity, data availability, and technical alignment – providing essential input to guide the next phase of work.

Key insights from the Nordic workshop

The workshop surfaced both opportunities and tensions in the pursuit of harmonised plastic data. Below are the key takeaways identified by participants:

Insights on data priorities

- **No true “quick wins” across countries**
While some data points are easier to address, few provide both high benefit

and high feasibility to all participating countries – in line with the results from the cost-benefit analysis in phase 1.

- **Diverse national priorities and prerequisites**
Countries varied greatly in which data points they considered most feasible or valuable to develop (e.g. market, production, or trade data), reflecting differences in national contexts, existing capacities, and policy drivers within the Nordics. This highlights the importance of starting with data points that are commonly viewed as both achievable and valuable, and of planning the work in a way that reflects each country's starting point and capacity.
- **High interest in market and production data – even when not policy-mandated**
Several countries emphasised the importance of market input statistics (e.g. production, imports, sales), which are less tied to legal mandates but are seen as critical for understanding flows through the economy and supporting modelling efforts.

Insights on methods and frameworks

- **Strong demand for a common Nordic plastic methodology framework and comparative analysis**
Participants expressed interest in jointly refining how gaps are prioritised and addressed, including identifying best practices and shared approaches across countries. This also includes comparing methodology for existing plastic statistics.
- **Need to adapt UNITAR methods to Nordic conditions**
While UNITAR's global methodology was viewed as valuable, several stakeholders noted the need for Nordic refinements – especially proxy factors for plastic shares in various products/flows.
- **Call for demonstrative process models**
Participants highlighted the value of establishing common practices for how data can be structured and collected, particularly for complex areas such as trade statistics, product nomenclature, and plastic fractions.

Workshop ranking results and highlighted statistics

Before the workshop, participants were asked to complete a ranking exercise to provide a structured snapshot of which gaps in the plastic flow they considered most critical to address (see Figure 6).

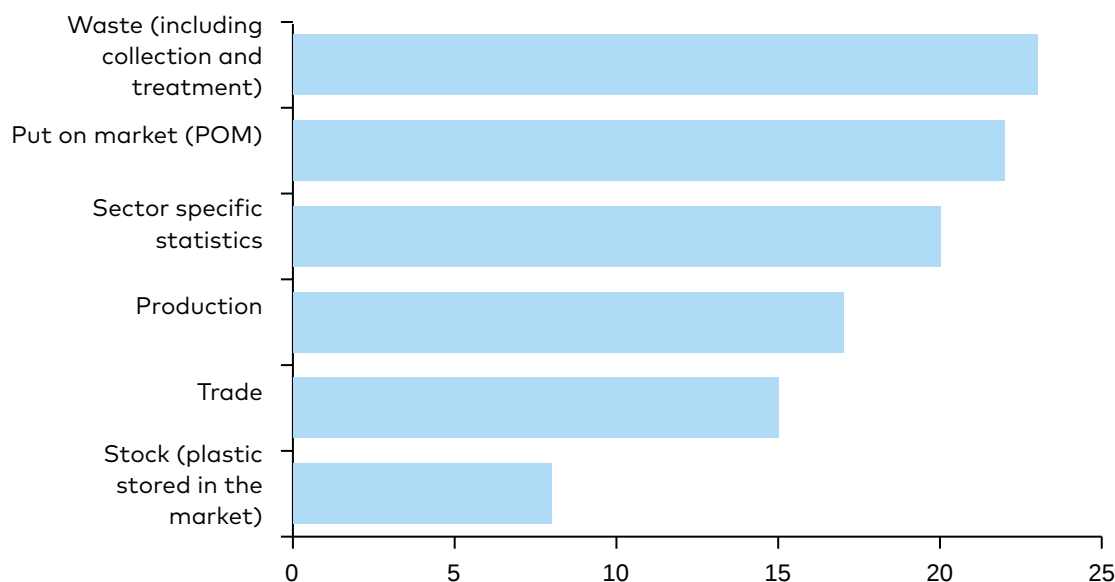


Figure 6 Participants ranking the most important parts of the plastic MFA flow to focus on when closing plastic data gaps.

