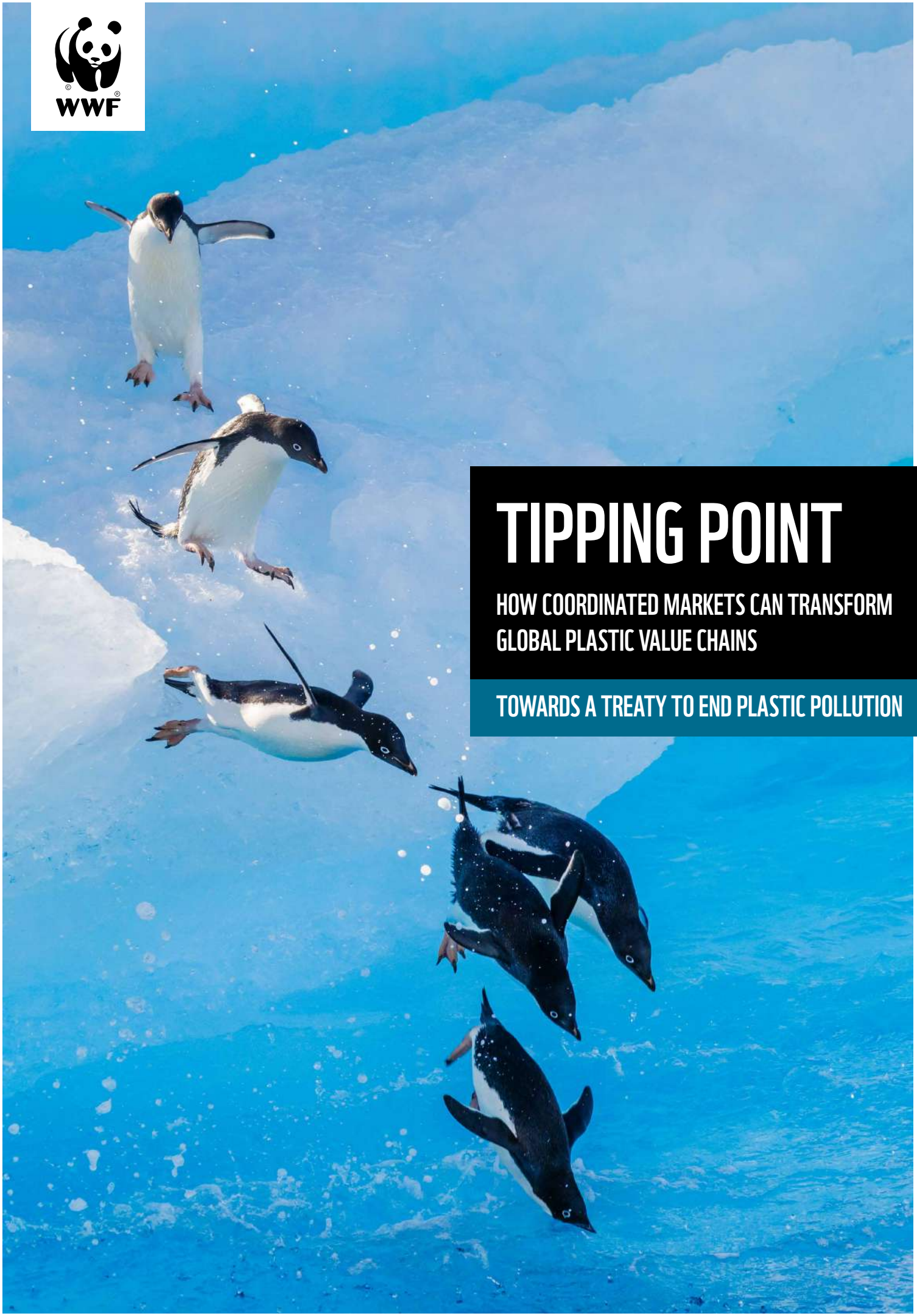

TIPPING POINT

HOW COORDINATED MARKETS CAN TRANSFORM GLOBAL PLASTIC VALUE CHAINS

TOWARDS A TREATY TO END PLASTIC POLLUTION

WWF

One of the world's largest and most experienced independent conservation organizations, with over 5 million supporters and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature by conserving the world's biological diversity, ensuring the sustainable use of renewable natural resources, and promoting the reduction of pollution and wasteful consumption.

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Designed by Ender Ergün.

Disclaimer

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CONTENTS

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An expert panel was convened by WWF to advise the work of this report. The panel met regularly in virtual consultation sessions and provided valuable insight and inputs to WWF throughout the development of the report. Members of the panel include:

Antaya March was Director of the Global Plastics Policy Centre at the University of Portsmouth during the development of this report, and a leading expert on plastics policy and governance. Her research focuses on evaluating the effectiveness of plastic pollution policies, supporting evidence-based policymaking, and advancing solutions for a sustainable blue economy. She provides scientific guidance to governments and international organizations, including in support of negotiations for a global plastics treaty.

Jenna R. Jambeck is Distinguished Professor of Environmental Engineering at the University of Georgia and one of the world's leading researchers on plastic pollution. Her pioneering work quantifying plastic waste leakage into the environment has fundamentally shaped global understanding of marine plastic pollution. Her expertise spans plastic consumption, waste generation, leakage modelling, circular economy approaches, and waste management systems.

Jon Birger Skjærseth is Research Professor at the Fridtjof Nansen Institute (FNI), specializing in international environmental cooperation, energy and climate policy, and European environmental governance. His research includes examinination of how international agreements are negotiated, implemented, and made effective, with a particular focus on cooperation and coordination among actors with differing interests. He has led numerous national and international research projects on environmental and climate governance.

Scott Barrett is the Lenfest-Earth Institute Professor of Natural Resource Economics at Columbia University and one of the world's foremost scholars on international cooperation and environmental treaty design. His research focuses on game theory, collective action problems, and the conditions under which international agreements can achieve effective outcomes. His work has significantly influenced thinking on critical mass approaches, tipping dynamics, and the design of global environmental agreements.

FOREWORD

Plastic pollution has become one of the defining environmental challenges of our time. It reaches from city streets to remote coastlines, from rivers to the deep ocean, and increasingly into the food we eat, the water we drink and the air we breathe. This crisis is threatening people's health and livelihoods, economies and nature in every region of the world. For communities already facing overstretched waste systems, climate vulnerability and biodiversity loss, the burden is especially heavy.

That is why the negotiations for a new global treaty to end plastic pollution matter so deeply. Governments have before them a rare opportunity to move beyond good intentions and deliver an agreement with the power to change markets, reduce harm and accelerate the transition away from the plastic products that cause the greatest pollution risks. The world does not need another agreement that simply sets out lofty visions for the future. It needs binding rules, practical implementation support and a pathway that can turn shared ambition into real-world change.

This report brings an important and timely message. The path to an effective treaty does not depend on all countries moving at once. On the contrary, countries committed to binding common rules on high-risk plastic products already have the political mandate and collective market power to unlock the global transition needed.

At this critical juncture, leadership means choosing effectiveness over delay, and real actions over the lowest common denominator, which will not deliver the changes that people and nature need.

Countries willing to lead should use this moment to get a treaty across the finish line with real-life impacts—with binding common rules on high-risk plastic products, the support needed for implementation, and a design that incentivise more countries to join over time.

The opportunity is here. The case is clear. It is time to create the tipping point for global transition.

Silje Woxholth Sørfonn

Global Plastics Policy Lead, WWF

> ***"By adopting and implementing common binding rules now, together, willing countries—who collectively have more than enough market power to drive global change—can set clear expectations for producers, investors and trading partners, create the conditions for safer plastic products and cleaner value chains, and make participation increasingly practical and attractive for other countries over time."***

EXECUTIVE SUMMARY

The path to an effective treaty to end plastic pollution can be first led by a critical mass of countries willing to coordinate their actions through binding, harmonised measures; it does not depend on universal participation at the outset. Countries that have already voiced their support for essential binding common rules in the treaty represent 20-40% of global plastic demand. This is well above the Critical market threshold of 20%, at which coordinated rules can reshape global value chains beyond the initial regulated markets for many high-risk plastic products, and significantly reduce the pollution they generate. For the countries willing, it is time to get the job done.

Plastic pollution is a global crisis that no country can solve alone. Despite rising political attention, including the ongoing negotiations on a legally binding global treaty, plastic production, consumption and leakage continue to rise rapidly. Without ambitious international actions, plastic pollution is projected to more than double by 2040. Over the past three decades, fragmented national and regional responses have failed to deliver the systemic change needed. Meanwhile the treaty negotiations struggle to conclude on meaningful measures that all countries can agree on.

This report finds that countries already supporting harmonised, binding measures collectively hold enough market power to begin shifting many high-risk plastic product value chains, provided the measures are well designed, product-specific, and coupled with robust implementation support. By acting together and implementing common binding rules, they can create strong incentives for producers, investors and trading partners to align with new market expectations. As the economic benefits become clearer, the incentives for participation increase for additional countries over time.

The opportunity for leadership exists today. Countries that are ready to act do not need to prolong negotiations indefinitely, nor settle for a weak treaty that lacks meaningful action. No environmental treaty requires universal participation to enter into force. *The key treaty design challenge is identifying the level of participation and leverage needed at the outset,* to make compliance commercially rational for economic actors, thereby strengthening the incentives and support that make participation more attractive for other states later on. Similar to how effective multilateral environmental agreements have historically started and then strengthened: the most credible path to ending the growing plastic pollution crisis is a strong treaty led by first movers willing to get to work, that are capable of delivering immediate impact, strengthening over time, and attracting broader participation as its benefits become increasingly evident.

KEY FINDINGS

1. MARKET ACCESS IS A POWERFUL LEVER FOR TREATY EFFECTIVENESS

When a group of countries coordinate around binding common rules for high-risk plastic products put on the markets within their jurisdictions, their collective influence travels upstream. Manufacturers wishing to serve these coordinated markets, regardless of where they are based, are incentivised to comply with the rules. Once enough countries have adopted common rules, it becomes a rational economic response for more companies to adapt accordingly, beyond the markets where these regulations exist—making the case for other countries to join in over time. Market access is where regulatory leverage is strongest and most resilient to free-riding. A well-designed treaty can drive transitions to address plastic products with high pollution risks through the following mechanisms:

- **Phase-outs and design requirements** tied to binding common rules of coordinated markets will eliminate or significantly reduce pollution from the highest-risk plastic products.
- **A coalition of countries, with a sufficient share of the global market demand, adopting harmonised measures** will deliver economies of scale, a level playing field for producers, reduced transaction costs, and clear investment signals.

2. AMBITIOUS COUNTRIES HAVE THE ABILITY TO SHIFT GLOBAL MARKETS

The report calculates the global plastic demand shares of four existing, publicly verifiable groups of countries supporting essential treaty measures, to assess whether they have enough collective market power to shift global plastic value chains. These measures include common binding rules on phase-outs and design requirements for high-risk plastic products, robust implementation support, and mechanisms to strengthen the treaty over time.

The collective shares of these supportive countries are then compared to the market threshold required for select high-impact upstream measures—phase-outs of avoidable plastic products and design requirements for plastic products to minimise pollution risks—to be effective, specifically in two aspects:

- **Viability** of a measure: achieved when the demand share of regulated markets is large enough that developing and supplying a compliant product becomes commercially worthwhile.
- **Cascading effect** of a measure: triggered when the demand share of regulated markets is large enough that firms standardise globally rather than maintain parallel product lines, as a rational economic response for plastic products with concentrated global supply chains.

The report finds that different groups of countries supportive of essential treaty measures represent from 20% to more than 40% of global plastic demand. Each group includes countries from across Africa, Asia, the Americas and Europe—showing aligned countries with broad regional representation and diverse levels of economic development. The EU as a bloc, accounting for up to 11% of global demand, contributes considerable weight in consumer-market terms to all four groups of supportive countries.

Crucially, the assessment finds that the demand shares of all groups exceed the threshold needed for viability of selected high-impact upstream measures, and to trigger cascading effect for many high-risk plastic products with concentrated global supply chains.

This means that, for selected measures and product categories with the relevant market characteristics, coordinated rules adopted by the countries of any of these groups are highly likely to be economically viable and create incentives for companies to standardise beyond the participating markets.

Table 1: Assessment of demand shares of countries supporting a strong treaty with common binding rules

Groups of countries	Basis	Demand Share[4]	Assessment
Active supporters (123 countries)[1]	Countries' positions during the negotiations[3]	**24–30%**	✔ Exceeds the threshold needed for viability and to trigger cascading effect
Active and Evolving supporters[2] (145 countries)	Countries' positions during the negotiations[3]	**38–41%**	✔ Well above the threshold needed for viability and to trigger cascading effect
High Ambition Coalition members (73 countries)	Formal coalition membership	**22–33%**	✔ Exceeds the threshold needed for viability and to trigger cascading effect
Nice Wake-Up Call signatories (95 countries)	Signed and published declaration	**20–28%**	✔ Exceeds the threshold needed for viability and to trigger cascading effect

1 Active supporters are countries supporting all essential treaty measures: common binding rules on phase-outs and design requirements for high-risk plastic products, robust implementation support, and mechanisms to strengthen the treaty over time.
2 Evolving supporters are countries supporting some but not all essential treaty measures: common binding rules on either phase-outs or design requirements for high-risk plastic products, robust implementation support, and mechanisms to strengthen the treaty over time.
3 Countries' negotiating positions tracked and published by WWF on the Global Plastic Navigator, https://plasticnavigator.wwf.de (accessed June 2026), and supplemented by the authors' assessment of recent developments in countries' negotiating positions and policy contexts.
4 Range of demand share is based on two methods, see details in Demand-side shares in the Appendix..

3. DIFFERENT TIPPING POINTS FOR DIFFERENT PRODUCTS

The market share required for treaty measures to be effective varies by plastic product category. The specific share depends on the products' market characteristics, including the availability of compliant solutions, switching costs, supply-chain concentration and the role of large buyers or leading firms. Drawing on practical regulatory examples and analysis of these characteristics, the report identifies three relevant market thresholds for measures and high-risk plastic products to be addressed in the treaty, each with different implications for whether treaty measures are viable and how likely they may cascade widely beyond the markets of participating countries.

The central finding is that most high-impact treaty measures do not require universal participation for viability and cascading effect. For many plastic product categories, coordinated markets representing around 10–20% of global demand can make implementation of most binding common rules commercially viable and trigger wider market shifts.

This provides a framework for prioritising treaty measures that could and should be adopted by willing countries at the outset. At the Minimal threshold, common binding measures adopted by a small group of countries can be economically viable but are unlikely to reshape global markets on their own—especially if the regulated plastic products have localised supply chains—spillover and broader harmonisation may only happen when more countries join.

Table 2: Market thresholds and their potential to shift market dynamics

Market threshold	Global demand share for viability	Practical examples	Plastics relevance	Potential for cascading effect
Minimal	**1–3%**	Rwanda single-use plastic (SUP) bag ban; French SUP cutlery ban	Phase-outs of single-use plastic products that are readily avoidable or can be replaced with low-cost available alternatives, e.g., single use plastic cups, straws, dolly ropes.	Low
Critical	**10–20%**	EU REACH (~15%); EU RoHS (~15%)[1]	Design requirements for high-risk plastic products where compliant solutions are technically feasible, e.g., tyres (redesigned to minimise microplastic shedding), packaging (redesigned with recyclable mono-material).	High
Dominant	**50–70%**	Montreal Protocol (66%); MARPOL (>50%)[2]	Phase-downs/ phase-outs of total plastic production and consumption volumes, which face significant risk of free-riding, relocation and non-compliant supply.	High

1 the EU laws for Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), and Restriction of Hazardous Substances (RoHS); **2** the Montreal Protocol on Substances that Deplete the Ozone Layer, and the International Convention for the Prevention of Pollution from Ships (MARPOL)

When the collective demand share of willing countries reaches the Critical threshold, their adoption of common binding rules on many high-risk plastic products becomes economically viable and can trigger, particularly for plastic products with concentrated global supply chains, wider standardisation for firms globally.

To adopt measures with significant risks of free-riding, relocation and non-compliant supply—for example the phase-downs/outs of total plastic production and consumption volumes—the collective demand share of willing countries needs to reach the Dominant threshold at the outset for the measures to be effective. Binding common rules for phase-outs and design requirements for high-risk plastic products, coordinated from the demand side, are less likely to face free-riding risks and therefore unlikely to require a Dominant threshold at the outset.

To explore how these thresholds operate in practice, the report analyses the market characteristics of three plastic product value chains that represent different transitions expected under the treaty's binding common rules:

- **Single-use plastic cups:** relevant to phasing out readily avoidable single-use products;
- **Yoghurt containers:** relevant to redesigning necessary products where circular solutions are already feasible; and
- **Tyres:** relevant to reducing pollution from products that require substantial innovation.

Together, the analysis shows why some measures can be implemented at Minimal market share, such as low-cost phase-outs, while others require a Critical share of coordinated demand to trigger wider market transformation, such as design requirements for circularity and pollution reduction.

