Shift into gear
How businesses can prepare for the era of global plastic regulation

Within a rapidly evolving and increasingly stringent international and national regulatory landscape, we explore how businesses can leverage data management to fight plastic pollution, respond to existing regulatory requirements, and anticipate the effect of the upcoming UN Global Plastics Treaty.

Acknowledgements

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In addition, we extend our gratitude towards our colleagues at EA and SAP for their contributions.

About SAP

As a global leader in enterprise applications and business AI, SAP (NYSE:SAP) stands at the nexus of business and technology. For over 50 years, organizations have trusted SAP to bring out their best by uniting business-critical operations spanning finance, procurement, HR, supply chain, and customer experience.

For more information, visit **www.sap.com**.

About Earth Action

A mission driven research consultancy, **Earth Action** catalyzes positive environmental change through innovative solutions and collective action. The team identifies and addresses critical sustainability knowledge gaps, developing the data and applying insights to create research trusted by scientists and actionable by all. Earth Action pioneered methodologies for assessing corporate plastic footprints and global plastic pollution metrics. Profits are channeled into developing science and broad-stakeholder initiatives, living a commitment to building a world where the needs of people, planet and profit are brought into balance.

Executive summary

In 2025, **global businesses face rising plastic regulations which are increasingly fragmented**, thus creating administrative and financial burdens for corporates. This report highlights the status of the UN Global Plastics Treaty at the beginning of 2025 and maps the evolving voluntary and regulatory plastic landscape. The trend is clear, Extended Producer Responsibility (EPR) schemes, plastic taxes and varying reporting requirements are strengthening, regardless of which elements are implemented within the treaty.

However, **businesses are recognizing the advantages of a Global Plastics Treaty that includes strong global rules, definitions and standards.** Forward-thinking companies, such

as members of the **Business Coalition for an Ambitious Plastics Treaty**, acknowledge the treaty's potential to drive harmonization, standardization, and strategic direction. By establishing a unified framework for plastic and packaging management, the treaty fosters transparency and enhances the efficiency of information flows.

Moreover, **businesses can proactively prepare for the forthcoming plastics treaty and wave of plastic regulation by implementing robust data management solutions.** These solutions enable organizations to streamline their reporting processes, while achieving sustainability and circularity gains.

Meeting regulatory requirements doesn't have to be a complex challenge, and technology plays a crucial role in facilitating compliance and achieving sustainability objectives. A range of tools are already available, such as **SAP Responsible Design and Production** (RDP) which aggregates plastic and material data across a company's operations. Data management systems can be used to comply

with environmental regulations, calculate plastic taxes, achieve cost savings and enhance circularity efforts. Leveraging collective intelligence, key partnerships and open data models can help businesses unlock new opportunities and stay ahead in a rapidly changing landscape.

As global plastic regulations take shape, an ambitious treaty will establish standards, policy tools and reporting requirements. **Businesses that leverage the right technology solutions to gain an accurate, dynamic view of their plastic flows will enhance efficiency and reduce risk in this evolving landscape.**

Introduction

The momentum of circularity and plastic management may catalyze the era of global sustainability and packaging regulations in 2025.

With the expected finalization of the United Nations International Legally Binding Instrument on Plastic Pollution this year - championed by a majority of governments and civil society - businesses will be facing new mandates, requirements and expectations. Regardless of the treaty timeline, nearly 100 countries, along with civil society and business leaders, are dedicated to ambitious action on plastic pollution[1].

Brand owners who are part of the Business Coalition for an Ambitious Treaty have made commitments, such as ensuring packaging that is reusable, recyclable or compostable[2]. The Packaging and Packaging Waste Regulation entered into law in the European Union in January of 2025, and is predicted to affect 80% of packaging currently on the European market[3]. Civil society organizations, like the Ellen MacArthur Foundation and The Consumer Goods Forum, are working with businesses to

develop reasonable and effective guidelines to improve the design of plastic packaging[4]. The tide is turning on unregulated and unchecked plastic

"The fragmentation of regulation is no good for business"

– Stephen Jamieson,
Head of Product Marketing,
Sustainability, SAP

production, use and disposal. Thus, it is critical that businesses understand how plastic flows through their supply chains and where it ultimately ends up –

whether as waste or recycled into new products. However, businesses are facing challenges due to fragmented regulations, inconsistencies in definitions and rapidly evolving standards. Enterprise Resource Planning and data management systems that understand and proactively adapt to shifting regulations and sustainability targets can alleviate these problems while reducing plastic pollution.

This report highlights the status of the global plastics treaty at the start of 2025 and maps the evolving voluntary and regulatory plastic landscape for corporates. For businesses who want to mitigate risk, the time is now to develop strong data management on plastics and materiality, to not only meet regulatory requirements, but also achieve gains in sustainability and circularity[5]. With the treaty planned for implementation in 2025, it is urgent that companies prepare for the outcomes, especially within the backdrop of a stricter sustainability landscape.

The UN Global Plastics Treaty

Taking stock and looking forward

The Intergovernmental Negotiating Committee (INC) process for the UN Plastics Treaty, initiated by the United Nations Environment Assembly (UNEA) Resolution 5/14 in March 2022, aimed to develop a legally binding international treaty to address plastic pollution by the end of 2024[6]. The INC held five sessions (shown in Figure 1), beginning with INC–1 in Uruguay, which established the foundational scope and objectives, and culminating at INC–5 in Busan, South Korea, which sought to finalize the treaty. Throughout these negotiations, countries grappled with contentious issues such as capping plastic production, regulating [...]

UNEA adopts Resolution 5/14 calling for the creation of an international legally binding instrument to end plastic pollution, including in the marine environment.

Provisionally adopted rules of procedure, negotiations can finally begin. Contact groups formed to write zero draft text.

Negotations continued, with focus on lifecycle of plastic pollution, obligations and control measures.

2022
Kenya

INC–1
Dec. 2022
Uruguay

INC–2
June 2023
France

INC–3
Nov 2023
Kenya

INC–4
April 2024
Canada

INC–5
Nov 2024
South Korea

2025
and beyond

Rules of procedure debated for treaty negotiations with some states adamant about consensus voting.

Extensive negotiations on zero draft text with little international agreement.

Significant disagreements on the scope of the treaty and upstream versus downstream measures.