The ranking results confirm strong and consistent prioritisation of waste-related data points, particularly for collection and treatment. Put-on-market (POM) and sector-specific statistics also scored highly, though views were more mixed. Lower rankings for trade and stock reflect their perceived lower urgency or feasibility, consistent with Phase 1 findings that these data points are more complex or less actionable in the short term.

The results also reveal considerable variation in how countries and institutions prioritise data gaps. For most categories – aside from waste – there was a widespread between first and last rankings. This diversity reflects differing national mandates, data maturity levels, and policy priorities – underscoring the need for structured collaboration and a flexible, shared framework that focuses on aligning efforts while accommodating local conditions.

Country-level cost–benefit mapping: top highlighted statistics

Following the ranking exercise, participants took part in a more detailed cost-benefit mapping activity. Each country team – consisting of representatives from the statistical and environmental^[9] – placed the 37 prioritised data points from Phase 1 into a 2x2 matrix based on their perceived benefit and feasibility of development. This exercise allowed for a more granular understanding of which data points were viewed as in high demand or less urgent across national contexts.

9. Finland was represented by the Pirkanmaa ELY Centre, which is nationally responsible for compiling plastic packaging statistics under the Extended Producer Responsibility (EPR) system. However, representatives from the Finnish Environment Institute (SYKE), who lead the development of Finland's national Plastics Roadmap and broader plastic data initiatives, were unable to attend. Additionally, representatives from Denmark did not participate in the workshop.

authorities^[10] – placed the 37 prioritised data points from Phase 1 into a 2x2 matrix based on their perceived benefit and feasibility of development. This exercise allowed for a more granular understanding of which data points were viewed as in high demand or less urgent across national contexts.

Sweco synthesised the country inputs to identify a set of the most frequently highlighted statistics. These are presented in Table 5, along with short contextual comments on their perceived feasibility and strategic value.

Table 5 Listing the top 10 highlighted statistics from the workshop

Statistics	Comment
Sector specific Put On Market (POM)	Seen as valuable by all countries and consistently prioritised, even if not the absolute top-ranked in benefit or feasibility.
Sector specific collected	Regularly highlighted across countries as important, even if marked as less feasible to achieve.
Plastic POM	Rated as high benefit in Sweden. Norway and Iceland were more ambiguous, but no country marked this low.
Production of secondary plastic	Considered very important by Sweden and Norway, but seen as time-consuming or difficult to develop – especially for Iceland
Plastic waste collected	Seen as both useful and feasible by Sweden and Norway. Iceland viewed it as relatively easy to implement.
Plastic waste recycled	Sweden and Norway saw it as strategic but more complex; Iceland rated it as easier to move forward with.
Plastic waste generated	Same pattern: Sweden and Norway saw it as strategic but more complex; Iceland rated it as easier to move forward with.

10. Finland was represented by the Pirkanmaa ELY Centre, which is nationally responsible for compiling plastic packaging statistics under the Extended Producer Responsibility (EPR) system. However, representatives from the Finnish Environment Institute (SYKE), who lead the development of Finland's national Plastics Roadmap and broader plastic data initiatives, were unable to attend. Additionally, representatives from Denmark did not participate in the workshop.

Various POM statistics such as Bottle, Plastic bags	Countries disagreed: some saw these as easy to improve, others viewed them as less important.
Plastic waste to incineration	Considered a high-value area by Sweden and Norway, with Iceland seeing it as an easier improvement.
Post-Consumer Recycled content in plastic packaging POM	Not seen as urgent now, but likely to become important by 2030 due to future EU targets.

The most frequently highlighted statistics focused on aggregated waste-related data points (collected, recycled, generated, incinerated), which were consistently rated as both high benefit and high feasibility by Sweden, Norway, and Iceland. These were seen as strong candidates for early development.

Put On Market (POM) statistics also appeared prominently, particularly sector-specific breakdowns and common formats like bottles and plastic bags. While valued, their placement varied by country, reflecting different views on both value and feasibility.

In contrast, production- or trade-related data points were less frequently highlighted, often due to uncertainty about definitions and plastic shares in customs- or production codes.

The Nordic workshop confirmed shared ambitions to advance plastic data harmonisation, while also revealing key differences in national priorities, capacities, and institutional roles.^[11] Waste-related data points emerged as the most actionable common ground – and notably align with existing legal mandates and established reporting areas to the EU. In contrast, greater divergence was seen in market and production data. These insights provide a critical check on which data points are likely to see early progress and where coordinated refinement, shared tools, and methodological support will be required moving forward.