SINGLE-USE PLASTIC CUPS (Phase-out)

Market threshold for viability: **MINIMAL** (<3%)

Potential for cascading effect at this threshold: ✗ Low

Alternatives exist and little additional R&D is needed. Because supply chains are localised and the market is highly dispersed (top 5 producers = ~25–30% share; no single buyer >1.5%), the direct impact is likely to remain within adopting markets—although spillover, scaling and regional harmonisation can expand the effect as more countries join.

YOGHURT CONTAINERS (Design requirement—Mono-material recyclability)

Market threshold for viability: **CRITICAL** (10–20%)

Potential for cascading effect at this threshold: ✔ High

Mono-polypropylene container design exists at scale and switching costs are relatively low for producers and buyers. Although production is fragmented, demand is concentrated among large brands that can set specifications for converters, allowing the cascade to run through buyer power.

TYRES (Design requirement—Microplastic reduction)

Market threshold for viability: **CRITICAL** (10–20%)

Potential for cascading effect at this threshold: ✔ High

Significant R&D is required because no low-shedding alternative is yet commercially available at scale. However, production is concentrated among a small number of globally active firms (top 5 = ~48% of global sales; globally distributed footprint) making global standardisation economically rational once coordinated markets reach the Critical threshold.

COUNTRIES CAN BEND THE GLOBAL PLASTIC POLLUTION CURVE WITHOUT WAITING FOR EVERY COUNTRY TO BE READY AT THE SAME MOMENT, BY BECOMING FIRST- MOVERS ON COMMON BINDING RULES ON PHASE-OUTS AND DESIGN REQUIREMENTS FOR HIGH-RISKS PLASTIC PRODUCTS.

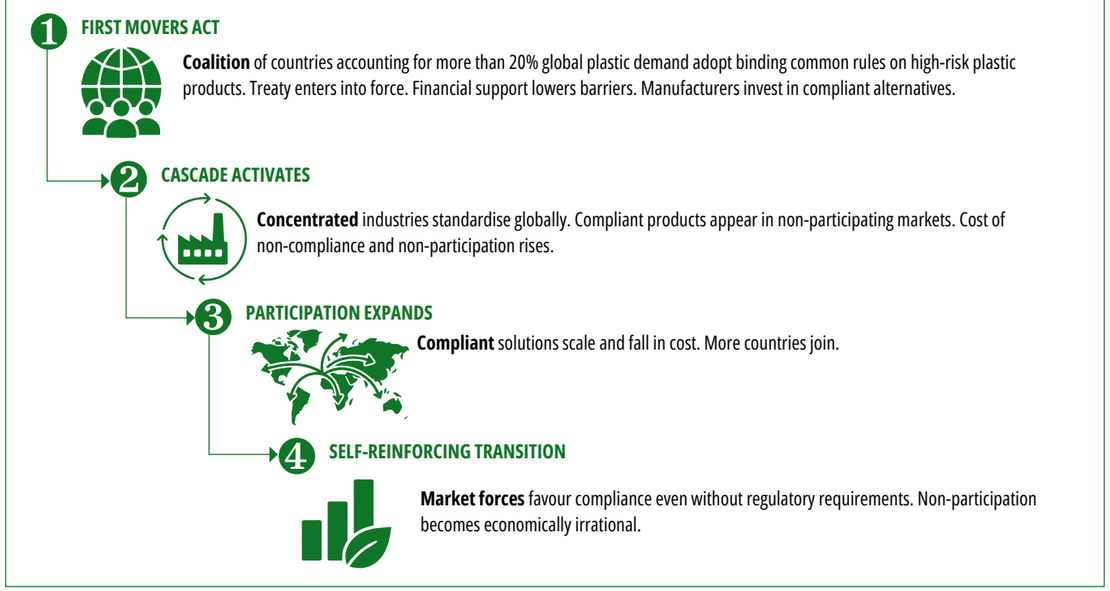
4. FIRST MOVERS CAN CREATE TIPPING POINTS FOR TRANSFORMATION AND INCENTIVISE PARTICIPATION OVER TIME

Universal participation is not a precondition for treaty effectiveness. The analysis shows that countries already aligned around binding common rules account for enough global plastic demand to begin shifting markets:

- **Harmonised phase-outs of readily avoidable single-use plastic products with localised supply chains** can become economically viable even at Minimal market threshold; while impact grows as more markets harmonise and spillover increases.
- **For design requirements (to increase circularity and minimise pollution) on plastic products with concentrated global supply chains**, coordinated rules of markets collectively reaching the Critical threshold trigger company-level standardisation well beyond initial participating markets.

The treaty should therefore be designed to initiate a self-reinforcing regime, in which aligned and willing countries move first—coordinating their markets under binding common rules, allowing compliant solutions to scale, and making participation the progressively more rational and attractive choice for other countries over time.

HOW FIRST MOVERS CREATE TIPPING POINTS FOR GLOBAL TRANSITION



Four strategic design principles for an effective treaty follow from this analysis:

- **Link obligations to market access:** Common binding rules are set for placing specific high-risk plastic products on the market, which will reach every manufacturer wishing to serve participating markets, regardless of where production occurs.
- **Trigger entry into force through market coverage:** Treaty enters into force when parties account for 20% of global plastic consumption, calculated from publicly available data (e.g. World Bank), rather than ratification counts alone.
- **Support implementation through finance and technical assistance:** Access to finance, technology transfer and capacity building accelerate implementation for less-ready markets, expanding the regulated coalition faster, and increase economies of scale for all parties.
- **Enable continuous strengthening through adaptive governance:** Procedures allowing the governing body to make decisions, including on annexes and amendments, without unanimity, enabling the regime to evolve as science, technology and alternatives mature and participation (and total market size of parties) grows.

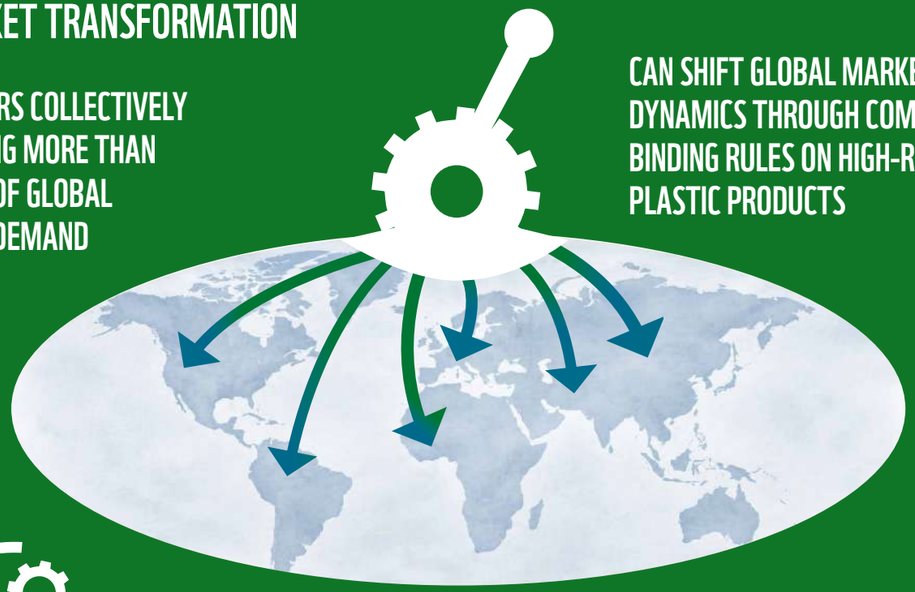
Source: Quantis (a BCG company) for WWF International. Demand thresholds based on Bradford (2020), UNEP, EU, UNDP, and Quantis-BCG analysis. Coalition demand shares estimated using World Bank What a Waste 3.0 (2026) and Houssini et al. (2025). Supply data: PlasticsEurope / NexantECA.

CREATING TIPPING POINTS

FOR MARKET TRANSFORMATION

FIRST MOVERS COLLECTIVELY COMMANDING MORE THAN **20%** OF GLOBAL DEMAND

CAN SHIFT GLOBAL MARKET DYNAMICS THROUGH COMMON BINDING RULES ON HIGH-RISK PLASTIC PRODUCTS



INFLUENCE UPSTREAM BEHAVIOURS

PHASE OUT AVOIDABLE HIGH-RISK PLASTIC PRODUCTS PRODUCT:
Due to decreasing market demand and access for plastic products that pose high risks of pollution and have viable alternatives

INVEST IN & COMPLY WITH DESIGN AND SYSTEM REQUIREMENTS:
Due to increasing market incentives for innovation, responsible design and effective systems that prevent leakage and pollution

TRANSFORM VALUE CHAINS

RAW MATERIAL PRODUCERS	PLASTIC PRODUCERS	PRODUCT MANUFACTURERS	BRANDS & RETAILERS	CONSUMERS
Shift investments towards compliant, lower-risk materials	Adapt production to meet market access requirements	Design and produce products that meet treaty requirements	Source and sell compliant, lower-risk products	Access to safer, more sustainable products

THE IMPACT

- Stronger economic incentives aligned with treaty goals
- Reduced leakage and pollution at scale
- A growing market that rewards sustainability and responsibility

CALL TO ACTION

Willing and aligned countries must use the collective power of their markets to lead the transition needed to end plastic pollution. Together, they hold significant political alignment and collective market power that could launch the global transition away from high-risk plastic products, set the rules for a non-toxic circular economy, and make participation increasingly attractive for others.

Through the Nice Wake Up Call, the High Ambition Coalition and negotiating positions aligned with WWF's Treaty Must-Haves, over 130 countries have already demonstrated support for common binding rules on phase-outs and design requirements for high-risk plastic products, robust implementation support and mechanisms to strengthen the treaty over time. Together, they represent 20–41% of global plastic demand—more than enough in the case of many high-risk plastic products, to make common binding treaty rules commercially viable and generate wider market effects.

The task now is to use that power. Willing countries should coordinate their markets through common binding rules and create the economic signal that industry, investors and other governments cannot ignore. Three reasons make early action the strategically rational choice for willing states:

- **First-mover advantage:** Countries that move first will help set up the rules for high-risk plastic products, shape access to finance and transition support, and determine appropriate timelines or necessary adjustments for implementation—rather than remaining locked in by business-as-usual approaches that are proven ineffective and more costly than coordinated actions.
- **The cost of inaction:** Every year without coordinated binding measures deepens ecological damage, locks in plastic-dependent infrastructure, and advances the business-as-usual trajectory. Each delay increases the additional costs and burdens that the world cannot afford.
- **Broader participation by others becomes likely once the first movers act:** Coordinated market rules can shift industry behaviour beyond participating countries, lower the cost of compliant solutions, and strengthen incentives for additional countries to join over time.

Businesses themselves are also making the case for harmonised rules and ready to act. Through the Business Coalition for a Global Plastics Treaty, more than 330 businesses, financial institutions and NGOs have jointly called for harmonised regulations across the plastics lifecycle. Their Economic Rationale Study in 2025 points to clear cost-saving, job-creation and incentive-boosting benefits of harmonisation.

Willing countries should pursue all available routes to adopt common binding rules for their market. The absence of consensus must not set the pace of progress, and the lowest common denominator must not define the standard of action. Multiple complementary pathways should be used together to accelerate the adoption of common binding rules, coupled with transition support, among willing countries:

- **Securing INC decisions** on an ambitious treaty text that reflects the views of and is backed by the majority of states;
- **Exploring a modular treaty architecture** that allows willing parties to move faster on specific, binding rules, while other countries can choose to join those modules over time;
- **Dedicated, transparent and inclusive process among willing countries,** which can inform the basis of a majority-backed treaty text, or the modular treaty design that allows willing parties to move faster on binding common rules, while incentivising participation by other countries over time.

The most important point across these different paths is: the negotiations and the new instrument should enable and drive forward the boldest global actions to end plastic pollution possible, rather than holding them back. This report confirms that it is entirely achievable, when countries supportive of binding common rules on high-risk plastic products are willing to move first.

WWF calls on countries that have consistently championed binding treaty measures to use their political alignment and collective market leverage, and prove that ambition can advance against deadlocks. Willing countries must get the treaty across the finish line and adopt effective, binding common rules for high-risk plastic products, supported by robust implementation assistance, while providing the foundation and flexibility for wider participation by other countries over time.

THE WILLING COUNTRIES ALREADY HAVE THE POWER TO ACT. BY USING THEIR COLLECTIVE DEMAND AND MARKET-ACCESS LEVERAGE, AND PAIRING THEM WITH ROBUST IMPLEMENTATION SUPPORT, THEY CAN LAUNCH THE GLOBAL TRANSITION AWAY FROM MANY HIGH-RISK PLASTIC PRODUCTS, DEMONSTRATE WORKABLE APPROACHES, SHIFT MARKET INCENTIVES, AND MAKE PARTICIPATION MORE PRACTICAL AND ATTRACTIVE FOR OTHERS. THE WORLD CANNOT AFFORD A WEAKENED TREATY OR CONTINUED PARALYSIS. THE TIME TO ACT IS NOW.

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INTRODUCTION

Coordinated global action is essential to effectively address the plastic pollution crisis. While fragmented national responses have fallen short, efforts to agree on harmonised global measures continue to face resistance from a small group of countries. This report examines whether the countries who are willing can take the lead: adopting a strong treaty with common binding rules on high-risk plastic products and using their share of global plastic demand to drive industry transformation and encourage broader participation by other countries over time.

Plastics are produced, traded, consumed and discarded across borders, and so are their consequences, which reach across terrestrial, freshwater and marine ecosystems far beyond any individual jurisdiction. The effects of plastic pollution compound the triple planetary crisis: it is amongst the most pervasive of pollutants and major drivers of biodiversity loss—plastics ingestion is estimated to occur in 90% of seabird individuals, and is predicted to reach 99% of seabird species in 2050.[1] Across its lifecycle, plastic contributes to climate change, already accounting for an estimated 3.8% of global greenhouse gas (GHG) emissions, concentrated in upstream production, and rising to around 3.8Gt CO2e per year or 5% of global GHGs by 2040 on a business-as-usual path.[2] There is also growing evidence of plastic pollution-related risks to human health, as microplastics and associated chemicals enter food chains and the human body.

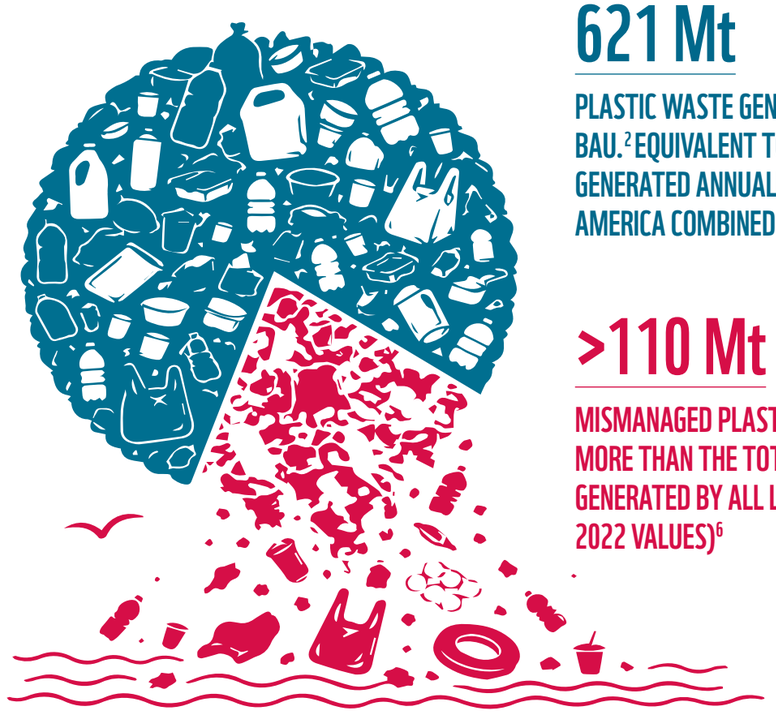
These consequences and risks are not distributed evenly. Despite consuming far less plastic per person—close to three times less—low- and middle-income countries bear the heaviest burden, incurring lifetime pollution costs estimated at up to eight times higher per kilogram of plastic than in high-income countries. Those least responsible for the problem, and least equipped to manage it, are exposed to the greatest harm.[3]

A limited number of products, plastic polymers and leakage pathways account for a disproportionate share of environmental impacts. Single-use plastic items alone account for around 70% of marine plastic leakage by volume,[8] with a limited number of high-risk product groups, e.g. single-use plastic items (bags, cutlery, cotton buds etc.) and packaging, driving a disproportionate share of total plastic leakage. Today, multi-material and flexible plastic formats are not recycled at scale: suitable sorting and reprocessing processes rarely exist for them, and their low value means they are seldom collected.[8,9] Tackling these high-risk plastic products—those that are most likely to enter the environment and cause harms—is a clear priority for urgent action.