Negotiations will continue into 2025 with the INC chairperson and many countries committed to an ambitious global treaty.
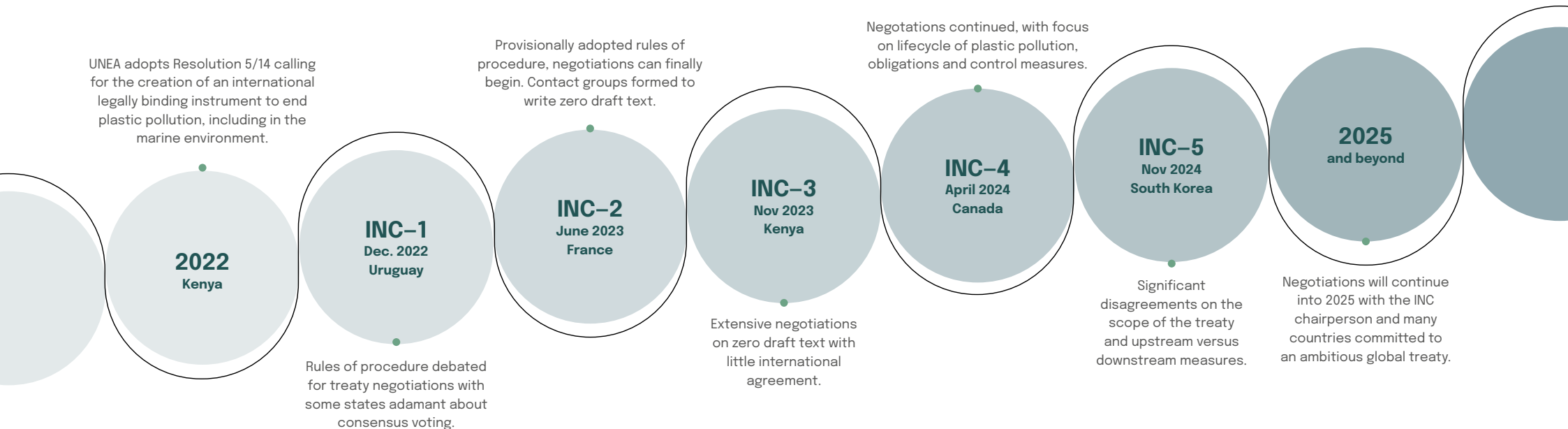
Figure 1. The UN Global Plastics Treaty negotiation timeline

[...] chemical additives, and balancing obligations for higher and lower income nations[7]. Despite substantial progress, key disagreements remain unresolved, particularly around voting mechanisms and the treaty's scope, reflecting broader tensions between petrochemical-producing nations and environmentally progressive nations. While INC–5 concluded without a finalized treaty in November 2024, discussions are set to resume in mid-2025, with negotiators aiming to bridge these divides and create an actionable framework to combat global plastic pollution effectively.

Taking stock of treaty negotiations after INC–5, there are **six treaty elements that are consequential for businesses.** Businesses should be prepared for a treaty that includes targets to increase waste management and recycling capacity, which may translate into EPR schemes on a national level. Still under debate are articles on regulating specific chemicals, design standards and reporting standards.

Treaty Elements	Description	Status	Relevance for Businesses
Reduction of Production	Phasing down or capping the production of virgin plastics to limit overall pollution.	🔴 Highly controversial and opposed by petrochemical producers but supported by ambitious countries and activists.	May increase costs for producers and brands relying on virgin plastics; may push businesses toward alternative materials.
Management of Chemicals of Concern	Restrictions on hazardous chemicals used in plastic production to reduce health and environmental risks.	🟠 Most countries agree that toxic chemicals should be managed, with disagreements on the scope and concerns from industry.	Requires reformulation of products and new compliance mechanisms, particularly for packaging and consumer goods.
Waste Management and Recycling	Improved global waste management systems, infrastructure, and enhanced recycling processes.	🟢 Broad agreement among stakeholders and countries, though the role of advanced recycling remains debated.	Encourages innovation in recycling and the use of recycled materials; potential cost savings for some; may lead to increasing EPR schemes.
Design and Product Standards	Global standards for designing reusable and recyclable products.	🟠 Generally supported with some debate on implementation timelines.	Businesses may need to tweak product designs and material use; opens opportunities for differentiation and branding.
Financial and Technical Support	Funding and technical assistance for developing nations to enhance their waste management capabilities.	🟠 Broadly supported in principle, though scale and governance of funds remain contentious.	Ensures equitable participation; potential new markets for technology and infrastructure providers.
Disclosure and Reporting Standards	Mandatory reporting of plastic production, usage, and waste metrics for transparency and accountability.	🟠 Supported by environmental groups and many governments but implementation and definitions are not yet agreed upon.	Increases compliance and administrative costs; potential reputational benefits for transparent reporting businesses.

Table 1. Key treaty elements under discussion. Green status indicates element likely to be included in the treaty, yellow is under debate and red is unlikely[8].

Having visibility on potentially regulated chemicals, materials and products can help businesses identify compliance risks and prepare for reporting requirements. Additionally, having a comprehensive view of plastic material flows is essential for businesses to comply with upcoming regulations, which may include increasing recycled content, eliminating certain chemicals, ensuring recyclability, or reducing unnecessary packaging.

Achieving international consensus in the treaty around specific regulations has been challenging, however most stakeholders are optimistic that a treaty will be signed in 2025. The treaty will most likely include measures to support waste management and recycling infrastructure development. For business, this may mean incentives for using recycled content but also a proliferation of EPR schemes. Businesses can stay ahead of potential new regulations and mandates by gaining an accurate picture of their plastic usage and flows. This includes identifying opportunities to improve designs, materials and chemical compositions, as well as mitigating risks by identifying potential bottlenecks, costs or sourcing challenges.

"We believe this treaty has the potential to stimulate, coordinate, and align national policies and actions towards a common global strategic direction"

– Vision statement from the Business Coalition

BUSINESS COALITION FOR A GLOBAL PLASTICS TREATY

The Business Coalition for a Global Plastics Treaty is a consortium of 275+ business and financial institutions seeking an ambitious and effective global treaty to end plastic pollution. The consortium includes some of the largest companies in the consumer goods, packaging and finance sector and demonstrates a groundswell of support for international regulation on plastic pollution.

The evolving plastic regulatory landscape

Businesses must navigate an increasingly complex and stringent landscape of non-financial and sustainability regulations and reporting requirements, as investors, regulators, and consumers demand greater transparency and accountability on sustainability issues.