11. In the Nordic countries, responsibility for collecting and reporting plastic statistics is typically divided across public agencies. National statistical offices tend to cover macro-level data such as production and trade, while environmental authorities focus on waste, recycling, and sector-specific flows. In some cases, producer responsibility organisations also contribute specialised datasets. While institutional arrangements are broadly similar across the region, specific roles and mandates vary from country to country.

4 Conclusions and recommendations

The Nordic plastic statistics landscape is fragmented and incomplete. While some plastic data points are available, particularly those linked to EU regulation, major challenges remain in terms of both comparability and uneven data availability. Many indicators are only partially covered or defined differently across countries – for example, what is counted as “plastic waste generated”. These definitional differences, especially outside legally mandated areas, make it difficult to produce a coherent Nordic overview or support joint policy action.

1. Collaboration is both wanted and needed – but should focus on areas where joint action adds the most value

Stakeholders across the region agree on the importance of collaboration. However, national approaches and efforts are isolated and differ in terms of definitions, classifications, and data collection methods. Without a clear governance structure and dedicated capacity within national agencies, harmonisation efforts are unlikely to be accomplished. In the short term, the most efficient path forward is to harmonise existing datasets – especially for plastic waste and high-level Put-on-Market (POM) indicators.

Four actions stand out as particularly important for alignment:

- **Shared definitions** for plastic categories and statistical data points
- **Nordic adaptations of Put On Market models**, such as UNITAR, to ensure comparability
- **Common assumptions** on plastic shares across trade and production statistics
- **Coordinated approaches** to waste composition, including standardised study designs

2. Waste-related data is relatively developed – other lifecycle stages need attention

Statistical coverage is strongest for end-of-life stages such as waste collection, treatment, and recycling – particularly for packaging. This reflects long-standing regulatory focus. In contrast, earlier stages such as production, market or trade – especially for non-packaging plastics – are less consistently covered or structured, with many data points rated “*partly available*” or “*not available*”.

3. Clearer definitions and structures would improve both quality and comparability

Several data points exist in principle but are not fully comparable across countries due to differences in classification systems or methodological choices. Aligning these aspects can unlock significant value and are likely less costly than collecting new data given that our analysis shows there are no real *“quick wins”*.

4. Analysis suggests few low-cost, high-impact gaps – but several strategic priorities

There are no true *“quick wins”* across all countries. However, some areas stand out:

- **Plastic waste recycling data:** Offers strong value and is already well tracked; some potential for cost-effective improvements from aligning definitions and statistics collection efforts.
- **Put On Market (POM) statistics:** Benefits of filling data gaps for POM statistics is rated highly in both cost-benefit analysis and Nordic workshop. At the same POM statistics are less developed than waste statistics. This area has collaboration potential for both methodological alignment and gap-closing-efforts.
- **Sector-specific market and waste flows:** Still underdeveloped and costly to fill gaps in data. At the same time sector specific data is consistently rated as strategically important in order to understand large plastic flows and combat issues such as plastic leakage in high-risk sectors.
- **Trade and production statistics:** Data exists but required accurate estimates of plastic shares in different products. An effort that once completed can allow for better continuous tracking of plastic statistics (for example using the UNITAR model for plastic Put-on-Market and plastic waste generated).

5. National differences must be factored into any joint roadmap

The workshop confirmed shared ambitions – but also highlighted that national priorities, data maturity and institutional roles vary. Any joint development effort should reflect these differences while working towards shared standards.

4.1 Recommendations

The recommendations below are designed to support more robust, comparable, and policy-relevant plastic statistics across the Nordic countries. Each proposal builds on insights from the project. The actions are grouped by thematic focus and include the underlying insight they aim to address.

Build a foundation for sustained collaboration

Recommendation 1: Establish a Nordic coordination mechanism for plastic statistics

Insight: National efforts are fragmented, and institutional prerequisites differ – including mandates for data production, the division of responsibilities across agencies, and available technical capacity.

- Form a Nordic reference group with regular meetings, including key experts from each country's EPA and statistics office.
- Assign the group a clear mandate to validate priorities, oversee harmonisation pilots, and coordinate inputs to international processes.
- Assign the group responsibility for onboarding updates from international standards, documenting choices, and resolving methodological conflicts.
- Secure a dedicated budget to enable continuity, coordination, and follow-up between meetings.
- Consider rotating leadership or secretariat functions to maintain engagement across countries.