Yet the measures in place today to tackle plastic pollution remain fragmented, both across the plastic value chain and across jurisdictions. They send no clear or consistent signal to industry, create few market incentives to switch, and generate none of the economies of scale that a transition to better materials or products and designs would need. As a result, despite rising political attention, production, consumption and leakage all continue to grow.[10] Current efforts have not delivered the systemic change required to reverse the trend. It was precisely this recognition that led governments to agree to negotiate a global, legally binding treaty to end plastic pollution.[11]

736 Mt

PLASTIC PRODUCED PER YEAR BY 2040 BUSINESS-AS-USUAL.[2] ROUGHLY EQUAL TO THE ENTIRE ANNUAL GLOBAL WHEAT HARVEST, THE STAPLE CROP THAT FEEDS 2.5 BILLION PEOPLE[4]



621 Mt

PLASTIC WASTE GENERATED PER YEAR BY 2040, BAU.[2] EQUIVALENT TO ALL THE MUNICIPAL WASTE GENERATED ANNUALLY BY EUROPE AND NORTH AMERICA COMBINED (AS PER 2020 VALUES)[5]

>110 Mt

MISMANAGED PLASTICS ANNUALLY BY 2040, BAU.[2] MORE THAN THE TOTAL ANNUAL MUNICIPAL WASTE GENERATED BY ALL LOW-INCOME COUNTRIES (AS PER 2022 VALUES)[6]

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A GLOBAL TREATY TO END PLASTIC POLLUTION: THE NEGOTIATIONS SO FAR

In March 2022, the resumed fifth session of the UN Environment Assembly (UNEA-5.2) adopted resolution 5/14, a landmark decision to develop an international legally binding instrument on plastic pollution. The resolution mandated a comprehensive approach addressing the full life cycle of plastic and tasked the UN Environment Programme with convening an Intergovernmental Negotiating Committee (INC) to develop the instrument.

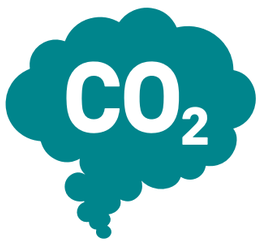
The INC began work in late 2022 and convened across five sessions: Punta del Este (INC-1, 2022), Paris (INC-2, 2023), Nairobi (INC-3, 2023), Ottawa (INC-4, 2024), and a fifth session held in two parts, in Busan (INC-5.1, 2024) and Geneva (INC-5.2, 2025). Despite the original 2024 deadline, the Geneva session closed without an agreed treaty text. A resumed session (INC-5.3) was convened in Geneva in February 2026 but addressed only procedural matters. The next meeting (INC-5.4) for substantive negotiations of the treaty is planned in early 2027.

From shared ambition to incentives for transition

Turning the shared goal of ending plastic pollution into a legally binding instrument has proven complex. Countries approach the negotiations with different economic structures, levels of industrial development, trade relationships and domestic priorities, which shape how they assess the costs and opportunities of different policy options. It becomes increasingly clear that for the treaty to be successful, it will need to include measures that not only effectively address plastic pollution but also create clear incentives for countries to join and comply. When following the treaty rules also serves national interests, countries are more likely to participate in the treaty and adhere to its rules.

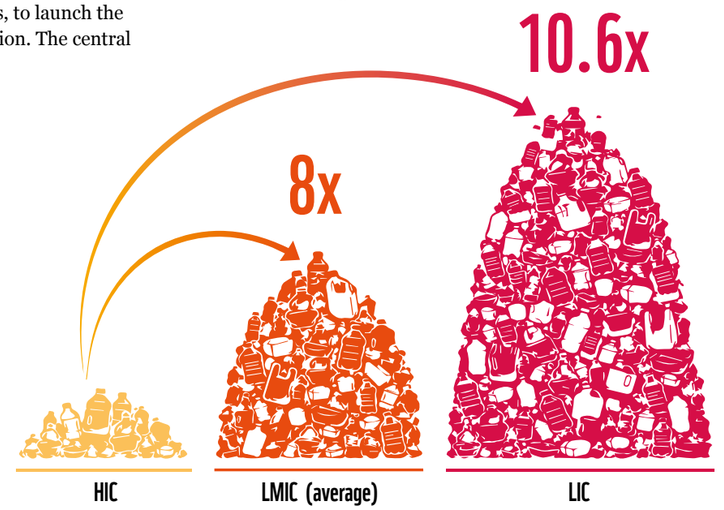
This report explores how the treaty can leverage market access, as one of the most powerful incentives, to launch the global transition toward ending plastic pollution. The central question is whether willing countries, when adopting a treaty with high-impact binding measures, could hold sufficient collective market influence to reshape global plastic value chains—and in doing so, incentivise participation in the treaty by a widening circle of countries over time.

In the next chapter, the report establishes why coordinated market access rules can shift industry behaviour, and identifies the levels of collective demand needed for different measures to become economically viable and generate wider market effects. The report then tests whether existing groups of countries that support strong treaty measures already meet those demand thresholds. The final chapter draws out the implications for treaty design, and recommendations for willing countries to move from shared ambition to creating incentives for the global transition.



3.8 Gt

CO_2E PER YEAR FROM PLASTICS BY 2040, BAU.[2] MORE THAN DOUBLE THE ANNUAL EMISSIONS FROM DEFORESTATION IN THE AMERICAS[7]



THE TRUE COSTS OF PLASTICS ARE 8 TIMES HIGHER FOR LOW AND MIDDLE-INCOME COUNTRIES THAN HIGH INCOME COUNTRIES[3]

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THRESHOLDS FOR IMPACT

Common binding rules for high-risk plastic products can drive global market shifts when they are designed around the collective demand of participating countries. Once coordinated demand reaches a sufficient threshold, compliance becomes commercially rational for producers, and the effects can extend beyond the initial participating markets. This chapter defines the market thresholds needed for different measures to become viable and generate wider impacts, then applies them to selected high-risk plastic product value chains to assess the demand shares needed for phase-outs and redesign requirements of different plastic products.

SHIFTING GLOBAL MARKETS WITH BINDING COMMON RULES

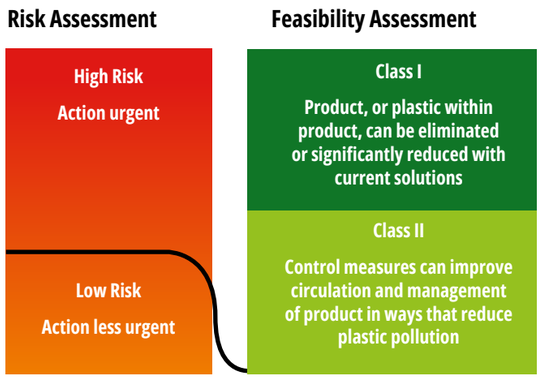
Throughout the negotiations, WWF's recommendations have identified the priority plastic products the treaty must urgently address, based on their pollution risks, and the essential, common binding measures to address them, based on feasibility.[12,13] Two key control measures—phaseouts, and design and system requirements for high-risk plastic products—are included amongst the Treaty Must-Haves that WWF has identified as a minimum starting point for the treaty's effectiveness.[14] Together, they can eliminate or significantly reduce the pollution caused by most high-risk plastic products (see **Table 3**).

These measures are familiar to most countries, many of which have already started to act individually to address plastic pollution. But the effectiveness of these national actions is constrained by a classic coordination problem: when each jurisdiction adopts its own individual requirements, the result is a patchwork of misaligned rules that collectively falls short of achieving impacts at pace and scale.

Fragmented rules mean there are no economies of scale, supply chains grow more complicated, markets become harder to predict, and regulatory compliance turns complex and costly. The playing field is uneven, because manufacturers face different obligations in different places. This makes the transition more expensive and less economically rational for industry. Manufacturers must navigate fragmented markets, while investors lack confidence about which standards will ultimately prevail.

These same measures, however, can be designed to use market access as a point of control—making compliance easy to verify and enforcement straightforward to decentralise. Each Party agrees to not allow within its jurisdiction specific plastic products, namely those that are phased out, or do not meet design and system requirements.

Figure 1: Assessment of pollution risk and measure feasibility



By creating harmonised rules across all parties and using market access as the lever for control, the proposed binding measures can resolve the coordination problem. When countries coordinate the conditions of access to their consumer markets, their collective influence travels upstream: manufacturers who wish to serve the combined market must meet shared standards on product design, material composition and end-of-life management, regardless of where production takes place.

This delivers economies of scale (manufacturers can produce for a large, harmonised market), a level playing field for producers (manufacturers need to comply for market access regardless of operations' locations), reduced transaction costs (simplified compliance across multiple jurisdictions) and clear investment signals (certainty about future requirements). The greater the share of global demand that acts in concert, the stronger that signal becomes. This insight is at the heart of the approach explored in this report: a coalition of countries

Table 3: Key control measures for high-risk plastic products, the product categories they target, and the expected impact in pollution-risk reduction.

Key control measures	Targeted high-risk plastic products		Pollution risk reduction
	Plastic products categories	Examples	
Phase-outs	Plastic products with **high pollution risks, but are feasibly avoidable**	Single use plastic cups, straws, beverage stirrers, cutlery/ utensils, cotton bud sticks, cigarette filters, dolly ropes, etc.,	Eliminates products and associated risks, halts environmental accumulation of pollution caused by the products
Product design requirements and systems	Necessary plastic products with **high pollution risks, but risks can be eliminated or reduced** with better designs and systems	Car tyres (redesigned to minimise microplastic shedding), Single-use food and beverage packaging (redesigned in mono-material to enable high-quality recycling), bottles (redesigned with attached caps to reduce leakage), single-use beverage containers (subject to Deposit Return Schemes to increase collection), sanitary products (required to have clear labelling for proper disposal), etc.,	Eliminate or significantly reduce pollution risks, leakages and releases from plastic products, halts or reduce to minimal level the environmental accumulation of pollution caused by the products

representing a sufficient share of global plastic demand could, through binding and harmonised measures, shift the economic incentives that govern the entire plastic economy.

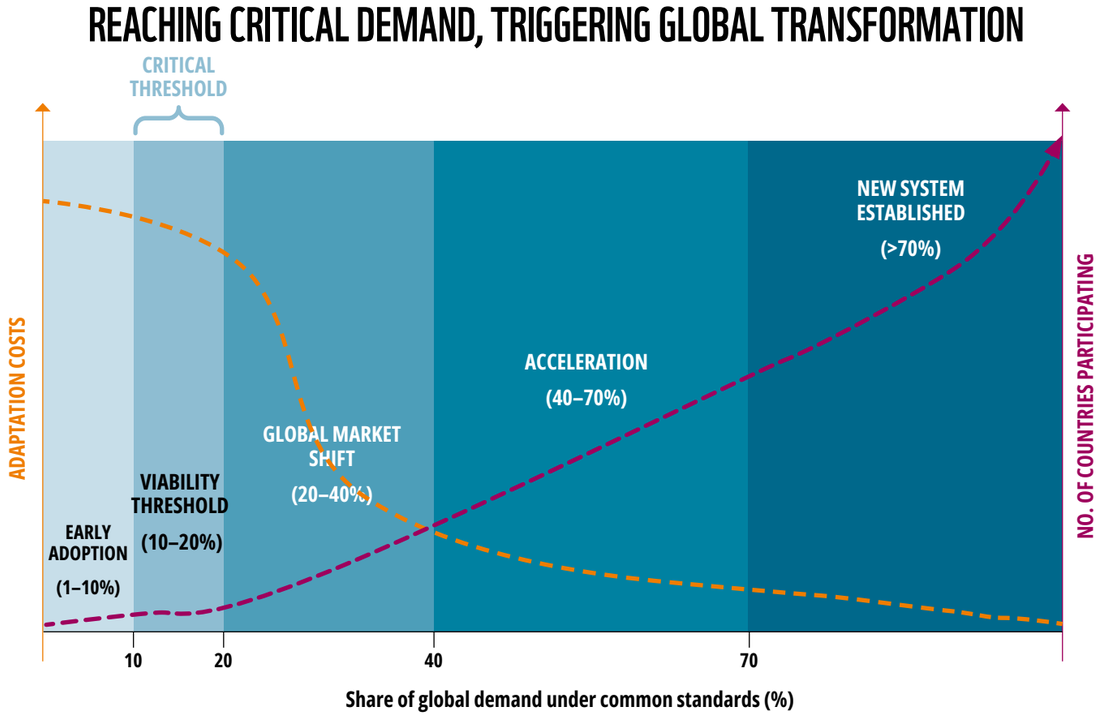
What about the production side? Ending plastic pollution clearly requires changing how plastic is produced, shifting the system onto a more sustainable path over time. But regulating production at source often lacks effective leverage for compliance. Supply-side measures—caps on virgin polymer output, for instance—are structurally exposed to a fundamental vulnerability: production can relocate. If a sufficiently broad coalition of producing countries are not parties to the treaty at the outset, restrictions on output in participating states simply shift capacity to non-participating ones. The incentive structure becomes one of competitive disadvantage for those who join and a windfall for those who stay out, the classic conditions for regulatory leakage. This does not mean giving up on changing production patterns altogether—but rather, it informs our considerations of what measures can be most readily implementable and cost-effective to start changing these patterns, and with what leverage for compliance.

Coordinated rules on the consumption side offers a comparatively more reliable point of leverage at the outset, for treaty measures that tackle specific high-risk plastic products. This report therefore examines market access as one practical starting point for accelerating a global transition in the beginning. From that foundation, the treaty can be strengthened gradually, after initial parties successfully kickstart the global plastic economy transition. As participation widens and ambition grows, the treaty's parties hold a stronger leverage for compliance. The upstream production-side measures—as part of the full-lifecycle approach—are likely to become more implementable then.

The mechanism is the cascade (see **Figure 3**). Requirements for plastic products at the point of market access travel upstream through value chains. Once the regulated market is large enough that maintaining separate compliant and non-compliant product lines costs more than harmonising globally, it becomes rational for manufacturers to standardise on the regulated specification across their entire production, carrying that standard into every market they serve, whether those markets have adopted the regulation or not. This is the dynamic documented in the so-called Brussels Effect[15], in which regulatory leverage flows upstream from demand, and coordinated regulations on market access transform production standards.

A decisive factor for the global transition to end plastic pollution is whether the countries willing to coordinate under binding common rules represent a sufficient share of global demand to set the transition in motion. The next sections in this chapter assess what could be considered a sufficient share, by first exploring how different thresholds of demand share influence market dynamics, before applying them to different plastic value chains.

Figure 2: How level of participation influences market dynamics



Above: 0-10%: First-movers adopt the common standards. Impact is real, but mainly contained to the regulated market. **10-20%:** As more markets join, standards become viable at scale. Early cascading effects of the global market begin. **20-40%:** Participation grows due to the higher incentives to join. Market transformation accelerates globally. **40-70%:** Stronger demand for compliance, and participation. Innovation and investment scale globally. **>70%:** Near-universal participation locks in global standards. The new system becomes the norm.

THRESHOLDS FOR MARKET SHIFTS

Viability and cascading effect—when does a rule work and how does its impact spread?

Drawing on practical regulatory examples, the market dynamics that affect the effectiveness of a regulatory measure can be analysed through two related but distinct concepts.

The first is **viability**. A measure is viable when the markets adopting it represent enough collective demand to make the transition commercially worthwhile for companies. This follows an investment logic. If the demand share of regulated markets is large enough, companies can justify and recover the costs of research, scaling and production. This means they will have a commercial incentive to innovate and supply compliant products—making a rule economically viable within the adopting markets.

The second one is the **cascading effect**. A measure cascades when it reshapes markets beyond the jurisdictions that first adopt it. This is likely to occur once the regulated market is large enough that maintaining separate compliant and non-compliant product lines become more costly than harmonising production around the regulated specification. At that point, companies may find it economically rational to standardise across their wider value chains, carrying the regulated standard into other markets they serve. As compliant products become the default, the cost of remaining outside rises and participation becomes a more attractive choice for non-participating states.

The likelihood of the cascading effect depends not only on the size of the regulated market, but also on the market structure of products concerned. Relevant factors include the concentration of production and consumption, the depth of vertical integration, the breadth of the manufacturing footprint, and the behaviour of leading firms. These factors shape whether a rule remains effective mainly within adopting markets, or whether it is likely to generate wider market transformation.