The establishment of an international legally binding instrument in 2025 is likely to drive the adoption of an expanded EPR policy framework, holding producers accountable for the management and disposal of post-consumer products and packaging. Regardless of the treaty's outcome,

the overall trend points toward increasing regulation and reporting on plastic and packaging, with a proliferation of mandatory and voluntary initiatives (see **Appendix A**). Furthermore, European regulations related to the management of plastics are flourishing and setting the standard, leading the way towards upcoming global regulations.

Notably, the European Union has recently adopted the Packaging and Packaging Waste Regulation (PPWR), introducing binding and harmonized rules on packaging waste reduction, recyclability, and reuse across all member states[9]. This directive

is complemented by the Corporate Sustainability Reporting Directive (CSRD) which requires companies to present a holistic view of their sustainability practices, including how packaging waste management aligns with broader ESG goals such as climate change mitigation and resource efficiency[10]. A significant milestone in the EU's efforts to combat plastic pollution is the Single-Use Plastics Directive (SUPD)[11]. The SUPD is a landmark in the European Union's efforts which addresses the most environmentally harmful plastic products and promotes the transition toward sustainable alternatives. In terms of EPR, many see the European Union as a lighthouse, laying the groundwork of comprehensive policy schemes that are then adopted by other regions, generally followed by the Americas, Asia and Africa[12].

As the sustainability reporting landscape evolves, it is converging towards mandatory reporting standards, such as the Corporate Sustainability

Reporting Directive (CSRD) in Europe. Numerous voluntary standards also exist, and environmental standards are increasingly incorporating plastic-related metrics within their scope of reporting frameworks, whether through end-of-life or plastic-specific metrics (see **Appendix B**) or more generic waste indicators. Such standards, developed by experts' institutions, are likely to influence future regulations. Despite these advances, establishing a common language and shared understanding of sustainability with regard to plastic remains a significant challenge, that a treaty including standardized reporting can help alleviate.

Businesses are navigating a complex landscape of diverse voluntary and mandatory regulations. The current lack of standardization and clear direction leads to confusion in target setting, increases cost and administrative burdens and dilutes efforts to combat plastic pollution. As shown in **Figure 2**, a sustainability manager for an international corporate must balance several different voluntary and mandatory targets and standards, some with complementary, and others with competing requirements. The outcome is a convoluted web of definitions and targets that must also align with internal CSR objectives.

Data systems that harmonize conflicting definitions and taxonomies, while reducing complexity, can help mitigate some of these challenges. However, with the global trends pointing towards plastic regulation, reporting requirements are expected to multiply. A global treaty that establishes standardized definitions, targets and frameworks can enhance efficiency, provide regulatory stability and ultimately support sustainability efforts.

"Companies need a standardized method to exchange packaging data with supply chain stakeholders, as outlined in the Packaging Data Exchange workstream"

– Delphine Garin, Manager, Plastics and Packaging, **WBCSD**

SAP has partnered with the **World Business Council for Sustainable Development** (WBCSD) and the **Ellen MacArthur Foundation** on industry alignment for packaging data. The consortium worked on a pioneer project to identify a standardized data model for packaging information exchange across the supply chain. This will empower businesses to seamlessly access and analyze material attributes from diverse suppliers, enabling the design of more sustainable and recyclable packaging, minimizing waste, and reducing EPR fees.
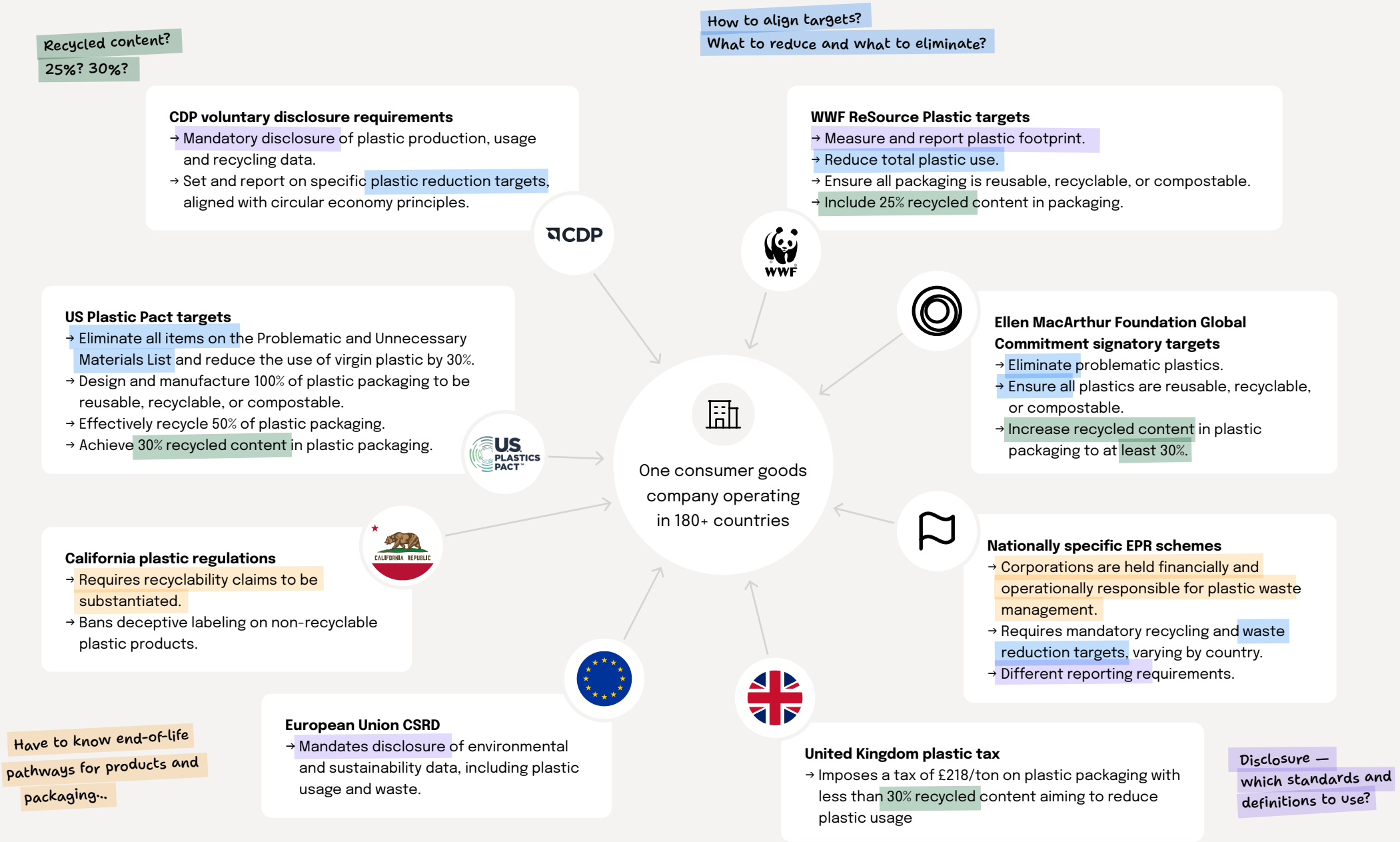
World Business Council for Sustainable Development

Recycled content?
25%? 30%?