While some technical tasks—such as model testing or data harmonisation pilots—can be supported by external consultants or researchers, the majority of the work must be led by national agencies. These institutions hold the relevant expertise, work with the data on a daily basis, and typically have broader access to confidential information than external actors. Their active involvement is essential to ensure relevance, feasibility, and long-term continuity.

Recommendation 2: Create frameworks that promote action and commitment

Insight: Lack of confirmed data reflects limited resources, low engagement or unclear roles.

- Ensure future projects allocate both budget and time for active participation by key informants.
- Build in a formal agreement on which data points are prioritised for development from the outset –
- Draw on the approach used in the Nordic Municipal Waste Statistics project as precedent.^[12]
 - **Dedicated Time and Resources:** Ensure participating countries allocate sufficient time and budget.
 - **Expert Involvement:** Involve committed national experts with relevant expertise to achieve high technical competence.

12. This refers to the Nordic Municipal Waste Statistics project (Grøn Nørholm et al., 2025), which succeeded in generating comparable recommendations through close collaboration between national experts from Denmark, Iceland, Norway, and Sweden.

- **Flexibility:** Allow flexibility for countries to involve external consultants as needed based on local management of tasks.
- **In-person Meetings:** Foster collaboration, clear communication, and alignment through in-person meetings, especially for technically complex topics.

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One of the key factors for success with the project was the allocation of dedicated time and expert resources from each participating country.

Start with the most feasible and policy-relevant data

Recommendation 3: Launch a harmonisation pilot focused on plastic waste statistics

Insight: Waste data is more available, well structured, and a high-priority area for most countries.

- Harmonise definitions, scopes, and reporting templates for plastic waste collected, recycled, incinerated, and landfilled.
- Use this as a testbed to build collaboration and demonstrate value before expanding to more complex areas such as Put On Market or trade.

Recommendation 4: Develop methods for sector-specific plastic waste flows

Insight: These are currently missing but strategically important for future circular economy policy.

- Design and pilot standardised waste composition studies for selected sectors (e.g. agriculture, fisheries).
- Develop common frameworks for how to extrapolate national estimates from these studies using proxy factors.

Address key data gaps with scalable methods

Recommendation 5: Develop a Nordic plastic statistics handbook

Insight: Inconsistent terminology and categorisation hinder comparability.

- Compile agreed data point definitions (e.g. plastic waste generated) into a jointly published, regularly updated Nordic plastics-statistics handbook that builds on – and goes beyond – EU reporting obligations.

- Start from EU legal requirements (e.g. Waste-Framework Directive annex VII, proposed Packaging & Packaging Waste Regulation, Eurostat plastics indicators) and identify the missing parameters for robust material-flow statistics – such as the gaps on polymer/additive composition, product-use segment and end-of-life fate codes mentioned in Nordic Council of Ministers (2024).
- Incorporate the specific gaps flagged by Nordic Council of Ministers (2024) such as double counting in trade data, CN/PRODCOM code methodology, and sparse information on specific sectors to ensure comparability across Nordic countries.
- As part of this effort existing statistics could be compiled into a Nordic data model.

Recommendation 6: Develop a methodology for estimating free-rider volumes in EPR schemes

Insight: Unknown Put On Market volumes limit the ability to identify free-riders and enforce obligations.

- Develop a Nordic method to estimate unreported Put On Market by sector, based on trade/production data and existing EPR reports.
- Identify high-risk sectors and design enforcement support tools (e.g. benchmarks, sector outreach).

Recommendation 7: Pilot methods for estimating commercial^[13] (non-household) plastic waste

Insight: Commercial waste flows are not consistently covered; data is often fragmented.

- Design and pilot harmonised method and sampling protocols for waste audits (sv. "plockanalyser") of commercial waste streams.
- Alternative 1: Integrate with existing surveys where feasible and share learning across countries.
- Alternative 2: A coordinated approach across the Nordic countries to perform audits and identify common plastic shares.