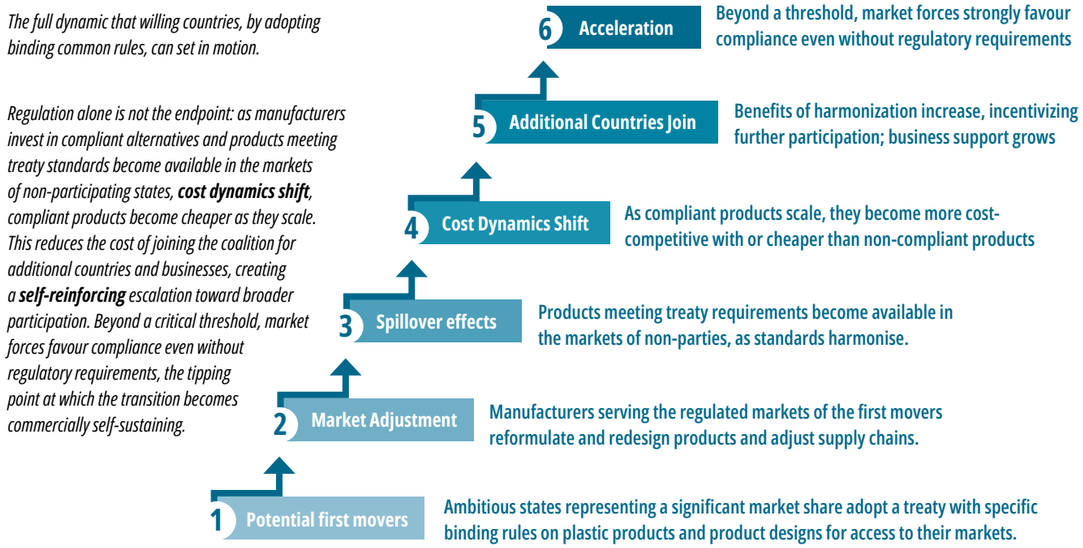
Market size for viability and likelihood of cascading effect

Based on the review of a range of international and national regulations, three recurring patterns emerge on different market thresholds and how they affect the viability and potential for cascading effect of a measure, which are summarised in **Table 4** below.

Table 4: Market sizes triggering thresholds activation

Market threshold (Share of global demand)	MINIMAL (1-3% share)	CRITICAL (10-20% share)	DOMINANT (50-70% share)
Practical regulatory examples	Rwanda plastic bag ban (<1%); French ban on single-use plastic cutlery (~3%)	EU REACH (~15%); EU Electronics / RoHS (~15%)[16]	Montreal Protocol (66%); MARPOL (>50%)[17]
Viability	Viability is achieved at a modest share of global demand. The measures are feasible to implement as substitutes are readily available and switching costs are relatively low.	Viability is achieved as the demand of regulated market is sufficiently large, allowing producers to justify and recover necessary costs to comply with the requirements.	Viability is achieved even when supply flexibility enables free-riding in these cases. The dominant share of the global market held by the parties in these examples, coupled with trade restrictions, help prevent non-compliant suppliers make the economic case for the measure.
Potential for cascading effect	Potential for cascade is low for the regulatory examples at this threshold. As supply chains are localised and markets are dispersed for the regulated products, the regulatory impact is mainly contained within the regulated market. Scaling, spillover and regional effects are possible when more markets harmonise their rules accordingly.	Potential for cascade is high for regulatory examples at this threshold. The concentrated production and consumption of the regulated products make running dual product lines uneconomical. The regulated market is sufficiently large to trigger firm-level cascading: compliant products become the global standard.	Potential for cascade is high for the regulatory examples at this threshold. This is likely driven not only by market dynamics alone, but also additionally restrictions of trade embedded in the regulations—effective tools to boost the cascading effects once parties account for a dominant share of the global market.
Implications for plastics	The examples are relevant to phase-outs of single-use plastic products that are readily avoidable or can be replaced with low-cost available alternatives. A small group of countries can feasibly implement the measure—but coordinating in a larger group will make the path significantly smoother. Shared standards reduce compliance complexity (e.g., the need for extensive border controls in each country), pool implementation resources, and send a stronger, faster signal to global markets.	The examples are relevant to design requirements for high-risk plastic products where compliant solutions are technically feasible. For such measures applied to plastic products with concentrated global supply chains, triggering cascading effects do not require universal participation at the outset. Every additional market that joins the coalition raises the economic cost of non-compliance.	The examples are relevant to phase-downs/ phase-outs of total production and consumption volumes, which face significant risk of free-riding, relocation and non-compliant supply. The effectiveness of these measures depends on parties holding a dominant share of the global market at the outset, in order to create credible incentives and limit free-riding and risk of relocation. Additional restrictions of trade are also likely necessary.

Figure 3: How company adaptation to new rules decreases hurdles for additional countries to join later—the coalition escalation pathway



At the higher end, regulations are adopted by a clear Dominant part of the market, covering a share of roughly 50-70%, when the regulations enter into force. This is likely necessary for control measures targeting both demand and supply side, but supply is flexible and production can relocate. When a regulation covers a Dominant share of the market, it can more effectively prevent suppliers from simply shifting non-compliant supply to unregulated jurisdictions and undermining the measure through free-riding.

The Montreal Protocol illustrates the pattern: it phased out the production and consumption of ozone-depleting substances such as CFCs, and its parties accounted for roughly two-thirds of global consumption when it entered into force. Because these chemicals could be manufactured almost anywhere, an agreement without close-to-universal participation risked relocating production to non-parties rather than ending it; the Protocol closed that escape route with trade restrictions on the controlled substances between parties and non-parties, so that staying outside carried a cost rather than an advantage.[18] This regulatory tool, which also adds to the potential for cascading effect, becomes available only when the parties reach a dominant share of the global market. A related case is MARPOL 73/78 (entry into force 1983), which set discharge and design standards for ships. Here the high participation requirement for the treaty to enter into force (minimum of 15 states, representing at least 50% of global gross merchant shipping tonnage were required) served a different purpose—ensuring enough of the world fleet was covered for the rules to be viable—while the risk of re-flagging to non-parties was closed by enforcement at port entry. Through Port State Control mechanism, any vessel regardless of Flag State found by the Port State to be non-compliant with the treaty requirements could be refused entry. It illustrates how free-riding is controlled where rules can be applied at the point of market access.[19]

Practical regulatory examples also show that a Critical share, of roughly 10–20% of the global market (around 15% in empirical evidence), can be sufficient to trigger an international cascade. This is possible for demand-side measures, where production is concentrated among relatively few firms serving global markets, and demand is similarly shaped by a small number of large buyers with the procurement power to move suppliers. In these instances, running dual product lines is uneconomical and a sufficiently large market triggers company-level standardisation that spreads the regulated specification worldwide.

This is the dynamic of the so-called Brussels effect. For example, the EU's REACH20 regime requires any chemical placed on the EU market to meet common registration, safety and restriction requirements. The EU accounts for roughly 15% of global chemicals demand, and because reformulating a single global product is cheaper than maintaining separate compliant and non-compliant lines, manufacturers extended REACH-compliant formulations worldwide rather than confine them to Europe.[20] The EU's restriction of hazardous substances in electronics (RoHS) works the same way: it bars substances such as lead and cadmium from electrical equipment placed on the EU market—again around 15% of the global total—and the economics of producing one global compliant product, rather than region-specific variants, carried the standard well beyond the EU.[21] Across both, a regulated share of roughly 15% proves enough to make global standardisation the rational commercial choice, so the regulation cascades rather than stopping at the borders of the cluster implementing it.

Finally, even a Minimal share of about 1 - 3% can be enough to reach the viability threshold for some measures. But if the measures target low-cost products in dispersed markets, this regulated share would be too small to shift global platform economics; the effect would be limited within the border of the regulated market, and companies would maintain separate local versions.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Rwanda's ban on the manufacture, import and sale of plastic bags[22] covers well under 1% of global demand and effectively none of global production; with low-cost alternatives readily available, it can be implemented domestically but is far too small to alter any producer's global product strategy. France's ban on single-use plastic cutlery[23] covers a larger share—on the order of 3%—but the same logic holds: cutlery is a cheap commodity made by a fragmented field of producers, so even this share does not make global standardisation worthwhile, and the measure's effect remains national. The constraint here is not free-riding, but limited reach—the regulated market is simply too small and fragmented to cascade. Even so, spillover, scaling and regional effects can still follow, as the spread of national single-use bans has shown.

THRESHOLDS FOR TRANSITIONS IN THE PLASTICS INDUSTRY

Analysis framework

The viability and potential for a cascading effect of a measure depend not only on the size of the market that adopts the measure, but also on the market structure of the product it regulates. To apply the market thresholds identified above to the plastics context, the report analyses the structural features of specific plastic product value chains, using a framework of six industry characteristics.

This framework is summarised in **Table 5** (for the full description, see **Table 15** in the *Appendix*). Two characteristics on relevant necessary innovations in the industry—technical feasibility of compliant solutions and switching costs—determine whether a measure can realistically be implemented. Four characteristics on the industry structure—production concentration, demand concentration, vertical integration and the role of leading firms—determine whether the spread of the measure is likely to remain local or extend to global markets.

Most of these characteristics have an inverse relationship with the market thresholds for viability and potential of cascading effect. Abundant, low-cost alternatives lower the market threshold for viability of the measure; more concentrated production, more concentrated demand, and more dominant role-model firms each make the cascading effect more likely at a lower market threshold.

Two characteristics run linear to the market thresholds. Higher switching costs mean a higher market threshold for viability; and deeper vertical integration in the value chains—potentially exposing back-integrated producers to stranded-asset risk—makes voluntary firm-level adaptation less likely, requiring a higher market threshold to trigger cascading effect.

Table 5: Industry characteristics and their relations to market thresholds for viability and cascading effect of measures

		WHAT IT CAPTURES	PRIMARILY SHAPES	DIRECTION	WHAT IT MEANS
INNOVATION COSTS		**TECHNICAL FEASIBILITY** Availability, maturity and scalability of technical solutions.	 Viability	 Inverted	More and cheaper solutions at larger scale ➜ lower market threshold for viability
		**SWITCHING COSTS** Cost and difficulty of adopting the solution across the value chain.	 Viability	 Linear	Higher R&D and switching costs ➜ higher market threshold for viability
FURTHER INDUSTRY CHARACTERISTICS		**MARKET CONCENTRATION — PRODUCTION** The extent to which supply is concentrated (a few firms produce most products)	 Cascading effect	 Inverted	A few dominant producers can trigger industry-wide shift ➜ cascading effect likely at lower market threshold
		**MARKET CONCENTRATION — CONSUMPTION** The extent to which demand is concentrated (a few big buyers hold most demand)	 Cascading effect	 Inverted	A few large buyers with procurement power ➜ cascading effect likely at lower market threshold
		**VERTICAL INTEGRATION OF VALUE CHAIN** Depth and direction of producers' integration into upstream stages.	 Cascading effect	 Linear	Deeper back-integration / higher stranded-asset risk ➜ cascading effect likely at higher market threshold
		**ROLE OF THE LEADING FIRM** Presence of a credible first mover with the ability to lead others.	 Cascading effect	 Inverted	A dominant role-model firm (or group) can lead others ➜ Cascading effect likely at lower market threshold

Inverted = higher characteristic ➜ lower threshold

Linear = higher characteristic ➜ higher threshold

Representative plastic value chains

The industry characteristics framework is applied to three plastic product value chains (see **Table 6** for a summary, **Table 16** in *Appendix* for details). These are, selected as representative examples because their characteristics are highly relevant to assessing the thresholds across many other high-risk plastic products:

- **Single-use plastic cups**—a low-cost single-use plastic product that carries high pollution risk but is feasibly avoidable. This example represents plastic products that can be readily phased out: they can be avoided altogether or replaced with sustainable alternatives. Notwithstanding possible implementation challenges, phasing out these products requires neither technological breakthroughs nor fundamental supply chain restructuring.
- **Yoghurt plastic containers**—a single-use food packaging that carries high pollution risk but is not readily avoidable. Simple design requirements that enable high-value, high-quality recycling, thus incentivising collection, can reduce pollution risk. This example represents plastic products that can be redesigned for non-toxic circularity without breakthrough technological innovation.
- **Tyres**—a high-value plastic product that has serious microplastic pollution impacts but is not readily avoidable. Pollution risks can be reduced through design requirements that minimise or eliminate microplastic shedding. This example represents plastic products that can be redesigned to minimise pollution, but only with substantial research-and-development effort and investment.

Single-use plastic cups phase-out

A phase-out of single-use plastic cups could reach viability at the Minimal threshold—in the <1% to 3% range of global market share. However, the potential for cascading effect of phasing out this product is limited at this level of market share. The regulation can be implemented within the markets that adopt it; its reach beyond them comes through the softer movements rather than through firm-level standardisation.

The measure is likely viable at Minimal market threshold because alternatives technologies already exist, but the system integration requires investment and innovation. In many instances, reuse can displace the single-use cups entirely. Where single-use is still necessary, substitutes such as moulded fibre, are on the market and need only limited additional research, though scaling them still requires investment.[24] The cost step-up is real but bounded: conventional plastic cups run about $0.02–0.04 each, paper about $0.04–0.06, PLA about $0.05–0.07, and moulded fibre about $0.065–0.087.[25]

Switching costs sit unevenly across the value chain—low on the consumption side, high on the production side. Buyers and end-users can switch quickly and the product is relatively low cost, so demand-side adjustment is fairly easy to achieve. Production, by contrast, requires a fundamental shift: moulded fibre is made by an entirely different process—forming and drying pulp rather than injection moulding[24]—on different equipment and largely by different companies, with Huhtamaki[26] a notable exception. The burden of change therefore falls on producers, not users, but it is not large enough to prevent a single country from making a phase-out work, provided the regulator sets clear timelines and credible, enforceable rules.

Table 6: Results of three analysed products: single-use cups, tyres and yoghurt cups

Product example	Control measure	Innovation Costs		Further Industry Characteristics				Market threshold for viability	Potential for cascading effect at this threshold
		Technical feasibility	Switching costs	Market concentration: Production	Market concentration: Consumption	Vertical integration	Role of leading firm		
Single-use plastic cups	Phase-out	Medium	High (supply-side) Low (demand-side)	Low	Low	Medium	Low	Minimal (1-3%)	✗ Low
Yoghurt containers	Design requirement (mono-material recyclability)	High	Medium (supply-side) Low (demand-side)	Low	High	High	Medium	Critical (10-20%)	✓ High
Tyres	Design requirement (minimise or eliminate microplastic shedding)	Low	High (supply & demand-side)	High	Medium	Low	High	Critical (10-20%)	✓ High

What rules out a cascade at the Minimal threshold is the industry's structure, and above all its fragmentation. On the production side, the top five firms hold only around 25–30% of the global market[25]; with the rest split among many smaller producers and most countries running a mix of local production and imports; demand is dispersed too. On the consumption side, fragmentation is greater still—Starbucks, among the largest single buyers, accounts for only about 1.5% of the plastic-cups market[25]. No producer or buyer is large enough to move the market alone—and because production is fragmented and largely local, even buyers acting together would have no concentrated supply base to pull toward a common standard. Vertical integration on the plastics side is limited: cup producers are largely not back-integrated into polymer production. On the alternative material/product side, several larger paper and fibre players are back-integrated into raw-material production. And there is no leading firm(s) acting as a role model for the switch, on either the production or the demand side, due to the separation of plastics producers and their alternatives. Upstream, the polymer suppliers of PP, PS, PET and PE are highly concentrated, and cup producers are price-takers with no control over key input costs—a further reason the segment cannot drive a global shift by itself.

France's phased approach illustrates how availability and scaling – the two factors that together determine viability – can pull in different directions. France has already banned single-use cups above a set plastic content: for these partial-plastic formats, compliant alternatives are both available and scalable, so the measure can be implemented. The fully plastic-free alternative, however, has been postponed from 2026 to 2030[27]. Here, the issue is not availability but scalability: zero-plastic alternatives exist, but – on the assessment of industry and policymakers – they could not be scaled quickly enough to meet the original timeframe. The threshold is cleared where a viable alternative can actually be supplied, and the regulation moves in step with what the market can deliver.

The implication for the treaty is that a phase-out works at a low threshold and delivers within the adopting markets. Its spread beyond them comes not from a cascade but from softer movements: additional countries adopting the same measure, alternatives growing cheaper as production scales, and regional harmonisation among neighbouring markets served by the same producers.

Yoghurt pots design requirement

Yoghurt is sold overwhelmingly in thermoformed plastic pots (PP, PS, sometimes PET). The measure assessed here is a design requirement that switches production to recyclable, mono-material plastic (mono-PP and mono-PET).

Viability of the mono-material design requirement is reached at the Critical threshold (10-20% of the global market). The mono-material alternative exists now and at scale. The transition to this new design taken up by Danone, holding 14% of the global yoghurt market, is a clear example and indicates the necessary market threshold[28,29]. Crucially, the switch keeps the same production process: the pot is still formed inline on the existing thermoform-fill-seal (FFS) line[30]. What changes is a retooling of that line – new moulds and adjusted cooling and controls to accommodate mono PP's higher forming temperature and narrower processing window together with a transition period of slower cycle times and higher scrap until

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the process is optimised[31]. These are one-time capital and learning-curve costs rather than a wholesale line replacement, which places switching costs on the production side at a medium rather than high level, and the demand side sees no change consumers would notice. However, the threshold sits at the critical rather than the minimal band because these retooling costs are lumpy: they amortise competitively only above a certain market size, so a small (1–3%) market cannot absorb them without pricing its producers out against imports in cheaper materials. A bloc covering 10–20% of global demand is large enough to spread the investment and keep compliance commercially competitive.