How to align targets?
What to reduce and what to eliminate?

CDP voluntary disclosure requirements
→ Mandatory disclosure of plastic production, usage and recycling data.
→ Set and report on specific plastic reduction targets, aligned with circular economy principles.

WWF ReSource Plastic targets
→ Measure and report plastic footprint.
→ Reduce total plastic use.
→ Ensure all packaging is reusable, recyclable, or compostable.
→ Include 25% recycled content in packaging.

US Plastic Pact targets
→ Eliminate all items on the Problematic and Unnecessary Materials List and reduce the use of virgin plastic by 30%.
→ Design and manufacture 100% of plastic packaging to be reusable, recyclable, or compostable.
→ Effectively recycle 50% of plastic packaging.
→ Achieve 30% recycled content in plastic packaging.

Ellen MacArthur Foundation Global Commitment signatory targets
→ Eliminate problematic plastics.
→ Ensure all plastics are reusable, recyclable, or compostable.
→ Increase recycled content in plastic packaging to at least 30%.

One consumer goods company operating in 180+ countries

California plastic regulations
→ Requires recyclability claims to be substantiated.
→ Bans deceptive labeling on non-recyclable plastic products.

Nationally specific EPR schemes
→ Corporations are held financially and operationally responsible for plastic waste management.
→ Requires mandatory recycling and waste reduction targets, varying by country.
→ Different reporting requirements.

Have to know end-of-life pathways for products and packaging...

European Union CSRD
→ Mandates disclosure of environmental and sustainability data, including plastic usage and waste.

United Kingdom plastic tax
→ Imposes a tax of £218/ton on plastic packaging with less than 30% recycled content aiming to reduce plastic usage

Disclosure — which standards and definitions to use?

Figure 2. Decoding the convoluted voluntary and mandatory regulatory landscape

Understanding compliance and business risk

The time is ripe for businesses to start preparing for current and upcoming sustainability, packaging and plastics regulations, streamlining data collection and reporting to manage risk and capitalize on opportunities[13]. Proactively strengthening their sustainability data management is critical for businesses to stay ahead of the growing wave of plastic regulations. By developing a coordinated compliance strategy embedded into operations, companies can capitalize on data sharing, resource optimization and scale efficiencies. Retailers are increasingly seeking sustainable products, resisting unnecessary packaging and expecting sustainability reporting from their suppliers. Finally, comprehensive data management reduces inefficiencies and the risk of non-compliance,

Category	Type	Description
Physical risks	Acute risks	Short-term, specific events that change the state of nature, e.g. incident of plastic pellets released into the environment by freight containers[14]. Liable companies could be fined, sued or required to pay for cleanup costs.
	Chronic risks	Gradual changes to nature due to the accumulation of plastic pollution, affecting ecosystems and biodiversity. Can lead to revenue loss from tourism due to the degradation of natural attractions; clean-ups costs.
Transition risks	Policy and regulatory risks	Regulations or bans on plastics, leading to potential higher taxation, extended producer responsibility fees and raw material costs for companies.
	Market risks	Changes in consumer preferences and overall market dynamics due to physical, regulatory, technological, reputational and stakeholder influences, leading to the loss of customers and reduced market share.
	Technology risks	Innovation in products or services to reduce nature impact or dependency, such as the replacement of plastics with biodegradable containers, resulting in increased R&D costs/ capital expenditure (CapEx) to adapt to innovative products (for end-of-life treatment).
	Reputational risks	Reputational damage to companies reliant on plastics, as consumers become more aware of plastic pollution impacts; includes accusations of greenwashing, resulting in loss of customers.
	Liability risks	Forecasted corporate liabilities from plastic litigation, expected to rise above USD $20 billion from 2022-2030, with lawsuits involving greenwashing, environmental damages, and harmful health impacts in humans[15].

Table 2. Plastic pollution related risks[16]

which may lead to financial penalties or reputational damage[17]. Furthermore, adopting early disclosure of plastic-related risks and opportunities leads to preparedness and resilience towards regulatory changes, as companies monitor operational and reputational risks. Disclosure practices can also give corporations the ability to secure capital at a more affordable cost, building trust with investors and customers alike[18].

Plastic pollution causes several risks to businesses including physical, regulatory, market, technology, reputational and liability risks (**see Table 2**). These risks can be acute, such as industrial disasters, or chronic, such as the increasing levels of plastic pollution disrupting the natural environment. Transition risks include policy and regulatory changes, such as plastic bans and EPR schemes, which may introduce additional costs. However, by tracking plastic-related data, businesses can anticipate these changes and adopt eco-design strategies to align with incentives, helping to lower fees and manage cost impacts. Market shifts driven by evolving consumer preferences, retailers and stakeholder pressures also pose risks, potentially leading to reduced market shares. By keeping track of consumer trends and modifying

Plastic represents a financial liability for corporations, likely to balloon to $20 billion by 2030

– **Fortune, 2024**

In recent years, numerous plastic-related litigation cases have emerged[19], involving a wide range of industry players, from plastic producers and recyclers to FMCG companies. These companies face allegations covering various issues, including consumer protection violations, environmental damages, and false advertising.

materials and products to match sustainability ambitions, companies can meet consumer demands and maintain market share. Corporates also face rising R&D and capital expenditures to adapt to innovative technologies and materials, which may be subsidized or encouraged as part of new treaty regulations. Finally, reputational risk emerges from growing awareness of plastic pollution, greenwashing and mounting liability risks. By understanding potential liabilities, consumer and civil society concerns, companies can adapt

their products and packaging to avoid litigation. To oversee a comprehensive range of risks, business should assess the full scope of their plastic usage and stay informed of the changing market, policy and consumer demands.