13. Waste from commercial entities, hence non-household sources

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Appendix A: Policy and Legislative Review

A comprehensive review of global, EU and national plastic legislation and strategies was conducted to extract relevant goals, targets, and reporting requirements compiling a list of required data to measure these objectives (see Table 6. Literature list for policy review). Each indicator was categorised by:

- Geographical coverage (e.g. global, EU, national)
- Type of formulation (law, goal, ambition, definition, etc.)
- Legal accountability (mandatory or voluntary)
- Validity (in force or under development)
- Whether plastic-specific or more general^[14]

Table 6 Literature list for policy review

Ref	Geo	Type*	Year**	Title (including hyperlink)
[1]	NO	REV	2023	<i>PLASTICENE: The Regulatory Landscape of Plastic Governance – a Norwegian Perspective</i>
[2]	FI	STR	2022	<i>Reduce and Refuse, Recycle and Replace – A Plastics Roadmap for Finland 2.0</i>
[3]	NO	STR	2022	<i>Norwegian Plastics Strategy</i>
[4]	SE	STR	2021	<i>The Swedish EPA's Roadmap for the Sustainable Use of Plastics</i>
[5]	DK	STR	2021	<i>Circular Economy with a Focus on Plastics and Textiles</i>
[6]	DK	STR	2020	<i>Action Plan for Circular Economy (Denmark)</i>
[7]	IS	STR	2021	<i>Iceland's Circular Economy Strategy</i>

14. Examples of general indicators—that is, indicators not specific to plastic—include those for e-waste. These relate to product streams that contain plastic, but the indicator itself does not capture plastic-specific information.

[8]	GL	STR	2021	<i>Less Plastic in Nature – Action Plan to Reduce Plastic Consumption</i>
[9]	SE	LAW	2022	<i>Ordinance (2022:1274) on Producer Responsibility for Packaging</i>
[10]	GL	REV	2022	<i>Global Plastics Outlook – Policy Scenarios to 2060</i>
[11]	GL	STR	2023	<i>Towards Ending Plastic Pollution by 2040</i>
[12]	NO	LAW	2024 (consol.)	<i>Waste Regulations (Norway): Regulations on Recycling and Treatment of Waste</i>
[13]	EU	LAW	2021	<i>Directive 94/62/EC on Packaging and Packaging Waste – Summary</i>
[14]	FI	LAW	2021	<i>Government Decree on Packaging and Packaging Waste 1029/2021</i>
[15]	EU	LAW	2015	<i>Directive (EU) 2015/720 on Plastic Carrier Bags</i>
[16]	DK	STR	2018	<i>Plastics without Waste – Danish Government's Plastics Action Plan</i>
[17]	EU	LAW	2019	<i>Directive (EU) 2019/904 on Single-Use Plastics</i>
[18]	EU	LAW	2024	<i>Waste Shipment Regulation (EU) 2024/1157</i>
[19]	EU	STR	2018	<i>A European Strategy for Plastics in a Circular Economy</i>
[20]	EU	STR	2015	<i>EU Circular Economy Action Plan (2015)</i>
[21]	EU	LAW	1994	<i>Directive 94/62/EC on Packaging and Packaging Waste – Full Text</i>
[22]	SE	LAW	2023	<i>Guidance on Single-Use Plastics (Sweden)</i>
[23]	SE	LAW	2020	<i>Waste Ordinance (2020:614)</i>
[24]	EU	LAW	2021	<i>Council Regulation (EU, Euratom) 2021/770 – EU Plastic Levy</i>
[25]	EU	LAW	2012	<i>Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE)</i>