Market concentration in production is low. Amcor is one of several large rigid-plastic converters—with Berry, Greiner, Huhtamaki, Sonoco and Plastipak among them[32]—alongside many regional SMEs and substantial in-house dairy thermoforming, with the PP tub and foil lid the dominant format and thermoforming capacity spread across Europe, North America and a fast-growing Asia-Pacific[33]. Because production is fragmented, the producers cannot by themselves pull the market to a common standard, and contribute little toward a cascade effect.

Market concentration in consumption, however, is high. The top brands control the majority of the market—Danone had the lead in 2024 (14%) and Mengniu Dairy about 11%[34]—and they buy pots in large volume. Because the converters are fragmented and substitutable while the buyers are concentrated, the buyer sets the specification. Pot innovation is brand-led—Danone's mono-PP cup, or Yaza's labneh on Greiner's K3 cardboard-plastic cup[35]—with the converter building what the brand specifies. This means the cascade runs through demand: a small number of large buyers can set a common standard for a fragmented converter base.

Vertical integration is high and into plastic. Converters are back-integrated into plastic recycling (ALPLA's thin-wall dairy cup uses up to 100% recycled PET[36]), dairies are back-integrated into pot-making through in-house thermoforming, and the deepest integration is upstream with the resin majors. This integration into plastic works for a cascade of the mono-material design requirement, because that measure keeps producers on their existing plastic assets.

The role of the leading firm is moderate, with some pull toward a cascade but not a strong or decisive one. First movers exist—Danone, which has cut virgin plastic by about 18% against 2019[37], along with Yoplait and Chobani—but none is dominant, and several are recalibrating or missing their own packaging targets.

Overall, the cascade runs through concentrated demand rather than production. Viability is met at the Critical threshold (10-20% of the market) and the demand-led structure and plastic integration both work for a cascade, so a common standard on recyclable mono-material pots is within reach through the large brands.

Tyres design requirement

Tyres are a major source of microplastic pollution[38]: abrasion of rubber against the road releases tyre-and-road-wear particles, while additives such as 6PPD[39] enter the environment. A design requirement addressing these impacts from tyres requires a Critical share (10-20%) of the global market to reach the viability threshold. Yet, because the industry is concentrated and globalised[40], once that threshold is cleared the measure cascades, carrying the compliant design well beyond the regulating region.

The viability threshold is higher because alternatives are difficult to achieve[41]. No commercially available tyre at the moment eliminates wear particles entirely, regardless of material. The most promising structural alternative, airless-tyre technology, remains at prototype stage[48]. On the chemistry, no validated, scaled substitute for 6PPD has emerged; it performs a critical dual function, protecting rubber from both ozone and oxygen degradation[42]. Switching costs are correspondingly high on both the production and demand sides: any chemical change requires full safety re-certification, and tyre performance attributes—safety, rolling resistance, wet grip, abrasion and noise—are mutually antagonistic, so substitution is technically complex and costly[43]. A single small market cannot make that investment worthwhile; a Critical share of the global market can act jointly as first movers with clear timelines, under specific, binding rules.

With tyres' market structure, however, a cascade is likely once the Critical threshold is reached. Production is highly concentrated: the top three producers hold around 37% of global sales, and the top five—Michelin, Bridgestone, Goodyear, Continental and Pirelli—around 48%, with production globally distributed and most major manufacturers running plants and supply chains across multiple continents[44]. Demand is moderately concentrated: it splits between the original equipment manufacturer (OEM) channel, driven by a small number of global automakers that set vehicle-specific specifications, and a fragmented aftermarket[45]. Vertical integration is low: tyre makers are not integrated into the plastics value chain—so they face no stranded-asset disincentive to scale alternatives—and do not own critical chemical inputs such as antiozonants[46], though some large players selectively operate their own natural-rubber plantations in South-East Asia[47]. The role of leading firms is high: globally recognised brands set sustainability commitments that pull the wider field along—Bridgestone, for example, targets 80% sustainable materials by 2048[48], and Michelin targets 100% renewable or recycled materials by 2050[49]—while major automakers dictate material and performance specifications down the supply chain.

Concentrated production, a global footprint and standard-setting leading firms together mean that a Critical share (10-20%) of global market would not only make the measure viable within the regulated markets: it would also trigger global standardisation, makes the compliant tyre available in other markets, and gives non-member countries a reason to join. The EU's Euro 7, which introduces tyre-wear particle limits from July 2028, is precisely the kind of common standard that a concentrated, globalised market can be expected to carry beyond its borders[50].

WHAT THE ANALYSIS SHOWS

Read together, the examples yield three conclusions that carry directly into the design of the treaty.

1. A 10–20% share of demand can already move the needle—a majority is not necessary. A group of countries do not need to dominate the global market to start driving change for phaseouts and design requirements for many high-risk plastic products. Empirical evidence shows that a cluster controlling around 10–20% of global demand can make compliance with these measures economically rational for manufacturers and set broader change in motion.

2. Viability and cascading effect: when does a rule work and how does its impact spread? When a market threshold delivers viability, the regulation can be implemented within the adopting markets; when the potential for cascading effect is high, the regulation is likely to reshape markets beyond initial parties. A measure can deliver locally without cascading globally—but acting alone or in too small a group leaves much of the gain on the table. The more countries adopt the same measure, the stronger the spillover to non-adopting markets, and the faster alternatives scale and fall on cost. Coordinated adoption by a group of countries together reaching at least the Critical market threshold is what converts a workable national policy into market-wide change for many high-risk plastic products.

3. Market structure decides what 10–20% can achieve. In concentrated, globalised markets such as yoghurt plastic pots and tyres, global standardisation for product design is cheaper than dual product lines, so the effect travels. In dispersed, low-cost markets such as single-use cups, the phase-out has limited potential for cascading effect at the Minimal market threshold—but spillover, scaling and regional effects can still be set in motion by a Critical share of the global market. Industry characteristics, not the size of a group of countries alone, set the impact radius.

POTENTIAL FIRST MOVERS

The preceding chapters set out the framework by which the critical share of market access can be assessed. They showed that the impact of a measure does not depend on universal participation, but on whether the countries adopting it command a sufficient share of global demand – and that, for product categories with the right market structure, a coordinated bloc holding as little as 10-20% of that demand can make compliant products the rational choice for manufacturers and get adoption to cascade well beyond their own borders.

This chapter answers the question on whether the countries who are willing to act hold enough market power to do so. It begins by mapping where global plastics demand sits, before testing the documented coalitions of potential first movers against the thresholds defined by the analysis. The finding is that a potential coalition of first movers is not theoretical: on every credible grouping, the countries already aligned collectively command enough of the global market to begin shifting it, and to make the case for participation compelling to those still weighing whether to join in.

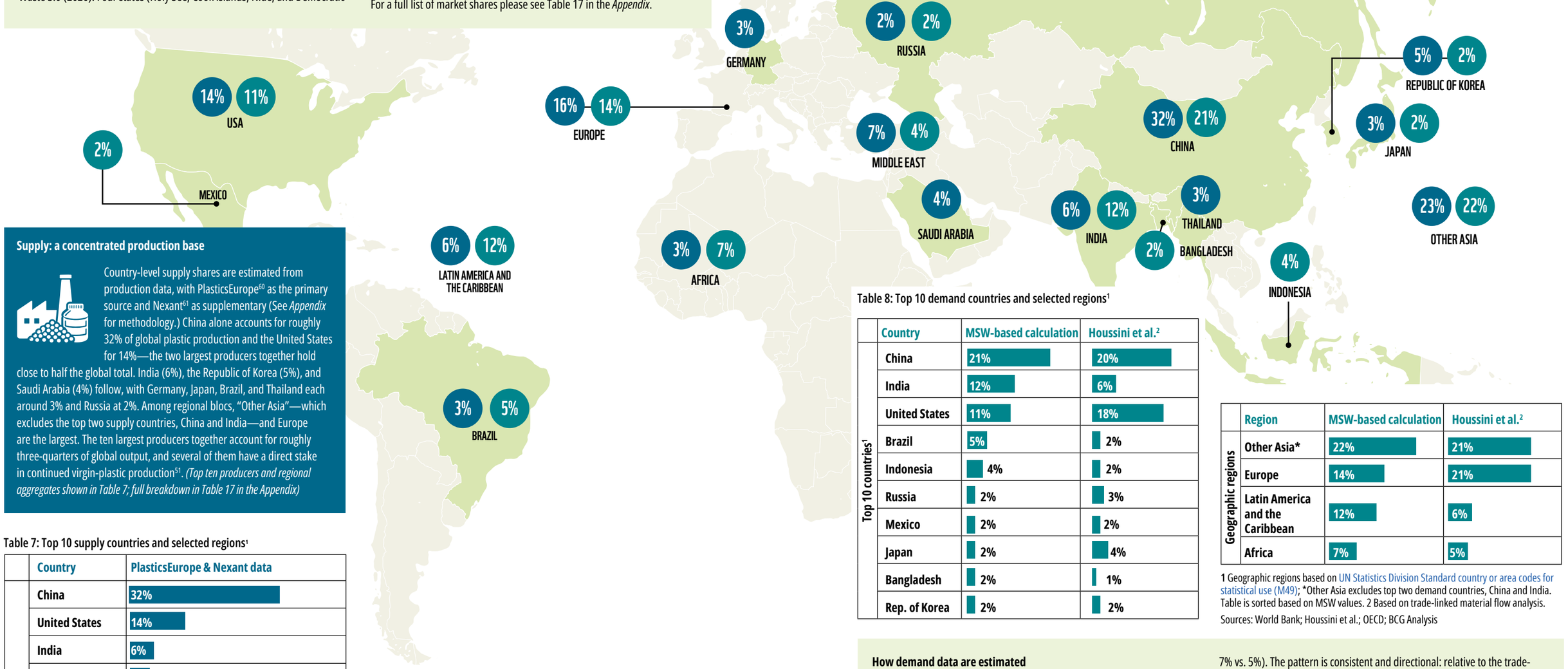
THE DISTRIBUTION OF PLASTICS SUPPLY AND DEMAND

The analysis is conducted at the level of total plastics, giving a joint view across all polymer types and product categories rather than disaggregating by resin or application. The aim is a broadly applicable picture of where market power sits across countries; where product-level detail becomes relevant—for instance, in assessing measures targeting specific items—more granular trade data is used, as set out in the demand methodology.

The list of countries in this assessment follows the World Bank's What a Waste 3.0 (2026). Four states (Holy See, Cook Islands, Niue, and Democratic People's Republic of Korea) are not included in this list. Overseas territories (such as Guam, French Polynesia, St. Martin, and Sint Maarten) are excluded to avoid inconsistent treatment and double-counting across sources. Given their small populations, both exclusions have only a negligible effect on the results.

The classification of countries under geographic regions follows the UN Statistics Division Standard country or area codes for statistical use (M49).

For a full list of market shares please see Table 17 in the *Appendix*.



Supply: a concentrated production base

Country-level supply shares are estimated from production data, with PlasticsEurope[60] as the primary source and Nexant[61] as supplementary (See *Appendix* for methodology.) China alone accounts for roughly 32% of global plastic production and the United States for 14%—the two largest producers together hold close to half the global total. India (6%), the Republic of Korea (5%), and Saudi Arabia (4%) follow, with Germany, Japan, Brazil, and Thailand each around 3% and Russia at 2%. Among regional blocs, "Other Asia"—which excludes the top two supply countries, China and India—and Europe are the largest. The ten largest producers together account for roughly three-quarters of global output, and several of them have a direct stake in continued virgin-plastic production[51]. *(Top ten producers and regional aggregates shown in Table 7; full breakdown in Table 17 in the Appendix)*

Table 7: Top 10 supply countries and selected regions[1]

	Country	PlasticsEurope & Nexant data
Top 10 countries[1]	China	32%
	United States	14%
	India	6%
	Republic of Korea	5%
	Saudi Arabia	4%
	Germany	3%
	Japan	3%
	Brazil	3%
	Thailand	3%
	Russia	2%

	Region	PlasticsEurope & Nexant data
Geographic regions[2]	Other Asia*	23%
	Europe	16%
	Latin America and the Caribbean	6%
	Africa	3%

1 Geographic regions based on UN Statistics Division Standard country or area codes for statistical use (M49); *Other Asia excludes top two supply countries, China and India.

Sources: World Bank; OECD; BCG Analysis

Demand: a more distributed consumption base

Demand is less concentrated than supply. On the primary estimates (based on municipal solid waste (MSW) data, see details of methodology in Demand-side shares in the Appendix) China holds the largest share at 21%, followed by India at 12% and the United States at 11%. Beyond these three, shares fall away quickly: Brazil at 5%, Indonesia at 4%, and a cluster—Russia, Mexico, Bangladesh, Japan, the Republic of Korea—at around 2% each. Similarly to supply shares, "Other Asia" (excluding top two supply share countries) and Europe take the lead. (*Top ten countries and geographic regions shown in Table 17; full breakdown in Table 10 in the Appendix.)*

Table 8: Top 10 demand countries and selected regions[1]

	Country	MSW-based calculation	Houssini et al.[2]
Top 10 countries[1]	China	21%	20%
	India	12%	6%
	United States	11%	18%
	Brazil	5%	2%
	Indonesia	4%	2%
	Russia	2%	3%
	Mexico	2%	2%
	Japan	2%	4%
	Bangladesh	2%	1%
	Rep. of Korea	2%	2%

	Region	MSW-based calculation	Houssini et al.[2]
Geographic regions	Other Asia*	22%	21%
	Europe	14%	21%
	Latin America and the Caribbean	12%	6%
	Africa	7%	5%

1 Geographic regions based on UN Statistics Division Standard country or area codes for statistical use (M49); *Other Asia excludes top two demand countries, China and India. Table is sorted based on MSW values. 2 Based on trade-linked material flow analysis.

Sources: World Bank; Houssini et al.; OECD; BCG Analysis

How demand data are estimated

Two independent approaches were used to estimate demand—a municipal-solid-waste proxy (the primary basis) based on the World Bank What a Waste 3.0 database[52] and a trade-linked material flow analysis (Houssini et al.[53], a secondary check). Reading them together rather than merging them gives an indication of how robust the shares are. (See *Appendix* for methodology.)

For most large economies the two broadly align—China is essentially identical across both (21% vs. 20%). Two systematic differences stand out: the United States and Europe are higher under the trade-linked approach (11% vs. 18%, and 14% vs. 21%), while India and Africa are lower (12% vs. 6%, and 7% vs. 5%). The pattern is consistent and directional: relative to the trade-linked view, the MSW proxy understates demand in developed economies and overstates it in developing ones. The likely reason is the scope of MSW itself—in high-income countries a larger share of plastic consumption ends up in non-municipal streams (construction, electronics, automotive, industrial waste) that fall outside the measure, while in lower-income economies consumption is dominated by the short-lived packaging that MSW captures well. The trade-linked approach, deriving demand from production and trade rather than waste, is not subject to this effect. The divergence does not undermine either estimate so much as bound the uncertainty around individual country shares.

THE MARKET SHARES OF POTENTIAL FIRST MOVERS

The political base for first-movers is already in place

A subset of countries covering a big enough share of global plastic demand can, through decisive actions under specific, binding and well-designed rules, shape what gets produced in the end. The central question that follows is whether such a group, with control over a big enough share of global plastic demand, exists. The evidence suggests such a coalition is highly feasible, because a substantial political base already exists from which willing first movers could build agreement on specific measures.

Over the course of the treaty negotiations, groups of countries have repeatedly stepped forward through public statements, joint declarations, and formal coalitions to signal support for an ambitious treaty. These existing groupings are candidates for potential coalitions, but **do they already command enough of global plastic demand to meet the thresholds?**

Four existing groupings were analysed (see Table 9). Each rest on a different, publicly verifiable basis, and they run from the most demanding definition of ambition to the most inclusive.

- **Active supporters:** Countries that have publicly voiced support during the negotiations for all four essential treaty elements, as identified in WWF's Treaty Must-Haves: bans and phase-outs, circularity (design requirements and systems), implementation support, and mechanisms to strengthen the treaty over time.[54, 55]
- **Active and evolving supporters:** Countries that back at least one of the two core control measures—bans and phase-outs, *or* circularity (design requirements and systems). This relaxes the bar to count the states aligned on most substance, even if not yet on all four elements.[54]
- **High Ambition Coalition to End Plastic Pollution member states:**[56] The bloc of around 70 countries co-chaired by Norway and Rwanda, formed after the 2022 UN Environment Assembly resolution, committed to a legally-binding full-lifecycle treaty to end plastic pollution by 2040. Membership is formal and the commitment is concrete.
- **The Nice Wake-Up Call signatories:**[57] The 95 countries that signed the 2025 call for a treaty addressing plastic production and consumption, phasing out the most problematic products and chemicals, and able to strengthen over time—including through decision-making that does not depend on unanimity.

A few features of these groupings stand out: They extend across regions and income groupings: Rwanda's co-leadership of the High Ambition Coalition, and the presence of countries across Africa, Latin America, Southeast Asia, and the small island developing states, matter because these are among the regions where plastic pollution falls hardest and where consumption is growing fastest. The European Union acting as a bloc contributes significant weight in consumer-market terms to each of the groups. And several large emerging economies appear across the baselines, broadening the coalition beyond the perception that ambition is a wealthy-country position.