Debunking data myths

Naysayers and treaty detractors might argue that achieving ambitious plastic reduction targets is impossible to implement and monitor. They use the argument of complexity, inefficiency and confusion. To address these concerns, we examine key arguments against an ambitious treaty and bust common data myths.

Myth 1

The data needed for reporting and compliance does not exist

→ The **data is already available** in most cases, as much of it is required for financial reporting purposes and is embedded within existing enterprise systems. Companies may simply need support in accessing, structuring, and interpreting it effectively.

→ **Enterprise Resource Planning (ERP)** systems and financial reporting platforms often contain valuable plastic-related data, such as procurement records, supplier information, and waste management costs, which can be leveraged for sustainability reporting.

→ Tools like SAP <u>Responsible Design and Production</u> (which covers dozens of reporting frameworks) and data providers like <u>Plasteax</u> (which provides accurate end-of-life data for plastic packaging at format and polymer-level in 73 countries) are already helping companies aggregate and utilize this data efficiently.

Myth 2

Data requirements can only apply to certain products and sectors

→ Plastics are used across multiple industries, from packaging to automotive and healthcare, making **data tracking and compliance relevant beyond a single sector.** Regulatory frameworks are evolving to address plastic pollution in diverse applications.

→ **Data models and systems are constantly evolving**, and solutions like SAP Responsible Design and Production can be customized to suit various products and context. Through forums, sharing best practices and open data models, learnings can be disseminated within and between companies and customers.

→ **Existing data tracking systems can be adapted to new product categories**, enabling businesses to extend compliance efforts across various sectors without significant additional administrative burden.

Myth 3

Increasing regulations leads to inefficiencies

→ In reality, **the absence of harmonized regulations creates inefficiencies,** as businesses must navigate a patchwork of varying national and regional compliance requirements. Without standardization, companies face increased administrative burdens and higher costs to meet different reporting obligations across jurisdictions. Businesses like harmonized rules – it establishes a level playing field, and reduces the reporting burden.

→ **A globally aligned treaty can establish uniform standards,** providing businesses with a common framework that simplifies compliance, reduces complexity, and ultimately drives down transaction costs.

→ **International standards will harmonize reporting** thus creating a common language for companies to use, which enhances efficiencies and facilitates cross-border operations.

→ Many organizations are advocating for **open-data models and regulatory standards** – one of the key requests from the Business Coalition for a Global Plastics Treaty which involves over 250 major corporations, including SAP.

→ SAP is collaborating with the **World Business Council for Sustainable Development** to evaluate standards and align corporate data models.

Myth 4

Sharing data is risky

→ Transparency should be viewed as an opportunity rather than a threat. **Sharing data fosters stronger relationships** with investors, customers, and other stakeholders by demonstrating commitment to sustainability.

→ **Concerns about data security and ownership are valid but can be effectively managed with robust data governance frameworks** and partnerships with trusted technology providers. Leading platforms ensure that companies retain full control over their data and safeguard access based on users' roles, all while enabling secure sharing with relevant stakeholders.

→ **Regulatory trends are moving towards greater data disclosure expectations.** Businesses that invest in secure, structured, and strategic data-sharing practices will be better positioned to comply with evolving standards and gain a competitive advantage in a transparent market.

Myth 5

Since no treaty has been reached, data compliance is unnecessary

→ **Waiting for a finalized treaty before acting is a risky approach.** The global regulatory landscape is rapidly evolving, with numerous national and regional regulations already in place, such as the EU's Packaging and Packaging Waste Regulation (PPWR) and the Corporate Sustainability Reporting Directive (CSRD). Companies that delay compliance efforts may find themselves struggling to meet existing and upcoming requirements, leading to financial penalties, higher EPR fees, and reputational risks.

→ **Regulatory momentum is building globally.** Even without a finalized global treaty, countries and regions are independently moving towards stricter plastic regulations and disclosure mandates. Early adopters will be better prepared for the inevitable regulatory shifts and will avoid the costly rush to comply once new regulations take effect.

→ **Investor and stakeholder expectations increasingly favor transparency,** regardless of the treaty's status. Businesses that voluntarily disclose plastic-related data can attract investment, build trust with customers and regulators, and stay ahead of future requirements.

→ **History has shown that voluntary disclosure often becomes the foundation for mandatory requirements.** The trajectory of carbon reporting regulations is a prime example–businesses that integrated sustainability metrics early were better equipped when regulations became mandatory. The same trend is expected for plastic data compliance.

The time to act is now, and data management systems can enable innovation, support operational improvements and meet compliance requirements.

Having a comprehensive understanding of plastic and material flows allows industry to align with regulations and demonstrate commitment. Being proactive and following voluntary initiatives lays the groundwork for future mandatory disclosure requirements, as was the case for carbon reporting.

"Data from CDP's 2024 disclosure cycle revealed that more than 5,000 companies voluntarily disclosed their plastics impacts – a 90% increase from 2023. Making plastics disclosure mandatory will push thousands more companies to report, rapidly increasing corporate data at the pace the planet needs."

– Nathan Cole, Head of Sustainable
  Business, **CDP**

△CDP

History has shown that voluntary disclosure often becomes the foundation for mandatory requirements. **CDP** started in 2000 as a voluntary initiative, encouraging companies to disclose their carbon emissions, climate risks, and reduction strategies. Many corporations participated to demonstrate transparency and gain favor with investors and stakeholders. When national and international regulations followed, such as the EU Non-Financial Reporting Directive in 2014 and its successor the CSRD in 2024, or the UK mandated greenhouse gas emission reporting regulation starting in 2013, companies reporting under CDP were ready.

CDP's voluntary reporting requirements are strongly aligned with mandatory frameworks, advocating for Scope 1, 2 and 3 emission reporting as well as highlighting climate risks and opportunities. The same trend is expected for plastic data compliance. Additionally, WWF announced in 2025 that companies part of their **ReSource program** will be expected to disclose plastics through CDP's plastic module. This is a step towards harmonization: organizations are converging towards a common reporting standard, which could be further enhanced by a Global Treaty.[20]

Data management is a critical enabler

Given the trend towards increasing regulation on plastics, the sooner companies can get a grasp on their plastic-related data and metrics, the better. If a company knows exactly how plastic is used in products or as packaging, they will be better equipped to manage regulatory or compliance risks, as well as achieving circularity gains[21]. Additionally, consumers continue to seek sustainable options and investors are beginning to include circularity and plastic in their risk assessments[18]. Being equipped means having a deep understanding of supply chains and how plastic and packaging moves through global value chains and is managed at the end of its life, as well as securing access to recycled feedstocks. Companies can see the actual tonnage of plastic they use, where it flows, and where it ends up. As the saying goes, what gets measured, gets managed.