[26]	EU	LAW	2000	<i>Directive 2000/53/EC on End-of-Life Vehicles (ELV)</i>
[27]	EU	Other	2024	<i>Ecodesign for Sustainable Products Regulation (draft)</i>
[28]	EU	Other	2022	<i>EU Policy Framework on Biobased, Biodegradable & Compostable Plastics</i>
[29]	NO	LAW	2024 (update)	<i>Chapter 2b – Regulation on Certain Plastic Products (NO)</i>
[30]	SE	LAW	2021	<i>SFS 2021:998 – Producer Responsibility for Certain Tobacco Products & Filters</i>
[31]	SE	LAW	2021	<i>SFS 2021:999 – Producer Responsibility for Balloons</i>
[32]	NO	LAW	2023	<i>Chapter 11 – Producer Responsibility for Fishing Gear Containing Plastic (NO)</i>
[33]	NO	Other	2024	<i>Draft Regulation on Producer Responsibility for Fishing Gear Containing Plastic</i>
[34]	SE	LAW	2024	<i>SFS 2024:35 – Amendment to the Single-Use Products Ordinance</i>
[35]	SE	LAW	2021	<i>SFS 2021:1000 – Producer Responsibility for Wet Wipes</i>
[36]	SE	LAW	2021	<i>SFS 2021:1001 – Producer Responsibility for Fishing Gear (SE)</i>
[37]	GL	LAW	2019	<i>Basel Convention – Plastic Waste Amendments</i>
[38]	EU	UPL	2022	<i>EU Regulation for Packaging and Packaging Waste (2022/0396(COD))</i>
[39]	GL	Other	2024	<i>Interview with UNITAR</i>
[40]	GL	Other	2024	<i>Interview with Naturvårdsverket and Miljödirektoratet</i>

* Type legend: STR = Strategy, LAW = Law, REV = Policy Review, COMM = Ambition / Communication, UPL = Upcoming Law

** Year = publication or adoption year of the document (consolidated/latest for laws; interview year for internal notes).

Breakdown into Indicators and Data Points

The identified policy goals were interpreted to measurable indicators and broken down into its corresponding data points. This process resulted in 125 unique data points, covering the full set of indicators.

Filtering of Unique Data Points

Redundant or overlapping data points were omitted to isolate the unique data needed across policies and targets.

Linking and Prioritisation

Each unique data point was linked to its respective indicator(s), and evaluated based on:

- Legal mandate (e.g. required by law or reporting frameworks)
- Nordic relevance (referenced by multiple countries)
- Policy alignment (e.g. Basel Convention, Global Plastic Agreement, EU reporting)

Appendix B: Extended benefit score methodology description

Each data point received a score connected to each category, with a higher score for higher ranked aspects such as environmental relevance and a lower score for lower ranked aspects such as harmonisation potential. Environmental relevance was ranked highest due to its direct link to circular economy goals and urgent policy needs. By contrast, metrics only reflecting current policy mentions were ranked lower to avoid reinforcing existing reporting biases in the benefit scores (such as waste management). By focusing on the benefits of the underlying environmental impact and potential, and establishing an overview of plastic flows, Sweco applies a forward-striving approach.

Scoring dimensions

Cost scoring: Cost levels were determined based on:

- **Labour intensity**, such as the need for coordination or new data collection
- **Technical complexity**, e.g. alignment of definitions or data models
- **Data quality issues**, including gaps, inconsistencies, or the need for expert validation

Each data point was assigned a cost grade from 1 (minimal effort, e.g. single-source, standardised data) to 5 (very high effort, e.g. new surveys or waste composition analyses).

Benefits scoring: Benefit scores were assigned across four strategic dimensions:

1. Environmental relevance, whether the data point represent a stream with high plastic leakage or low circularity
2. Analytical relevance, whether the data point is needed for high-level material flow analysis (MFA)
3. Policy relevance, whether the data supports monitoring of goals and targets
4. Harmonisation potential, whether the data exists across countries and enables joint analysis

These dimensions were weighted according to strategic importance and normalised to ensure comparability. Scores were summed to generate a single benefit score for each data point. This allowed all data gaps to be ranked by total benefit, enabling clear prioritisation when paired with the cost scores.

Calculating benefit score

Each data point was evaluated across several dimensions to estimate how valuable it would be to close that specific gap. The goal was to capture not just whether the data is missing, but how much it matters for environmental, analytical and policy purposes.

The calculation followed five steps:

1. **Value each benefit category:** Every data point was scored within four predefined categories — including environmental relevance and policy usefulness.
2. **Normalise the scales:** Since categories used different scoring ranges, all scores were adjusted to a common scale to ensure comparability.
3. **Weight the categories:** More important categories (e.g. data related to plastic leakage or major flows) were given greater influence on the final score.
4. **Multiply and sum:** For each data point, the weighted values across categories were added together to create a single benefit score.
5. **Rank the results:** This final score was used to rank all data gaps by overall benefit, enabling prioritisation in combination with cost.

This approach ensures that each indicator is judged not just on one criterion, but on a structured combination of relevance, usefulness and harmonisation value — all in proportion to their strategic importance.

About this publication

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