It is important to emphasise that these classifications reflect overall political alignment on the measures, rather than the readiness to implement them. A country supportive of bans may face different implementation barriers when it comes to design requirements or systems measures, and vice versa. This makes the financial and technical support provided to parties, to boost their readiness in implementing these binding rules, all the more important. This aspect is discussed in the Strategic Treaty Design Principles section, under the Outlook and Next Steps chapter.

Table 9: Existing groupings of countries that support a strong treaty with binding common rules

Group of countries	# of countries	Share of global demand (%)[1]
Active supporters	123 countries	24% - 30%
Active and Evolving supporters	145 countries	38% - 41%
High Ambition Coalition members	73 countries	22% - 33%
Nice Wake-Up Call signatories	95 countries	20% - 28%

1 Range of demand shares are based on MSW-calculations and Houssini et al., see details of methodology in Demand-side shares in the Appendix.

The headline finding is that the existing groupings already sit at or near the demand thresholds an effective coalition requires. The broadest grouping—active and evolving supporters of essential treaty measures identified in WWF's Treaty Must-Haves—commands roughly 38–41% of global demand, squarely within the range to reach an enhanced cascading effect to shift market behaviours for many high-risk plastic products. The smaller groups still cover around 20–33%.

Active supporters: a broad, geographically diverse base

The active-support grouping—123 countries backing all four essential treaty measures identified in WWF's Treaty Must-Haves—already covers more than 24% of global demand. Its composition matters as much as its size. Europe is the anchor, contributing 11% of global demand on its own and accounting for 81% of the region's total; the top ten European countries alone cover more than 8% of the global market. The grouping also reaches well beyond the high-income core. Africa is strongly represented—50 countries, 69% of the region's demand, led by Nigeria, the DRC, and Angola, with its top ten contributing more than 3% of global demand—and the Americas add a further 6%, led by Mexico, Canada, and Colombia. This geographic spread is significant through a plastics-pollution lens: it brings in many of the regions where pollution falls hardest and consumption is growing fastest, rather than concentrating ambition among wealthy economies alone.

Evolving supporters: the impact-boosting addition

Adding the evolving-support countries—those backing at least one core control measure (as discussed on page 16)—raises the grouping to 145 countries and 38–41% of global demand, nearly double the Critical market threshold for viability and cascading effects of many high-risk plastic products. The countries this brings in are consequential ones. Asia is the largest contributor to the evolving-support tier, adding 8% of global demand through Japan, Bangladesh, and the Republic of Korea; the Americas add a further 6%, led by Brazil, Argentina, and El Salvador. These are substantial consuming markets whose inclusion pushes the group much further than the Critical threshold.

The High Ambition Coalition: a committed, formally constituted core

The High Ambition Coalition members cover 22% of global demand. What distinguishes it is not its size but the nature of its commitment: unlike the position-based groupings, membership here rests on an explicit, public political pledge to a legally-binding, full-lifecycle treaty. Europe again anchors the group, contributing 9% of global demand across 25 countries, with the Americas adding 6% and Asia 5%. Africa contributes 2% across 17 countries, while Oceania—though small in demand terms—brings near-universal regional participation. The Coalition's reach across all five regions, anchored by a concrete commitment rather than an inferred position, makes it the most clearly mobilised of the four candidate groupings.

Table 10: Global plastic demand share of active supporters across regions.

	Geographic Regions[1]	Supporters' demand share[2]		#Countries	Top 5 countries
		Globally	Within the region		
Active supporters	Europe	11%	81%	35	France, Germany, Italy, UK, Spain
	Americas	6%	24%	17	Mexico, Canada, Colombia, Peru, Chile
	Africa	5%	69%	50	Nigeria, DRC, Angola, Tanzania, Zambia
	Asia	2%	3%	9	Philippines, Israel, Cambodia, Mongolia, Georgia
	Oceania	0.3%	100%	12	New Zealand, Australia, Papua New Guinea, Fiji, Solomon Islands
	Total	24%		123	

Table 11: Global plastic demand share of active and evolving supporters across regions.

	Geographic Regions[1]	Supporters' demand share[2]		#Countries	Top 5 countries
		Globally	Within the region		
Active supporters	Europe	11%	81%	35	France, Germany, Italy, UK, Spain
	Americas	6%	24%	17	Mexico, Canada, Colombia, Peru, Chile
	Africa	5%	69%	50	Nigeria, DRC, Angola, Tanzania, Zambia
	Asia	2%	3%	9	Philippines, Israel, Cambodia, Mongolia, Georgia
	Oceania	0.3%	100%	12	New Zealand, Australia, Papua New Guinea, Fiji, Solomon Islands
Evolving supporters	Asia	8%	14%	7	Japan, Bangladesh, Republic of Korea, Thailand, Azerbaijan
	Americas	6%	26%	12	Brazil, Argentina, El Salvador, Haiti, Trinidad & Tobago
	Europe	0.1%	1%	1	Serbia
	Oceania	0%	0%	2	Samoa, Nauru
	Total	38%		145	

Table 12: Global plastic demand share of High Ambition Coalition members across regions.

	Geographic Regions[1]	Global demand share[2]	#Countries	Top 5 countries
High Ambition Coalition members	Europe	9%	25	France, Germany, UK, Spain, Poland
	Americas	6%	13	Mexico, Canada, Colombia, Peru, Chile
	Asia	5%	10	Japan, Republic of Korea, Israel, UAE, Jordan
	Africa	2%	17	Nigeria, Kenya, Ghana, Senegal, Malawi
	Oceania	0.2%	8	New Zealand, Australia, Fiji, Solomon Islands
	Total	22%	73	

1 Geographic regions are based on UN Statistics Division Standard country or area codes for statistical use (M49); 2 demand shares are based on MSW-calculations.

The Nice Wake-Up Call: a broad verifiable commitment

The Nice Wake-Up Call published in 2025 was supported by 95 countries—covers 20% of global demand. Like the High Ambition Coalition, this group of countries rests on a traceable and clearly documented political commitment. Its composition closely mirrors the other groupings: Europe is the anchor at 11% of global demand across 33 countries, the Americas add 6%, and Africa contributes 2% across 27 countries. Asia (2%) and Oceania complete the group. The Nice Wake-Up Call's significance lies less in its absolute share than in its breadth: it demonstrates that a clear, publicly stated commitment to an ambitious treaty already commands one-fifth of global plastic demand on its own.

Building beyond the established groupings

The four possible groupings are starting points to initiate the adoption of binding common rules within their markets. While each already meets the Critical demand thresholds needed to begin shifting markets, every additional country that joins deepens their market share. This will further accelerate the market effects—making compliance rational for a wider range of products and drawing in further participants in turn.

THE CASE FOR FIRST MOVERS

Aligned countries have a strategic reason to move first with the adoption of binding common rules. By coordinating their markets through these rules, they can convert shared political support into market influence, help set the standards for high-risk plastic products, and make participation increasingly attractive for others over time. The case for moving early rests on three reinforcing incentives.

Market-access and standard-setting advantages. Countries with a substantial collective share of global demand, when coordinating their markets through common binding rules, will help define global standards beyond their own jurisdictions. Because regulatory leverage flows upstream from demand, standards adopted by coordinated markets can shape product design, production and investment decisions across global value chains. Early movers therefore help set the specifications that other markets and companies may later have incentives to follow. For consuming countries, this turns demand into influence; for those with domestic industry, it gives their producers an early opportunity to adopt, innovate and serve the harmonised market first, as compliant products scale toward cost parity.

The cost of inaction. Each year without coordinated binding measures worsens ecological damage, locks in plastic-dependent infrastructure and pushes the world further along a business-as-usual trajectory. As plastic production, consumption and leakage continue to rise, the scale of future interventions required becomes larger, more disruptive and more expensive. Infrastructure, investment and supply chains built around today's plastic-intensive model risk becoming stranded as stronger rules emerge. While early movers may face initial transition costs before compliant products and economies of scale mature, they also help shape the rules, steer investment towards compliant solutions early, and avoid deeper dependence on ineffective and costly systems.

Table 13: Global plastic demand share of Nice Wake-Up Call signatories across regions.

	Geographic Regions[1]	Global demand share[2]	#Countries	Top 5 countries
Nice Wake-Up Call signatories	Europe	11%	33	France, Germany, Italy, UK, Spain
	Americas	6%	17	Mexico, Canada, Colombia, Peru, Chile
	Africa	2%	27	DRC, Cote d'Ivoire, Zimbabwe, Mozambique, Ghana
	Asia	2%	9	Philippines, Israel, Cambodia, Mongolia, Georgia
	Oceania	0.3%	9	New Zealand, Australia, Papua New Guinea, Fiji, Solomon Islands
	Total	20%	95	

1 Geographic regions are based on UN Statistics Division Standard country or area codes for statistical use (M49); 2 Demand shares are based on MSW-calculations.

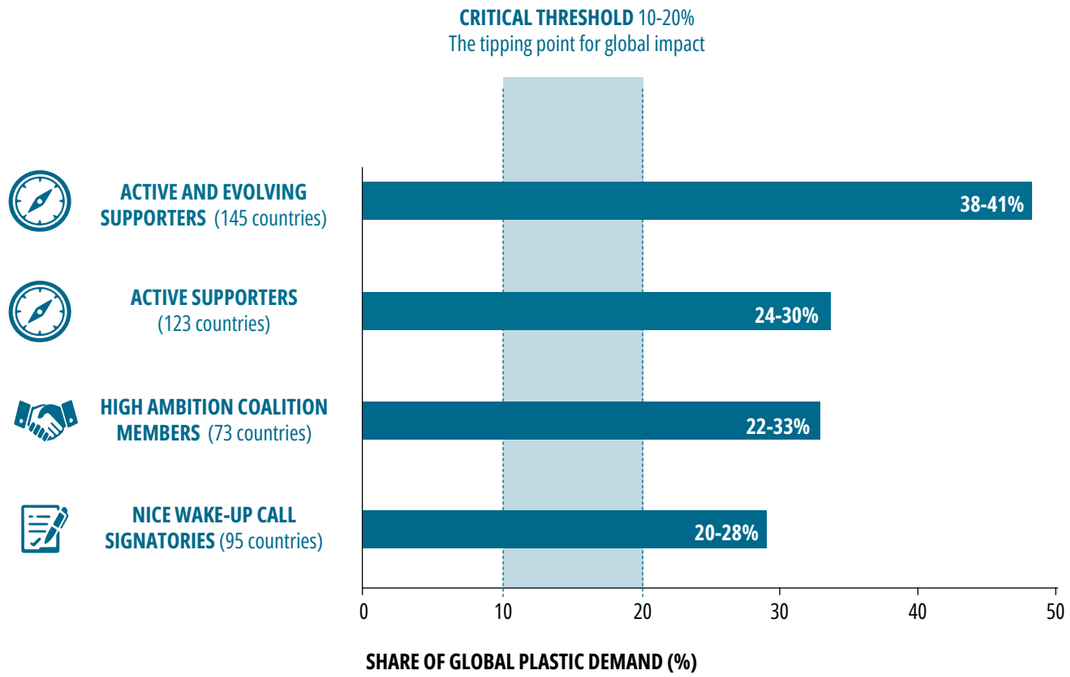
Implementation support and a closing window. Crucially, the treaty is expected to establish a financial mechanism, alongside technology transfer, technical assistance, and capacity building, to support implementation—with funding likely connected to participation and compliance. For lower- and middle-income countries in particular, this reframes the decision: the cost of transition is partly offset by support that is available to participants and not to those outside. The countries at the table as the financial mechanism takes shape will influence how it is structured and who it serves—a further reason that the value of membership is highest for those who join while the architecture is still being built.

Taken together, these incentives explain why existing groups of countries supporting essential measures for an effective treaty should become the first movers, moving from ambition to action, and leading the adoption of an effective treaty to end plastic pollution.

Businesses are also asking governments to harmonise

The Business Coalition for a Global Plastics Treaty brings together more than 330 businesses, financial institutions and NGOs in calling for harmonised regulations across the plastics lifecycle. Their Economic Rationale Study in 2025 shows why: harmonised rules would more than halve mismanaged plastic waste by 2040, save USD 1.5 to 3.5 billion a year in financing costs for waste infrastructure, unlock US 576 billion in EPR revenues to fund infrastructure where it is most needed, while still adding 2.6 million jobs by 2040 across a growing value chain. Businesses themselves are making the case for harmonised rules and ready to act. Countries supportive of binding common rules should initiate harmonisation now, using their coordinated market power to provide the certainty, scale and investment signal that industry needs.

Figure 4: Countries supporting an effective treaty with common binding rules command sufficient shares of global demand to create the tipping point for global impact.



The countries that are committed to necessary measures for an effective treaty collectively command more than 20%, and up to 41%, of global plastic demand. Insights on the plastic market structure, quantitative analysis and historical regulatory evidence together confirm that these countries hold enough power to shift global plastic value chains towards ending global plastic pollution, without needing universal participation at the outset. A treaty that offers economic advantages, reduced reputational risks, and access to innovative markets will become self-reinforcing and will gradually draw in non-participating states.

WHAT THIS MEANS FOR WILLING COUNTRIES

This report began from the premise that plastic pollution is a shared challenge no country can solve alone, but that the absence of universal agreement need not prevent effective action. The chapters that follow give that premise an analytical foundation. The recommendations in this last chapter dive into the practical implications of that analysis.

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The chapter '*Thresholds for impact*' shows how coordinated market-access rules can shift industry behaviour by identifying market thresholds that determine a measure's effectiveness: the measure viability—when a measure becomes commercially workable within adopting markets, and the cascading effect—when the measure begins to reshape markets beyond the participating countries.

The analysis of different levels of coordinated market power then shows that, for many high-risk plastic product categories, markets representing around 10–20% of global demand can be enough to make high-impact measures viable and trigger wider market effects. The assessment of plastics supply and demand explains why this is within reach for existing groups of countries supportive of essential measures for an effective treaty. As the chapter '*Potential first movers*' established, countries already aligned behind ambitious treaty measures collectively hold enough global plastic demand to clear the thresholds that matter. The task now is to translate that coordinated market power into treaty design.

STRATEGIC TREATY DESIGN PRINCIPLES

Linking control measures with the market access lever

The control measures that should be at the centre of the new treaty are those discussed throughout this report: the phase-out of avoidable high-risk plastic products, and design and systems requirements for those that cannot be avoided. As the analysis emphasised, although the purpose of these measures is environmental—to eliminate avoidable products and reduce the pollution risk of the rest—the leverage that makes them work effectively is control over market access. A requirement on what may be placed on the market reaches every manufacturer wishing to serve the participating markets, wherever production occurs; it is through this conditioning of access that a coalition's demand shapes supply. (see **Table 14**)

Table 14: How common binding measures on high-risk plastic products can be linked to market access.

What states must do[58]	Applicable products	Connection to market control
Prohibit listed products from being placed on the market after specified dates	Avoidable high-risk products with feasible alternatives (e.g. specified single-use items)	Removes non-compliant products from the combined market entirely; market access is lost for items that are not withdrawn
Permit listed products on the market only where they meet design or composition standards	Unavoidable products that can be redesigned to reduce pollution risk (e.g. tyres, certain packaging)	Conditions access on compliant design; manufacturers serving the market redesign across their output rather than maintain separate compliant lines
Permit listed products on the market only where they satisfy end-of-life or recycled-content obligations	Products subject to extended producer responsibility or recyclability requirements	Embeds compliance in the ordinary conditions of sale, enforced at the border and the point of market entry

Designing measures around market access

Control measures can be drafted so that market access itself is the point of control. A core obligation might read:

"Each Party shall take appropriate measures to ensure that plastic products listed in [Annex A] are not placed on the market within their jurisdiction after the dates specified for those products [unless they comply with the design requirements contained in [Part I] of that Annex]."

Framed this way, a single provision formulation can be used for both phase-outs and design requirements, with the bracketed conditions distinguishing products that must be withdrawn entirely from those that may remain on the market only if redesigned.

This is the mechanism set out in the *Thresholds for impact* section. Because compliance becomes a condition of access, regulatory pressure travels upstream: the larger and more coherent the regulated share of demand, the more rational it becomes for firms to standardise on the compliant specification rather than forgo the market. Where that share clears the cascading threshold, the effect travels beyond the adopting states; where market structure rules out a full cascade, the softer movements the report identified—spillover, scaling and regional harmonisation—still widen the measure's reach. The treaty's measures should be designed to engage this lever deliberately.

Setting the entry-into-force threshold for the treaty

It follows from the analysis that the treaty's activation should be tied to the share of the market it covers, not to a ratification count alone. As established in the *Thresholds for impact* section, a coordinated 10–20% of global demand is the range that matters for both kinds of measure the treaty addresses.

For products that clear their viability threshold at low levels of market coverage, the case for action is already strong; but spillover, scaling and regional effects strengthen further as a larger market takes on the same rules. For products with a higher viability threshold, the dynamic is different: redesign only becomes rational—and the cascade only begins—once a critical share of global demand is regulated.