Sustainability managers at large corporations are faced with a number of tasks; gathering data in order to report and to calculate plastic taxes and EPR fees, decoding and reporting to compliance

protocols, identifying pollution hotspots, setting and monitoring ESG goals. All these tasks require data to make informed decisions and properly report impacts, and due to the lack of integrated frameworks, may generate different outputs for each reporting standard or KPI. Without a centralized data management system, managers are left drowning in data and unable to quickly respond to the changing regulatory landscape. On the other hand, a centralized hub where supply chain, financial, and third-party data can be integrated, such as national waste management capacity, allows managers to make strategic choices and provide accurate reporting. For example, the dynamic system can adapt the necessary metrics and integrate third-party data - such as **Plasteax** end-of-life data - to develop accurate leakage calculations, or comply with new reporting metrics on national plastic leakage into the environment for example.

Using data management systems, such as **SAP's Responsible Design and Production** (RDP), helps businesses gain confidence in the availability of data and leverage the power of having an

accurate picture of their plastic material flows. SAP Responsible Design and Production enables customers to aggregate packaging data from SAP and third-party systems into one central hub. Using this system, customers can meet regulatory requirements, unlock cost savings and experiment with switching materials, products and supply chains. Green taxation, such as EPR and plastic taxes, can be a financial and administrative burden for companies, and for consumer goods and packaging corporations, discussions with auditors and industry players estimate this can represent 0,5-1% of the final product revenue. Considering multinational corporations, this can amount to millions of euros – in risk or in opportunity.

SAP Responsible Design and Production and similar platforms allow smart management of packaging obligations and sustainability performance, so companies can make the right interventions. This is important to ensure a successful transition to circular business models, whilst embedding sustainability at the core of the business.

For example, a company may want to experiment with increasing the recycled content to 30% in their products, switching to new materials or lightweighting their packaging. With SAP Responsible Design and Production's Design Rules, companies can set goals, monitor progress and report on gains. By doing so, businesses can achieve sustainability gains while enhancing agility, fostering transparency and benefitting from a competitive differentiation advantage.

Responding to new regulations as a multi-national

Zamora Company, a Spanish producer of premium spirits and wines operating in 80 countries, recognized the importance of robust data management in navigating evolving environmental regulations and advancing sustainability. In response to Spain's 2023 tax on nonreusable plastic packaging, the company implemented SAP Responsible Design and Production. They were able to accurately monitor plastic usage across their products, ensuring compliance with extended producer responsibility (EPR) regulations and reducing noncompliance risks. By harmonizing data with SAP, the company streamlined procurement processes, minimized administrative workloads, and enhanced reporting accuracy.

Zooming in on Extended Producer Responsibility

Many environmental laws are enacted with the intention to achieve sustainability gains, such as reducing carbon emissions, increasing recycled materials or alleviating pollution. However, translating these laws into practical implementation is often challenging for companies. The same can be said for extended producer responsibility (EPR), broadly defined as an environmental policy approach that holds producers accountable for the entire lifecycle of their products, particularly for takeback, recycling, and final disposal. For example, EPR schemes are increasingly including eco-modulation, which increases complexity with

the goal of incentivising eco-design. Unfortunately, many companies are overwhelmed trying to meet design requirements and resort to paying higher fees or fines instead.

SAP is working with stakeholders to ensure the spirit of plastic taxes, EPR schemes and design requirements leads to intended outcomes of pollution reduction and circularity gains. SAP meets with governments and Producer Responsibility Organizations and regularly updates their customer base on changing environmental regulations. As an enabling technology provider, SAP seeks to

educate and support companies in meeting plastic regulatory requirements. Through this work, the outcomes of reducing unnecessary packaging, mitigating pollution and encouraging sustainable change can be achieved.