No environmental treaty requires universal participation as a condition for entry into force. The key treaty design challenge is to identify the participation threshold at which compliance becomes the rational choice for states and economic actors, creating a self-reinforcing dynamic that maximises effectiveness and encourages broader participation over time. The recommendation arising from the report's findings, therefore, is to link the plastic pollution treaty's entry-into-force provisions to coverage of 10–20% of global plastic consumption rather than to a numerical ratification count alone.

As the supply-and-demand analysis showed, this entry into force requirement is well within the reach based on the current state of play, and it can be calculated transparently from publicly available data. Anchoring entry into force in market coverage ensures the treaty becomes operational at the point the analysis identifies as sufficient to move the market.

Financial and technical support closes the readiness gap and speeds the market transition for all

An effective treaty needs ambitious binding measures that are backed by the systems and infrastructure required to implement them across markets at different levels of readiness. Harmonised rules could reduce annual financing for private investors, public bodies and public-private partnerships that build and run the waste infrastructure by USD 1.5 to 3.5 billion. They would also support job creation, adding an estimated 2.6 million jobs by 2040 across a growing value chain. However, transitioning the value chain would require substantial investment, with infrastructure needs alone estimated at USD 49 billion per year until 2040.[59] To fully realise the benefits of regulatory harmonisation, countries must therefore ensure support for those that are willing to act but less ready to implement.

Targeted technical and financial support for less-ready markets can accelerate both dissemination and implementation, addressing equity concerns while accelerating the global market transition. Instruments for implementation support include:

- Financial mechanisms—grants or concessional loans for infrastructure investments such as recycling facilities and DRS implementation, alongside blended finance to de-risk private investment with public finance;
- Technology transfer—sharing designs for recycling infrastructure, deposit return systems, and alternative materials production;
- Capacity building—training for regulators, customs officials, and enforcement personnel;
- Industry support—assistance for small and medium-sized enterprises transitioning their product lines.

These instruments are prerequisites for low- and middle-income countries to meet the demands that binding measures will place on them. Technology transfer, capacity building and information exchange are equally essential to ensure binding measures can be implemented effectively across markets at different levels of readiness, particularly concerning recycling and waste infrastructure. This transfer becomes particularly relevant from countries functioning as circularity champions, demonstrated by leadership by example including extensive recycling shares, waste infrastructure, effective deposit return systems and overall ambitious local regulation.

Yet financial and technical support serves a purpose beyond equity. By helping more countries implement harmonized measures, it expands regulated markets faster, increases economies of scale, reduces fragmentation, and strengthens overall support for the measures across states with widely varying circumstances. In doing so, it accelerates the global market transition for all parties – not just those receiving the support.

Implementation support also strengthens the coalition itself. When participating countries can demonstrate that commitments are being met across a diverse membership, it increases confidence in the credibility and durability of the coalition—and through that, reinforces the market signal that producers and investors need to act.

That financial support mechanisms represent one of the most widely supported elements of the treaty negotiations, commanding broad consensus across country groupings, makes them a pragmatic and politically viable entry point for building coalition cohesion.

Gradual strengthening of the treaty

The treaty should be built for expansion over time, in both its participation level and the comprehensiveness of its measures. As analysed in earlier sections argued, different measures become viable at different thresholds, and the cascading effect vary between different products. As the identified possible coalitions of first movers hold more than a Critical share (10-20%) of the market as their leverage, their priority for the treaty at the outset should be the control measures that would—at this threshold of global demand—effectively eliminate or redesign plastic products with the highest pollution risks.

Every additional country that adopts these initial rules then widens the market size governed by the treaty, and strengthens the pull on manufacturers to comply. This means that over time and after the treaty enters into force, participation reinforces itself and opportunities emerge for parties to further develop and include new measures that require a larger market share for effectiveness.

As the treaty's participation grows, its range of measures and the lists of plastic products it addresses should also be able to adapt—adding products to the phase-out lists as science matures and the market thresholds for viability fall, and elaborating the design requirements for products to be redesigned rather than eliminated. The framework adopted at entry into force is a foundation to build on, not a fixed and final settlement.

Realising this depends on effective decision-making by the treaty's governing body. The capacity to adopt and amend annexes—through procedures that do not allow a small minority to block progress—is what allows the regime to strengthen its measures over time, widen their coverage, and keep pace with market and technological change. Importantly, it is this that sustains the expansion in participation and control measures on which the whole approach depends.

CALL TO ACTION

The groundwork is laid—now ambitious countries must step forward and lead

Countries endorsing the Nice Wake Up Call, joining the High Ambition Coalition, or making public statements during INC negotiations—as tracked by the WWF Plastics Navigator—have collectively signalled their commitment to an ambitious and effective treaty, representing approximately 20%-40% of global plastic demand. These are not aspirational groupings but documented expressions of political will. The groundwork has been laid, these potential groups of willing first movers can get to work based on this foundation and establish ambitious rules amongst countries that already align on an effective treaty and are committed to ending plastic pollution. Early movers also generate practical policy learning: as evidence accumulates and uncertainty declines, implementation becomes progressively easier for countries that follow. We urge countries with the implementation capacity to act as role models to step forward, lead and get the job done.

The transition from political commitment to binding action is driven by the nature of the measures themselves: measures linked to market access function as market transformation mechanisms, making the costs of non-participation rise progressively while strengthening the incentives to join over time. In an ideal world, all countries would participate. And all are welcome to when ready — as compliant products scale and harmonised markets expand, the threshold for joining lowers and the benefits of participation increase for every country that has not yet done so.

The urgency to act on this dynamic is clear. Every year without binding measures deepens ecological damage and locks in plastic-dependent infrastructure. Enabling willing countries to move ahead transforms the consensus deadlock into a collaborative dynamic. Collaborating with the willing is the only credible path to timely impact.

Seen this way, the procedural challenges that have stalled the negotiations lose their decisive force. When both the substantive foundation—an analysis showing that the thresholds for impact are already within reach—and the political will of a credible coalition are in place, those obstacles need no longer set the pace of progress.

Indeed, there are multiple pathways in which the willing countries can move forward on what they already command, rather than waiting on the lowest common denominator to be compelled from all. They should be used together to accelerate the adoption of common binding rules among willing countries:

- **advancing the INC decisions** on a treaty text that reflects the view of and is backed by the willing majority;
- **designing the treaty in a modularised architecture**—that allows all parties to move at their desired pace while willing countries can advance with specific, binding rules that coordinate their market access for high-risk plastic products;
- **advancing the development of specific, binding rules through a dedicated, transparent and inclusive process among willing countries,** which can inform the basis of a majority-backed treaty text, or the modular treaty design that allows willing parties to move faster on binding common rules, while incentivising participation by other countries over time.

Across these different paths, negotiations and the new instrument should enable and drive forward the boldest global actions to end plastic pollution possible, rather than holding them back. This report confirms that it is entirely achievable, when countries supportive of binding common rules on high-risk plastic products are willing to move first.

The willing countries that have backed the treaty's binding measures hold what is needed to begin. Using their collective market power and the leverage of market access, they have the choice and the opportunity to lead the transition of the global plastics economy, sustain it as harmonised markets expand, and advance it as the costs of staying outside continue to rise—drawing hesitating states in over time. Neither further delay nor a watered down treaty without meaningful action should be accepted.

It is time to create the tipping point for global transition.

APPENDIX

Table 15: Industry characteristics and their relation to thresholds

Characteristic	Description	Primarily shapes	Direction	What it means
Technical feasibility	The extent to which a technical solution exists for the plastic product to be phased out, or changed in accordance with design requirements and systems, and how mature and scalable it is. A solution that exists only in principle, or cannot yet be scaled, means the technical feasibility is not high in practice. The criterion reflects the present state of the solution—its current availability, maturity and indicative cost—established through qualitative desk research, validated with experts, and supported by industry and market reports.	Viability	Inverted	More and cheaper technical solutions at larger scale ➜ lower market threshold for viability
Switching costs	The cost and difficulty of making the technical solution a reality, assessed on both sides of the value chain. On the production side, it covers whether companies already provide the technical solution in practice, what adopting it would involve, and whether it requires investment to scale. On the user side, it covers whether downstream buyers face conversion costs. For example, filling lines that are built around a specific pack format are costly to change. Equipment that is not tied to one format, by contrast, carries little user-side cost. And where the technical solution is still too undefined, the user-side cost cannot yet be established. It is a qualitative measure of cost and difficulty, and does not incorporate return on investment, which would rather be determined by each company's margin hurdle, cash position and borrowing cost—and so sits below the level at which a country- or market-wide assessment operates. One ROI-related point is built into the framework, however: a large switching investment is only worth making where the accessible market is a big enough prize.	Viability	Linear	Higher R&D and switching cost ➜ higher market threshold for viability
Market concentration—production	The degree to which production is concentrated among a small number of firms, and whether that production is globally distributed or localised—a structural feature of the market, distinct from the conduct of any individual firm, which the leading-firm criterion captures.	Cascading effect	Inverted	A few dominant producers can trigger an industry-wide shift (higher concentration) ➜ cascading effect likely at lower market threshold
Market concentration—consumption	The degree to which demand is concentrated, understood at the level of firms and their procurement power rather than at country level: whether a small number of large buyers—global brand owners and original equipment manufacturers (OEMs) setting product specifications, for instance—can pull suppliers towards a compliant standard, or whether purchasing is dispersed across a fragmented field.	Cascading effect	Inverted	A few large buyers with global procurement power (higher concentration) ➜ cascading effect likely at lower market threshold
Vertical integration of the value chain	The depth of producers' integration into upstream stages of the value chain, read through the lens of stranded-asset risk. Back-integration into plastic feedstock means those assets lose value if production moves off plastic, which raises the cost of switching and gives integrated players a reason to keep plastic production running in markets that have not yet moved—so deeper integration works against a cascade. The direction of integration matters: integration into a non-plastic input, such as paper capacity, can point the other way, giving a player reason to switch where it can draw on existing assets. It is read as a directional indicator of incentive rather than a valuation of the assets exposed.	Cascading effect	Linear	Deeper back-integration (higher stranded-asset risk) ➜ cascading effect likely at higher market threshold
Role of the leading firm	Whether a credible first mover exists—a firm prominent enough to act as a role model and bring the rest of the field with it—assessed on positioning rather than market share: the public pledges, R&D commitments and reputational stake that signal both the willingness and the standing to move first. Either a single dominant company or several with a large, combined share can fulfil this role. Geography forms part of the picture, since a firm based in a market with high public awareness is more likely to move than one where the issue carries little salience. It rests on a qualitative judgement of credibility and positioning, not on a market-share rule.	Cascading effect	Inverted	A dominant role-model firm or group of firms setting de facto standards (leading firms play greater role) ➜ cascading effect likely at lower market threshold

Table 16: Analysis of market characteristics of three example high-risk plastic products

Product for analysis	Control Measure	Technical Feasibility	Switching Costs	Market concentration – production	Market concentration – consumption	Vertical integration of supply chain	Role of leading firm(s)
Single use plastic cups	Phase out	**Medium**	**High (supply side)** **Low (demand)**	**Low**	**Low**	**Medium**	**Low**
		Plastic cups ($0.02-0.04 per cup) **Plastic containing alternatives:** Paper cups (plastic lining prevents recycling; 0.04-0,06$ per cup) Other alternatives Bioplastics, e.g., PLA (microplastic pollution, composting requires special infrastructure, no recycling; $0.05-0.07per cup) Moulded fibre (compostable; $0.065-0.087)	**Production** Moulded fibre production fundamentally different (injection moulding vs. forming & drying of pulp), mostly different companies with little overlap (Huhtamaki exception) **Consumption** Flexible if properties are similar	Top 5 companies cover ~25-30% of global market Shows medium level of regional concentration Most countries have local production complementing imports Highly fragmented long tail of the market Polymer suppliers for PP, PS, PET and PE are highly concentrated Cup producers are price takers with no control over key input cost	Consumption side exhibits even stronger fragmentation than production Starbucks as global operator and one of the largest buyers covers only approximately 1.5% of the plastic cups market	**Plastic:** limited vertical integration **Paper:** Many of larger companies are back-integrated into raw material production, (Huhtamaki runs own papermills in Sweden) Some level of participation within food packaging market	**Production** No leading firm to role model switch to alternatives Vertical integration of big players results in lock-in of existing infrastructure **Consumption** No firm in the role of the leading firm due to market fragmentation
Sources: Freedonia, Zero Waste Europe: SUP Impact Assessment; Strasbourg policy centre; BCG analysis							
Yoghurt containers	Design requirement: recyclable mono-material	**High**	**Medium (supply-side)** **Low (demand-side)**	**Low**	**High**	**High**	**Medium**
		Recyclable mono-material plastic—available now, at scale (still plastic): ● Danone mono-PP cup the clearest example ● Drop-in: resin change only (mono-PP, rPET) on existing FFS lines	Cheap / drop-in to another plastic (rPET, PLA); moderate to carton cups; high to fibre Preformed-cup fillers are material-agnostic (PET, PP, PS, glass, carton)—low-friction path Thermoform-fill-seal (FFS) lines = expensive lock-in; paper / fibre can't be thermoformed Low-friction options that keep FFS useful are other plastics (rPET, PLA)	Fragmented, including large converters like Amcor, Berry, Greiner, Huhtamaki, Sonoco, Plastipak Additionally, many regional SMEs plus substantial in-house dairy thermoforming Dominant format = PP tub with foil / plastic lid; stays competitive and fragmented Production sits near filling and thermoforming capacity concentrates in Europe; APAC fastest-growing	Concentrated branded buyers (Danone control 14% of the global market in 2024, Mengniu Diary 11%) Converters fragmented and substitutable, so the buyer dictates specs Innovation is brand-led (Danone mono-PP cup; Yaza on Greiner K3 cardboard-plastic cup) Europe adds strong retailer private label plus co-ops (Arla, Müller)	Converters back-integrating into plastic recycling (ALPLA rPET dairy cup; ~400,000 t/yr PCR) Dairies back-integrated into pot-making via in-house thermoforming (Senagral, Danone) Deepest integration upstream with resin majors (Dow, SABIC, ExxonMobil, Borealis, INEOS)	Credible first movers exist but nondominant; brand-led Danone strongest candidate (-17.7% virgin plastic vs 2019; mono-PP cup)—recalibrating 2030 goals Yoplait (largest yoghurt franchise)—carton switch a positioning move others can follow Chobani—US paper-cup pioneer despite mid-tier scale Nestlé a pledger but weaker packaging follow-through; Arla a cross-product first-mover
Sources: Packaging World, Dairy Reporter, Yoplait, Danone, Chobani, Nestlé, BCG Analysis							
Tyres, Synthetic rubber generates microplastic pollution through TRWP, while chemicals such as 6PPD enter the environment EU Euro 7 introduces particle emission limits for tyre wear, from july 2028	Design requirement: minimise microplastic shedding	**Low**	**High (production & demand)**	**High**	**Medium**	**Low**	**High**
		No commercially available tyre eliminates TRWP emissions; microplastic generation is an inherent consequence of tyre-road friction regardless of material composition Airless tyre technology is the most promising structural alternative but remains in prototype stage No validated alternative to common chemicals like 6PPD has emerged at scale—the chemical performs a critical dual function protecting rubber from both ozone and oxygen degradation	**Production** Any chemical change requires full safety re-certification; tyre performance characteristics (safety, resistance, wet grip, abrasion, noise) are often antagonistic, making substitution technically complex & costly **Consumption** Potentially high, dependent on final product	The global tyre market is relatively concentrated at the top: Top 5 (Michelin Bridgestone and Goodyear, Continental & Pirelli) together hold ~48% of global sales Production is globally distributed and most manufacturers exhibit global footprint	**Tyre demand splits into two distinct channels:** OEM new vehicles and aftermarket Aftermarket is highly fragmented OEM channel demand is driven by a small number of global automakers, often setting vehicle-specific specifications requiring tyre manufacturers to engineer model-specific solutions	Low integration into plastic or polymer value chain, producers rely fully on external suppliers No ownership over critical chemical inputs such as antiozonants Big players selectively acquire and operate own natural rubber plantations in SE Asia	**Production** Strong brands can create regional role model pressure through sustainability commitments, as illustrate by Bridgestone's target of 80% sustainable materials by '48 **Consumption** Big car manufacturers can set standards with design requirements
Sources: OECD; DTSC California; European Commission; Bridgestone; Michelin; USTMA; BCG analysis							

SUPPLY-SIDE SHARES

Country-level supply shares are estimated top-down from production data, drawing on two complementary sources.

The primary source is PlasticsEurope[60], the association of European plastics manufacturers, whose Plastics – the Fast Facts series reports global and European production volumes by region, resolving China, Japan, and broader world regions. Its advantages are annual updating from recent production data and public accessibility; its main limitation is granularity, as it resolves only a limited set of regions and reports Europe as a single aggregate.