Additionally, as shown in **Figure 3**, EPR schemes have proliferated across the globe, with proposed or implemented programs in over 90 countries, states and provinces[22]. A sustainability manager or team may be tasked with understanding, translating and meeting reporting and materiality requirements for each scheme, facing a tidal wave of regulations. Based on discussions with advisory firms, auditors and clients, meeting these requirements can cost corporations around 0.5 – 1% of final product revenue. By applying comprehensive data management systems, like SAP's Responsible Design and Production, these companies can identify inconsistencies or inefficiencies, achieve cost savings potentially in the millions, and improve sustainability.
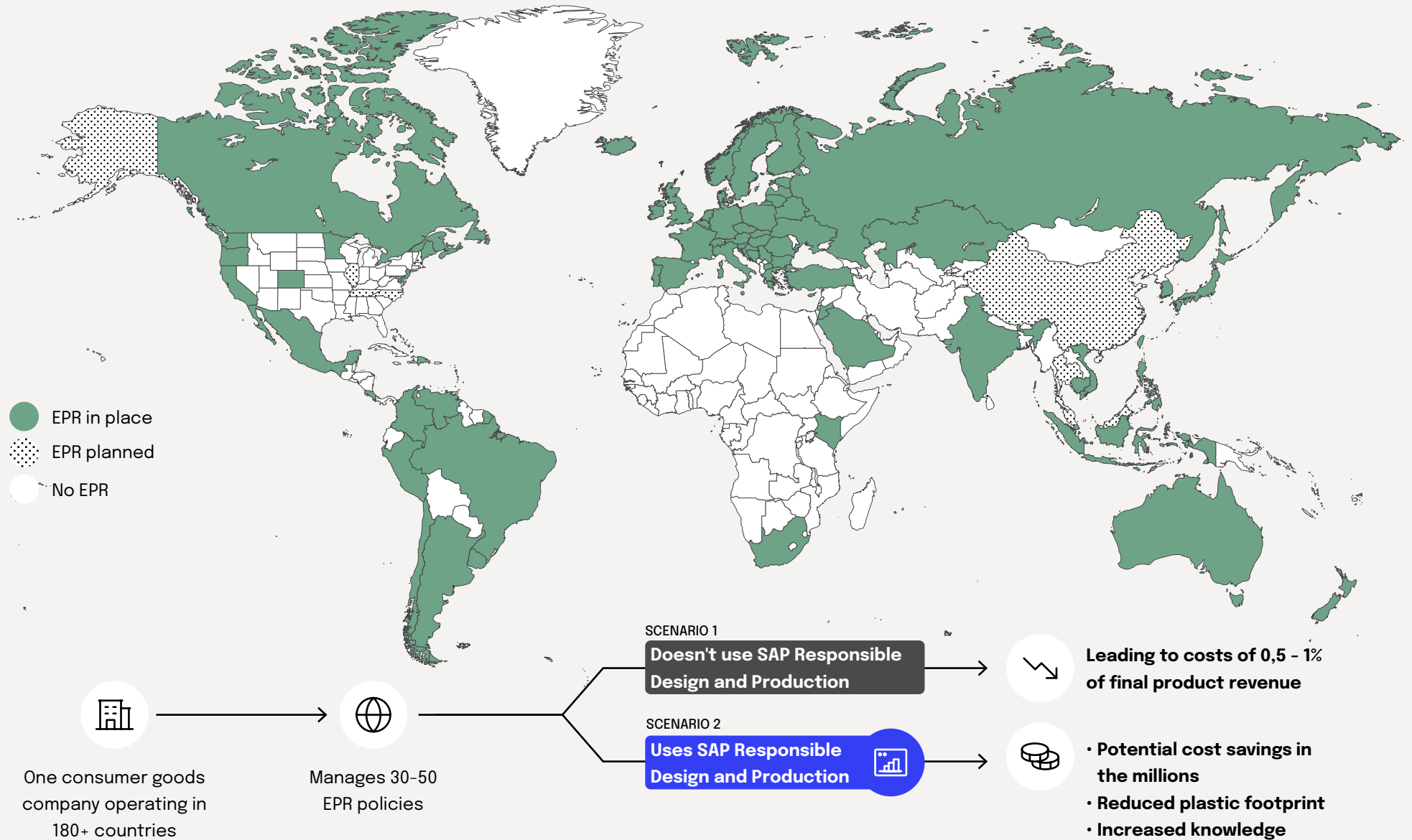
EPR in place

EPR planned

No EPR

One consumer goods company operating in 180+ countries

Manages 30-50 EPR policies

SCENARIO 1
Doesn't use SAP Responsible Design and Production

Leading to costs of 0,5 - 1% of final product revenue

SCENARIO 2
Uses SAP Responsible Design and Production

• **Potential cost savings in the millions**
• **Reduced plastic footprint**
• **Increased knowledge**

Figure 3. There are dozens of EPR schemes globally and this number is projected to rise. Applying Enterprise Resource Management systems can help corporates manage their reporting, increasing efficiency and leading to cost savings and sustainability gains.

"An international consumer goods company may face 100-200 regulations in trying to bring a new plastic product onto the market"

– Dr Stephan Löhle, Managing Director, cyclos

cyclos

The ever-expanding EPR landscape

The concept of EPR was first introduced in the 1990s and is now implemented on every continent except Antarctica in some shape or form. The application of EPR has expanded and taken on different shapes, leading to complexity and inconsistency. The policy instrument began as a way to fund waste infrastructure, but in recent years it is being used to steer packaging towards recyclability and eco-design. While some longer-standing frameworks tend to focus on products, newer ones take on a more hybrid and integrated approach targeting both products and materials. In India, for example, 'EPR for packaging' is now 'EPR for plastics', changing the focus from products to materials. Indonesia is working to implement 'extended stakeholder responsibility', shifting the responsible party from just producers to the entire value chain. As EPR and regulations broaden, consistent taxonomies and clear data standards can ease the burden on producers.

The dawn of global plastic regulation

Taking stock of the trends in global plastic regulations, the status of the UN Global Plastics Treaty and the positions of hundreds of corporations, three main takeaways emerge.

First, **the era of plastic regulation and reporting is upon us.** Regardless of the outcome of the plastics treaty, the international voluntary and mandatory regulatory landscape is expanding and becoming more stringent. Progressive nations, like European Union member states, are setting the stage with strong EPR schemes, single-use plastic bans and reporting requirements under the CSRD. Voluntary initiatives like CDP are integrating plastics into their disclosure requirements, impacting participating businesses of all sizes and industry. To navigate this evolving landscape, corporations will need to focus on establishing robust plastic data management systems, both to understand risks and unlock opportunities.

Second, **businesses are advocating for an ambitious plastics treaty** and recognizing the benefits it will generate. Forward-thinking companies and signatories to the Business Coalition for an Ambitious Plastics Treaty recognize the harmonization, standardization and direction-setting power of a robust treaty. A robust treaty will enable a common unified approach to plastic and packaging management, support transparency and increase effectiveness of information flows.

Finally, **meeting regulatory requirements does not have to be difficult.** Technology is a critical enabler to meeting reporting requirements and achieving sustainability targets. And the tools exist. Solutions like SAP Responsible Design and Production (RDP) already enable the aggregation and translation of data on plastics and other materials, meeting EPR requirements, calculating plastic taxes or identifying potential improvements for improved

recyclability. Collaborating with stakeholders internally and across the supply chain can drive sustainability beyond compliance, especially when built on trusted data and holistic insights. As the regulatory environment continues to develop, getting started with plastic data management is urgent and leveraging innovation, open data models and SAP Responsible Design and Production can maximize opportunities.

As global plastic regulation takes shape, an ambitious treaty will establish standards, policy tools, and reporting requirements - boosting efficiency and lowering risk for businesses. Those who leverage advanced technology solutions such as SAP Responsible Design and Production to gain an accurate and dynamic view of their plastic flows will be well-positioned to thrive in this evolving landscape.

SAP's advocacy position on the treaty

SAP has been active in treaty negotiations and will continue to advocate in 2025. As outlined by the UN Plastics Treaty Briefing Note, SAP calls for four key elements within the treaty;

1. The establishment of **common definitions** for plastics and packaging to ensure mutual understanding and interoperability,
2. **Harmonization across the plastics life-cycle** covering criteria for product design, Extended Producer Responsibility schemes, and reporting on material fate,
3. **Harmonized national disclosure schemes** to ensure uniformity, comparability, and information transparency,
4. Recognition of the role of **digital tools for traceability**.[23]

Ahead of INC–5, an **open letter** signed by business leaders, including SAP's CEO Christian Klein, was strong in its message: voluntary action is not enough. The letter calls for global criteria to phase out and restrict chemicals and polymers of concern, standards for circular product design, common definitions and principles for EPR schemes and a mandate for the governing body to strengthen the treaty over time.