To extend country-level resolution, PlasticsEurope is supplemented by the Nexant[61] database, a commercial energy and chemicals dataset resolving production across roughly 30 countries and 10 regions and covering an estimated 80–90% of the global market by volume. Unlike PlasticsEurope, Nexant requires a paid subscription. Together the two sources cover approximately 94% of the global market at country and regional level.

The remaining ~6%—a long tail of countries not individually resolved in either source—is allocated using national GDP as a proxy. GDP is an imperfect proxy for production, but because this residual is small and spread across many minor producers, its effect on the overall picture is limited.

Two reconciliation steps are applied where the sources overlap. First, several European states not separately resolved by PlasticsEurope (Kosovo, Montenegro, Serbia, Bosnia and Herzegovina, North Macedonia, Albania, Andorra, Monaco, San Marino, and Liechtenstein) are treated within the EU 27+3 aggregate. Second, because Nexant's regional definitions do not map cleanly onto those of PlasticsEurope (Nexant's EU 27+3 corresponds to Western and Central Europe, its CIS region to Eastern Europe), Russia is mapped using its Nexant share of the global market rather than being absorbed into a broader regional aggregate.

DEMAND-SIDE SHARES

Demand-side shares are estimated using two independent approaches, reported in parallel rather than merged, as there is no defensible basis for combining their different data and assumptions. The municipal-solid-waste approach is the primary basis; the trade-linked material flow analysis serves as a secondary check.

Primary approach—municipal solid waste (MSW) as a proxy. This approach draws on the World Bank's What a Waste 3.0 (2025)[62], which reports waste generation, composition, and management for a 2022 base year. MSW is a widely accepted proxy for final plastic consumption: most short-lived plastics—particularly single-use items and packaging, which dominate consumption by volume—enter the municipal waste stream shortly after use, so the plastic share of a country's MSW indicates its relative demand. What a Waste 3.0 reports plastic at roughly 12.5% by weight of global MSW, with single-use items estimated at 65% of MSW plastic, and provides shares at country, regional, and income-group level.

The approach has two limitations. First, MSW captures only part of total plastic waste—streams such as medical, construction and demolition, and electrical waste fall largely outside municipal collection—and the plastic share of MSW is not reported for all countries (36 countries are estimated using regional splits). Second, an MSW proxy is liable to understate consumption in lower-income countries, where a substantial share of plastic waste never enters the formal municipal stream, being informally collected, openly dumped, or otherwise mismanaged. What a Waste 3.0 quantifies this: globally, 13% of MSW plastic is poorly managed (sent to uncontrolled dumpsites) and 16% is unmanaged (uncollected), with 87% of unmanaged plastic arising in lower- and upper-middle-income countries and roughly 75% of plastic waste in low-income countries unmanaged. Mismanaged-waste estimates are not incorporated into the figures, because the relevant fractions are not reported consistently across all countries and folding in a partial dataset would introduce inconsistency rather than remove bias; this is acknowledged as a limitation of the MSW-based estimates.

Secondary approach—trade-linked material flow analysis (Houssini et al.)[63] Rather than inferring demand from waste composition, a material flow analysis traces plastic through the supply chain, balancing inflows against outflows for each country so that consumption is derived directly from production and trade data. Houssini et al. apply this using Harmonized System (HS) trade codes and bilateral import and export flows within a mass-balance framework. Where values are reported at the regional rather than country level, they are allocated to individual countries using national GDP as a proxy. GDP is an imperfect basis for this allocation: it assumes plastic consumption scales with economic output, which holds across most economies but breaks down for major petrostate producers—Gulf countries, for instance, combine high GDP with relatively low domestic consumption, so a GDP-based split is liable to overstate their demand share. Country-level figures derived this way are treated with corresponding caution. The approach also offers a practical benefit: the granularity of the underlying HS codes, particularly for final plastic products, supports the assessment of measures targeting specific product types.

Table 17: Combined supply and demand market share, and coalition participation per country[1]

Country	Supply Share	Demand Share (MSW-based)	Demand Share (Houssini-based)	Active Supporters	Evolving Supporters	HAC membership	Nice Wake-Up Call signatories
Afghanistan	0.004%	0.132%	0.017%				
Albania	0.010%	0.024%	0.021%				
Algeria	0.006%	0.751%	0.358%				
Andorra	0.002%	0.002%	0.004%				
Angola	0.132%	0.375%	0.208%	X			
Antigua and Barbuda	0.000%	0.002%	0.002%	X		X	X
Argentina	0.544%	1.236%	0.686%		X		
Armenia	0.006%	0.024%	0.023%	X		X	X
Australia	0.099%	0.087%	1.834%	X		X	X
Austria	0.255%	0.299%	0.375%	X		X	X
Azerbaijan	0.023%	0.130%	0.091%		X	X	
Bahamas	0.003%	0.027%	0.013%		X		
Bahrain	0.047%	0.161%	0.088%				
Bangladesh	0.131%	1.917%	0.534%		X		
Barbados	0.002%	0.018%	0.007%	X		X	X
Belarus	0.021%	0.165%	0.080%				
Belgium	1.810%	0.337%	0.468%	X		X	X
Belize	0.001%	0.007%	0.003%		X		
Benin	0.018%	0.037%	0.028%	X		X	X
Bhutan	0.001%	0.004%	0.003%		X		
Bolivia	0.013%	0.105%	0.055%				
Bosnia and Herzegovina	0.013%	0.049%	0.027%	X			
Botswana	0.021%	0.007%	0.032%	X			
Brazil	2.878%	4.717%	2.111%		X		
Brunei Darussalam	0.005%	0.030%	0.019%				
Bulgaria	0.049%	0.132%	0.072%	X		X	X
Burkina Faso	0.019%	0.021%	0.030%	X		X	
Burundi	0.004%	0.010%	0.006%	X			X
Cabo Verde	0.002%	0.006%	0.004%	X		X	X
Cambodia	0.011%	0.177%	0.046%	X			X
Cameroon	0.045%	0.068%	0.070%	X			
Canada	1.365%	1.290%	2.369%	X		X	X
Central African Republic	0.002%	0.038%	0.004%	X			
Chad	0.018%	0.021%	0.028%	X			
Chile	0.079%	0.322%	0.326%	X		X	X
China	32.000%	20.871%	20.000%				
Colombia	0.090%	0.534%	0.374%	X		X	X
Comoros	0.001%	0.002%	0.002%	X			X
Congo	0.015%	0.024%	0.024%	X			X
Costa Rica	0.018%	0.074%	0.075%	X		X	X
Cote d'Ivoire	0.072%	0.147%	0.112%	X			X
Croatia	0.038%	0.145%	0.056%	X			X
Cuba	0.038%	0.152%	0.159%				
Cyprus	0.017%	0.031%	0.025%	X		X	X
Czechia	0.162%	0.258%	0.239%	X			X
Democratic Republic of the Congo	0.060%	0.636%	0.094%	X			X
Denmark	0.215%	0.110%	0.317%	X		X	X
Djibouti	0.004%	0.009%	0.006%	X			X
Dominica	0.000%	0.001%	0.001%		X		
Dominican Republic	0.030%	0.091%	0.123%	X		X	X
Ecuador	0.030%	0.200%	0.126%	X		X	X
Egypt	0.483%	1.203%	0.673%				
El Salvador	0.008%	0.139%	0.034%		X		
Equatorial Guinea	0.014%	0.006%	0.022%	X			
Eritrea	0.002%	0.006%	0.004%	X			
Estonia	0.021%	0.031%	0.030%	X		X	X
Eswatini	0.005%	0.007%	0.008%	X			X
Ethiopia	0.124%	0.136%	0.195%	X			
Fiji	0.001%	0.011%	0.005%	X		X	X
Finland	0.151%	0.120%	0.222%	X		X	X
France	1.309%	1.684%	2.213%	X		X	X
Gabon	0.021%	0.012%	0.032%	X		X	X
Gambia	0.002%	0.011%	0.003%	X			X
Georgia	0.007%	0.061%	0.029%	X		X	X
Germany	3.071%	1.445%	3.327%	X		X	X
Ghana	0.075%	0.111%	0.117%	X		X	X
Greece	0.117%	0.261%	0.173%	X			X
Grenada	0.000%	0.002%	0.001%	X			X
Guatemala	0.025%	0.300%	0.103%	X		X	X
Guinea	0.020%	0.022%	0.032%	X		X	X
Guinea-Bissau	0.002%	0.004%	0.003%	X			X
Guyana	0.004%	0.013%	0.016%		X		
Haiti	0.005%	0.120%	0.022%		X		
Honduras	0.008%	0.173%	0.034%	X			X
Hungary	0.095%	0.201%	0.140%	X			X
Iceland	0.016%	0.009%	0.032%	X		X	X
India	6.048%	11.591%	6.000%				
Indonesia	1.301%	3.519%	1.531%				
Iran	1.675%	0.545%	0.774%				
Iraq	0.015%	0.415%	0.546%				
Ireland	0.295%	0.178%	0.434%	X		X	X
Israel	0.092%	0.404%	0.998%	X		X	X
Italy	0.804%	1.266%	1.666%	X			X
Jamaica	0.005%	0.078%	0.020%	X			X
Japan	3.000%	2.049%	4.000%		X	X	
Jordan	0.049%	0.194%	0.093%			X	
Kazakhstan	0.065%	0.345%	0.262%				
Kenya	0.116%	0.170%	0.181%	X		X	
Kiribati	0.000%	0.000%	0.000%	X			
Kosovo	0.005%	0.019%	0.010%				
Kuwait	0.192%	0.243%	0.349%				
Kyrgyz Republic	0.003%	0.143%	0.014%				
Lao PDR	0.004%	0.022%	0.018%				
Latvia	0.020%	0.034%	0.030%	X			X
Lebanon	0.021%	0.089%	0.040%				
Lesotho	0.002%	0.005%	0.004%	X			
Liberia	0.004%	0.008%	0.006%	X			X
Libya	0.003%	0.106%	0.069%	X			
Liechtenstein	0.004%	0.001%	0.008%				
Lithuania	0.038%	0.057%	0.056%	X			X
Luxembourg	0.043%	0.014%	0.064%	X		X	X
Madagascar	0.015%	0.073%	0.024%	X		X	X
Malawi	0.013%	0.082%	0.020%	X		X	X
Malaysia	0.714%	1.520%	0.473%				
Maldives	0.002%	0.008%	0.007%	X		X	X
Mali	0.023%	0.012%	0.036%	X		X	
Malta	0.010%	0.018%	0.015%	X			X
Marshall Islands	0.000%	0.001%	0.000%	X			X
Mauritania	0.010%	0.016%	0.015%	X			X
Mauritius	0.013%	0.023%	0.021%	X		X	X
Mexico	1.517%	2.074%	1.586%	X		X	X
Micronesia	0.000%	0.002%	0.000%	X		X	X
Moldova	0.004%	0.037%	0.016%	X		X	X
Monaco	0.005%	0.002%	0.010%	X		X	X
Mongolia	0.005%	0.105%	0.020%	X			X
Montenegro	0.003%	0.020%	0.007%	X		X	
Morocco	0.132%	0.258%	0.208%				
Mozambique	0.019%	0.111%	0.030%	X			X
Myanmar	0.018%	0.234%	0.072%				
Namibia	0.013%	0.021%	0.020%	X			X
Nauru	0.000%	0.000%	0.000%		X		
Nepal	0.012%	0.107%	0.048%				
Netherlands	1.506%	0.359%	0.829%	X		X	X
New Zealand	0.000%	0.103%	0.270%	X		X	X
Nicaragua	0.004%	0.080%	0.017%				
Niger	0.016%	0.052%	0.024%	X			
Nigeria	0.116%	1.318%	1.026%	X		X	
North Macedonia	0.007%	0.042%	0.015%				
Norway	0.321%	0.127%	0.645%	X		X	X
Oman	0.111%	0.291%	0.209%				
Pakistan	0.107%	1.616%	0.435%				
Palau	0.000%	0.000%	0.000%	X		X	
Panama	0.020%	0.121%	0.083%	X		X	X
Papua New Guinea	0.009%	0.073%	0.034%	X			X
Paraguay	0.011%	0.150%	0.045%				

Country	Supply Share	Demand Share (MSW-based)	Demand Share (Houssini-based)	Active Supporters	Evolving Supporters	HAC membership	Nice Wake-Up Call signatories
Peru	0.064%	0.469%	0.266%	X		X	X
Philippines	0.174%	0.631%	0.469%	X			X
Poland	0.533%	0.698%	0.551%	X		X	X
Portugal	0.138%	0.185%	0.203%	X		X	X
Qatar	0.454%	0.064%	0.448%				
Republic of Korea	4.790%	1.912%	2.254%		X	X	
Romania	0.159%	0.262%	0.234%	X		X	X
Russian Federation	1.837%	2.204%	2.659%				
Rwanda	0.013%	0.033%	0.021%	X		X	
Samoa	0.000%	0.000%	0.001%		X		
San Marino	0.001%	0.001%	0.002%				
Sao Tome and Principe	0.001%	0.000%	0.001%	X		X	X
Saudi Arabia	3.858%	0.745%	2.356%				
Senegal	0.028%	0.096%	0.044%	X		X	X
Serbia	0.036%	0.121%	0.072%		X		
Seychelles	0.002%	0.003%	0.003%	X		X	X
Sierra Leone	0.007%	0.012%	0.011%	X			X
Singapore	1.006%	0.083%	0.591%				
Slovak Republic	0.062%	0.114%	0.092%	X			X
Slovenia	0.032%	0.025%	0.047%	X		X	X
Solomon Islands	0.000%	0.008%	0.002%	X		X	X
Somalia	0.010%	0.023%	0.015%	X			
South Africa	0.391%	0.135%	0.646%	X			
South Sudan	0.008%	0.011%	0.012%	X			
Spain	1.279%	0.882%	1.147%	X		X	X
Sri Lanka	0.021%	0.059%	0.086%	X			X
St. Kitts and Nevis	0.000%	0.003%	0.001%	X			X
St. Lucia	0.001%	0.006%	0.003%		X		
St. Vincent and the Grenadines	0.000%	0.003%	0.001%		X		
Sudan	0.052%	0.103%	0.082%	X			
Suriname	0.001%	0.005%	0.004%		X		
Sweden	0.310%	0.109%	0.455%	X		X	X
Switzerland	0.446%	0.143%	0.896%	X		X	X
Syrian Arab Republic	0.024%	0.101%	0.045%				
Tajikistan	0.003%	0.070%	0.012%				
Tanzania	0.076%	0.371%	0.120%	X			
Thailand	2.542%	1.616%	0.575%		X		
Timor-Leste	0.001%	0.007%	0.004%		X		
Togo	0.009%	0.012%	0.014%	X		X	X
Tonga	0.000%	0.000%	0.001%	X			
Trinidad and Tobago	0.007%	0.035%	0.031%		X		
Tunisia	0.045%	0.095%	0.071%	X			
Türkiye	1.040%	0.609%	1.075%				
Turkmenistan	0.012%	0.006%	0.049%				
Tuvalu	0.000%	0.000%	0.000%	X		X	X
Uganda	0.046%	0.058%	0.072%				
Ukraine	0.046%	0.421%	0.175%	X		X	X
United Arab Emirates	0.000%	0.396%	0.972%			X	
United Kingdom	0.589%	1.009%	2.519%	X		X	X
United States	14.118%	11.499%	18.000%				
Uruguay	0.018%	0.076%	0.076%	X		X	X
Uzbekistan	0.026%	0.187%	0.105%				
Vanuatu	0.000%	0.001%	0.001%	X		X	X
Venezuela	0.089%	0.284%	0.061%				
Viet Nam	0.900%	0.723%	0.480%				
Palestine	0.019%	0.079%	0.036%				
Yemen	0.024%	0.198%	0.045%				
Zambia	0.029%	0.209%	0.046%	X			
Zimbabwe	0.041%	0.141%	0.065%	X			X
TOTAL				**123**	**22**	**73**	**95**

1 The list of countries in this assessment follows the World Bank's What a Waste 3.0 (2026). Four states (Holy See, Cook Islands, Niue, and Democratic People's Republic of Korea) are not included in this list. Given their small populations, this has a negligible effect on the results.

- **Active supporters:** Countries that have publicly voiced support during the negotiations for all four essential treaty elements, as identified in WWF's Treaty Must-Haves: bans and phase-outs, circularity (design requirements and systems), implementation support, and mechanisms to strengthen the treaty over time.
- **Evolving supporters:** Countries that back at least one of the two core control measures—bans and phase-outs, *or* circularity (design requirements and systems), but not all essential treaty elements.
- **High Ambition Coalition to End Plastic Pollution member states:** Group of countries co-chaired by Norway and Rwanda, formed after the 2022 UN Environment Assembly resolution, committed to a legally-binding full-lifecycle treaty to end plastic pollution by 2040. Membership is formal and the commitment is concrete.
- **The Nice Wake-Up Call signatories:** The 95 countries that signed the 2025 call for a treaty addressing plastic production and consumption, phasing out the most problematic products and chemicals, and able to strengthen over time—including through decision-making that does not depend on unanimity.

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