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Appendix

A. Plastic-related regulatory requirements

Regulation	Target type	Quantity	Targeted year	Plastic type
Directive (EU) 2019/904 **Single-use plastic directive**	Reducing single-use plastic	–50%	2025	Packaging
		–80%	2030	
Directive 2008/98/EC **The waste framework directive**	Recycling of municipal waste (incl. plastic)	65%	2035	All plastics
Directive 2012/19/EU **Directive on waste electrical and electronic equipment (WEEE)**	Collection of E-waste (incl. plastic components)	65%	2019	Not specified
Directive 1999/31/EC **Landfill directive**	Reducing landfill (all waste incl. plastic)	–10%	2035	All plastics
Directive (EU) 2015/720 **Lightweight plastic carrier bags directive**	Reducing the average consumption of lightweight plastic carrier bags	Max 90 bags /pers./y	2019	Packaging
		Max 40 bags /pers./y	2025	
Packaging and Packaging Waste Regulation (PPWR)	Reducing plastic packaging waste	–5%	2030	Packaging
		–10%	2035	
		–15%	2040	
	Reusing plastic packaging	10–40%	2030	
		25–70%	2040	
	Recycling plastic packaging	10–35%	2030	
		25–65%	2040	
	Ban (lightweight plastic bags)	100%	2030	

B. Mandatory and voluntary plastic disclosure frameworks and standards

Disclosure framework	Description	Scope	Relevance for Businesses
MANDATORY **Corporate Sustainability Reporting Directive (CSRD)/ European Sustainability Reporting Standards (ESRS)**	The objective of the European Sustainability Reporting Standards (ESRS) is to define the sustainability information that companies must disclose under Directive 2013/34/EU, as amended by Directive (EU) 2022/2464.	**Scope of disclosure:** Wide range of environmental, social and governance (ESG) information. Product-level and corporate-level. **Flexibility of scope:** materiality dependent; sector-specific.	The CSRD significantly expands sustainability disclosure requirements for businesses and makes these disclosures mandatory. Businesses may face quantitative reporting on material flows, effort towards material circularity and resource efficiency, disclosure of plastic-related risks, LCA analysis of plastic products, and supply chain due diligence.
VOLUNTARY **Global Reporting Initiative (GRI)**	The GRI Standards offer a comprehensive framework for companies to report on their economic, environmental, and social performance, enabling integration into sustainability reporting processes.	**Scope of disclosure:** Company-level and product-level impacts. **Flexibility of scope:** Materiality-dependent (based on industry, geography and stakeholder priorities).	Businesses may respond to the following disclosures: Packaging life-cycle management Product life-cycle management Product sourcing, packaging and marketing Management of single-use plasticsix (part of Chemical Industry Standard)
VOLUNTARY **Sustainability Accounting Standards Board (SASB)**	The SASB® Standards help companies identify and report on sustainability issues most material to their industry, with industry-specific topics and metrics for assessing sustainability-related risks and opportunities. Integrated into the ISSB since 2022, they can be incorporated into sustainability reporting.	**Scope of disclosure:** Industry-specific with both company-level (primary) and product-level (secondary) disclosures. **Flexibility of scope:** Financial materiality dependent; industry-specific.	Corporates may respond to disclosure of information about all sustainability-related risks and opportunities where there could be reasonable expectations that it will affect the entity's cash flows, access to finance, or cost of capital over the short, medium or long term.
VOLUNTARY **International Financial Reporting Standards (IFRS)**	The IFRS emphasizes disclosing sustainability-related risks and opportunities that impact a company's enterprise value, focusing on effects on cash flows, access to finance, or cost of capital over the short, medium, or long term to inform investors and financial stakeholders.	**Scope of disclosure:** Main focus on company-level information, also includes product-level data. **Flexibility of scope:** Financial materiality dependent; industry-specific disclosure topics.	Businesses reporting against the IFRS S1 standard can showcase transparency about the financial and sustainability implications of plastic use, proactively managing environmental risks and responding to investor and market demands for sustainability.

VOLUNTARY **Taskforce on Nature-related Financial Disclosures (TNFD)**	The TNFD provides guidance for businesses and finance to assess, manage, and disclose their dependencies and impacts on nature, integrating nature-related risks and opportunities into financial decision-making.	**Scope of disclosure:** Company-level data primarily, although also encompasses some product-level information. **Flexibility of scope:** Materiality-dependent.	Businesses can monitor plastic-related risks using the plastic pollution indicator and metric C2.3: **Plastic footprint** as measure by total weight (metric tons) of plastics (polymers, durable foods, and packaging) used or sol broken down into the raw material content).
VOLUNTARY **CDP**	CDP offers a global disclosure system for companies, cities, states, and regions to voluntarily report environmental data on climate change, water security, and deforestation. Through its questionnaire-based reporting, including a specific plastic questionnaire, CDP incentivizes organizations of all sizes and sectors to disclose data on their environmental impacts, promoting transparency and accountability.	**Scope of disclosure:** Company-level, product-level and supply chain information. **Flexibility of scope:** Materiality-dependent (operations, stakeholders, industry-specific).	Businesses answering the questionnaire can improve their environmental performance whilst meeting growing stakholder expectations around sustainable plastic management. **Plastic use:** value chain mapping of plastic production, commercialization, use and disposal in the value chain. **Impact** of plastic use and production on the environment and human health, and plastic-related **targets**. Total weight, raw material content and potential for circularity potential of plastics sold/used (for plastic polymers, plastic durable goods/components and plastic packaging). • % virgin fossil-fuel feedstock; • % post-consumer recycled feedstock; • % post-industrial feedstock; • % virgin renewable feedstock. Total weight of waste generated by the plastic produced, commercialized, used and processed and end-of-life management pathways. End-of-life management: preparation for reuse; recycling; composting (industrial/home); waste to energy; incineration; landfill; mismanaged waste; leakage; other end-of-life management pathway.

Source: WBCSD & EA (2024). **Enabling Corporate Plastics Disclosure: Unlocking private finance.**

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